Financial Stability Review

SEPTEMBER 2013

Reserve Bank

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Overview

The main risks to the global financial system have shifted somewhat over the past six months. In the euro area, which has been a significant source of uncertainty in recent times, there have been some positive policy developments as well as early signs of an improved economic outlook. However, profitability of the euro area banking system remains weak and non-performing loan ratios continue to rise. A number of banks in the euro area still cannot access wholesale funding markets. Thus there is still a chance that negative outcomes in that region could harm global financial stability.

Financial market volatility has increased, particularly in the middle of the year when the Federal Reserve indicated that it could begin scaling back its asset purchase program later this year, which triggered a rise in yields and declines in prices of a range of risk assets. Market sentiment improved subsequently and many risk assets have partially unwound their initial price declines. The higher yields have remained and have acted to curtail somewhat the amount of risk-taking by investors, which had previously been a source of concern to some policymakers. Geopolitical tensions arising from events in Syria, which led to a sharp rise in oil prices, demonstrate that negative shocks to markets can arise from a range of sources, and their timing generally cannot be anticipated.

In the context of this increase in volatility, some points of pressure have arisen in a few emerging markets, partly reflecting the earlier build-up in borrowing. The reversal of some previous capital inflows, and exchange rate depreciations, have focused attention on the potential for losses from foreign currency borrowing and lending, especially in fast-growing financial sectors where credit risk has perhaps been building. That said, indicators of vulnerability in these economies are generally not as high as in earlier periods of stress. Banking systems in Asia, in particular, remain quite profitable and well capitalised, and their reported non-performing loan ratios remain low. Risks in 'shadow banking' sectors are generally harder to ascertain, but in China at least, a number of the sectors within the fast-growing shadow banking system face increased regulatory oversight.

Conditions in major banking systems outside the euro area continue to recover, consistent with the macroeconomic outlook. Asset performance and profitability have been improving in the United States and the United Kingdom, and the recent increase in global bond yields from historically low levels has so far not revealed any funding stresses. As in the euro area, credit growth remains very slow in both countries, despite policy measures to ease credit supply.

The Australian banking system continues to perform relatively well. Banks were in a good position to meet the Basel III capital requirements, which the Australian Prudential Regulation Authority (APRA) began phasing in from the start of the year. Given this, the major banks moderately reduced the pace at which they accumulated common equity in the past year by increasing their dividends. The major banks' profitability remains strong, partly supported by cost-cutting initiatives, while the aggregate

profitability of the regional banks is expected to recover following some one-off sales and write-offs of troubled portfolios. The relatively modest rate of growth in credit, and hence bank balance sheets, poses a strategic challenge for Australian banks. Of particular importance is that banks maintain prudent risk appetite and lending practices, especially in the current low interest rate environment.

Another focus for the industry in the period ahead will be implementing APRA's forthcoming liquidity standard, which puts into effect key elements of the Basel III liquidity framework in Australia. The planned introduction of this standard, together with market pressures, has encouraged banks to strengthen their funding and liquidity positions over recent years.

Alongside Basel III, international regulatory reforms are affecting Australia's financial market infrastructures. In particular, the transition of standardised derivatives to central clearing has gathered pace over the past six months, and it is expected to continue to do so as the provision of these services expands.

The general insurance sector is facing some challenges from the low interest rate environment, notably for their investment income. General insurers have nonetheless remained quite profitable, partly reflecting a favourable claims experience. Although lenders mortgage insurers have recently seen higher than average claims and lower profits, insured loans originated in the past few years have been performing quite well.

Conditions in the Australian business sector, as reported in surveys, have remained a little below average over the year to date. In addition, business failure rates remain above average, but business balance sheets are in good shape overall. The period of deleveraging following the global financial crisis appears to have largely run its course, but at this stage, gearing ratios in the listed corporate sector are only slightly above their recent troughs. Profitability is expected to improve somewhat over this financial year and the depreciation of the Australian dollar since the beginning of the year should help ameliorate the challenges faced by some trade-exposed sectors in recent years. While conditions in the commercial property leasing market appear to be softening, prices have continued to increase because of strong investor demand.

Australian households continue to show more prudence in managing their finances than a decade ago. The higher rate of saving and slower pace of credit growth have been in place for some time now, although surveys of households suggest that their risk appetite has increased a little, as would be expected in an environment of low interest rates and recovering asset prices. The risk profile of new household borrowing remains reasonably sound and indicators of household financial stress are low. The continued high rate of excess repayments on home loans is consistent with low rates of financial stress among households with mortgages.

Over the past year or so there has been an increase in property market activity. This is not surprising given the reductions in interest rates. The pick-up in demand, which has been sharper in New South Wales and from investors more generally, has been associated with recent increases in housing prices. It is important that those purchasing property do so with realistic expectations of future dwelling price growth.

In this issue of the *Review*, a particular focus has been placed on the self-managed superannuation fund (SMSF) sector. Although this sector does not currently pose material risks to financial stability, it is important for the financial position of the household sector and has a number of aspects that warrant careful observation in the period ahead. Changes to legislation in recent years have permitted superannuation funds, including SMSFs, to borrow for investment, for example to purchase property. Since then, property holdings by SMSFs have increased and this type of investment strategy is being heavily promoted. The sector therefore

represents a vehicle for potentially speculative demand for property that did not exist in the past. SMSFs and other retail investors have also been the dominant class of purchasers of hybrid securities recently. These investors seem to have been attracted by the higher yields offered on hybrids compared with conventional debt securities; it is important that they fully appreciate and price in the risks embedded in these more complex products.

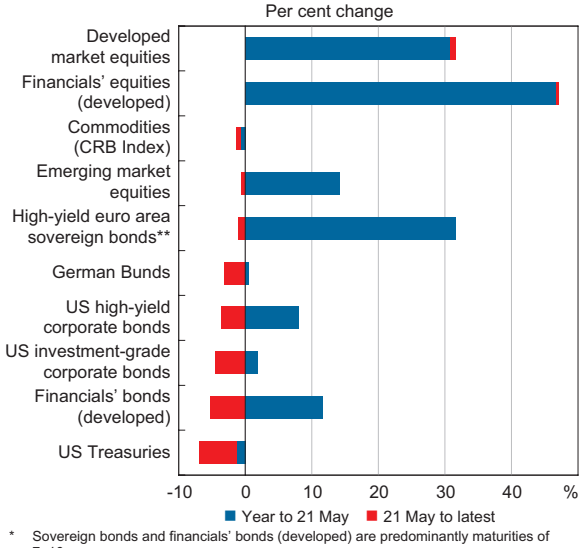
The policy development phase of the international regulatory reform process generally remains on track with agreed time frames. However, implementation of some initiatives has been delayed in some jurisdictions. Accordingly, international regulatory efforts are increasingly focused on implementing reforms and assessing progress through peer review. Efforts to end the 'too big to fail' problem by improving cross-border resolution and crisis management procedures have faced particular difficulties, partly because these reforms require legislative change in some jurisdictions. Cross-border issues have also complicated implementation of reforms in over-the-counter (OTC) derivatives markets. Authorities are working on an approach that avoids subjecting institutions and transactions to multiple – and possibly conflicting – sets of rules.

In Australia, recent actions to implement these reforms include steps taken by APRA, the Australian Securities and Investments Commission and the Reserve Bank around OTC derivatives market reforms relating to trade repositories and central clearing. APRA has also progressed on Basel III reforms, including issuing a revised draft liquidity standard to implement key elements of the Basel III liquidity framework in Australia.

1. The Global Financial Environment

Risks to global financial stability have shifted somewhat since the March *Review*. Conditions in the major banking systems outside the euro area have continued to improve, and there have been further signs of recovery in some major economies. Financial market volatility has increased, however, with indications in late May from the Federal Reserve that it may begin scaling back its asset purchase program later this year triggering a rise in yields and declines in prices of a range of risk assets, after generally strong performance over the previous year (Graph 1.1). Market sentiment improved subsequently, and many risk assets have partially unwound their initial price declines. Yields remain higher, which has somewhat curtailed the amount of risk-taking by investors. Though the adjustment to date has been reasonably orderly, some points of pressure are evident in a few emerging markets, partly reflecting the earlier build-up in borrowing. That said, indicators of vulnerability for emerging market economies are not as high as in earlier periods of stress.

Graph 1.1
Asset Prices*
Per cent change



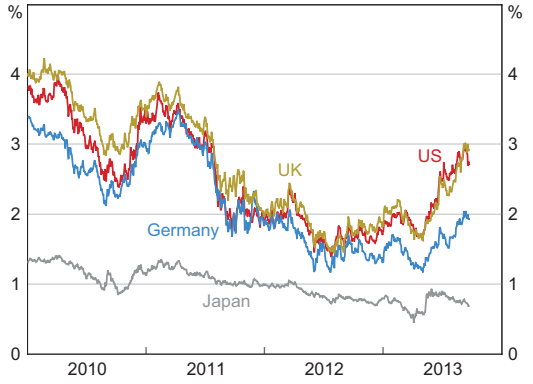
* Sovereign bonds and financials' bonds (developed) are predominantly maturities of 7–10 years
** Weighted average of Greece, Ireland, Italy, Portugal and Spain
Sources: Bloomberg; MSCI; RBA

Despite further positive developments over the past six months, fiscal and banking sector problems in the euro area remain a potential threat to global financial stability. Markets remain sensitive to signs of wavering political support for reforms needed to safeguard the stability of the currency union. Another risk to global financial stability relates to the exit from highly accommodative monetary policy by major central banks, with potential costs to being either too early or too late. There has also been growing concern about the increasing importance of the 'shadow banking' system in China and the extent of credit risk built up within the sector.

Sovereign Debt Markets

Comments by Chairman Bernanke in late May suggesting that the Federal Reserve may reduce its asset purchases sparked a sharp rise in government bond yields in the United States and other major economies (Graph 1.2). The rise in yields and associated volatility in financial markets highlight the risks to global financial stability around the exit from highly accommodative monetary policy by major central banks. Rising yields could trigger market volatility, expose interest rate risk among investors and borrowers, unduly hamper the economic recovery and aggravate concerns about

Graph 1.2
Government 10-year Bond Yields

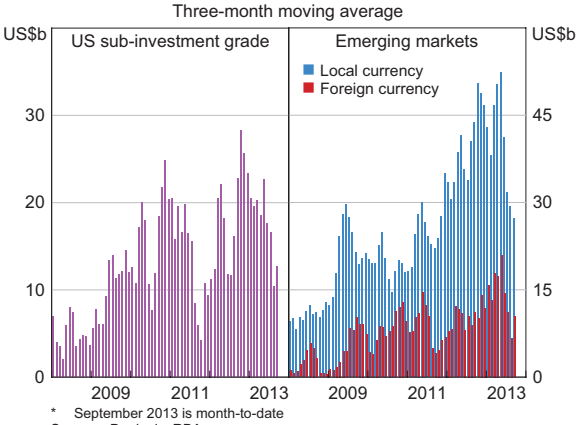


Source: Bloomberg

fiscal sustainability in some countries. On the other hand, leaving quantitative easing policies in place for too long could increase risks to financial stability by encouraging excessive risk-taking, including in other countries.

Earlier this year there had been increasing concern among some policymakers about potentially imprudent risk-taking as investors 'reached for yield' in a low interest rate environment. Globally, there had been signs of increased – but not obviously excessive – risk-taking, including a pick-up in real estate market activity and strong issuance of high-yield bonds in some countries (Graph 1.3). This activity has been somewhat curtailed by the rise in official yields since May.

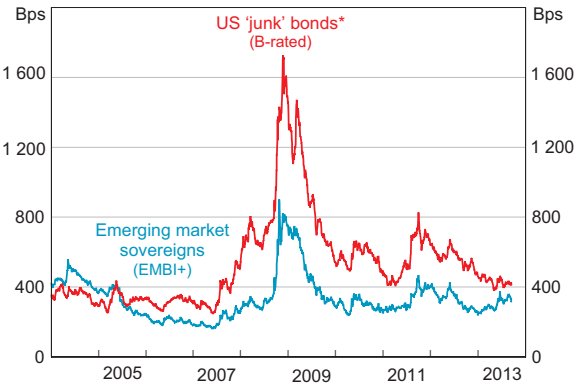
Graph 1.3
Corporate Bond Issuance*
Three-month moving average



* September 2013 is month-to-date
Sources: Dealogic; RBA

To date the adjustment in markets has been reasonably orderly and some of the feared repercussions have not transpired, at least in advanced economies. For example, advanced economy share prices have risen in net terms for the most part and most segments of the US corporate bond market have remained reasonably liquid, despite concerns that liquidity would be hampered by dealers carrying less inventory in response to regulatory reforms. Spreads on lower-rated US corporate bonds have risen only slightly, and are currently trading close to their post-crisis lows reached in early 2011 (Graph 1.4). Spreads on emerging market sovereign bonds have also risen since May and the financial market response in emerging markets has generally been more pronounced (as discussed in the 'Banking Systems in the Asian Region' section below).

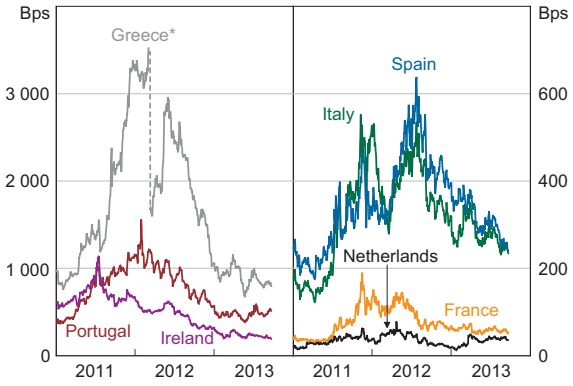
Graph 1.4
Bond Spreads
To US government bonds



* 7–10 year maturity
Sources: Bank of America Merrill Lynch; Bloomberg; JP Morgan

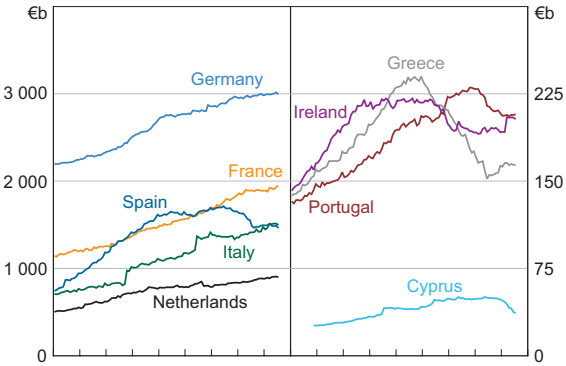
After widening modestly over June and early July, spreads on euro area periphery government bonds have subsequently narrowed, and most of these spreads are now below their levels six months earlier (Graph 1.5). Recent indicators show tentative signs of an improved growth outlook, and investor confidence is also likely to have been boosted by steps taken toward strengthening the ability of the euro area to deal with its banking sector problems. In June, European finance ministers agreed on

Graph 1.5
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

Graph 1.6
Private Deposits Held at Domestic Monetary Financial Institutions



Source: ECB

the conditions for bank resolution and that the European Stability Mechanism (ESM) could use up to €60 billion to recapitalise banks directly. The ESM is expected to be ready to be used for bank recapitalisations in late 2014, though it is still not clear whether banks affected by the recent crisis would be eligible to receive ESM support. In addition, national governments will be required to contribute to any recapitalisations; this means that the linkage between sovereigns and the banking system, which has been destabilising for a number of countries, will not be completely severed.

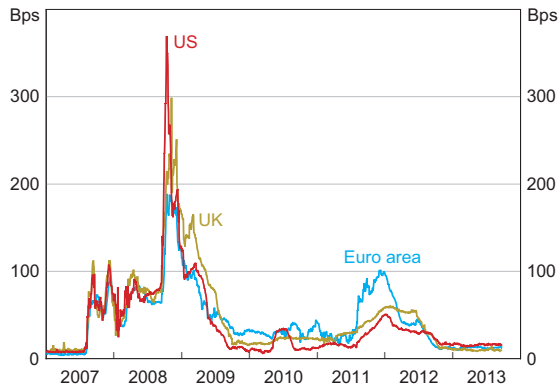
In a further sign of improved conditions in the euro area, the outflows of deposits from the banking systems of most periphery economies have slowed or reversed in recent months, particularly in Greece and Ireland; Cyprus is the main exception (Graph 1.6). Together with a narrowing of the divergence in deposit rates between core and periphery economies, this is consistent with some easing of financial fragmentation within the euro area.

Despite the recent improvement in the euro area, the region's fiscal and banking sector problems remain a potential threat to global financial stability. Political disagreements have slowed the reform process needed to safeguard the stability of the currency union. The recent disagreement in the Portuguese ruling coalition about the approach to reform briefly unsettled investors and forced an early election. Similar setbacks could potentially spark a future bout of heightened risk aversion and market volatility.

Bank Funding Conditions and Markets

Funding conditions for most advanced economy banks have remained favourable, even though financial market volatility has increased. Spreads on short-term interbank loans in the United States, the euro area and the United Kingdom have remained around their lowest levels since mid 2007 (Graph 1.7). Banks' use of interbank loans and other

Graph 1.7
Interbank Spreads
Interbank offered rate spread to swap, 3-month maturity*

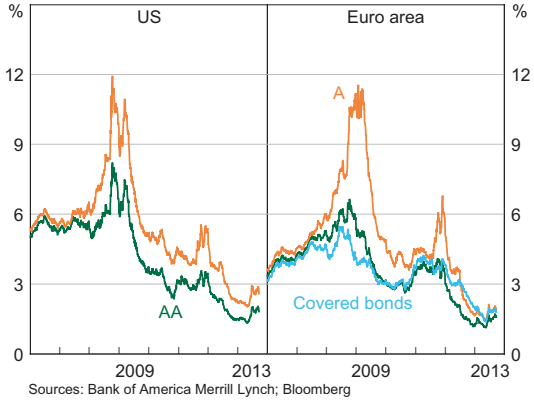


* LIBOR for US and UK; EURIBOR for euro area
Sources: Bloomberg; Thomson Reuters

types of short-term wholesale funding, however, remains subdued in most countries. In the euro area, this is likely to partly reflect that many banks have retained long-term funding obtained earlier from the European Central Bank (ECB): although a considerable amount of the around €1 trillion in three-year funding provided by the ECB in late 2011 and early 2012 has been repaid, approximately two-thirds is outstanding. Some of the banks utilising this funding still cannot access private funding markets.

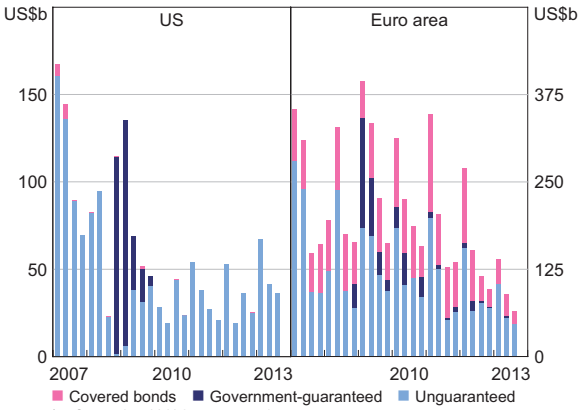
The cost of euro area and US banks' term funding has increased since May in line with the rise in yields on other assets, though term funding costs remain low by historical standards (Graph 1.8). The rise in yields was associated with some slowing in bank bond issuance, which at least in the euro area was already subdued by the standards of recent years (Graph 1.9). Although proposed European legislation would allow losses to be imposed on banks' unsecured bonds in resolution, recent issuance patterns suggest that bond investors have so far not responded by switching to secured instruments such as covered bonds. More generally, slow growth in bank assets has limited required funding and banks in a number of markets have been increasing the share of their funding from customer deposits (Graph 1.10).

Graph 1.8
Banks' Bond Yields



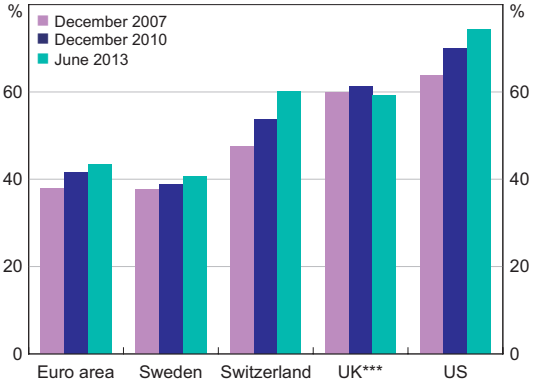
Sources: Bank of America Merrill Lynch; Bloomberg

Graph 1.9
Banks' Bond Issuance*
Quarterly



* September 2013 is quarter-to-date
Sources: Dealogic; RBA

Graph 1.10
Customer Deposit Funding*
Share of total funding**

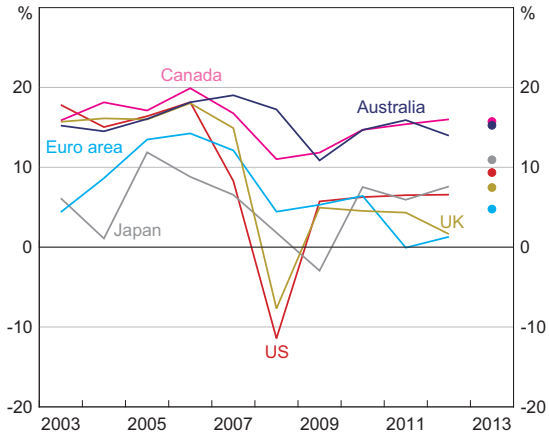


* Total deposits excluding deposits from banks and other monetary financial institutions; ratios across banking systems are subject to definitional differences; certificates of deposit are classified as wholesale debt in all countries except the US, where these instruments are eligible for deposit insurance
** Total liabilities including equity less derivatives and other non-debt liabilities
*** December 2007 data are for banks, while December 2010 and June 2013 data include all monetary financial institutions
Sources: FDIC; central banks

Banks' Profitability and Capital

The profitability of large banks in the major banking systems has continued to improve in recent quarters, but returns on equity have generally remained well below pre-crisis averages, particularly in the euro area (Graph 1.11). The better performance has been reflected in the equity valuations of banks: on average, large US and UK banks now trade at around or above book value after a long period where this was not the case (Graph 1.12).

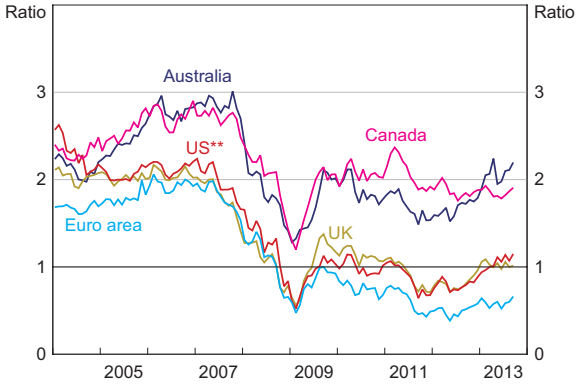
Graph 1.11
Large Banks' Return on Equity*
After tax and minority interests



* 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; dot for Australia is analysts' full-year forecast, while dots for other jurisdictions refer to annualised profits in 2013 to date divided by total equity as at latest reporting date

Sources: Bloomberg; RBA; SNL Financial; banks' annual and interim reports

Graph 1.12
Banks' Price-to-book-value Ratios*



* Monthly; September 2013 observation is the latest available

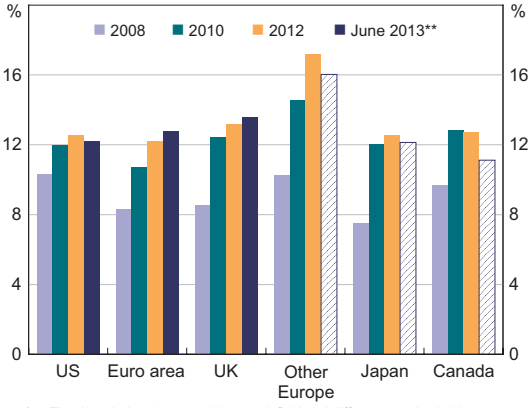
** Diversified financials

Source: Bloomberg

Outside of the euro area, improving asset performance (discussed below) has added to profits through lower loan-loss provisions. The provision expenses of large banks in the United States and United Kingdom are now close to their pre-crisis levels, suggesting relatively less scope for lower provisions to boost these banks' profits in the period ahead. Profit results for a number of international banks continue to be influenced by considerable legal and regulatory expenses related to past misconduct: the absence of significant misconduct costs boosted the profits of UK banks in the first half of 2013. Net interest income has remained subdued for many banks, amid weak balance sheet growth and downward pressure on net interest margins stemming from the prolonged period of low interest rates. Most analysts consider that higher yields will ultimately expand banks' net interest margins, though the recent rise has seen many banks incur valuation losses on their securities holdings.

The phasing-in of the Basel III capital framework has seen large banks' reported capital ratios decline in a number of major banking systems, since capital must now meet stricter quality definitions under the new requirements. In Canada, Japan and Switzerland, reported Tier 1 capital ratios for large banks have declined by between ½ and 1¾ percentage points over 2013 (Graph 1.13). Capital ratios for large US banks also declined, though this was largely the result of the partial introduction of Basel 2.5 raising measured risk-weighted assets; Basel III requirements will not come into effect there until 1 January 2014. Tier 1 capital ratios of large banks in the United Kingdom and the euro area (where Basel III will also

Graph 1.13
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

** July 2013 used for Canada; latest available data used where banks have not reported their 2013 interim results

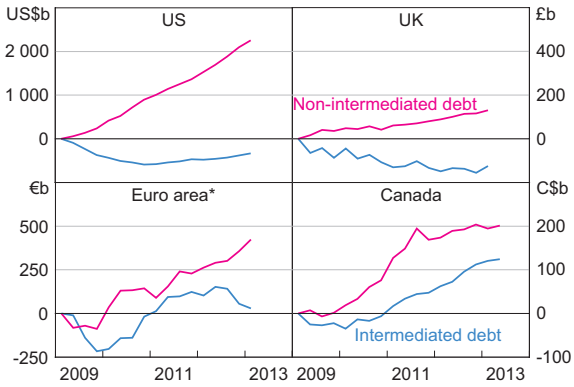
Sources: Bloomberg; FDIC; RBA; SNL Financial; banks' annual and interim reports

begin to be implemented in 2014) have increased slightly over 2013, reflecting capital growth through retained earnings and declines in risk-weighted assets. When fully phased in, Basel III will raise both the minimum quantity and quality of capital that banks must hold.

Credit Conditions and Asset Quality

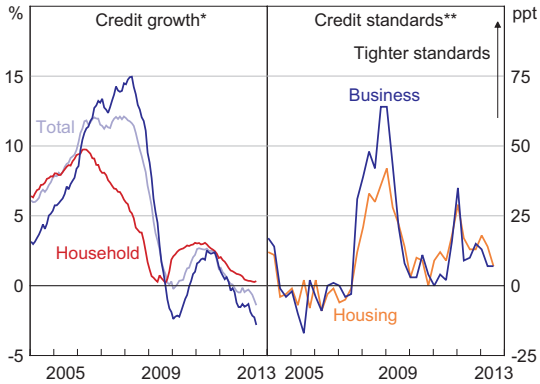
Historically low corporate bond yields have encouraged non-financial corporations to substitute towards non-intermediated debt financing, which is likely to have weighed on credit growth in a number of advanced economies. Since 2009, corporations' outstanding stock of non-intermediated debt has grown faster than their intermediated debt in the United States, the euro area, the United Kingdom and Canada (Graph 1.14). Intermediated credit has nonetheless been expanding in the United States lately, as growth in business and consumer credit has more than offset the ongoing contraction in housing credit. In the euro area, by contrast, weak economic conditions have also contributed to a fall in region-wide credit over the year to July, especially business credit (Graph 1.15); the contraction has been more pronounced in the periphery. The ECB's bank lending survey shows that euro area banks collectively continued to tighten their lending

Graph 1.14
Private Non-financial Corporations' Debt Funding
Cumulative change in outstanding stock since March 2009



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

Graph 1.15
Euro Area Credit Conditions

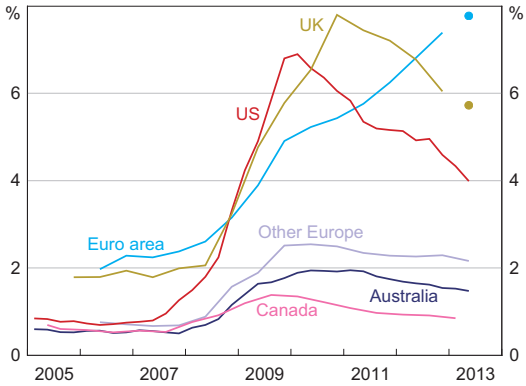


* Year-ended; not adjusted for securitisations prior to 2009
** Net percentage of respondents reporting tighter standards
Sources: ECB; RBA

standards over the March and June quarters, while loan demand from both businesses and households continued to decline over this period. Net lending by participants in the UK authorities' 'Funding for Lending Scheme' – designed to help support lending to the real economy by reducing banks' borrowing costs – increased over the June quarter, though cumulative net lending has been broadly unchanged since the scheme started in July 2012. Additional support for housing borrowing is being provided by the recently expanded 'Help to Buy' scheme, which enables borrowers to buy a dwelling with a small deposit.

Asset performance in the euro area has continued to deteriorate, consistent with the weak economic conditions in the region. The non-performing loan (NPL) ratio of the large euro area banks increased further over the first half of 2013, driven by banks in the most troubled euro area countries and those with significant exposure to the Spanish property market (Graph 1.16). European authorities have expressed concerns about a potential understatement of NPL ratios, to the extent that banks are forbearing on loans; that is, modifying loan terms to struggling borrowers in ways they would not do for other customers. A lack of investor confidence in banks' asset valuations has likely contributed to euro area banks' low price-to-book

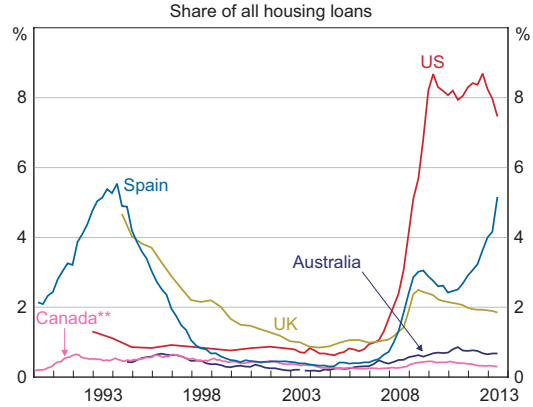
Graph 1.16
Large Banks' Non-performing Loans*
Share of loans



* 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 and four Australian banks; latest available ratios have been used for some euro area and UK institutions where June 2013 data are unavailable

Sources: APRA; RBA; SNL Financial; banks' annual and interim reports

Graph 1.17
Banks' Non-performing Housing Loans*
Share of all housing loans

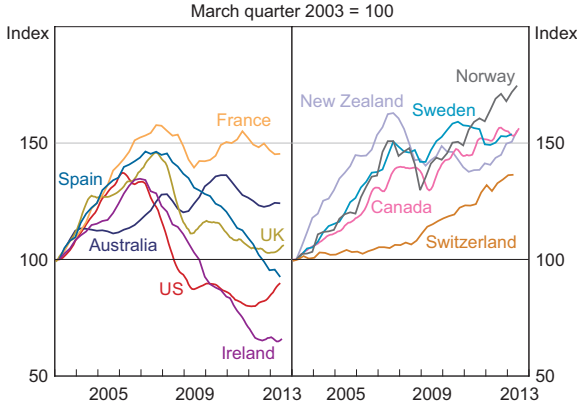


* UK and Spain include some non-bank lenders

** Includes only the six large Canadian banks, HSBC Canada and Manulife Bank

Sources: APRA; Bank of Spain; Canadian Bankers' Association; Council of Mortgage Lenders; FDIC; RBA

Graph 1.18
Real Residential Property Prices*
March quarter 2003 = 100



* Deflated using consumer price indices

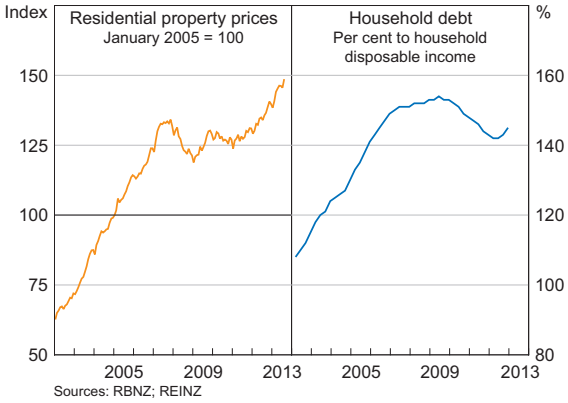
Sources: BIS; Bloomberg; RBA; REINZ; RP Data-Rismark; SNB; Teranet-National Bank; Thomson Reuters

ratios, which in aggregate remain well below one (Graph 1.12). The ECB is to commission an independent review of larger euro area banks' asset quality, which is expected to be carried out early next year.

Asset quality continues to improve in most advanced economies outside the euro area. The aggregate NPL ratio for the largest banks in the United States declined to 4 per cent in June, well below the peak of around 7 per cent reached in early 2010, though it is still historically high. Despite falling over recent quarters, the NPL ratio for US banks' housing loans remains not far below its peak in 2010 (Graph 1.17). There have been further signs of improvement in the US housing market, with construction activity and house prices rising (Graph 1.18). However, both activity and real prices remain well below their pre-crisis levels and mortgage interest rates have recently risen sharply.

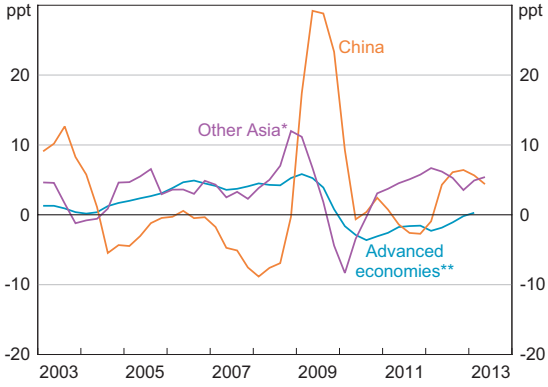
Relatively strong economic growth and low interest rates have contributed to buoyant residential property price performance in a number of smaller advanced economies (Graph 1.18, right panel). This includes New Zealand, an important market for the large Australian banks, where higher residential property prices have been accompanied by moderately faster growth in housing credit (Graph 1.19). More of the new lending than usual has been at high loan-to-valuation ratios (LVRs) and the Reserve Bank of New Zealand (RBNZ) responded to this by tightening capital requirements on such loans. In May, the RBNZ formalised its macroprudential framework through a Memorandum of Understanding with the New Zealand Minister of Finance. The framework includes powers to adjust

Graph 1.19
New Zealand Residential Property Prices and Household Debt



Sources: RBNZ; REINZ

Graph 1.20
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, UK and US
Sources: BIS; CEIC; ECB; Federal Reserve; RBA; Thomson Reuters

banks' core funding ratios,[1] set countercyclical capital buffers,[2] adjust sectoral capital requirements and restrict high LVR lending.

In August, the RBNZ announced the deployment of restrictions on high LVR mortgages; from 1 October, banks will need to limit loans with LVRs above 80 per cent to no more than 10 per cent of their new mortgage lending. The New Zealand Government has announced expanded subsidies and other measures to assist first home buyers in the face of these restrictions.

Banking Systems in the Asian Region

Amid volatility associated with shifting expectations about US monetary policy, Asia has been a particular focus, as the global low yield environment has contributed to a prolonged period of credit growth in excess of growth in Asian economies' nominal incomes – a stark contrast to the picture in the major advanced economies (Graph 1.20). To some extent, earlier concerns about low interest rates in the major advanced economies stoking excessive capital inflows to the region have given way to concerns about the effects of higher yields and depreciating exchange rates on inflation and financial stability, with a particular focus on countries with current account deficits. Sovereign bond prices have fallen, and the exchange rates of a number of regional economies have depreciated against the US dollar amid reports of capital outflows. More recently, the effect of heightened geopolitical tensions in Syria on oil prices further weighed, for a time, on sentiment toward oil-importing emerging markets. A few countries have intervened to support their currencies, after many years where the usual pattern was intervention to resist currency appreciation. Several countries with explicitly managed exchange rate regimes are still facing strong property markets and credit growth, and some have further refined their macroprudential measures in response (discussed below).

These interventions in, or explicit management of, exchange rates highlight that many emerging markets face potential vulnerabilities related to their foreign borrowing. Much of this borrowing, particularly in the case of corporate debt, is denominated in foreign currency, because global investors often do not want exposure to these countries' currencies (Table 1.1). There is some

1 New Zealand banks have been subject to a 75 per cent minimum core funding ratio since 1 January 2013; as part of the macroprudential framework, the RBNZ may adjust the core funding ratio.

2 As part of its implementation of the Basel III framework, the RBNZ will be implementing the countercyclical capital buffer framework from 1 January 2014, though no announcement regarding the size of any buffer has been made.

Table 1.1: Emerging Asia – Gross External Debt
Per cent to GDP

	1996	March 2013	
	Total	Total	Foreign currency denominated
China	14	9	na
India	25	21	16
Indonesia	57	29	na
South Korea	26	36	26
Malaysia	37	33	na
Philippines	43	23	22
Thailand	60	37	25

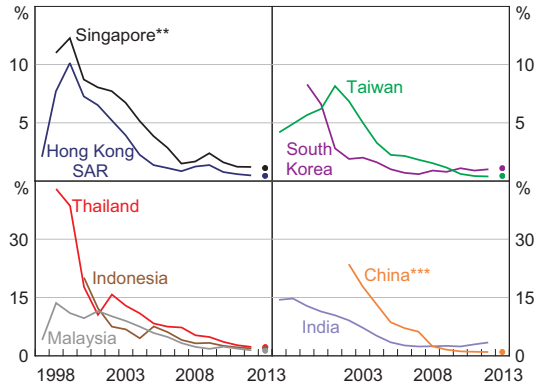
Sources: CEIC; IMF; World Bank

risk that actions to resist the earlier exchange rate appreciation through intervention may have lulled domestic banks and firms into believing that the authorities could successfully limit exchange rate volatility, and thus into borrowing more in foreign currency than they otherwise would have done. The potential for exchange rate depreciation in these countries, and for borrowers' debt burdens (in local currency terms) to rise, is now more evident. That said, the countries currently affected mostly have noticeably lower external debt positions than the countries most affected by the Asian crisis had at that time.

Despite the recent volatility in financial markets and slower economic growth in the region, available indicators suggest favourable conditions in Asia's banking systems. Banks in Asia have continued to earn solid profits, allowing many of them to raise their capital ratios through retained earnings (for a more detailed discussion of bank profits in China, see 'Box A: Recent Developments in Net Interest Income in the Chinese Banking System'). Aggregate capital ratios across Asian banking systems are relatively high, so they are well placed to meet Basel III capital requirements, which regulators in most jurisdictions have now started introducing.

NPL ratios in most banking systems in Asia remain at historically low levels (Graph 1.21). Nonetheless, these are typically a lagging indicator and some concerns

Graph 1.21
Asia – Non-performing Loans*
Share of loans

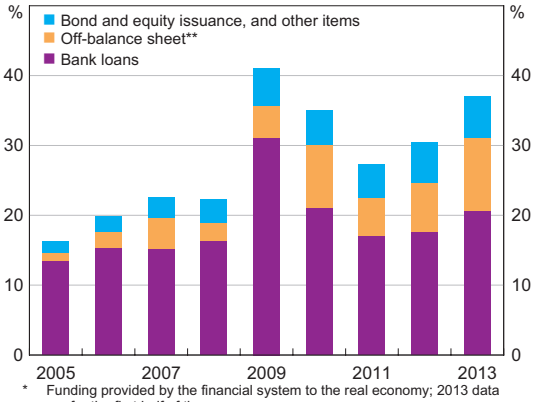


* Definitions of 'non-performing loans' differ across jurisdictions; dots represent latest available 2013 data
** Singaporean-owned banks only
*** Data for 2002–04 are for major commercial banks only
Sources: CEIC; RBA; banks' annual reports; national banking regulators

remain about the build-up of credit risk in the region in recent years. Specifically, in China, questions remain regarding the quality of infrastructure-related loans made to local governments during the 2009–10 countercyclical credit surge, and banks are commonly thought to be forbearing on some of these loans. In response to such concerns, the Chinese Government recently announced that the National Audit Office will carry out an audit of the debt of all levels of government in China; this audit should shed more light on the size and quality of banks' exposures to local governments.

Another potential risk to China's financial stability is its 'shadow banking' system. In recent years, an increasing share of financing in China has been provided by non-bank entities and through banks' off-balance sheet activities (Graph 1.22). Restrictions on both the quantity of bank credit, and loan and deposit rates have been associated with demand for credit exceeding the formal banking sector's ability to supply it, and savers seeking alternatives to low-yielding bank deposits, such as wealth management products (WMPs). The Chinese authorities have introduced a number of measures in recent years to mitigate the risks from shadow banking, including regulations on banks' exposures to WMPs announced in late March; many types of shadow banking activities in China face increased regulatory oversight. Although little is known about the quality of the assets held by China's shadow banking system, some commentators consider it likely that significant credit risk has built up within the system.

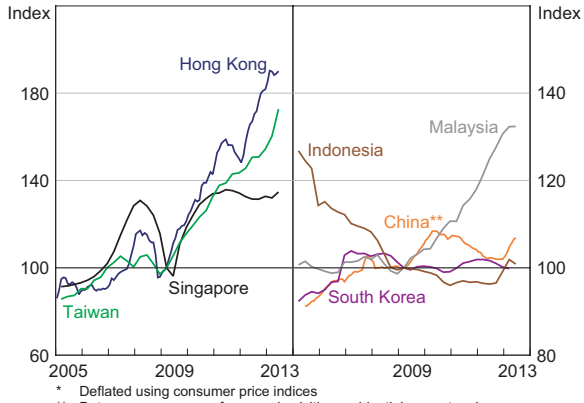
Graph 1.22
China – Total Social Financing*
Annual flow, per cent to GDP



* Funding provided by the financial system to the real economy; 2013 data are for the first half of the year
** Includes entrusted loans, trust loans and bank accepted bills
Sources: CEIC; RBA

Property markets remain buoyant in a number of Asian economies, especially those with managed exchange rates and thus relatively low interest rates, given their economic growth performance (Graph 1.23). The strength in property prices has been accompanied by increased household indebtedness, which has raised concerns about borrowers' ability to repay if interest rates rise or economic conditions deteriorate. Regulators in the region have responded by introducing additional macroprudential policies in an attempt to limit lending activity and growth in prices. In Singapore, authorities have introduced a total debt-servicing ratio cap on mortgages, which limits a borrower's monthly repayments to 60 per cent of their gross income. Malaysian regulators have sought to curb excessive household indebtedness by capping loan terms at 35 years for mortgages and 10 years for personal loans, and introducing a ban on pre-approvals for personal financing products. In Indonesia, authorities have sought to dampen speculative demand by decreasing maximum LVRs for borrowers to 60 per cent for second mortgage loans and 50 per cent for third mortgage loans, from the 70 per cent cap that was introduced on all mortgages in early 2012. Property prices in China have continued to rise, despite measures introduced by Chinese authorities in March to curb demand. The implementation of the controls, however, was left to local governments, which in many cases have been slow to implement them.

Graph 1.23
Real Residential Property Prices*
March quarter 2009 = 100



* Deflated using consumer price indices
** Data are an average of new and exisiting residential property prices
Sources: CEIC; RBA

Box A

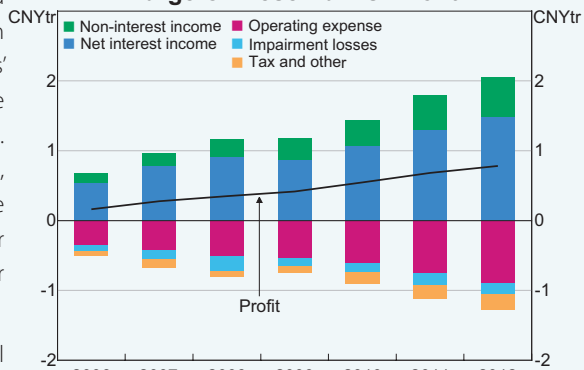
Recent Developments in Net Interest Income in the Chinese Banking System

Strong growth in profits in recent years, together with declining dividend payout ratios, has enabled Chinese banks to accumulate capital through retained earnings. The associated increase in banks' reported regulatory capital ratios has increased the Chinese banking system's buffer to adverse shocks. Given the importance of profits in generating capital, this box examines recent developments in Chinese banks' net interest income, a key recent driver of their profits, focusing on the five largest banks (hereafter referred to as large banks).[1]

Chinese banks are mainly engaged in financial intermediation between domestic savers and borrowers, and the bulk of their income is earned from such activities.[2] In 2012, over two-thirds of the large banks' income was in the form of net interest income – a high share relative to large banks in many major banking systems (Graph A1). Non-interest income accounts for a smaller share, though it has risen more rapidly in recent years, partly because banks' off-balance sheet activities have expanded significantly (see 'The Global Financial Environment' chapter). In recent years, both net interest income and non-interest income revenue streams have risen faster than costs, such as operating expenses and impairment losses, driving an increase in profits.

A bank's net interest income is determined by the average interest rates on its interest-earning assets and interest-bearing liabilities, as well as the relative size of these assets and liabilities. In most advanced economies, central banks set a target for very short-term interest rates which influences other interest rates across the maturity structure. Banks operating in such an environment will typically set their deposit and lending rates with reference to market-determined interest rates, subject to a range of considerations such as credit risk (in the case of loans), business strategy, competitive pressures and a need to provide a return for shareholders. In contrast, the People's Bank of China (PBC) does not set an explicit target for short-term interest rates; instead, the PBC targets growth in the money supply and operates a range of monetary policy instruments to meet its target.[3] Among these instruments, the PBC sets benchmark deposit and lending rates at various maturities which directly influence the interest rates charged and paid by banks. For many years, these benchmark

Graph A1
Large Chinese Banks' Profit



Source: SNL Financial

1 The five largest banks in China are Agricultural Bank of China, Bank of China, Bank of Communications, China Construction Bank, and Industrial and Commercial Bank of China. Together, these banks account for roughly one-half of Chinese banking system assets. Despite being majority state-owned, all five banks are listed on the Hong Kong stock exchange and their financial statements provide greater detail about the banks' activities than aggregate data from the Chinese authorities.

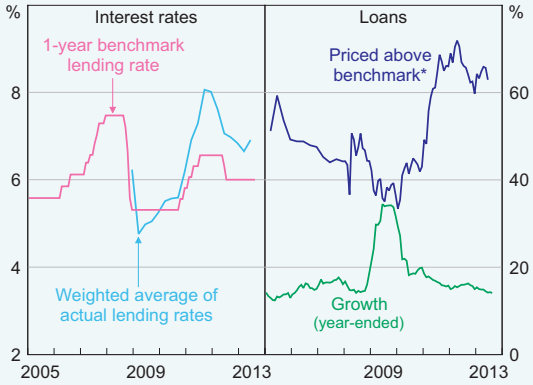
2 For a more detailed discussion of banking activity in China, see Turner G, N Tan and D Sadeghian (2012), 'The Chinese Banking System', RBA *Bulletin*, September, pp 53–63.

3 For more details on the PBC's monetary policy instruments, see Sadeghian D, G White and P D'Arcy (2013), 'Macroeconomic Management in China', RBA *Bulletin*, June, pp 11–20.

rates set a ceiling on deposit rates and a floor on loan rates for a range of products. Reforms announced in June 2012 and July 2013 removed interest rate restrictions on non-mortgage loans and permitted rates on bank deposits to slightly exceed the relevant benchmark rate.[4]

Even before these reforms, actual rates paid by borrowers across the Chinese banking system often varied substantially from benchmark lending rates. Against the backdrop of strong demand for credit, and the PBC's actions to rein in credit growth from the extremely rapid rates over 2009, an increased share of new loans was priced above benchmark rates over 2010 and 2011, and the average lending rate increased by much more than benchmark lending rates (Graph A2). From late 2011, however, a smaller share of loans has been priced above benchmark and average lending rates have fallen by more than benchmark rates, suggesting that banks have had considerable scope to adjust lending rates beyond changes to benchmark *lending* rates.

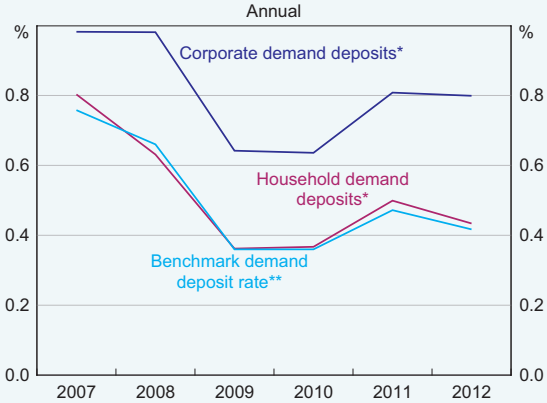
Graph A2
China – Loan Pricing and Growth



* Share of new loans priced above benchmark lending rates
Sources: CEIC; RBA

In contrast, the large banks' financial statements suggest that benchmark *deposit* rates are a good indicator of interest rates actually received by depositors, especially by households on their demand deposits (Graph A3). Corporate customers on average earn more than the benchmark rate on their demand deposits, reflecting the banks' ability to pay above benchmark rates on high-value deposits, though the spread between actual corporate demand deposit rates paid and the benchmark rate has remained relatively constant over the past six years. This implies that the PBC has strongly influenced the cost of funding from demand deposits, which account for around 40 per cent of the large banks' total liabilities. Though less definitive, the evidence suggests that pricing of term deposits, which account for another 40 per cent of liabilities, also closely follows benchmark rates; the average returns on both households' and corporations' term deposits in recent years have tended to be clustered around the benchmark rates for shorter-tenor term deposits. Many analysts expect further gradual reform of deposit rate restrictions over the next few years, which would naturally reduce the PBC's influence over actual interest rates received by depositors.

Graph A3
Large Chinese Banks' Interest Rates on Demand Deposits
Annual

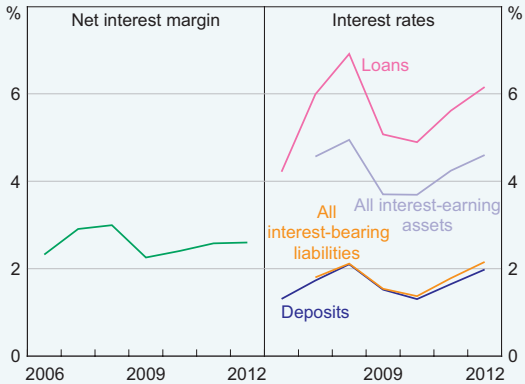


* Average rates paid; excludes Bank of Communications
** Annual average of daily benchmark rate applicable to all banks
Sources: CEIC; RBA; banks' financial reports

4 In June 2012, the PBC announced that banks were allowed to pay up to 1.1 times the relevant benchmark rate on deposits, and charge lending rates as low as 0.7 times the benchmark, before completely removing restrictions on lending rates for non-mortgage loans in July 2013.

The net interest margin (NIM) provides an indication of the effects of interest rates on banks' profitability. At around 2½ per cent in 2012, the large Chinese banks' NIM is considerably below the spread between average deposit and loan rates (around 4 percentage points in this period) because their margins are compressed by lower returns earned on other interest-earning assets, such as debt securities and reserves held at the PBC (Graph A4). Consistent with the Chinese banks' ability to adjust their lending rates beyond changes in benchmark rates, much of the variation in the large banks' NIMs in recent years has come from changes in lending rates. The average NIM fell noticeably in 2009, resulting in a decline in net interest income, but it has subsequently increased gradually (in addition to the modest widening in the NIM in recent years, growth in net interest income has been supported by ongoing expansion in banks' loans and other interest-earning assets). The current arrangements for setting interest rates in China have therefore helped underpin Chinese banks' profitability and thus their ability to accumulate capital. These relationships may change as interest rates are liberalised further.

Graph A4
Large Chinese Banks' Net Interest Margin
Annual



Sources: RBA; banks' financial reports

2. The Australian Financial System

The Australian banking system remains in a relatively strong position. Banks' asset performance has been steadily improving despite subdued conditions in parts of the business sector. Banks have also continued to strengthen their capital positions and funding structures, thereby bolstering their ability to deal with future shocks or funding market disruptions. The build-up of common equity capital over recent years has also meant that banks were well placed to meet the Basel III capital requirements that the Australian Prudential Regulation Authority (APRA) began phasing in from the start of this year. Given this, the major banks moderately reduced the pace at which they accumulated common equity in the past year by increasing their dividends.

Despite the more constrained operating environment, the major banks' profitability remains strong, supported by cost-cutting initiatives and lower bad and doubtful debt charges. A focus for the industry in the period ahead will be implementing the new Basel III liquidity standard, as well as dealing with the strategic challenges arising from relatively modest credit growth. Of particular importance is that banks maintain prudent risk appetite and lending standards, especially in the current low interest rate environment.

The general insurance industry remains well capitalised and its profitability has been strong in recent periods, partly reflecting a favourable claims experience. Lenders mortgage insurers have seen higher-than-average claims recently, and thus lower profits, but insured loans originated in the past few years have been performing quite well. Even though lenders mortgage insurers are a small part of the general insurance industry, they can influence financial stability through their involvement in the credit creation process and linkages with the banking system.

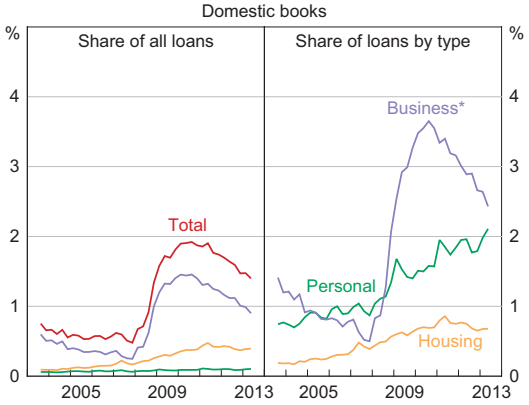
International regulatory reforms are also affecting financial market infrastructures in Australia. In particular, the transition of standardised derivatives to central clearing has gathered pace over the past six months and is expected to continue to do so as the provision of these services expands. At the same time, the Reserve Bank has been strengthening risk management standards for central counterparties operating in Australia given the increased importance of these entities to financial system efficiency and stability.

Asset Performance

Credit risk is one of the main sources of risk facing the banking system given that most Australian banks' business models are heavily focused on lending. The asset performance of Australian banks deteriorated during the 2008–09 crisis period and associated economic slowdown, although it remained much better than that of most other advanced economy banking systems. Over the past six months, the asset performance of Australian banks continued its steady improvement of recent years.

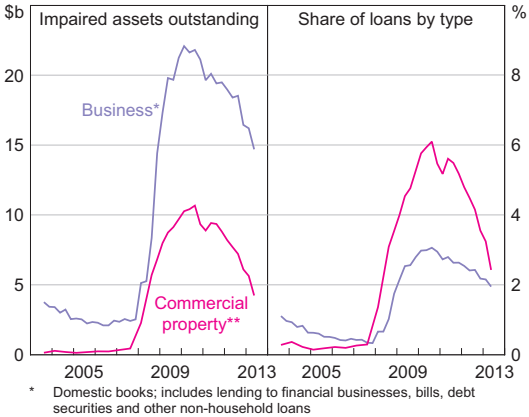
In the banks' domestic portfolio, the ratio of non-performing loans (NPLs) to total loans was 1.4 per cent at June 2013, down from a peak of 1.9 per cent in mid 2010 (Graph 2.1). This improvement has been gradual, primarily due to a sluggish decline in non-performing business loans,

Graph 2.1
Banks' Non-performing Assets



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

Graph 2.2
Banks' Impaired Assets



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

which drove much of the earlier increase. This partly reflects that banks have generally dealt with their stock of impaired business loans (those loans that are not well secured and where repayment is doubtful) at a measured pace in order to maximise recoveries. They have also experienced an above-average inflow of newly impaired assets over this period, in association with difficult conditions in the commercial property market and some parts of the business sector.

Commercial property exposures accounted for a disproportionate share of the impaired assets in banks' business loan portfolios in recent years (Graph 2.2). On a positive note, there has been a further noticeable reduction in commercial property impairments over the past six months, as conditions in parts of the commercial property market have improved and some banks have sold troubled exposures. As a result, around 2½ per cent of banks' domestic commercial property exposures were classified as impaired at June 2013, down from a peak of about 6 per cent in mid 2010. The performance of banks' domestic business exposures outside of the commercial property sector was little changed over the six months to June 2013.

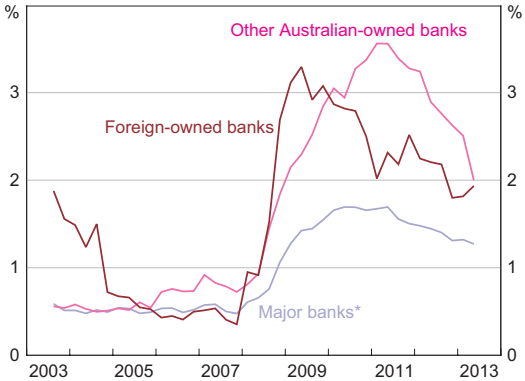
The performance of banks' domestic housing loans has also been fairly steady over recent quarters. The share of those loans that were non-performing remained around 0.7 per cent over the six months to June 2013, after falling modestly over the previous year and a half. Banks' housing loan portfolios have benefited over the past couple of years from low interest rates and the tightening in mortgage lending standards after 2008; loans originated after this time have performed better than those originated in the preceding few years. Although the share of banks' housing loans classified as past due (in arrears but well secured) has declined, weakness in housing prices in parts of Australia over recent years has seen the share of impaired loans drift higher, to around one-quarter of banks' total non-performing housing loans. However, the pick-up in housing prices in some areas over the past year could help borrowers in arrears to sell their property or refinance with other lenders. It may also allow banks to more easily dispose of their troubled housing assets.

In contrast to banks' housing loan portfolios, the performance of banks' personal loans, including credit cards and other personal loans, has continued to deteriorate. As at June 2013, banks' non-performing personal loan ratio stood at 2.1 per cent, more than double the rate recorded in the years prior to 2008–09. While the upward trend in this ratio likely reflects a combination of compositional factors, 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.

Within banks' total domestic NPL ratio, both the major banks and the smaller Australian banks recorded better loan performance over the first half of 2013, whereas the foreign-owned banks' NPL ratio rose slightly (Graph 2.3). The significant reduction in the smaller Australian-owned banks' ratio was driven by the sale of a large portfolio of troubled commercial property and large corporate exposures by Suncorp. Despite this, the loan performance of the smaller Australian-owned banks continues to be weaker than the major banks; this is also the case for the foreign-owned banks.

Graph 2.3
Banks' Non-performing Assets
Domestic books, share of loans

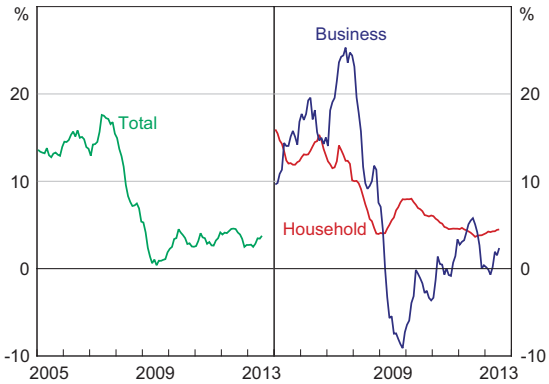


* Includes St. George and Bankwest
Source: APRA

Credit Conditions

Banks' domestic loan books have continued to grow at a modest pace. Household credit grew at an annualised rate of 4½ per cent over the six months to July 2013, due to moderate new borrowing and strong prepayment activity (Graph 2.4). Growth in business credit also remains low, consistent with below-average business conditions. Another factor weighing on business credit over the past couple of years is that some large companies have raised a higher share of their debt from global bond markets, given relatively favourable pricing.

Graph 2.4
Credit Growth
Six-month annualised



Sources: APRA; RBA

According to liaison, banks are generally expecting demand for credit to remain modest in the coming year. Although credit growth will strengthen at some point, a return to the high growth rates seen for much of the 1990s and 2000s seems highly unlikely, as this largely represented a transition by borrowers and lenders to structurally lower inflation and interest rates. Banks are therefore having to adapt to an environment where their balance sheets grow more in line with borrowers' incomes and the broader economy. It is important that they do not respond to pressures to boost revenue by imprudently loosening their lending standards, or by making ill-considered moves into new markets or products. Based on the available evidence, these responses do not appear to be occurring at this stage. Arguably, pressures to alter practices may be more pronounced for banks with less diversified business models, or if a bank were to have internal incentive structures overly related to revenue growth.

In the residential mortgage market, competition for new borrowers in the past six months has seen some lenders reduce interest rates, increase upfront commissions for brokers and waive application fees. Non-price loan standards, however, appear to have remained fairly steady over recent quarters. Even so, lending practices in the residential mortgage market will be an important area to watch in the period

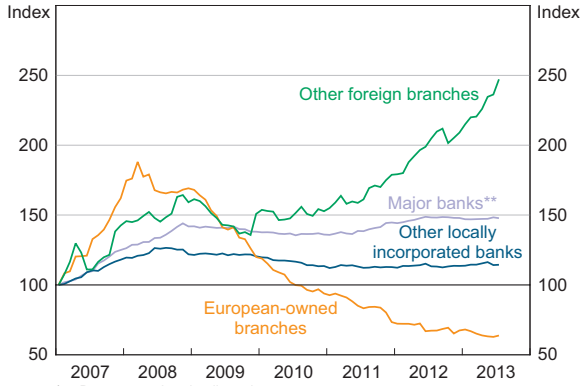
ahead, as a sustained period of below-average interest rates could increase speculative activity in the housing market and encourage marginal borrowers to increase debt. During the past year, some banks have increased the size of the interest rate add-on they apply to their lending rate when assessing borrowers' loan-servicing capacity, although not always to the same extent as the decline in interest rates.[1]

A number of mid-tier banks and smaller lenders have recently expanded into new distribution channels or geographical markets, while a range of banks have been growing their residential property lending to self-managed superannuation funds rather strongly (albeit off a small base). Because they can expose lenders to different risks, including reputational risks, these sorts of expansions into less familiar markets or products require sufficient due diligence before they are undertaken.

According to industry liaison, conditions in the business loan market remain broadly steady. The exception is in the 'wholesale' market (i.e. large-value loans), where competitive pressures have narrowed loan margins and, in some cases, have led to an easing of loan covenants. Some foreign bank branches (mostly those headquartered outside of Europe) have reportedly been competing actively for new business lending, and over the past couple of years they have been able to grow their lending at a relatively fast pace despite overall modest business credit growth (Graph 2.5). Foreign branches' business lending accounts for only a relatively small share of the industry total (about 10 per cent), but monitoring developments in this area is nonetheless an important part of regular financial stability analysis. Over the past decade, this lending has proved to be quite procyclical and has arguably influenced some asset prices (such as commercial property prices) in instances where it has been provided to more marginal borrowers.

1 For a detailed discussion of banks' serviceability practices, see APRA (2013), 'Loan Serviceability Standards in Housing Lending', *APRA Insight*, Issue 2, pp 40–54.

Graph 2.5
Banks' Business Lending*
Domestic books, January 2007 = 100



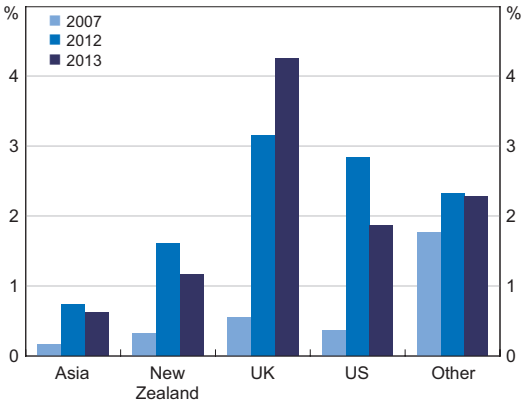
* Data are not break adjusted
** Includes St. George and Bankwest
Source: APRA

International Exposures

While the Australian-owned banks are primarily domestically focused, their international activities are a significant part of their business; their aggregate foreign claims (i.e. exposures) represent over one-fifth of their global consolidated assets. The bulk of these claims are on New Zealand (about 35 per cent of the total), where the major banks each have large local operations, and the United Kingdom (about 20 per cent). Claims on the Asian region have grown strongly over recent years and now account for more than 15 per cent of the total.

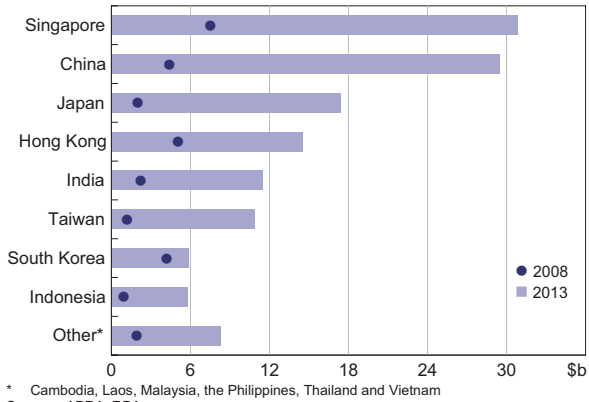
Australian-owned banks' overseas NPLs declined over the past year, although performance across the banks' main overseas markets remains quite diverse. The NPL ratio in the United Kingdom has been high and worsened further over the year to June 2013 (Graph 2.6). Economic and property market conditions have been difficult there for some time; although a modest economic recovery appears to be underway in the United Kingdom, there tends to be a delay before better economic conditions flow through to banks' loan performance. In contrast, loan performance has continued to improve in New Zealand as rural and housing market conditions have strengthened.

Graph 2.6
Non-performing Assets of Australian-owned Banks' Overseas Operations
Share of loans by region, as at June



Sources: APRA; RBA

Graph 2.7
Australian-owned Banks' Claims on Asia
Consolidated global operations, ultimate risk basis, as at June



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

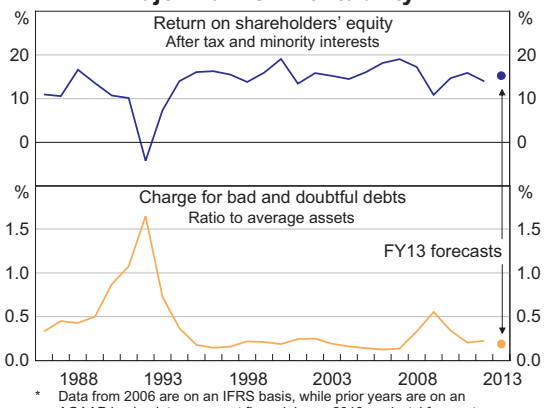
As discussed in 'The Global Financial Environment' chapter, growth in residential property prices in New Zealand has been associated with historically low interest rates and strong competition for mortgage lending, including in the higher loan-to-valuation ratio (LVR) segment of the market. The Reserve Bank of New Zealand (RBNZ) has responded by modestly increasing capital requirements on residential mortgages and restricting banks' new mortgage lending at higher LVRs. Even though the housing loan portfolios of the Australian major banks' New Zealand subsidiaries are currently performing well, these measures should reduce remaining risks in this part of their business. However, actions to circumvent the RBNZ's lending restrictions or to relax lending standards for other borrowers could pose problems once interest rates eventually rise, or in the event of a downturn in economic and property market conditions there.

The large Australian banks have significantly increased their claims on a number of Asian economies over recent years, including China and India (Graph 2.7). While these expansions could help increase and diversify banks' earnings over the longer term, such moves pose a range of risks that need to be carefully managed. One such risk is that economic and market conditions differ significantly in some of these economies compared with the advanced economies where the Australian banks have tended to be most exposed in the past. Conditions in Asian banking systems have generally been favourable over recent years, but as discussed in 'The Global Financial Environment' chapter, concerns about debt-related vulnerabilities in some Asian economies have recently increased. Even though a significant portion of the Australian banks' exposures in Asia have a relatively low credit risk profile, an unwinding of imbalances in some Asian economies could still present a challenging environment for these banks' local operations.

Profitability

Despite slower credit growth and somewhat higher funding costs over recent years, the major Australian banks' profitability has remained robust; their annual return on equity averaged around 15 per cent over 2010–12 (Graph 2.8). Aggregate profit of these banks was $13 billion in their latest half-yearly results, around 10 per cent higher than the previous half year, but broadly similar to the peak in 2011 (Graph 2.9). At 4 per cent, revenue growth was slightly lower than in recent years, reflecting slower growth in net interest income. However, profitability was supported by a decline in the major banks' bad and doubtful debt charges.

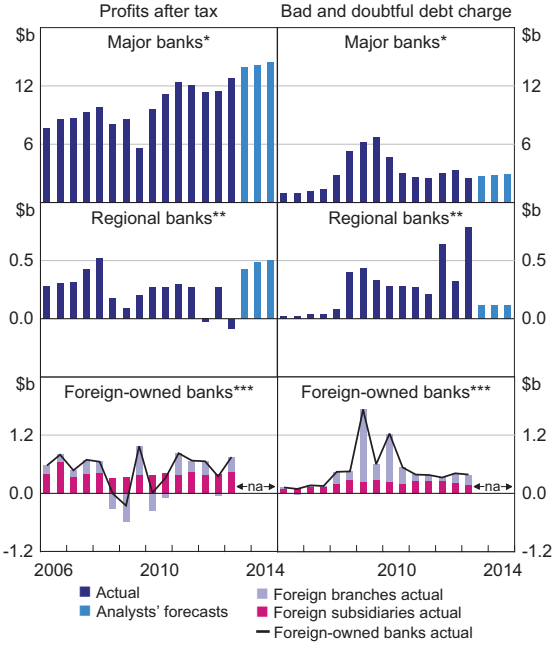
Graph 2.8
Major Banks' Profitability*



* Data from 2006 are on an IFRS basis, while prior years are on an AGAAP basis; dots represent financial year 2013 analysts' forecasts

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

Graph 2.9
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

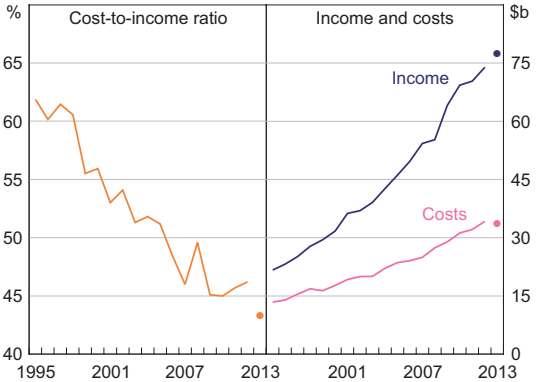
*** All results are half year to March and September

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

To counteract the effect of slower credit growth on their profitability, the major banks have focused on fee generation from non-retail customers and cross-selling opportunities, both of which are less dependent on expanding their balance sheet. They have also undertaken a range of initiatives to reduce costs, including restructuring operations, reducing staff in some areas and outsourcing certain support functions or moving them to lower-cost locations offshore. Equity analysts are forecasting that the major banks' operating expenses will fall by 2 per cent in the current financial year, helping to increase their return on equity to a little over 15 per cent.

The major banks' cost-to-income ratio – a common measure of bank efficiency – has been on a downward trend over the past couple of decades, driven by efficiencies related to technological advances (Graph 2.10). At around 40–45 per cent, the major banks' ratios are currently at the bottom end of the range of their peers globally. While there is little sign at this stage that the banks' cost containment has strained their risk management capabilities or controls, there is a question as to how much further they can improve this measure of efficiency without doing so.

Graph 2.10
Major Banks' Costs and Income*



* Measured on an underlying basis; data from 2006 are on an IFRS basis, while prior years are on an AGAAP basis; includes St. George and, from 2009, Bankwest; dots represent financial year 2013 analysts' forecasts

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

In aggregate, the three regional banks (Suncorp, Bank of Queensland and Bendigo and Adelaide Bank) recorded a small loss of about $80 million in their latest half-yearly results, reversing the $270 million profit recorded in the previous half. The main contributor to this result was a $470 million

increase in the charge for bad and doubtful debts at Suncorp, reflecting the partial sale of a portfolio of non-performing commercial property and corporate loans that had been in run-off since 2009. Equity analysts expect the regional banks' aggregate profits to broadly recover to pre-crisis levels in the next year, due to an improvement in their bad debt charges.

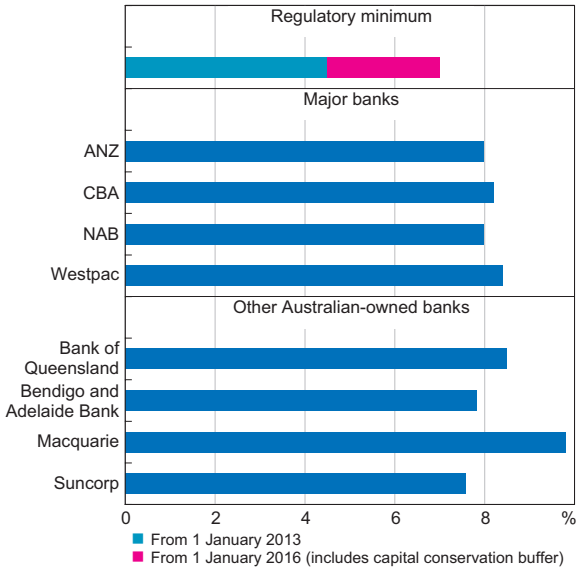
Foreign-owned banks' profits picked up in their latest half-yearly results. After posting a loss in the previous half year, there was a rebound in profits at the foreign branches, while a decrease in the charge for bad and doubtful debts contributed to higher profits at foreign subsidiaries.

Capital

The introduction of Basel III capital requirements in Australia has been foreshadowed in a number of *Reviews* since the Basel Committee on Banking Supervision finalised its international framework in 2011. This *Review* presents the first results for Australian banks under APRA's Basel III capital standard, which it began phasing in from the start of this year. The new requirements raise the level and quality of regulatory capital, and therefore leave the Australian banking system better placed to absorb adverse shocks. As part of this reform, the role of common equity – the highest-quality form of capital – is more prominent, with the introduction of a common equity Tier 1 (CET1) minimum requirement in the capital adequacy framework (for further explanation of the new capital framework, see 'Box B: The Basel III Capital Reforms in Australia'). Australian banks were well placed to meet APRA's new Basel III capital requirements; their robust profitability assisted them to increase their common equity capital significantly over recent years.

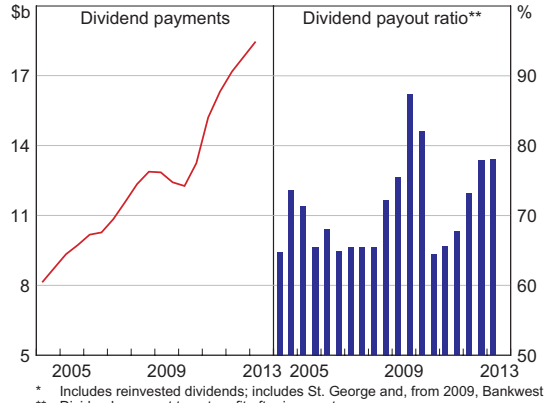
Banks' aggregate CET1 was 8.5 per cent of risk-weighted assets (RWAs) at June 2013. Individual public disclosures by the Australian banks indicate that their CET1 capital ratios are all currently 7 per cent or greater, well above the 4½ per cent CET1 minimum that is now required by APRA (Graph 2.11). These ratios also exceed the 7 per cent requirement (including the capital conservation buffer) that banks are required to meet by 2016. The major banks have moderately reduced the pace at which they accumulate common equity capital during the past year by increasing dividends – their average dividend payout ratio was 5–10 percentage points higher than in the previous year or so (Graph 2.12). In addition, they have fully or partially neutralised

Graph 2.11
Banks' Common Equity Tier 1 Capital Ratios
On an APRA Basel III basis, June 2013*



* May 2013 for Bank of Queensland
Source: banks' financial disclosures

Graph 2.12
Major Banks' Dividends*
Rolling sum of interim and final dividend payments



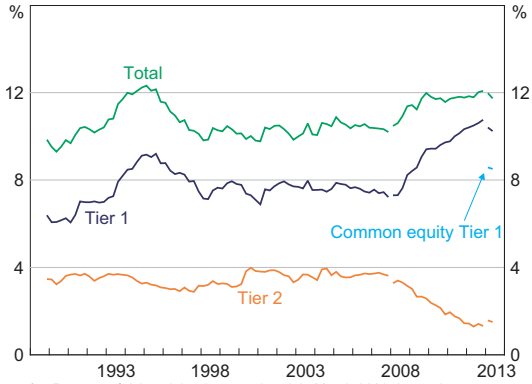
* Includes reinvested dividends; includes St. George and, from 2009, Bankwest
** Dividend payment to net profit after income tax
Source: APRA

the boost to common equity arising from their dividend reinvestment plans by purchasing shares in the market. There could be shareholder pressure for further capital distributions given that the Australian banks' capital positions already exceed Basel III minimums ahead of APRA's required time lines. In considering potential actions, banks need to ensure that their internal capital buffers are sufficient to cope with stressed situations, as well as any capital add-ons that APRA may impose because of their risk profile or domestic systemic importance.[2]

The introduction of Basel III complicates the comparison of 2013 with pre-2013 banking system capital ratios due to the definitional differences. That said, the total capital ratio is the least affected and this declined slightly over the six months to June 2013, to 11.7 per cent (Graph 2.13). Within the total, the Tier 1 capital ratio fell and the Tier 2 capital ratio increased, largely because of a reclassification of deductions from capital, which reduced banks' Tier 1 capital but had the reverse effect on Tier 2 capital. The total capital ratio for credit unions and building societies (CUBS) was broadly unchanged at 16.7 per cent over the first half of 2013, having been little affected by the Basel III changes; their CET1 capital ratio was 15.7 per cent at June 2013. The high capital ratios of CUBS relative to that of banks are appropriate given their less diversified business models and different corporate structures.

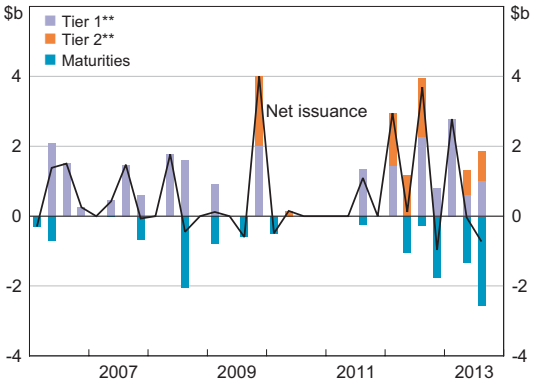
Banks' issuance of non-common equity capital (often referred to as 'hybrids') has been strong recently, as banks replace maturing instruments with Basel III compliant instruments. Since October 2012, banks have issued almost $7 billion of Tier 1 and Tier 2 non-common equity instruments, equivalent to 0.4 per cent of their RWAs (Graph 2.14). To be counted as capital under Basel III, any of these instruments issued after 1 January 2013 are required to have a regulatory trigger, whereby they convert to common equity or are written off if APRA deems the bank would become non-viable without it (and, in some cases, also if the bank's CET1 ratio falls below 5.125 per cent). Despite their complex nature, take-up of these instruments has been almost entirely from retail investors, particularly self-managed superannuation funds. A number of recent bank non-common equity offerings have been upsized, with retail investors currently attracted to their higher yields. The Australian Securities and Investments Commission (ASIC) has been reviewing product disclosure statements to ensure risks are adequately communicated to retail investors and

Graph 2.13
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 2.14
Banks' Non-common Equity Capital Issuance and Maturities*



* Tier 1 includes convertible preference shares; Tier 2 includes subordinated debt
** September 2013 is quarter-to-date
Sources: RBA; company announcements

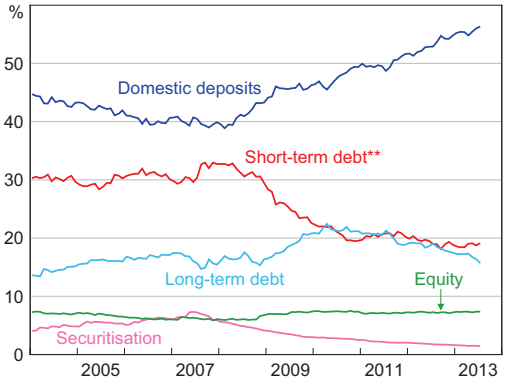
2 For further explanation of appropriate capital buffers for banks, see APRA (2013), 'ADI Industry Risks', *APRA Insight*, Issue 2, pp 4–39.

has issued public warnings about the risks associated with holding these instruments. In August 2013, it released a report to generate further awareness about these issues and to highlight current market practices, including the sale process for these products.[3]

Funding and Liquidity

Banks have continued to improve their resilience to funding market disruptions by adjusting the composition of funding. The banks' share of short-term wholesale funding – which is typically perceived by markets to be a less stable source of funding – has declined, while domestic deposit funding has risen further and now accounts for 56 per cent of the total (Graph 2.15).

Graph 2.15
Banks' Funding*
Domestic books, share of total



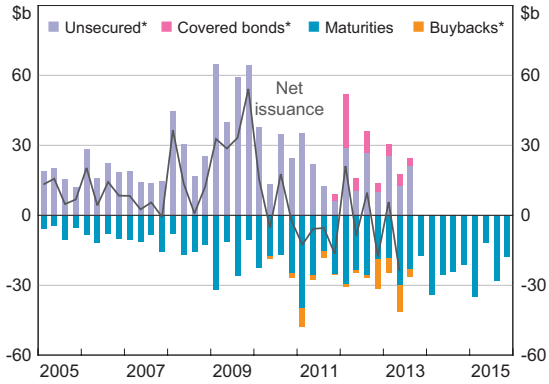
* Adjusted for movements in foreign exchange rates
** Includes deposits and intragroup funding from non-residents
Sources: APRA; RBA; Standard & Poor's

Banks' funding strategies in recent years have generally been to roll over their existing term wholesale debt and fund new loans with new deposits. Over the past year, banks' net deposit flows have significantly exceeded their net credit flows: banks' deposits are currently growing at an annual rate of about 7 per cent, well above credit growth of around 3 per cent. This recent funding pattern has allowed banks to reduce the share of their balance sheets funded by wholesale debt.

3 For further details, see ASIC (2013), 'Hybrid Securities', *Report 365*, August.

Australian banks issued around $40 billion of bonds in the six months to September; almost no long-term debt was issued during the mid 2013 period of global debt market volatility arising from speculation about the future course of US monetary policy (Graph 2.16). Over the past six months, bond issuance was about 40 per cent below the total of bond maturities and buybacks of government guaranteed bonds. The buybacks had the effect of moderately increasing the weighted average maturity of the Australian banks' outstanding wholesale debt, because those bonds were mostly maturing in 2014. The depreciation of the Australian dollar against the US dollar this year should slightly reduce the need for banks to use global funding markets, as less foreign currency issuance is required to fund the same amount of Australian dollar lending.

Graph 2.16
Banks' Bond Issuance and Maturities
A$ equivalent

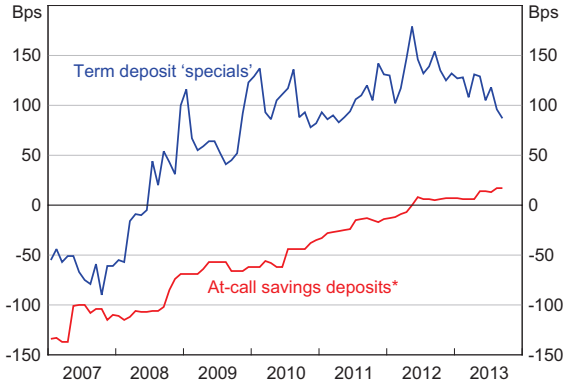


* September 2013 is quarter-to-date
Source: RBA

Conditions in the residential mortgage-backed securities (RMBS) market remain stronger than in previous years; spreads are currently around their lowest level since the beginning of the financial crisis in 2007. Australian financial institutions issued over $10 billion in RMBS in the six months to September 2013. Smaller institutions have accounted for a disproportionate share of issuance in this period (over two-thirds), consistent with their less ready access to bond markets than the major banks.

The banks' shift towards deposit funding over recent years has been accompanied by strong competition in the deposit market, and high average spreads on retail deposits to benchmark rates (Graph 2.17). Over the past year, deposit flows have shifted away from term deposits towards at-call savings accounts, consistent with more attractive pricing on at-call savings accounts, especially 'bonus savings accounts'.

Graph 2.17
Major Banks' Deposit Rates
Spreads over money market rates of equivalent maturity

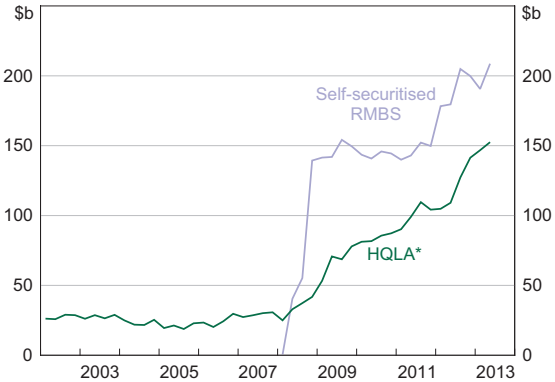


* Spread to cash rate; existing customers only; excludes temporary bonus rates
Sources: Bloomberg; RBA

Looking ahead, banks' deposit strategies will be influenced by the Basel III liquidity standard that will be introduced in Australia from 2015. Under this standard, banks will be required to demonstrate to APRA that they have taken 'all reasonable steps' to meet the Liquidity Coverage Ratio (LCR) requirement through their own balance sheet management, before using the Reserve Bank's Committed Liquidity Facility (CLF) for this purpose. To prepare for the implementation of the LCR requirement, APRA is undertaking a trial exercise in the second half of 2013 that includes pro forma CLF applications by banks.[4] A number of banks have already introduced accounts that require depositors to give a certain period of notice before withdrawing funds, while some banks have indicated that they are seeking to refine the pricing of their deposits (as well as their undrawn credit facilities) to take better account of the associated liquidity costs. More generally, banks can also lower their liquidity requirements through continuing to increase the proportion of their assets funded by retail deposits, as well as the term of their wholesale funding.

Banks' holdings of liquid assets have continued to rise ahead of the introduction of the LCR, thereby improving their ability to deal with any future funding stress. Banks' Australian dollar high-quality liquid assets (HQLA) – comprising mostly Commonwealth and state government debt securities – have increased significantly over the past year and are estimated to be around 6 per cent of their Australian dollar domestic assets (Graph 2.18). The Reserve Bank's assessment is that the banking system's current total holdings of Australian dollar HQLA debt securities, while insufficient to meet the LCR fully, is broadly appropriate, given the low overall supply of these HQLA assets and the need for the continued smooth functioning of debt markets. A further factor boosting the banks' liquid assets (including those in foreign currency) has been the depreciation of the Australian dollar this year; banks have received significant collateral inflows from counterparties to their derivative transactions for hedging foreign currency-denominated debt.

Graph 2.18
Australian Banks' Liquid Assets
Selected A$ liquid assets, consolidated global operations



* Estimate; includes Commonwealth, state and territory government debt securities, cash and exchange settlement account balances
Sources: APRA; RBA

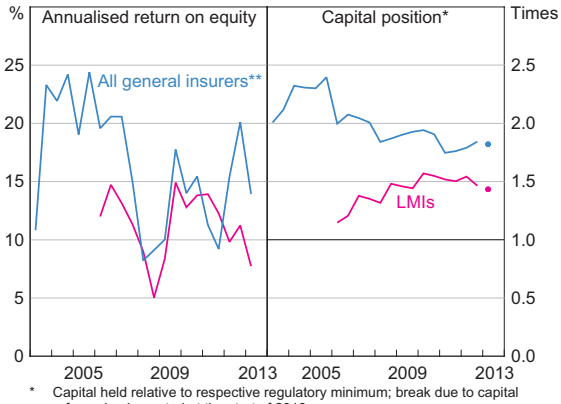
4 For further details, see APRA (2013), 'Implementation of the Basel III Liquidity Framework in Australia: Committed Liquidity Facility', Letter to Authorised Deposit-taking Institutions, 8 August.

Banks have also been increasing their overall holdings of securities eligible as collateral for the CLF, including self-securitised assets. Banks' holdings of self-securitised RMBS have risen substantially in recent years, and now total over $200 billion (8 per cent of their Australian dollar domestic assets). APRA, in consultation with the Reserve Bank, is currently considering the appropriate composition of banks' portfolios of CLF-eligible securities, including the amount of self-securitised RMBS and securities issued by other banks.

General Insurance

As foreshadowed in the previous *Review*, APRA implemented new, more risk-sensitive capital standards for the general insurance industry at the start of 2013. Similar to the new capital standards for ADIs, this complicates comparison with pre-2013 capital ratios. Regardless, under the new framework, the general insurance industry remains well capitalised at about 1.8 times the minimum regulatory requirement (Graph 2.19).

Graph 2.19
Financial Performance of General Insurers
Semiannual



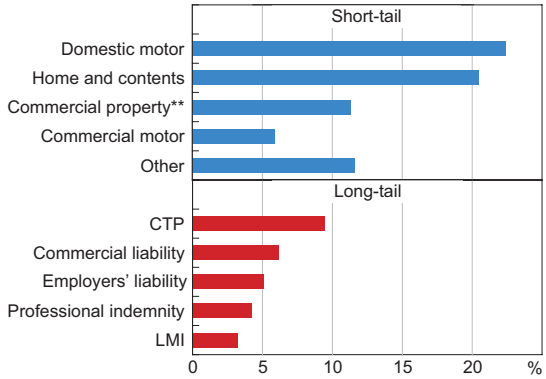
* Capital held relative to respective regulatory minimum; break due to capital reforms implemented at the start of 2013
** Includes lenders mortgage insurers (LMIs)
Source: APRA

The aggregate profitability of general insurers remains robust; their annualised return on equity was close to 15 per cent in the first half of 2013. General insurers continued to post strong underwriting profits in the past six months, reflecting a generally favourable claims experience and previous increases in premium rates in the property business lines. There was, however, a moderate fall in their investment income, in part because of lower average yields on their fixed interest investments.

The previous *Review* highlighted the potential challenges that a prolonged period of low interest rates pose to insurers' profitability. Because insurers invest premium revenue to meet future claim payments, lower returns on their investments can mean that they need to collect more premium revenue to cover future payments. In terms of business activities, the largest effect of lower interest rates is on 'long-tail' insurance lines (e.g. liability insurance), as claims for these products are often finalised many years after the contract has been written. Long-tail insurance lines account for a little under one-third of insurers' premium revenue in Australia (Graph 2.20). General insurers do not appear to be responding to the low-yield environment with significant premium rate increases, given competitive pressures in commercial insurance lines. However, there has recently been a small shift in the composition of some insurers' portfolios into riskier, higher-yielding investments.

The large Australian-owned general insurers have sizeable international operations. QBE, in particular, is focused on foreign markets: according

Graph 2.20
General Insurers' Gross Written Premium*
Share of total, year to June 2013



* Excludes premium from inwards reinsurance
** Fire and industrial special risks insurance
Source: APRA

to its latest financial results, around three-quarters of its premium revenue was sourced offshore, compared with about 20 per cent for IAG and 10 per cent for Suncorp. These offshore operations diversify insurance risks, but may also expose the insurers to some different (and potentially less familiar) insurance and investment risks, as well as higher operational risk and risks associated with acquisitions. In recent years, some large insurers have discontinued parts of their offshore operations that had been performing poorly. APRA's consolidated group supervision of insurers oversees risks from both domestic and offshore operations.

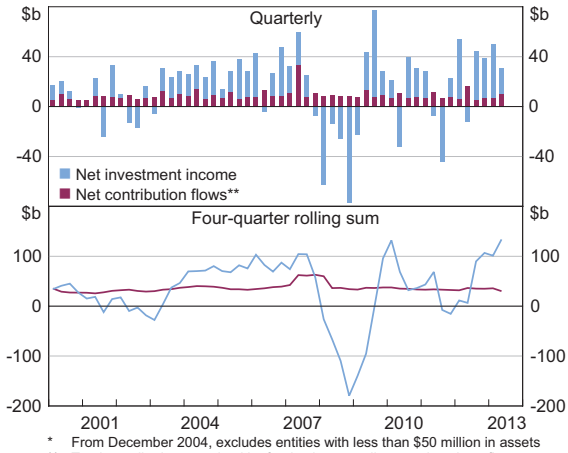
Lenders mortgage insurers (LMIs) are specialist general insurers that offer protection to banks and other lenders against losses on defaulted mortgages, in return for an insurance premium that is usually passed onto the borrower. Because of their higher risk profile, mortgages originated with LVRs of 80 per cent or greater are typically fully insured in Australia. LMIs are a small part of the general insurance industry – their gross premium revenue in the year to June 2013 was about 3 per cent of the industry total. Even so, LMIs can influence financial stability through their involvement in the credit creation process and linkages with the banking system (for further discussion, see 'Box C: Lenders Mortgage Insurance').

In contrast to the overall general insurance industry, the profitability of the LMI segment has been softer recently. In the first half of 2013, LMIs' returns on equity slowed to around 8 per cent, owing to weaker investment income and a modest rise in claims expenses. In the past couple of years, LMIs' loss ratio – claims expense as a share of premium revenue – has averaged just under 40 per cent, well above the average of about 25 per cent recorded over 2003–07. Whereas insured mortgages originated in the past few years have been performing well, LMIs have been experiencing above-average claims for loans written during 2007–08, loans to the self-employed and loans for properties in coastal Queensland. The weaker profitability of LMIs in recent years, a period when some parts of the housing market and economy have been soft, suggests that LMIs' capacity to generate capital internally could be constrained in the event of a severe downturn in the housing and labour markets. APRA sets minimum capital requirements at conservative levels for LMIs to provide an adequate buffer against this risk.

Managed Funds

Assets held by domestic funds management institutions continued to grow at a solid rate over the six months to June 2013, to stand at $1.7 trillion on a consolidated basis (Table 2.1). Superannuation funds recorded strong investment performance over this period, supported by higher share prices and valuation effects on overseas assets due to the depreciation of the Australian dollar (Graph 2.21). In conjunction with a relatively steady inflow of contributions, superannuation funds under management experienced their strongest annual growth since the share market recovery immediately following the global financial crisis.

Graph 2.21
Superannuation Funds' Financial Performance*



* From December 2004, excludes entities with less than $50 million in assets
** Total contributions received by funds plus net rollovers minus benefit payments
Source: APRA

The structure of the managed funds sector has changed markedly over recent decades, driven by the growth of superannuation, which now accounts for nearly three-quarters of all managed fund assets.

Table 2.1: Assets of Domestic Funds Management Institutions
As at June 2013

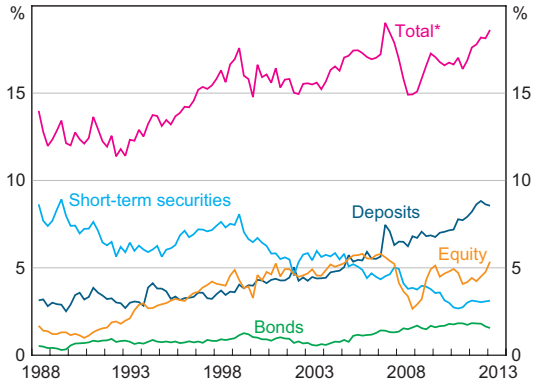
	Level $ billion	Six-month annualised change Per cent	Share of total Jun 2013 Per cent	Share of total Jun 1993 Per cent
Superannuation funds	1 562	15	73	50
Life insurers[(a)]	255	8	12	35
Public unit trusts	271	5	13	9
Other managed funds[(b)]	39	–13	2	6
Total (unconsolidated)	**2 128**	**12**	**100**	**100**
Cross investments	*429*	*13*		
Total (consolidated)	**1 699**	**11**		

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

Within the superannuation system, the share of assets in both self-managed superannuation funds (SMSFs) and industry funds has increased noticeably over recent decades, while the share of retail, public sector and corporate funds have all declined. These structural changes affect the banking sector because the two sectors are interconnected. For example, a number of retail superannuation funds are owned by, or related to, banking groups and the managed fund sector is also a source of funding for banks. In the case of SMSFs, the banking sector provides loans to SMSFs, which have grown strongly in recent times, although they still account for a very small share of banks' loan portfolios and hence pose little risk for the financial system at this point. More recently, certain financial institutions (including some banks) are also responding to the growth in SMSFs by becoming more active in the provision of advice on how to set up and manage SMSFs (for a discussion of SMSFs, see the 'Business and Household Finances' chapter).

Regarding the funding linkage, managed funds' holding of deposits, debt securities issued by banks and bank equity is currently equivalent to a little under 20 per cent of banks' liabilities (Graph 2.22). The importance of superannuation funds' deposits for banks' funding has increased over the past two decades. In part, this is due to the growth of SMSFs and the significantly higher share of funds they allocate to deposits. If these structural changes continue, and as the population ages, superannuants could potentially seek to invest a higher share of their superannuation assets in lower-risk assets such as deposits. While such a development could be beneficial for both them and the banking sector, it could become a concentrated exposure between two parts of the financial system.

Graph 2.22
Managed Funds' Claims on Banks
Share of unconsolidated bank liabilities



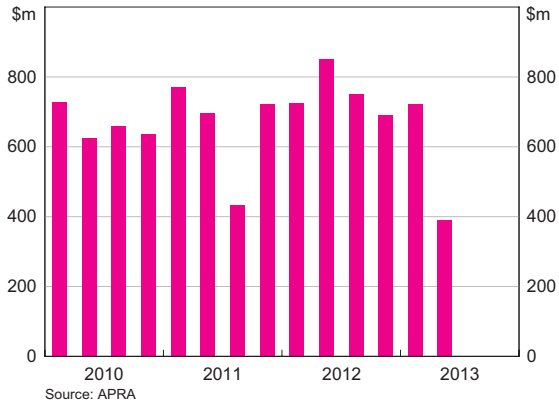
* Total financial claims of managed funds against banks
Source: ABS

The life insurance sector is another part of the managed funds sector. Life insurers' business includes investment-linked operations and traditional risk-based operations, such as term life insurance or disability insurance. In recent years, the profitability of some risk-based businesses has been weak, owing to the poor claims experience. In some cases, this has contributed to sharp increases in premium rates.

Another challenge in the life insurance sector has been the number of customers surrendering ('lapsing') their policies. The greater number of lapses has been attributed to several factors, including: a softer economic environment that has led to life insurance policies being discontinued; the compensation structure for financial advisors that encouraged them to switch their clients between policies; and competition for business that has led to more switching between insurers.

Despite these challenges, the life insurance sector has remained profitable in recent years, supported by better investment returns on their own capital. However, profits declined in the first half of 2013, partly due to higher claims on policies (Graph 2.23). Like general insurers, life insurers moved to APRA's more risk-sensitive capital framework at the start of 2013. As at June 2013, life insurers held capital equivalent to almost twice APRA's minimum requirement.

Graph 2.23
Life Insurers' Profit



Source: APRA

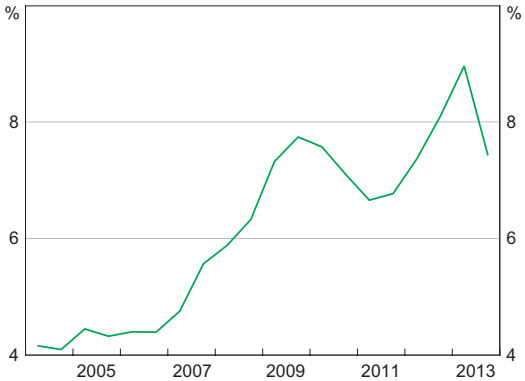
Financial Market Infrastructure

Financial market infrastructures (FMIs), such as payment systems, central counterparties (CCPs) and securities settlement systems, facilitate most financial transactions and trading activity in the economy. In recent years, the G20 has been active in supporting reforms to FMIs, including that all standardised over-the-counter (OTC) derivatives be cleared through a CCP. As a result, the number of FMIs operating in Australia (and elsewhere) is increasing and the types of services provided is expanding – a trend that will likely continue over coming years. The increased use of such infrastructures by banks and other market participants is of itself relevant for financial stability, as are the stability of, and risk management practices adopted by, the FMIs.

Reserve Bank Information and Transfer System

The Reserve Bank Information and Transfer System (RITS) is the system through which most domestic interbank payments in Australian dollars are settled. RITS continued to operate smoothly over the past six months, settling around five million payments worth $18 trillion. To ensure they have sufficient liquidity to settle their payment obligations, RITS participants are able to supplement the funds held overnight in their exchange settlement accounts (ESAs) at the Reserve Bank by entering into intraday repurchase agreements with the Reserve Bank. As a ratio to settlement values, intraday liquidity declined significantly in the six months to September 2013, although it remains well above that prior to the 2008–09 crisis period (Graph 2.24). Increased liquidity over recent years has enabled a larger share of transactions to settle earlier in the day, helping to reduce potential operational and liquidity risks that may emerge late in the settlement day. In the past six months, 50 per cent of the value of real-time gross payments settled just before 1 pm, compared with around 2.30 pm over 2005–07.

Graph 2.24
RITS Liquidity Ratio*
As a ratio to settlement values, daily average for half year



* RITS liquidity is measured as opening exchange settlement account balances with the RBA and average intraday repurchase agreements with the RBA; September 2013 is six-months-to-date
Source: RBA

Low-value payments, such as direct entry, consumer electronic (card-based) payments and cheque transactions, are multilaterally netted and settled in RITS in a single batch at 9 am the following day, rather than on a real-time gross basis. Currently, an average of $18 billion in payments are settled this way each day. The Reserve Bank is working with the industry to implement, from November this year, settlement of direct entry transactions at regular intervals on the same day. In addition to providing benefits to customers, this reform will reduce the credit exposure that can arise when payments are posted to customer accounts ahead of interbank settlement. Because some of the regular settlement batches will be outside normal banking hours, and because the size of transactions that need to be settled late in the day will not be known, the Reserve Bank has announced an arrangement to facilitate substantially higher ESA balances in future.[5]

Use of CCPs for clearing OTC derivatives

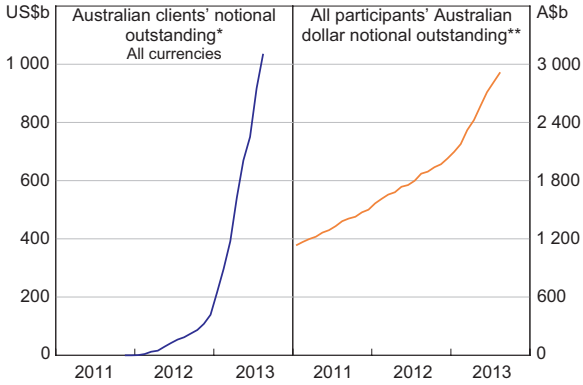
The move to central clearing for standardised OTC derivatives has been detailed in *Reviews* over the past couple of years (see also the 'Developments in the Financial System Architecture' chapter). In brief, CCPs are designed to protect market participants from the risk that a trade they have executed fails to settle, and in the meantime the price of the asset has moved unfavourably. This is known as replacement cost risk. CCPs protect market participants against this risk by acting as the buyer to every seller and the seller to every buyer in the products that they clear, and honouring related obligations, even if a market participant defaults. This process simplifies the network of interconnections between financial institutions, and, by substituting the numerous bilateral exposures of a market participant for a single net exposure to a CCP, can reduce total counterparty credit exposures. By acting as a hub for market participants, a CCP can improve the effectiveness of default management, coordinate operational improvements and efficiencies across the system and reduce information asymmetries. Accordingly, central clearing can enhance the efficiency, integrity and stability of the financial system.

In Australia, the evidence to date is that the transition to central clearing of interest rate derivatives is accelerating. Over the past 18 months the large Australian banks have established client clearing arrangements, which allow them to clear trades through global CCPs via foreign banks that are participants of these CCPs. The notional value of interest rate derivatives across all currencies submitted under these arrangements by Australian banks to the London-based CCP, LCH.Clearnet Limited (LCH.C), has accelerated sharply in recent months, to around US$1 trillion by August 2013 (Graph 2.25, left panel). While this remains less than 15 per cent of Australian banks' total notional principal outstanding in interest rate derivatives, the proportion of new transactions submitted to clearing is much higher. At the same time, central clearing of Australian dollar-denominated interest rate derivatives at LCH.C by foreign banks that are direct participants of LCH.C has more than doubled over the past two years (Graph 2.25, right panel); at least some of this activity would have been on

5 For further details on the effect of payments reforms on ESA balances, see Debelle (2013), 'The Impact of Payments System and Prudential Reforms on the RBA's Provision of Liquidity', Address to the Australian Financial Markets Association (AFMA) and Reserve Bank of Australia (RBA) Briefing, Sydney, 16 August.

behalf of Australian bank clients. This growth takes the centrally cleared proportion of the Australian dollar-denominated interest rate derivatives market to around one-third.

Graph 2.25
Notional Principal Outstanding of Interest Rate Derivatives at LCH.C



* Total outstanding for Australian clients; to the extent that trades are between these clients, they will be counted twice
** CCP figures halved to adjust for the double counting that occurs when a trade is novated
Sources: LCH.Clearnet / SwapClear; RBA

This transition to central clearing is expected to accelerate now that two CCPs – LCH.C and ASX Clear (Futures) – have been granted regulatory approval to offer OTC derivatives clearing services directly to Australian participants. LCH.C has been licensed to offer its overseas-based multi-currency interest rate derivatives clearing service in Australia. At the end of June, ASX Clear (Futures) received regulatory approval to launch a dealer-to-dealer service for Australian dollar-denominated interest rate derivatives. The first Australian banks have joined these services, and others are in the process of joining and establishing operational connections. ASX has also signalled its plan to provide for client clearing and expand its service to clear New Zealand dollar-denominated interest rate derivatives by the end of 2013.

Risk management by CCPs

Given the increased importance of FMIs to the financial system, the international regulatory community has also been working in recent years to strengthen risk management standards for CCPs. The *Principles for Financial Market Infrastructures* were published in April 2012; in Australia, those principles that relate to financial stability have been implemented in the Financial Stability Standards (FSS) determined by the Reserve Bank, complemented by regulatory guidance set by ASIC. The Reserve Bank's FSS came into force on 29 March 2013 and the first assessment of the ASX facilities was published in September 2013.

CCPs manage their financial risks in three key ways: using risk-based participation requirements; collecting initial margin (calibrated according to individual participants' actual exposures); and maintaining pooled financial resources (from the CCP and participants). The pooled financial resources would be drawn upon if a failed participant's initial margin was exhausted; this could occur in periods of abnormal volatility. The FSS require that a CCP run stress tests on a daily basis to determine whether its pooled financial resources are sufficient to withstand the default of the participant, and its affiliates, to which it has the largest exposure in extreme but plausible circumstances. Where a CCP clears complex products or is systemically important in multiple jurisdictions, the pooled financial resources must be sufficient to cover stressed exposures in the event of the simultaneous default of the largest *two* participants and their affiliates.

In 2012/13, ASX Clear (Futures) tested for a single default; its maximum projected stress-test loss exceeded its pooled financial resources for 17 days in early 2013, with the largest projected shortfall being $44 million (Graph 2.26). When this occurs, the rules of ASX Clear (Futures) require additional margin to be posted by the participant sufficient to cover at least the shortfall. Frequent and widely dispersed stress-test losses may trigger a decision to increase pooled risk resources. Since these projected losses were due to temporary trading activity by a small number of participants, ASX Clear (Futures) determined that the additional margin was the most appropriate risk control to address this.

Graph 2.26
ASX Clear (Futures) – Stress-test Losses

Source: ASX

In August, the Reserve Bank clarified that ASX Clear (Futures) will be held to the higher standard that it cover stressed exposures to its largest two participants (and their affiliates), given it is considered to be systemically important in multiple jurisdictions. ASX Clear (Futures) has also announced an intention to increase its financial resources to support its newly launched OTC derivatives clearing service. By the end of August, ASX Clear (Futures) had increased its financial resources from $370 million to $550 million, funded by equity injected from an ASX capital raising. An additional $100 million is to be contributed as more participants join the OTC derivatives clearing service.

Box B

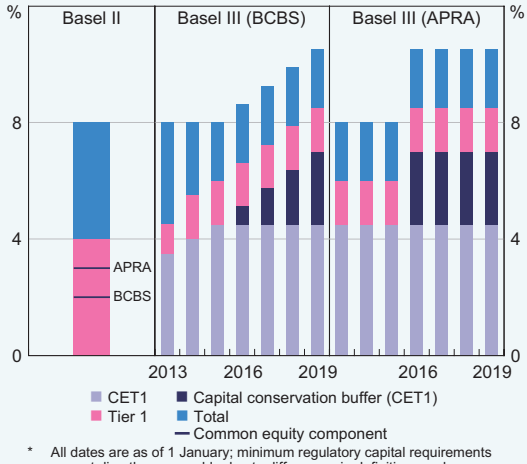
The Basel III Capital Reforms in Australia

A bank's capital represents its ability to absorb losses. To promote the resilience of banking systems, regulators specify the minimum amount of capital that banks should hold, as well as the form it should take. The 2008–09 financial crisis revealed that banks in some countries were not holding enough loss-absorbing capital for the risks they were taking. In response, the international bank standard-setting body, the Basel Committee on Banking Supervision (BCBS), developed the Basel III capital framework, which it finalised in June 2011.[1] The new framework sets out internationally agreed minimum requirements for higher and better-quality capital for banks globally, as well as better risk coverage and a new non-risk-weighted 'leverage ratio'. Complementing these reforms are enhanced public disclosure requirements for banks' capital.

The Basel III capital reforms significantly build on the Basel II risk-sensitive capital framework in a number of ways.

- The minimum Tier 1 capital requirement has been increased, from 4 per cent to 6 per cent of risk-weighted assets (RWAs) once fully phased in (Graph B1). A new common equity Tier 1 (CET1) requirement has been introduced, which raises the proportion of common equity – the highest-quality form of capital – within the Tier 1 requirement.
- The definition of non-common equity capital – that is, 'additional Tier 1' capital and Tier 2 capital – has been revised, given that some instruments previously classified as regulatory capital were not available to absorb losses as they occurred during the financial crisis. In particular, non-common equity capital instruments must now contain a non-viability trigger (and in some cases a loss absorption trigger) for conversion to CET1 or write-off.
- A stricter approach to deductions from regulatory capital has been adopted, including that most deductions are to be made from common equity capital.
- To improve risk coverage, counterparty credit risk on over-the-counter derivatives now attracts an additional capital charge, while credit exposures to central counterparties are subject to a new capital charge.[2]

Graph B1
Minimum Regulatory Capital Requirements*
Per cent of risk-weighted assets



* All dates are as of 1 January; minimum regulatory capital requirements are not directly comparable due to differences in definitions and differences in phase-in arrangements for Basel III

Sources: APRA; BCBS

1 See BCBS (2011), 'Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems', (revised version) June.

2 Capital requirements for certain trading book and securitisation assets were increased at the start of 2012; this change is commonly referred to as Basel 2.5.

The Basel III capital reforms also include some new elements, most of which do not start to be phased in until 2016.

- A 'capital conservation buffer' of 2½ per cent of RWAs will provide banks with additional capital that they can draw upon in stressed periods. This buffer is entirely in the form of CET1. As such, the minimum CET1 capital requirement plus the buffer will be 7 per cent of RWAs, once both are fully phased in. If a bank's CET1 ratio falls below 7 per cent, constraints on its capital distributions will be imposed (as well as other supervisory measures).
- A 'countercyclical capital buffer' of up to 2½ per cent of RWAs (entirely in the form of CET1) may be imposed by the relevant national authority during periods when system-wide risk is building up.
- A 'leverage ratio' will be included as a supplementary measure, to ensure that banks do not become overly leveraged on a non-risk-weighted basis.

The public disclosure regime for banks has also been revised, with requirements for additional information on capital adequacy, full details of individual regulatory capital instruments and a reconciliation of regulatory capital with the reported financial accounts. A comprehensive explanation of how a bank calculates its regulatory capital ratios is also required. One of the objectives of the enhanced disclosure requirements is to facilitate more consistent measurement of banks' capital adequacy, including across countries.

Implementation of Basel III Capital Reforms in Australia

The Australian Prudential Regulation Authority's (APRA's) application of the Basel III capital framework started to come into effect in Australia on 1 January 2013. These reforms leave the Australian banking system better placed to cope with future adverse shocks, and therefore should support the economy over the long term.[3]

In implementing the Basel III capital framework, APRA determined that Australian authorised deposit-taking institutions (ADIs) did not need the extended transition made available to national supervisors by the BCBS, with the exception of transitional arrangements on pre-existing non-common equity capital instruments. Indeed, Australia's banks exceed the 2013 minimum capital requirements, and similarly are on track to meet the 2016 minimum requirements. Part of the reason for this is that APRA historically adopted a somewhat more conservative approach to its capital standards than the previous Basel II international minimum, both in terms of its common equity requirement and its treatment of deductions. Moreover, Australian banks were able to raise private capital during the 2008–09 crisis, and their robust profitability over subsequent years enabled them to strengthen their capital positions further.

In regard to the specific timing, APRA required ADIs to meet its new capital requirements for CET1 capital and Tier 1 capital at the start of this year (two years ahead of the BCBS' phase-in deadline); they must also meet the full capital conservation buffer requirement at the start of 2016 (three years ahead of the BCBS' phase-in deadline) (Graph B1). Like Australia, a number of other countries, including Canada and Singapore, have decided to implement certain aspects of the Basel III international capital requirements ahead of the BCBS' time lines.

APRA also did not adopt the Basel III concessional treatment for certain capital items, most notably the 'threshold treatment' for deduction of investments in other financial institutions, mortgage servicing rights and deferred tax assets. Under this concession,

3 For a discussion of the economic benefits and costs of higher capital requirements under Basel III, see APRA (2012), 'The impact of the Basel III Capital Reforms in Australia', *APRA Insight*, Issue 2, pp 32–59.

deduction of these items from capital may be avoided if their value falls below a certain threshold.[4] APRA's treatment of these items reflects its longstanding policy of requiring their full deduction. Estimates published recently by the Australian major banks suggest that these adjustments would have the effect of increasing their CET1 capital positions by roughly 1 to 1½ percentage points of RWAs, if they were calculated according to the BCBS Basel III minimum requirements. The approach of being more conservative than the internationally agreed capital framework is not uncommon, with many countries increasingly doing so because of their domestic circumstances.

More generally, the BCBS is committed to reviewing its members' domestic regulations to ascertain their consistency with the Basel international capital framework. Australia is currently undergoing such a review, which is to be completed early next year.

4 Under the BCBS rules, significant investments in the common shares of unconsolidated financial institutions (banks, insurance and other financial entities), mortgage servicing rights and deferred tax assets arising from temporary differences, must be deducted from capital if they exceed 15 per cent of CET1 after the application of all deductions. In addition, a 10 per cent limit is applied to each item.

Box C

Lenders Mortgage Insurance

Mortgage insurance is a specialist type of insurance that protects the mortgage lender in the event that a borrower cannot repay their loan. In Australia, mortgage insurance is offered by prudentially regulated institutions known as lenders mortgage insurers (LMIs). These institutions charge an upfront premium to lenders, which usually pass on the cost to borrowers. Lenders generally use mortgage insurance for loans originated with a loan-to-valuation ratio (LVR) of 80 per cent or greater, given the higher risk profile of these loans. LMIs also provide credit enhancement for mortgage-backed securities – either at the individual mortgage level or on the underlying mortgage pool – to reduce the likelihood of losses for investors. Overall, more than one-quarter of Australian housing loans are estimated to be covered by mortgage insurance.

LMIs have liabilities that are concentrated in highly correlated risks. This exposes them to significant insurance risk as they can experience a heightened number of policy claims during economic downturns. This is different from other general insurers: many of their policyholders are insured against losses from relatively unrelated physical events (e.g. accident or theft), with multiple policyholders affected by the same event only in infrequent cases (e.g. natural disasters). The Australian Prudential Regulation Authority (APRA) therefore requires providers of mortgage insurance to be 'monoline' insurers (i.e. they can write only one type of insurance) in order to ring-fence mortgage insurance from other insurance activities.

LMIs and Financial Stability

LMIs can influence financial stability given their involvement in the credit creation process and linkages with the banking system. LMIs can help promote financial stability to the extent that they dampen swings in lending standards and maintain sufficient capital to withstand any housing market and economic downturn. As insuring riskier mortgages is the primary business of LMIs, they may take a longer-term view of mortgage risk than some (marginal) lenders. During buoyant times when risk appetite among lenders rises, LMIs could limit the extent that lending standards weaken because they provide a 'second set of eyes' in the loan origination process.[1] Conversely, when risk appetite subsides during downturns, a well-capitalised LMI industry could increase at least some lenders' willingness to continue writing high-LVR loans, helping to smooth changes in lending standards.

The use of mortgage insurance will not necessarily moderate the amplitude of the housing credit cycle, however. Lenders may respond by relaxing standards because they believe the LMI is assessing the risk – an unintended consequence of having a 'second set of eyes' – or because they believe that any loss is an LMI loss. In theory, this type of behaviour would be more likely to occur in situations where LMIs fully insure lenders' losses, because lenders then have very little 'skin in the game'. The use of LMI could also lead to adverse selection problems, whereby lenders, having superior information on borrowers' repayment capacity, only insure loans that are higher risk than they appear, and thus expose LMIs to greater risk than they realise. However, industry practices have developed to substantially mitigate these problems, including pre-approval standards,

1 For further information on the interaction between lenders and mortgage insurers, see Joint Forum (2013), 'Mortgage Insurance: Market Structure, Underwriting Cycle and Policy Implications', Bank for International Settlements, August.

monitoring processes and claims management practices. More generally, as the mortgage insurance market is cyclical – like most financial activities – the risk appetite of LMIs will not necessarily be less procyclical than lenders in all circumstances. For instance, US bond insurers started insuring riskier financial products in the years leading up to the global financial crisis, contributing to procyclicality in the financial system.

The correlated nature of mortgage insurance policies means that a severe downturn in the housing market and the economy would likely result in substantial claims on LMIs, potentially weakening their creditworthiness. Distress in the LMI sector could hinder the payment of claims to lenders, although the direct financial impact of this on the Australian banking system is unlikely to be substantial.

There could be more significant indirect effects from distress in the LMI sector. Without the ability to transfer credit risk to LMIs, some lenders may be reluctant to offer new mortgages with high LVRs, for example to first home buyers. Any such pull-back from providing housing credit would in turn affect the broader economy and confidence in the financial system. Confidence effects stemming from LMI distress could be exacerbated by the likelihood that it would occur in the context of a weak economy, when lenders would presumably be incurring significant losses in their non-housing loan portfolios. A further relevant factor is the structure of the LMI industry in a given market, including, for example, the degree of substitutability and barriers to entry for new players.

APRA's prudential settings take into account that an LMI's business is concentrated in correlated risks and is closely linked to the banking sector. To ensure they are resilient to the key tail risk they face (a very severe housing market downturn), Australian LMIs hold a substantial amount of capital against 'insurance concentration risk' (a component of their total capital requirement). Furthermore, APRA's stress-testing of Australian banks also considers their interconnections with LMIs. More broadly, like all general insurers, LMIs are subject to intensive supervision, including ongoing monitoring of risks and financial condition, scenario analysis and detailed on-site supervisory reviews, followed by supervisory responses where appropriate.

International Comparison of Mortgage Insurance

Mortgage insurance is available in many jurisdictions but extensively used in only a small number, including Australia, Canada, Hong Kong, the Netherlands and the United States. The structure of the mortgage insurance industry across these and other countries varies considerably and is affected by the domestic regulatory landscape and the extent of government participation in each jurisdiction (Table C1).

Regulatory arrangements can support the use of LMI. In a number of countries, insured mortgages have lower capital requirements, creating an incentive for banks to use mortgage insurance. In other cases, mortgage insurance is mandatory: for example, high-LVR mortgages originated by regulated deposit-taking institutions in Canada and Hong Kong, as well as those purchased by the government-sponsored enterprises in the United States, must be insured. In Australia, mortgage insurance is not mandatory, but APRA's prudential framework includes lower capital requirements for insured higher-risk mortgages of (smaller) deposit-taking institutions operating on the standardised approach to capital adequacy. Even though the (larger) deposit-taking institutions operating on the advanced approach to capital adequacy have quite limited capital incentives to do so, they still use insurance extensively for high-LVR mortgages, given the credit risk transfer and other benefits of LMI.[2]

2 The explicit regulatory incentive for Australian banks to use LMI has, to a significant extent, been reduced for banks approved to use internal models because APRA requires a minimum 20 per cent loss given default assumption in these models irrespective of LMI. This floor was imposed as a substitute for the limited downturn experience in Australia over the past few decades.

Table C1: Mortgage Insurance
Selected jurisdictions

	Australia	Canada	Hong Kong	New Zealand	The Netherlands	United Kingdom	United States
Extensive use of LMI	Yes	Yes	Yes	No	Yes	No	Yes
Government participation in LMI	No	Yes	Yes	Yes[a]	Yes[a]	No[b]	Yes[a]
Mortgages fully insured	Yes	Yes	No	Yes	Yes	No	No[c]
Mandatory for certain loans	No	Yes	Yes	No	No	No	Yes
Capital relief for insured loans	Yes[d]	Yes	Yes	Yes[d]	Yes	Yes	Yes

(a) 'Socially targeted' mortgage insurance
(b) The UK Government plans to insure up to 15 per cent of certain mortgages from January 2014
(c) Only the government insurer's policies typically cover the whole mortgage
(d) Smaller lenders have lower capital requirements on insured mortgages
Sources: Joint Forum; RBA; national sources

In those countries where mortgage insurance is used extensively, governments often participate in the mortgage insurance market in one form or another. The structure of the Australian LMI industry differs, however, in that the mortgage insurers are all privately owned and operate without government guarantees.[3] In Canada, the LMI industry consists of one large government-owned mortgage insurer and a number of smaller private LMIs, whose liabilities are largely guaranteed by the government. In the United States, the government owns one mortgage insurer which provides 'socially targeted' mortgage insurance, while mortgage insurance in the Netherlands is provided by a government guarantee to the lender.

Government financial support of the mortgage insurance industry can support social policy goals, for example by subsidising the provision of affordable housing credit for low-income households. These benefits must be balanced against the potential costs, including the cost to the taxpayer if the mortgage risk transferred from the financial sector's balance sheet results in significant losses. In addition, if mortgage insurance is subsidised and therefore under-priced, it could distort lending towards housing credit, particularly higher-risk mortgages.

3 The Australian Government exited the mortgage insurance market in the 1990s when it restructured and sold the Housing Loans Insurance Corporation. The corporation was established in the 1960s to help low-income earners to obtain housing finance by insuring lenders against the costs of mortgage defaults, and sought to fill a 'market gap' that existed at the time. The government's exit in the 1990s was justified on the grounds that, among others, the private sector had a demonstrated capacity to provide mortgage insurance and the government's continued involvement placed a financial burden on the public sector. For further information, see Housing Loans Insurance Corporation (Transfer of Pre-transfer Contracts) Bill 2006 and Housing Loans Insurance Corporation (Transfer of Assets and Abolition) Repeal Bill 2006, Explanatory Memorandum.

3. Business and Household Finances

The balance sheets of the domestic business and household sectors remain in good shape and there continue to be few signs of near-term risks to financial stability emanating from either of these sectors.

While conditions in the business sector are reported to be a little below average and business failure rates are higher than average, any potential risks that may arise from the sector are likely to be mitigated by the low level of gearing and limited appetite for taking on debt. This is also manifest in the continued, albeit gradual, improvement in banks' business loan performance. In the period ahead, market expectations are for profitability to pick up, while the depreciation of the Australian dollar since the beginning of the year should provide support to some trade-exposed sectors. Commercial property prices remain well supported by strong investor demand, although conditions appear to have softened in the commercial property leasing market.

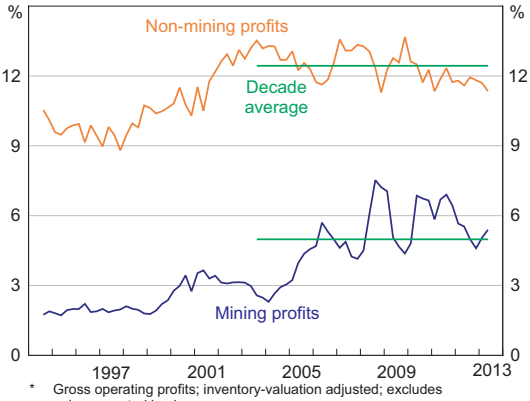
The household sector has continued to exhibit more prudence in managing its finances, with a higher rate of saving and slower credit growth having persisted for several years now. While household indebtedness and gearing remain around historically high levels, they look to have levelled out. In the low interest rate environment, many households have been paying down debt more quickly than required and indicators of financial stress are generally low. However, there are some signs that households are taking on more risk in their investment decisions, and the potential for a further increase in property gearing in self-managed superannuation funds (SMSFs) is a development that will be monitored closely by authorities for its implications both for risks to financial stability and consumer protection.

Business Sector

Business conditions and profitability

Overall conditions in the business sector have remained a little below average over the year to date, according to survey measures. Small improvements in conditions were, however, reported in some industries over this period including the business services and wholesale trade industries. The depreciation of the Australian dollar since the beginning of the year should also support some trade-exposed sectors in the period ahead. Aggregate profits of incorporated businesses increased by about 4½ per cent over the first half of 2013. This was largely driven by a 20 per cent increase in mining profits to a little above their decade average share of GDP, which was in line with rising commodity prices over the period (Graph 3.1). Despite this, mining profits remain 18 per cent below their recent peak in the

Graph 3.1
Business Profits*
Per cent to GDP



* Gross operating profits; inventory-valuation adjusted; excludes unincorporated businesses
Sources: ABS; RBA

September quarter 2011. Non-mining profits fell by around 1½ per cent over the six months to June, largely owing to lower profitability in the financial and business services, manufacturing and retail industries, which was only partly offset by an increase in profits in the construction, wholesale and property services industries. Analysts forecast that profitability will improve in 2013/14, with profits expected to grow by 14 per cent for the listed resources sector and 8 per cent for other listed non-financial companies.

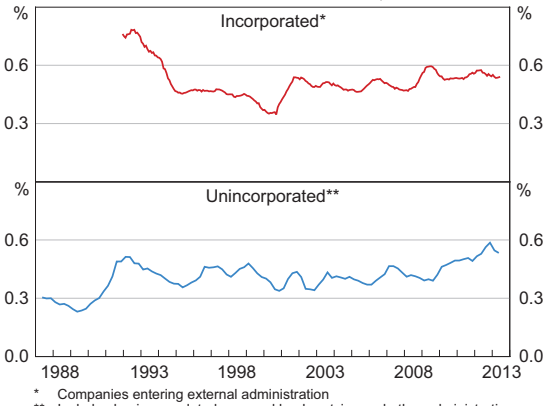
Reported conditions for smaller businesses are weaker on average than for larger businesses. Smaller businesses have increasingly cited economic conditions and a lack of work or sales as their main concerns over the past few years. Consistent with this, ABS data indicate that the increase in profits of unincorporated businesses was more modest than the increase in profits for incorporated businesses, at about 3½ per cent over the six months to June 2013.

In line with below-average business conditions, business failure rates remain above their decade average, where again the performance differs between incorporated and unincorporated businesses (Graph 3.2). While the failure rate among unincorporated businesses has declined slightly since the start of the year, it remains higher than its peak in the early 1990s in annual terms. The incorporated business failure rate has been reasonably stable for a few years and is well below its 1990s peak. By industry, incorporated business failures have been concentrated in construction and services. By state, business failure rates (both incorporated and unincorporated) have been highest in Queensland and New South Wales.

Financing and balance sheet position

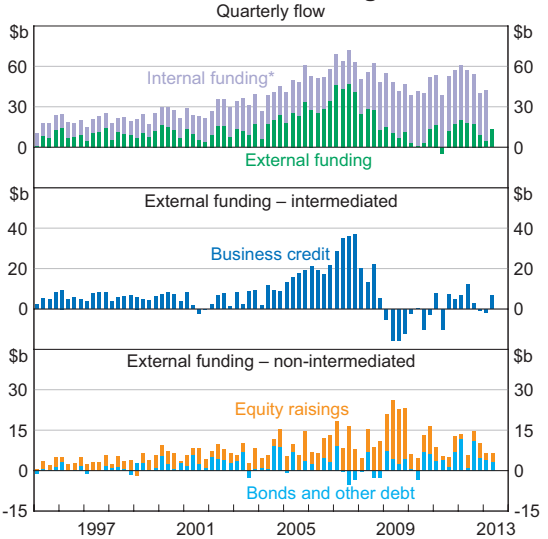
The flow of funding for businesses appears to have picked up a little since the end of last year, but is not as strong as at the beginning of 2012. There has been a small increase in external funding and some change in its composition over the past six months, although, overall, businesses still appear to have little appetite for taking on more debt (Graph 3.3). Bond funding has declined in the past half year after a period of stronger issuance in 2012. By contrast, business credit growth has picked up a little since the start of the year, to be 2½ per cent in annualised terms over the six months to July. Growth has been apparent for both incorporated and unincorporated businesses, consistent with a decline in average interest rates for large and small business lending (Graph 3.4). While part of the growth in business

Graph 3.2
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

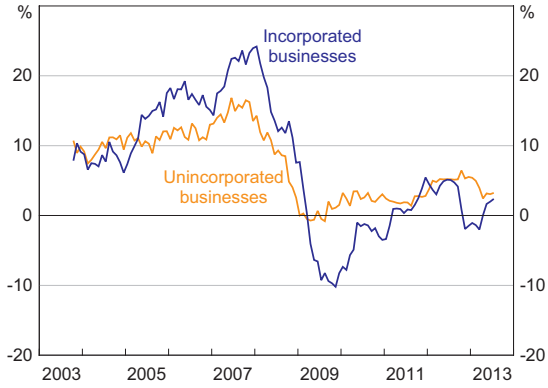
Graph 3.3
Business Funding
Quarterly flow



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

credit was a result of foreign currency valuation effects stemming from the depreciation of the Australian dollar over the period, the growth is also consistent with suggestions from liaison with businesses that access to credit has generally improved over the past year. Banks are, however, reportedly still cautious about lending to property construction and mining-related companies. Despite the pick-up, growth in business credit is still quite subdued compared with nominal GDP growth or past experience.

Graph 3.4
Business Credit*
Six-month annualised growth

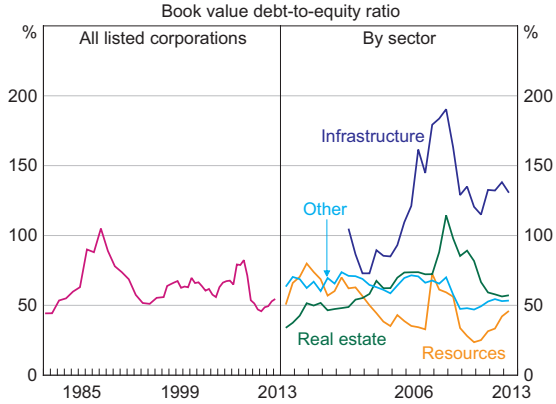


* Excludes securitised loans
Sources: APRA; RBA

Equity raising activity by listed companies generally remains subdued, despite increases in share prices across most sectors since the beginning of the year. An exception is that some real estate investment trusts have raised equity to fund expansions amid increased competition from foreign investors in Australian commercial property.

Despite some increase in debt funding and low equity raising activity, business gearing remains fairly low (Graph 3.5). Preliminary data indicate that the book value debt-to-equity ratio for listed non-financial corporations increased slightly over the six months to June 2013. The increase was largely driven by higher gearing in the resources sector, which was partially offset by a fall in gearing in the infrastructure sector. Methods of funding new infrastructure are currently receiving considerable

Graph 3.5
Listed Corporations' Gearing*
Book value debt-to-equity ratio



* Excludes foreign-domiciled companies; final observations are estimates based on a matched sample of companies that have reported to date
Sources: Bloomberg; Morningstar; RBA; Statex

attention, including from the G20.[1] Infrastructure funding involves some risks specific to the nature of the investment, partly due to the large scale of projects and potential uncertainty regarding the cash flow that new infrastructure assets will earn once completed. The typically high leverage of infrastructure corporations exacerbates these risks.

Preliminary data suggest that net interest payments as a per cent of profits for listed non-financial companies fell over the past six months, in line with recent falls in interest rates and higher profitability for some sectors. The fall was driven by the resources sector and, to a lesser extent, the real estate sector. While the distribution of the net interest payment ratio for listed companies remains wide, it has narrowed over the past two years. Many of the companies with the highest ratios are in the resources, real estate and manufacturing sectors, and are companies that generally have high gearing levels and below-average earnings.

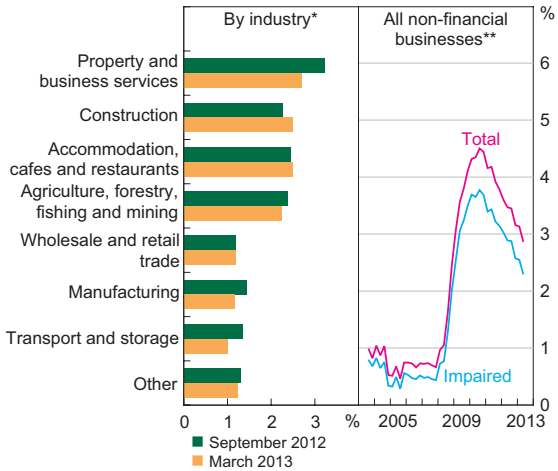
Loan performance

Although business conditions remain a little below average levels, banks' business loan performance has continued to improve. As discussed in 'The Australian Financial System' chapter, the share

1 For further details, see Chong S and E Poole (2013), 'Financing Infrastructure: A Spectrum of Country Approaches', RBA *Bulletin*, September, pp 65–76.

of banks' business loans that is non-performing has continued to decrease over the six months to June (Graph 3.6). Data from the major banks indicate that a decline in non-performing asset ratios was seen across a number of industries, with the largest declines for the property and business services (including commercial property, discussed in more detail below), transport and storage, and manufacturing industries. For some of these industries, the decline in non-performing assets was partly driven by write-offs that were previously provisioned for and for which the loss was therefore incurred in an earlier period.

Graph 3.6
Banks' Non-performing Business Assets



* Major banks; consolidated global operations; share of industry exposures; December 2012 and June 2013 for CBA
** All banks; domestic books; share of loans, bills and debt securities
Sources: APRA; RBA; banks' Pillar 3 reports

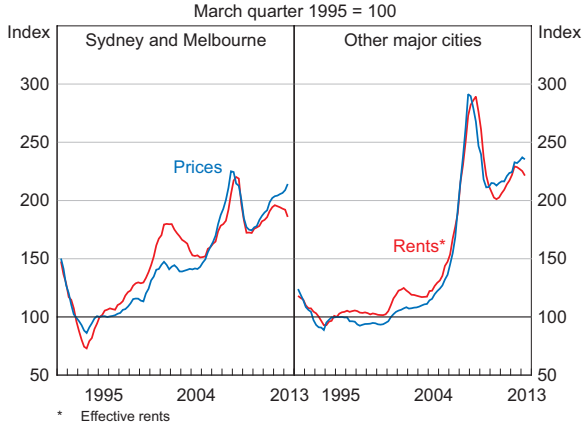
Commercial Property

The weaker than average operating environment experienced by some businesses is also observable in the commercial property sector, to which the banking system has considerable exposure. Commercial leasing markets continued to soften over early 2013 with CBD office and retail rents declining. The fall in CBD office rents reflected greater lease incentives, the average value of which is now higher, as a share of contractual rents, than its previous peak in late 2010. The CBD office vacancy rate has also continued to increase, driven by weaker demand for office space from resource companies and some state governments, as well as some earlier large supply additions, particularly in Brisbane and Perth. In the near term, only modest supply additions are expected as private non-residential building activity has remained subdued.

Despite the softening in leasing conditions, commercial property prices have continued to rise quite strongly. CBD office prices and rents typically move in line with each other, but over the past 18 months there has been some divergence, particularly in Sydney and Melbourne (Graph 3.7). This divergence may reflect increased demand for Australian commercial property from both foreign and domestic investors, possibly driven by a 'search for yield'. While yields on Australian office property have been trending down, they are nonetheless high compared with major overseas markets and also relative to domestic investments (Graph 3.8).

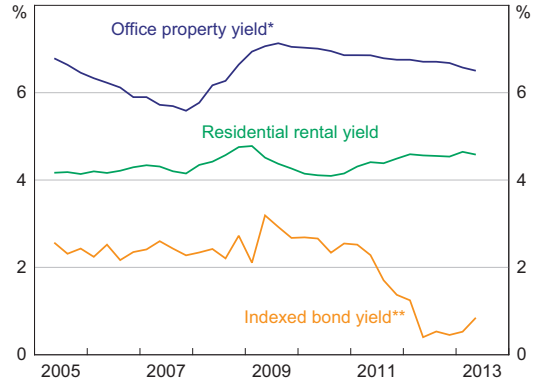
Over the past few years, the impairment rate on banks' commercial property exposures has declined substantially, driven by sales, write-offs and curings (improvements in loan quality). While the impairment rate remains above that for business lending in total, the spread between the two continues to narrow. Over the past two years,

Graph 3.7
CBD Office Property
March quarter 1995 = 100



* Effective rents
Sources: Jones Lang LaSalle Research; Property Council of Australia; RBA

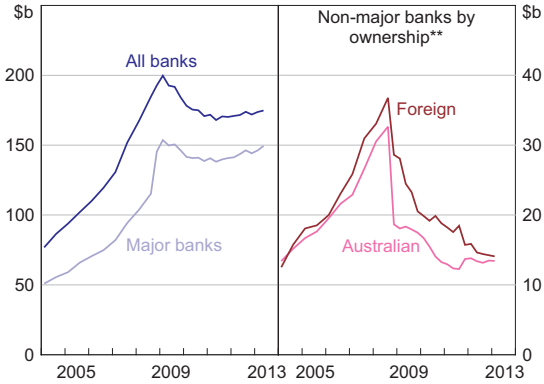
Graph 3.8
Property and Bond Yields



* Yields on premium office property
** 10-year inflation-indexed Treasury bond
Sources: Jones Lang LaSalle Research; Property Council of Australia; RBA

banks' exposures to commercial property have grown modestly, though they remain below their 2009 peak (Graph 3.9). Most of the growth has come from major banks. Within foreign banks, exposures of Asian-owned banks have also continued their increase since 2010, with bank liaison indicating they have been competing strongly in the syndicated loan market (which includes property-related loans). By contrast, exposures of European banks have fallen considerably since their peak in 2008, partly due to the sale and write-off of non-performing exposures.

Graph 3.9
Banks' Commercial Property Exposures*
Consolidated Australian operations



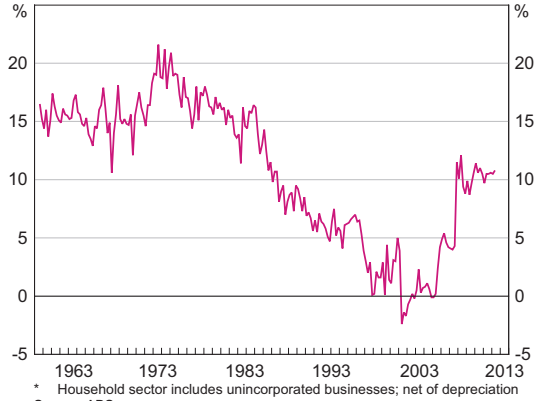
* Quarterly from September 2008; some banks report only on a semiannual basis
** Final observation is for March 2013
Source: APRA

Household Sector

Saving and borrowing behaviour

There has been little change in the financial position of the household sector throughout 2013 to date, with households continuing to exhibit more prudent management of their finances than a decade ago. Around the mid 2000s a marked shift commenced in households' attitudes, stemming from factors such as the end of the transition to a low inflation environment and a deregulated financial sector, as well as the subsequent reaction to the global financial crisis. This shift may have been reinforced more recently by concerns about the economic outlook, given that the unemployment rate has risen and economic growth is below trend. Consistent with this, the household saving ratio remains around 11 per cent, in contrast to the downward trend from the mid 1980s to mid 2000s (Graph 3.10).

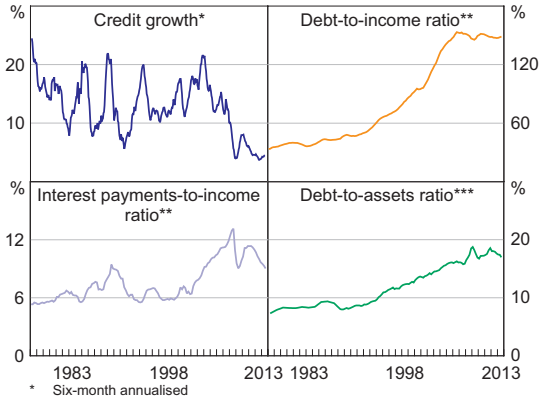
Graph 3.10
Household Saving*
Per cent of household disposable income



* Household sector includes unincorporated businesses; net of depreciation
Source: ABS

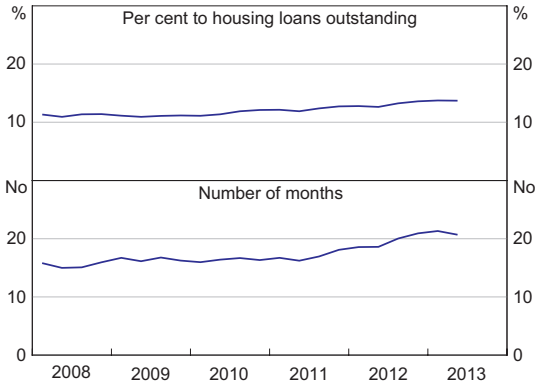
Households' more prudent approach to their finances has also been evident in their reduced appetite for debt. Household credit grew by around 4½ per cent over the six months to July in annualised terms (Graph 3.11). With household credit growth broadly matching the recent pace of income growth, the debt-to-income ratio has remained steady at slightly below 150 per cent.

Graph 3.11
Household Indebtedness



* Six-month annualised
** RBA estimates for September quarter 2013
*** RBA estimates for June and September quarters 2013
Sources: ABS; APRA; RBA; RP Data-Rismark

Graph 3.12
Mortgage Repayment Buffers*



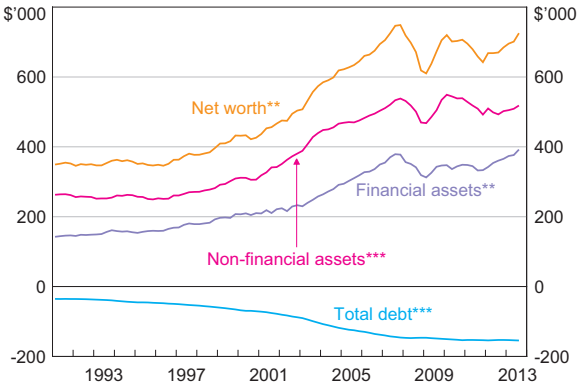
* Data are backcast before December 2010 to adjust for a reporting change by one bank
Sources: APRA; RBA

The further decline in interest rates over the past six months, particularly for housing loans, has reduced the proportion of disposable income required to meet household interest payments. It has also meant that many households have continued to pay down their mortgages more quickly than required, which has contributed to the slower pace of credit growth. For example, anecdotal evidence suggests that around half of households have not reduced their regular mortgage payments as interest rates have fallen.[2] Mortgage buffers – that is, balances in mortgage offset and redraw facilities – remain near their highs since the series began in 2008, at 14 per cent to outstanding mortgage balances, equivalent to around 21 months of total scheduled repayments at current interest rates (Graph 3.12). Together, these data suggest that many households have the resources to continue to meet their debt obligations even during a transitory period of unemployment or reduced income. Nevertheless, given that household indebtedness and gearing are still around historically high levels, continued prudent saving and borrowing behaviour would help support households' ongoing financial resilience.

Wealth and investment preferences

Real net worth per household rose by an estimated 8½ per cent over the year to September 2013, though it remains 3 per cent below its 2007 peak (Graph 3.13). This recovery has largely been led by growth in households' financial assets, on the back of net inflows into superannuation and rising share prices. There has also been an increase in the value of dwelling assets, with the average (nominal) dwelling price rising by 7 per cent since its May 2012 trough.

Graph 3.13
Real Household Wealth and Debt*
Per household

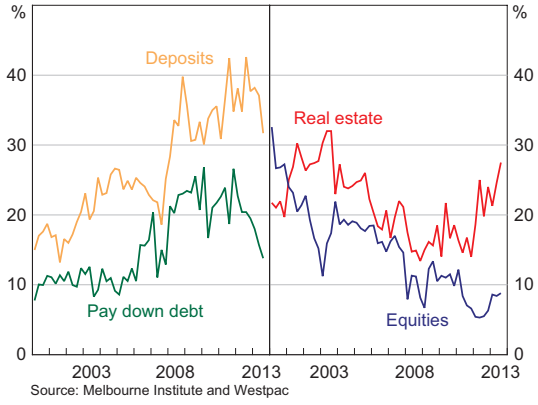


* In 2010/11 dollars; deflated using the household final consumption expenditure implicit price deflator; household debt excludes the debt of unincorporated businesses
** RBA estimates for June and September quarters 2013
*** RBA estimates for September quarter 2013
Sources: ABS; RBA; RP Data-Rismark

2 For a more detailed discussion on mortgage prepayments, see Thurner M-O and A Dwyer (2013), 'Partial Mortgage Prepayments and Housing Credit Growth', RBA *Bulletin*, September, pp 31–38.

Some signs are emerging that the low interest rate environment and recovery in asset prices have encouraged a slight shift in household preferences towards riskier investments. Survey data suggest that over the past year or so, the share of households that believe that paying down debt is the 'wisest' use of their savings has decreased, while the share favouring equities has increased, though it still remains quite low at around 9 per cent (Graph 3.14). While increased financial risk-taking is an expected outcome of lower interest rates, it is important that households understand, and appropriately account for, the financial risks they take.

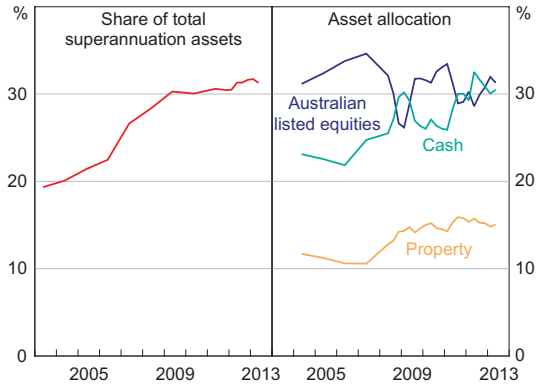
Graph 3.14
Wisest Place to Save
Share of respondents



Source: Melbourne Institute and Westpac

An avenue through which households may be taking more risk is in the management of their superannuation assets. Over the past decade, there has been a sizeable movement of assets into SMSFs from other fund types; the number of SMSFs has roughly doubled over this period and the sector now accounts for almost one-third of the $1.6 trillion in superannuation industry assets in Australia (Graph 3.15). SMSFs allocate a relatively large share of their assets (15 per cent) to direct property holdings (both commercial and residential); this share has increased over the past six years, partly driven by legislative changes that have allowed superannuation funds to borrow under limited recourse conditions (see 'Box D: Self-managed Superannuation Funds' for more details).

Graph 3.15
Self-managed Superannuation Assets*



* ATO estimates
Sources: APRA; ATO

One risk of the increase in property investment by SMSFs is that at least some of it is a new source of demand that could potentially exacerbate property price cycles. It also raises consumer protection concerns in the event SMSF members are exposed to greater financial risks than they envisage. An Australian Securities and Investments Commission (ASIC) report, released in April, identified that while most advice given to individuals about SMSFs was of good quality, there were pockets of poor advice, particularly related to geared residential property investment. In response, ASIC has expanded the information on its MoneySmart website to highlight the rules, costs and relevant considerations around SMSFs and residential property investment. It has also recently released a consultation paper that sets out proposals to impose disclosure requirements on advisers, including on matters that may influence an individual's decision about whether to set up an SMSF.[3] In addition, ASIC commissioned research to examine the minimum cost-effective balance for an individual to set up an SMSF and is also proposing to provide guidance that advisers inform individuals of the costs associated with having an SMSF.[4]

3 For further details, see ASIC (2013), 'Advice on Self-managed Superannuation Funds: Specific Disclosure Requirements and SMSF Costs', Consultation Paper 216, September.

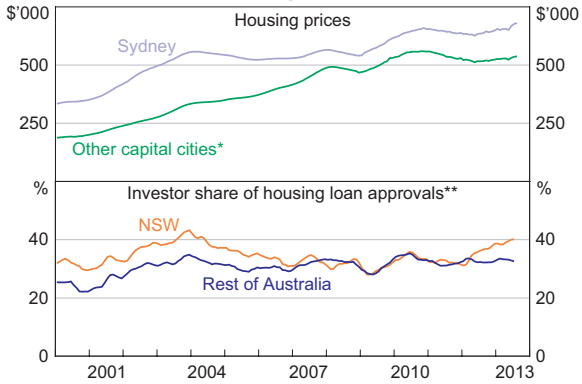
4 For further details, see Rice Warner (2013), 'Costs of Operating SMSFs', ASIC, May.

There is also evidence that SMSFs have been a large part of the recent demand by retail investors for the non-common equity capital being issued by banks, as well as hybrid securities more generally. These instruments attract a high yield as they combine features of debt and equity, and are also quite complex products that carry higher risk than more traditional debt securities. It is therefore important that these risks are adequately communicated to, and understood by, the purchasers of these products.

For the financial system, the direct near-term risks arising from lending to SMSFs are likely to be small. Despite overall lending to SMSFs having grown strongly for several years, it still accounts for a small share of overall bank lending. In addition, any increased risks to banks posed by limited recourse arrangements are largely offset by their frequent requirements for personal guarantees from SMSF members; minimum fund net asset requirements; and lower maximum loan-to-valuation ratios (LVRs) than often imposed on other property lending. In any case, the rapid growth of the sector warrants ongoing monitoring, and it is important that banks maintain sound lending standards and practices.

In addition to SMSFs, there has been a broader increase in residential property market activity over the past year or so. The increase in investor activity in New South Wales appears to have been particularly sharp; investor housing loan approvals now account for around 40 per cent of the value of loan approvals in the state, a share last recorded in 2004, although some of this no doubt reflects a decline in first home buyer activity (Graph 3.16). The increase in investor activity has been associated with a recent pick-up in Sydney housing price growth and reports of sale prices exceeding price guidance and valuations by wide margins. An increase in housing market activity more generally is not surprising given reductions in interest rates. However, it is important that those purchasing property maintain realistic expectations of future dwelling price growth; in contrast to the decades leading up to the crisis – when dwelling prices grew rapidly in response to disinflation and financial deregulation – long-run future growth in dwelling prices might be expected to be more in line with income growth.

Graph 3.16
Housing Market



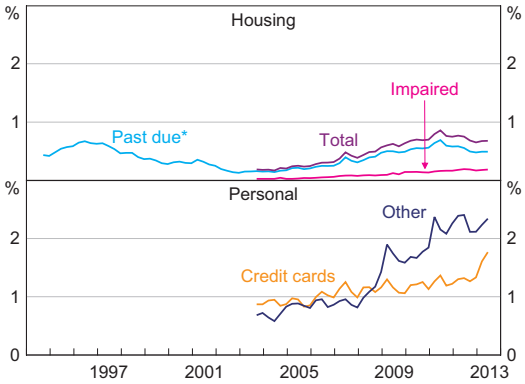
* Weighted by dwelling stock
** Three-month moving average; excludes construction, includes refinancing
Sources: ABS; RBA; RP Data-Rismark

Loan performance and other indicators of household financial stress

Despite somewhat subdued labour market conditions, with the unemployment rate continuing to gradually trend up over 2013 to date, aggregate indicators of household financial stress generally remain low. The non-performing share of banks' housing loans – loans that are past due or impaired – has been fairly steady since September 2012, at around 0.7 per cent (about 0.2 percentage points lower than its peak in mid 2011) (Graph 3.17). A number of banks indicated in liaison that housing loan performance is also likely to be broadly steady over the coming year. Any further improvement in housing loan performance is likely to depend on labour market performance: indicators of labour demand have continued to decline over recent months and are consistent with only modest employment growth in the near term.

The non-performance rates on banks' credit card and other personal loans, which are inherently more risky and less likely to be secured than housing loans, have broadly trended upwards, especially since 2008. While it cannot be ruled out that the increase in these non-performance rates signals an increase in household financial stress, there have also been some

Graph 3.17
Banks' Non-performing Household Assets
Share of loans by type

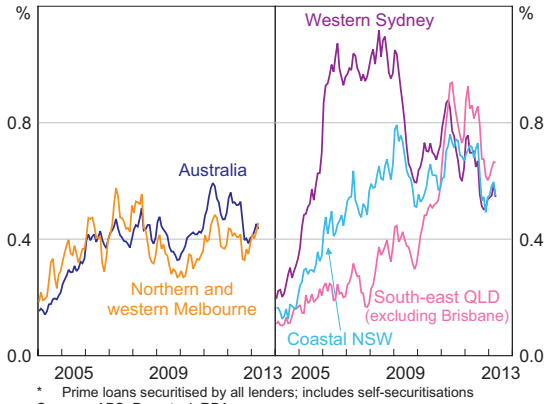


* 90+ days but well secured
Sources: APRA; RBA

changes in the composition of personal lending that may have contributed to the higher rates of non-performance. Regardless, these loan types account for a small share of total household credit.

At a more disaggregated level, data on securitised housing loans suggest that arrears rates have fallen in all mainland states since peaking in mid 2011, despite a small uptick in recent months. This fall has been driven by the regions that previously had quite high arrears, including parts of south-east Queensland and coastal New South Wales (which had experienced large dwelling price falls and weak economic conditions associated with the subdued tourism sector), as well as western Sydney (Graph 3.18). More recently, there have been some regions where arrears rates have increased. For example, as foreshadowed in the September 2012 *Review*, arrears rates in parts of Melbourne appear to have increased recently, albeit from low levels. Arrears rates also remain elevated in Hobart, reflecting weakness in both the labour and housing markets. More generally, loans that were originated during earlier periods of localised rapid dwelling price growth and above-average construction activity continue to account for a disproportionate share of loans currently in arrears. Encouragingly, the loan performance of more recent cohorts has tended to be better than that of earlier cohorts at the same loan age.

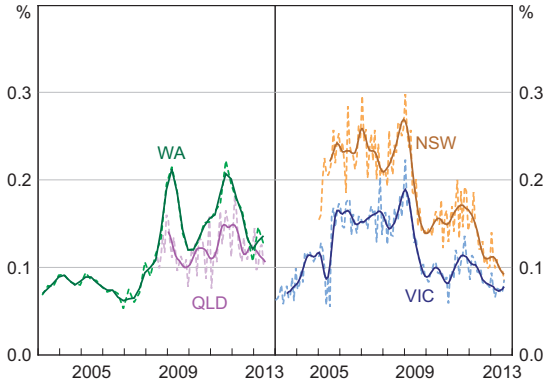
Graph 3.18
Securitised Housing Loan Arrears by Region*
90+ days in arrears, share of housing loans



* Prime loans securitised by all lenders; includes self-securitisations
Sources: ABS; Perpetual; RBA

Other indicators of household financial stress are broadly consistent with the generally low level of housing loan arrears rates. In the states for which data are available, the number of court applications for property possession has been lower in 2013 to date than in the corresponding period of 2012 (Graph 3.19). The number of non-business related personal administrations – bankruptcies, debt agreements and personal insolvency agreements – was also lower in the first half of 2013 than in the first half of 2012.

Graph 3.19
Applications for Property Possession*
Share of dwelling stock, annualised



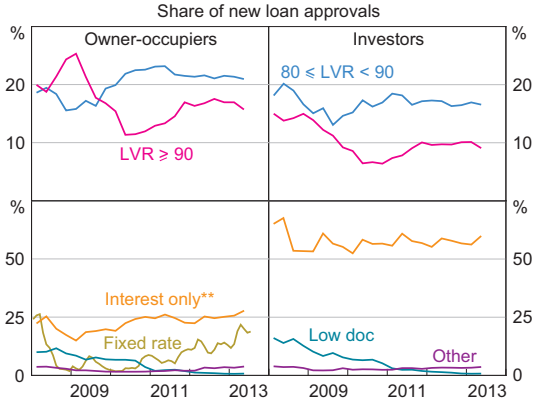
* Includes applications for some commercial properties; solid lines are 13-period Henderson trends, except for Western Australia, which is a 5-period trend
Sources: ABS; RBA; state supreme courts

Lending standards

Data on the characteristics of housing loan approvals suggest that banks have broadly maintained their lending standards since late 2011. The aggregate share of the value of banks' housing loan approvals with high LVRs (that is, above 90 per cent) increased throughout the second half of 2010 and 2011, but has been fairly steady since then (Graph 3.20). The distribution of the high-LVR share of loan approvals across individual banks also remains quite narrow and has shifted down since 2009, especially the upper end of the distribution (Graph 3.21). Looking across a wider range of financial institutions (that is, including credit unions and building societies) suggests that the share of high-LVR loan approvals may still be broadly trending upwards at some smaller institutions.

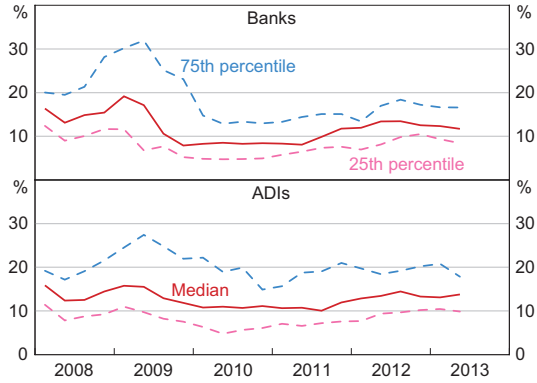
The interest-only share of housing loan approvals appears high at a little under 40 per cent, though these loans can include features that encourage the building of mortgage buffers, such as redraw and offset facilities. The share of housing loan approvals classified as low doc was unchanged in the first half of 2013 at less than 1 per cent of housing loan approvals.

Graph 3.20
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: ABS; APRA; RBA

Graph 3.21
Distribution of High-LVR Share of Housing Loan Approvals*



* Loans with LVR ≥ 90 per cent
Source: APRA

The low level of interest rates and the generally favourable pricing of fixed rates compared with variable rates have contributed to a sharp increase in the share of owner-occupier housing loans approved at fixed rates (from around 9 per cent, by value, in July 2012 to 19 per cent in July 2013). While fixed-rate loans insulate borrowers from interest rate increases during the fixed-rate period, they may be exposed to an increase in their mortgage payments when their fixed-rate period ends (especially if mortgage rates rise by more than expected). However, the risk to households may be limited by the practice of some banks increasing the interest rate add-ons they use to assess debt serviceability in the low interest rate environment. Another characteristic of fixed-rate loans is that, unlike most variable-rate loans, prepayments are often capped or discouraged; as a consequence, these loans may amortise more slowly than variable-rate loans. The increased tendency for owner-occupier borrowers to take out split loans (that is, with fixed- and variable-rate portions), which at least allow prepayment of the variable-rate portion, mitigates this.

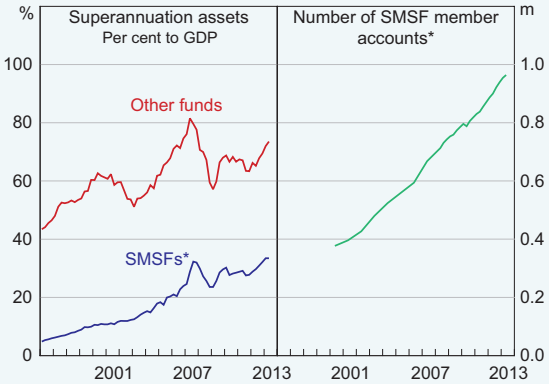
Information on non-conforming housing loans – the closest Australian equivalent to US subprime loans – suggests that activity in this market has picked up a little over the past year. According to data from Standard & Poor's, the outstanding value of non-conforming securitised housing loans has roughly doubled since its trough in April 2012, though it remains a very small share of total housing lending (at an estimated 0.2 per cent of housing credit in July). Some non-ADIs have recently issued non-conforming residential mortgage-backed securities, while another non-ADI has announced plans to resume non-conforming lending after leaving this market in 2008. Financial stability risks posed by non-conforming lending remain limited so long as it remains a small share of total housing lending, consistent with the underlying narrow scope for prudent lending to households with blemished credit histories.

Box D

Self-managed Superannuation Funds

Self-managed superannuation funds (SMSFs) are the fastest-growing segment of the Australian superannuation industry. In June 2013, SMSFs held around $500 billion in assets, accounting for almost one-third of the $1.6 trillion in total Australian superannuation industry assets, up from 9 per cent in 1995; this is equivalent to a little over 30 per cent relative to GDP (Graph D1). The number of SMSF member accounts has also increased rapidly, having doubled over the past decade.

Graph D1
Self-managed Superannuation Funds' Assets and Members



* ATO estimates
Sources: ABS; APRA; ATO

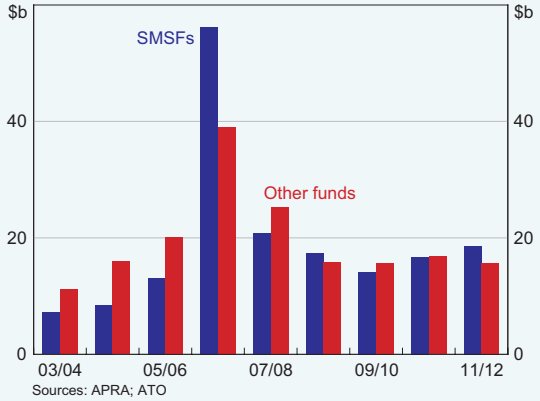
A range of legislative changes has supported the strong growth in superannuation, particularly in the SMSF sector, over the past decade.

- The 'Choice of Fund' legislation introduced in July 2005 allows individuals to choose which superannuation fund, including an SMSF, their employer's superannuation guarantee contributions are paid into.
- The 'Simplified Superannuation' legislation that came into effect in July 2007 eliminated the tax payable on retirement benefits from superannuation funds for members aged 60 years and over. The legislation also introduced a cap on after-tax superannuation contributions (set at $150 000, above which contributions are taxed at the top marginal tax rate), though in a transitional period, between May 2006 and July 2007, individuals were allowed to make up to $1 million in after-tax contributions. Accordingly, there was a sharp increase in member contributions to SMSFs in 2006/07, and an associated shift of assets into the sector (Graph D2).
- Legislative changes have increased the accessibility and attractiveness of property investment via an SMSF (discussed in more detail below), which may have encouraged some, particularly younger, individuals to set up SMSFs. A 2013 survey by research company Investment Trends found that younger and newer members of SMSFs were more likely than other members to cite investing in real property and borrowing within superannuation as reasons for establishing an SMSF.[1] More recently, there has also been increased promotion of SMSFs, including of their use for geared property investment.

More generally, a desire for more control over investments has motivated many individuals to set up SMSFs. This is likely to have been even more important since the global financial crisis; the Investment Trends survey noted that concerns about the performance of existing funds and cost savings were frequently cited as reasons for the establishment of SMSFs in recent years.

1 Investment Trends April 2013 *SMSF Investor Report*, based on a survey of 1927 SMSF trustees.

Graph D2
Member Contributions to Superannuation Funds



Sources: APRA; ATO

The profile of SMSF members is quite different from that of members of other funds: SMSF members are on average older, and have significantly higher incomes and larger superannuation balances (Table D1). This is likely due in part to the fixed costs involved in setting up and managing an SMSF, which become relatively less important as the fund balance increases. However, the profile of SMSF members has changed considerably, at least over the short period for which data are available, with younger individuals increasingly setting up SMSFs (Graph D3).

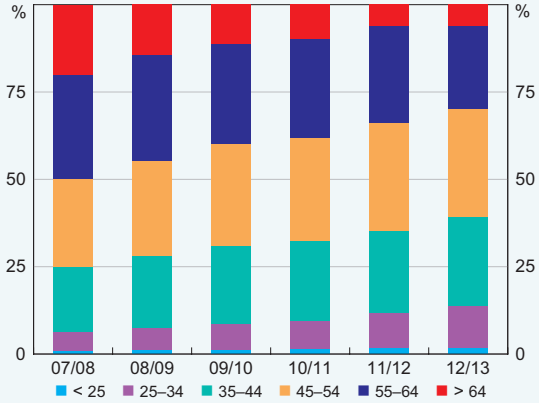
The allocation of SMSFs' assets is, on average, markedly different from that of other superannuation funds (Graph D4). As is the case for other fund types, domestic equities are the most popular investment choice for SMSFs, accounting for around one-third of their assets. However, SMSFs hold a much smaller share of their assets in foreign equities; their direct holdings of foreign equities are negligible and their total exposure to the asset class (mainly through managed funds) is also likely to be quite small compared with other funds. SMSFs also hold less debt securities, instead holding a much higher share of their assets in cash (including deposits). The asset allocation of SMSFs appears partly reflective of the high percentage of members who are in, or near, retirement. It also likely reflects the ease for an individual of investing in cash and term deposits over debt securities; this factor also probably contributes to the low allocation towards foreign

Table D1: Characteristics of Superannuation Funds

	Share of industry assets[a]	Average account balance[b]	Share of members aged 50 and over[c]	Taxable income of members[d]	
	Per cent	$'000	Per cent	Median ($'000)	Average ($'000)
SMSFs	31	486.6	76	50.7	98.5
Other funds	69[e]	29.6	26	43.5	54.0
Corporate	4	101.8	26	–	–
Industry	20	22.9	19	–	–
Public Sector	16	66.1	42	–	–
Retail	26	24.1	28	–	–

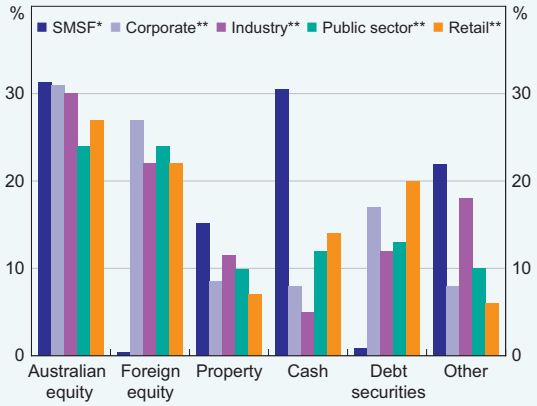
(a) As at 30 June 2013; APRA and ATO estimates
(b) As at 30 June 2012
(c) SMSFs as at 30 June 2011; other funds as at 30 June 2012
(d) ATO estimates as at 30 June 2012, based on 2011 SMSF annual returns and member contribution statements for other funds
(e) Includes small APRA funds and balance of life office statutory funds
Sources: APRA; ATO

Graph D3
Age Distribution of Members*
Share of members of newly established SMSFs



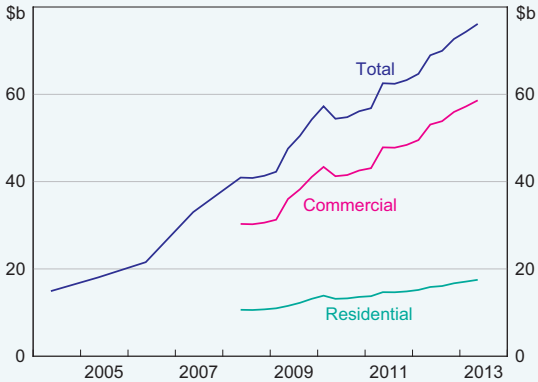
* Estimates for 2011/12 and 2012/13 based on reported quarterly data
Source: ATO

Graph D4
Superannuation Assets by Fund Type
Share of assets by value



* ATO estimates as at June 2013; direct holdings only except for the 'Other' category, which is predominantly in listed and unlisted trusts and other managed investments; likely to exclude purchases under limited recourse arrangements for some assets
** Allocation of default strategies as at June 2012; direct and indirect holdings
Sources: APRA; ATO

Graph D5
SMSF Direct Property Holdings*



* ATO estimates; likely to exclude some property purchased under limited recourse arrangements
Source: ATO

equities. More recently, there are tentative signs that SMSFs are moving some of their assets out of cash and into higher-yielding assets. For example, most of the $18 billion in hybrid issuance between November 2011 and June 2013 was bought by retail investors, mainly SMSFs, according to research by Investment Trends.[2]

SMSFs also hold a relatively large share of their assets in property. Direct property holdings account for around 15 per cent of SMSF assets and SMSFs are also likely to have a small share of indirect property holdings through trusts and managed funds (represented by the 'Other' category in Graph D4). The bulk of these holdings are in commercial property (77 per cent), likely due to a range of incentives for small businesses to hold property through an SMSF (Graph D5). In particular, a small business owner is able to transfer their business property (and other business assets) into their SMSF and receive a capital gains tax exemption up to a lifetime limit of $0.5 million. Once the property is in the fund, the fund can lease the property to the business owner at a commercial rate and the rent paid by the business owner can be claimed as a business expense, reducing the taxable profit of the business. By contrast, SMSFs' direct holdings of residential property are relatively small (23 per cent of their total direct property holdings).

The share of property assets held by SMSFs has increased over the past six years, partly driven by changes to superannuation legislation that have made direct property investment both more appealing and more accessible to SMSFs.

2 Investment Trends November 2012 *Investor Product Needs Report*.

- The 'Simplified Superannuation' legislation increased the relative appeal of directing property investment through an SMSF (and also added to the incentives for some small businesses to shift their business property into a fund), because any property-related retirement benefits would be tax free for members over 60 years of age.[3]
- In September 2007, changes to the superannuation legislation allowed funds to borrow money to purchase assets under limited recourse conditions (that is, in the event of borrower default, the lender only has the right to recover losses from these assets). Prior to this, superannuation funds were not permitted to borrow money for investment, which limited the ability of SMSFs to directly invest in property.
- In July 2010, the rules around limited recourse borrowing were clarified. Protection of other assets in the fund was also strengthened: each loan was restricted to a 'single acquirable asset', and the rules explicitly ensured that SMSF members who give personal guarantees on the loan (a frequent requirement imposed by lenders) cannot recover losses out of the fund's other assets if the guarantee is invoked.

These legislative factors, and the growing number of individuals setting up SMSFs as a vehicle to invest in property, are contributing to the momentum in geared property investment through SMSFs.

3 Property-related retirement benefits include: proceeds from the sale of property; the transfer of property to a member as a non-cash benefit; and rent earned from a property that remains in the fund.

4. Developments in the Financial System Architecture

Reports to the G20 Leaders' Summit in early September highlighted that international financial regulatory reform work had advanced substantially but was not yet complete. The Financial Stability Board (FSB), the main body coordinating these reform efforts, considered that global policy development was generally on track with agreed time frames, but that some jurisdictions were facing difficulties in meeting implementation objectives and time lines. Accordingly, international regulatory efforts are increasingly focused on implementing reforms across a range of areas, including: addressing the 'too big to fail' problem arising from systemically important financial institutions (SIFIs); reducing the risks posed by the shadow banking system; limiting the scope for contagion arising from over-the-counter (OTC) derivatives markets; and strengthening prudential regulatory standards through the Basel III banking reforms.[1]

In Australia, recent implementation actions across these reform areas include steps taken by the Australian Prudential Regulation Authority (APRA), the Australian Securities and Investments Commission (ASIC) and the Reserve Bank around OTC derivatives market reforms relating to trade repositories and central clearing. APRA has also progressed further on Basel III reforms, including issuing a revised draft liquidity standard to implement key elements of the Basel III liquidity framework in Australia.

1 For further details, see Schwartz C (2013), 'G20 Financial Regulatory Reforms and Australia', RBA *Bulletin*, September, pp 77–85.

International Regulatory Developments and Australia

Systemically important financial institutions

The FSB's policy framework to reduce the probability and impact of SIFIs failing has continued to be a focus of international regulatory reform efforts. As discussed in previous *Reviews*, key elements of the framework include additional loss absorbency requirements for SIFIs, more intensive supervision and enhanced powers to resolve them if they should fail. Implementation of policies in these areas, as well as their refinement, has progressed in recent months.

In its report to the G20 Leaders, however, the FSB identified cross-border crisis management preparation as an area where implementation is not making adequate progress. This finding reflected a peer review on resolution regimes, released in April, which concluded that despite reforms undertaken to date, implementation of the FSB's *Key Attributes of Effective Resolution Regimes for Financial Institutions* (the *Key Attributes*) – the new standard on resolution arrangements – is still at an early stage. The report considered that legislative action is necessary in some FSB jurisdictions to fully align resolution regimes with the *Key Attributes*. In addition to cross-border crisis management, areas noted for particular attention included providing authorities with powers to: write down the liabilities of a failing institution or convert them to equity ('bail-in'); impose a temporary stay on the exercise of financial contracts; resolve the parent company or affiliates of a failed institution; and

resolve non-bank institutions that could be systemic upon failure, such as central counterparties (CCPs) and other financial market infrastructures (FMIs). Legislative amendments are also necessary in many countries to enhance cross-border cooperation during resolution, especially to allow for the effective sharing of confidential information.

To assist authorities in implementing the *Key Attributes* in these and other areas, the FSB is currently consulting on:

- further guidance as to how the *Key Attributes* can be applied to FMIs (such as CCPs, central securities depositories and securities settlement systems), insurers and firms that hold client assets
- an assessment methodology to assist national authorities and international organisations to determine compliance with the *Key Attributes* (this will enable the *Key Attributes* to be used, *inter alia*, in Financial Sector Assessment Program reviews by the International Monetary Fund and World Bank)
- principles for sharing confidential information across borders for the purpose of resolving internationally active banks.

These steps will complement finalised guidance, released by the FSB in July, on recovery and resolution planning. The guidance, which incorporates feedback from an earlier consultation, aims to help authorities and firms implement the recovery and resolution planning requirements in the *Key Attributes*. Guidance was issued in three areas: developing effective resolution strategies; identifying critical functions and critical shared services; and designing recovery triggers and stress scenarios. The FSB's work on resolution has been supported by input from standard-setting bodies to develop sector-specific resolution guidance. This input is continuing, especially by the Committee on Payment and Settlement Systems (CPSS) and the International Organization of Securities Commissions (IOSCO) in the area of formulating standards for FMI resolution regimes.

At their meeting in September, the G20 Leaders announced that the FSB, in consultation with standard-setting bodies, will, by the end of 2014, assess and develop proposals on the adequacy of global SIFIs' (G-SIFIs') 'gone concern loss absorbing capacity' (GLAC) in resolution. Depending on its group structure and the nature of its cross-border operations in multiple countries, the resolution of a G-SIFI may entail regulatory action at the top of the group and/or on multiple entities in different jurisdictions within the group. Given this, the FSB will develop proposals on the nature, amount, location within the group structure, and possible disclosure of GLAC. This measure is intended to increase the amount of loss absorbency available during a recapitalisation and also to promote market confidence in the effectiveness of authorities' resolution strategies.

Work on the assessment and designation of SIFIs has continued in recent months, in particular in the area of G-SIFIs. In July, the Basel Committee on Banking Supervision (BCBS) released an updated methodology for identifying global systemically important banks (G-SIBs), which adjusted the framework for technical issues raised during the initial designations of G-SIBs. The BCBS is also bringing forward by one year (to November 2013) its disclosure of specific quantitative elements of the framework, which will allow banks to calculate their scores and see their positions within the capital surcharge 'buckets' prior to the higher loss absorbency requirements coming into effect from 2016. This provides banks with additional information should they seek to reduce their global 'systemicness' (which is a goal of the G-SIFI framework). Also, starting from 2014, banks which are identified as the 75 largest global banks, as well as banks that have been designated as a G-SIB in the previous year, will need to make publicly available the 12 indicators used in the assessment methodology. This latter disclosure requirement will be relevant for the four large Australian banks as they are among the 75 largest global banks.

In July, the International Association of Insurance Supervisors (IAIS) published its methodology for identifying global systemically important insurers (G-SIIs) and, in the same month, the FSB, in consultation with the IAIS and national authorities, published an initial list of nine G-SIIs using this methodology. As with the overall G-SIFI list, which currently includes 28 G-SIBs, the list of G-SIIs does not contain any Australian-owned institutions. The G-SII list will be updated in November each year, starting from 2014. G-SIIs will be subject to policy measures similar to those applying to other G-SIFIs – that is, effective resolution and recovery planning requirements, enhanced group-wide supervision and higher loss absorbency requirements. In the absence of a global capital standard for insurers, the IAIS will initially develop a simple capital 'backstop' for G-SIIs, to be presented to the G20 Leaders in 2014. Separately, the FSB expects to issue for consultation assessment methodologies for identifying non-bank non-insurance G-SIFIs by the end of the year.

In Australia, as discussed in previous *Reviews*, resolution regimes have been subject to ongoing reform in recent years, partly in response to the *Key Attributes*. The FSB's peer review of resolution regimes found that Australia's resolution arrangements for authorised deposit-taking institutions (ADIs) and insurers were generally consistent with international best practice, and compared well to many other jurisdictions. The peer review finding on FMI resolution arrangements, however, revealed that considerable work is required – as in many other jurisdictions. The agencies on the Council of Financial Regulators (CFR) are currently working on further refinements to the resolution regimes for prudentially regulated entities and for FMIs (discussed further below), taking into account the findings of the peer review and the additional guidance provided by the FSB and the standard-setting bodies.

Following the release in late 2012 of the BCBS' framework for domestic systemically important banks (D-SIBs), APRA is developing a methodology for D-SIBs in Australia, which is expected to be released publicly in the coming months. D-SIB frameworks are also being introduced in other countries. For example, in March the Canadian prudential regulator designated the six largest Canadian banks as being domestically systemic. In addition to continued supervisory intensity, these Canadian banks will be subject to enhanced disclosure requirements and a 1 per cent risk-weighted capital surcharge by 2016.

Shadow banking

The FSB presented a package of policy recommendations to the G20 Leaders' Summit in early September, detailing measures to address the risks posed by shadow banking – which the FSB defines as credit intermediation involving entities and activities outside the regular banking system. The recommendations are largely unchanged from preliminary proposals detailed in the March 2013 *Review*, comprising: (a) measures to reduce the risks posed by banks' interactions with shadow banking entities; (b) common standards for the regulation of money market funds (MMFs); (c) a policy framework for shadow banking entities other than MMFs; (d) risk retention and enhanced disclosure requirements for securitisation products; and (e) policies relating to securities lending and repurchase agreements (repos). Overall, the recommendations seek to reduce the systemic risks arising in these five areas that were apparent during the crisis, namely maturity/liquidity transformation, imperfect credit risk transfer and leverage. In addition, the FSB is continuing to conduct annual data monitoring exercises, to assess global trends and broader risks emanating from shadow banking; its next global report is due to be released in November.

While the recommendations relating to MMFs, other shadow banking entities and securitisation have largely been finalised, policy development is continuing in the remaining two areas.

- The BCBS is working on proposals to ensure that all activities of banks, including their interactions with the shadow banking system, are captured within the scope of consolidated (i.e. group-wide)

supervision and regulatory reporting. This work is expected to be completed in 2014 as are proposals for risk-sensitive capital requirements for banks' equity investments in funds (which were issued for consultation in July). Also, as discussed below, the BCBS will finalise by the end of 2013 its proposed supervisory framework for banks' large exposures to single counterparties (including to shadow banking entities).

- In August, the FSB released proposals to improve regulatory reporting and market transparency requirements relating to securities lending and repos. In addition, the FSB is proposing:
  - a framework of numerical collateral haircut floors that will apply (a) to transactions that are not centrally cleared; and (b) where entities not subject to prudential capital and liquidity regulation receive securities financing from regulated financial intermediaries. The proposed minimum haircuts would not apply to government securities
  - minimum qualitative standards for methodologies used by all market participants to calculate collateral haircuts.

  The proposal for haircut floors is based partly on the results of the first stage of a quantitative impact study (QIS) which included a group of large financial institutions providing detailed historical data on haircut levels. The FSB will conduct the second stage of the QIS later in 2013, which will assess the effectiveness and impact of the proposed framework more comprehensively. The recommendations on haircut floors and minimum standards are expected to be finalised by mid 2014.

As the bulk of the policy development phase of the shadow banking recommendations is nearing completion, the FSB and the standard-setting bodies are now focusing more on reviewing implementation, to ensure a degree of consistency in the adoption of the recommendations. In 2014, IOSCO will commence peer reviews of national implementation of its recommendations relating to MMFs and securitisation. And as part of its policy framework for the oversight of shadow banking entities other than MMFs, the FSB will develop a process for information sharing by March 2014. This would involve national regulators detailing the entities or entity types they have identified as being shadow banks, and the measures that they may have chosen from the FSB's policy 'toolkit' to address the risks, if any, they pose. Information gathered this way will allow the FSB to start a review program for assessing national implementation of the framework by 2015.

In Australia, non-prudentially regulated financial institutions, which include entities commonly viewed as shadow banks, account for a relatively small and declining share of financial system assets. Nonetheless, the authorities monitor developments in this sector on an ongoing basis as well as taking regulatory actions. An example is the regulatory response to the failure of a number of small finance companies in recent years that were issuing retail debentures. In April, APRA released proposals to restrict registered financial corporations (which include finance companies and money market corporations) from issuing retail debentures with maturities of less than 31 days and from using words such as 'deposit' and 'at-call' to market their products to retail investors. APRA's proposals re-emphasise the distinction between the regulatory framework for these entities, which are not prudentially regulated, and the more intensive supervisory regime applicable to ADIs. These proposals complement those released by ASIC earlier in the year, which included possible capital and liquidity requirements for retail debenture issuers.

OTC derivatives reform

In September, the FSB updated the G20 Leaders on progress on OTC derivatives reform, drawing in part on its latest progress report on national implementation of these reforms. In the report, the FSB noted that while most member jurisdictions are making some progress towards adopting reforms that would fulfil

the G20 commitments, scope remained for increases in trade reporting, central clearing, and exchange and electronic platform trading in global OTC derivatives markets. To ensure that the G20 commitments are fully met the FSB reiterated that necessary reforms to regulatory frameworks should be made 'without delay'.

In August, a group coordinated by the Bank for International Settlements released its assessment of the potential global macroeconomic impact of OTC derivatives reforms. The report compared the expected path of economic growth with and without the reforms and concluded that they would yield a net positive benefit in the long run. The costs of the reforms arising from higher capital and collateral requirements were estimated to be more than offset by the benefits flowing from a lower occurrence of financial crises.

The cross-border reach of some jurisdictions' OTC derivatives regulation has continued to be a concern for several countries, including Australia. In August, a group of securities market regulators (including ASIC) announced a number of understandings on ways to resolve remaining cross-border conflicts, inconsistencies, gaps and duplicative requirements. Most of the focus has been on the cross-border reach of US and EU rules, as foreign counterparties dealing with US and EU entities will be affected by those rules. Authorities in these and other jurisdictions are working on an approach – endorsed by the G20 – whereby regulators would be able to defer to each other when it is justified by the quality of their respective regulations and enforcement regimes. Under this approach, for example, a foreign counterparty to a transaction with a foreign branch of a US entity would comply with its home regime where this was declared to be equivalent to that in the United States. A challenge arises in assessments of regulatory equivalence if one jurisdiction has a principles-based regime, such as Australia, while another imposes more detailed rules. The European Securities and Markets Authority (ESMA) recently completed an assessment of the equivalence of Australian regulation of CCPs. Since ESMA's rules are more detailed than those in Australia, the Reserve Bank issued supplementary interpretative guidance to assist in demonstrating equivalence.

In Australia, progress has been made over the last six months to further implement the G20 commitments on OTC derivatives reform.

- In July, APRA, ASIC and the Reserve Bank published a report on the Australian OTC derivatives market. The report is the second assessment prepared by the regulators on the need for regulatory intervention in the domestic OTC derivatives market (the first was released in October 2012). The report recommends the government consider a central clearing mandate for interest rate derivatives denominated in US dollars, euro, British pounds and Japanese yen, primarily on international consistency grounds. Initially, only dealers with significant cross-border activity in these products would be subject to the proposed mandate. The report also noted that the regulators will continue monitoring Australian banks' progress in implementing appropriate clearing arrangements for Australian dollar-denominated interest rate derivatives, before recommending mandatory central clearing.
- Also in July, ASIC finalised rules requiring the reporting of OTC derivatives to trade repositories. In developing these rules, ASIC sought to ensure broad consistency with requirements in other jurisdictions. Recognising the cross-border nature of many derivative transactions, ASIC has established a regime of alternative reporting under which entities that are subject to substantially equivalent overseas reporting regimes may report according to those regimes. The requirements will be introduced initially for major financial institutions (which are required to start reporting in October 2013) before being expanded to other institutions. At the same time, ASIC finalised a licensing regime for trade repositories. This licensing regime is based on principles developed by the CPSS and IOSCO,

so as to ensure consistency with overseas frameworks. This regime will enable Australian licensed trade repositories to more readily seek recognition or licensing overseas, while also facilitating the licensing of overseas trade repositories in Australia.

In parallel with these regulatory developments, Australian financial market participants have been increasing their use of CCPs (see 'The Australian Financial System' chapter for further discussion). This trend, which is expected to continue, should yield benefits in terms of reduced contagion risks arising from the interconnections between financial institutions.

The CPSS and IOSCO released a report in August setting out a framework to determine the scope of regulators' access to data in trade repositories. The framework maps the scope of data access to individual regulators' functions and establishes safeguards to ensure appropriate data confidentiality. Also, the FSB has launched a feasibility study on how information from trade repositories can be aggregated, to provide a comprehensive and accurate view of the global OTC derivatives market. The FSB expects to complete the study in 2014.

In addition to promoting greater use of centralised infrastructure, the G20 has committed to developing international standards for the margining of OTC derivatives that are not centrally cleared. Margin requirements, in combination with higher capital requirements set by the BCBS for non-centrally cleared exposures, are expected to create an incentive for banks to centrally clear OTC derivatives. Following a second round of consultation, the BCBS and IOSCO published the final framework in September. In response to concerns about the increase in demand for collateral that would arise from the requirements and the potential implications for market functioning, physically settled foreign exchange forwards and swaps will be exempt from initial margin requirements. For consistency, the foreign exchange component of cross-currency swaps will also be excluded from initial margin calculations. This is important in the Australian context, given the widespread use of cross-currency swaps by banks and large non-financial corporations to hedge the currency risk associated with their offshore wholesale funding. Had the regime failed to treat cross-currency swaps and physically settled foreign exchange instruments consistently, firms could have faced adverse incentives. In particular, high margin requirements could have encouraged firms either to leave their positions unhedged, or to use less effective and more complex hedging strategies.[2]

The BCBS is currently consulting on an updated methodology for assessing the counterparty credit risk arising from banks' capital exposures to 'qualifying' CCPs. APRA has implemented BCBS requirements applying to such exposures and will consider the implications of the updated methodology once it is finalised. In April the regulators confirmed that APRA considers ASX Clear and ASX Clear (Futures) – the only Australian-licensed domestic CCPs – to be qualifying CCPs. And in June, APRA outlined its policies regarding ADI membership of CCPs. The policies emphasise that ADIs must have an appropriate risk management framework to cover their activities as a CCP member and set threshold conditions that membership must not expose the ADI (or a group member) to an unlimited contingent liability to support the CCP.

Financial market infrastructures

A CPSS–IOSCO task force is monitoring national implementation of the *Principles for Financial Market Infrastructures* (the PFMIs), which were discussed in the September 2012 *Review*. In the first phase of this work, the task force surveyed jurisdictions' progress in implementing the PFMIs within their legislative and regulatory frameworks. Its report, released in August, reveals considerable disparity in the degree of progress across jurisdictions and across FMI types. Australia was found to have fully implemented

2 This matter is discussed further in Arsov I, G Moran, B Shanahan and K Stacey (2013), 'OTC Derivatives Reforms and the Australian Cross-currency Swap Market', RBA *Bulletin*, June, pp 55–63.

the PFMIs for all FMI types with the exception of trade repositories, for which, as noted above, the regulatory regime was finalised shortly after the April 2013 assessment date.

A CPSS–IOSCO working group has been developing guidance to support the PFMI requirement that FMIs prepare recovery plans. These plans document the measures to be taken by an FMI to restore itself to financial soundness in the event that it faces a threat to its solvency. The group released a report in August seeking feedback on a menu of potential actions that may be included in an FMI's recovery plan (such as measures to address liquidity shortfalls or to replenish financial resources). The work is expected to be finalised by the end of the year.

Financial benchmarks

Following revelations that some widely used financial benchmarks such as the London Interbank Offered Rate (LIBOR) have been subject to past abuses, standard-setting bodies have been examining ways to improve the governance and oversight processes for financial benchmarks more generally. Under the auspices of the G20, the FSB has been coordinating this work and it issued a report in August on progress to date and planned next steps. These international efforts have been complemented by a number of initiatives in several jurisdictions to improve the robustness of financial benchmarks.

In July, IOSCO released the final version of its *Principles for Financial Benchmarks* (the *Principles*), which establish guidelines for administrators of benchmarks. The IOSCO report seeks to address the concerns raised in recent years regarding financial benchmarks through high-level principles intended to apply to all benchmarks, as well as more detailed principles aimed at those benchmarks with designs thought to carry specific risks. Examples of the latter are benchmarks that rely on submissions from a panel of market participants for their calculation. For these benchmarks, a range of governance measures are outlined that seek to enhance the integrity of such submissions and address any conflicts of interest that may arise for panellists.

Reflecting concerns that benchmarks may not always have been representative of an underlying market, the *Principles* stress that benchmarks should be anchored in an active market having observable, arms-length transactions, such as transactional data or other representations of an active market, for example executable quotes. The FSB has endorsed the *Principles* and established an Official Sector Steering Group that will consider potential alternatives to the major international benchmarks and strategies for transitioning to new benchmarks should that be necessary. The Reserve Bank is represented on this group.

The Australian Financial Markets Association (AFMA) has recently announced major changes to its process for calculating bank bill swap (BBSW) reference rates, which are important benchmark interest rates within the Australian dollar market. AFMA will soon begin deriving BBSW rates from executable quotes posted from designated trading venues in the market for 'prime' bank bills and certificates of deposit (CDs), consistent with the *Principles*. To date, AFMA has relied on panellists to report their estimates of rates on prime bank bills and CDs.

Basel capital framework

The BCBS continues to review national implementation of Basel III, and the broader capital framework, through its Regulatory Consistency Assessment Programme (RCAP). In its most recent monitoring report to the G20 Leaders, released in August, the BCBS noted that 25 of its 27 member jurisdictions have now issued final rules for implementing the Basel III capital reforms, with 11 jurisdictions' rules now legally in force. APRA's prudential standards implementing the Basel III capital reforms in Australia came into force on 1 January 2013. (For further information, see 'Box B: The Basel III Capital Reforms in Australia'.) Australia is currently undergoing a 'Level 2' peer review as part of the RCAP process, which comprises a more detailed assessment of Australia's compliance with Basel capital requirements and measures. The review,

which is being undertaken by a team drawn from international regulators and standard-setting bodies, is due to be finalised next year.

The BCBS has recently been reviewing the Basel capital framework with the aim of removing undue complexity and improving the comparability of regulatory capital ratios. Recent reviews by the BCBS found material variation across banks' risk-weighted assets that could not be fully explained by underlying differences in the risk composition of banks' assets. Partly reflecting this, the BCBS issued a discussion paper in July seeking feedback on how its principles of risk sensitivity, simplicity and comparability can be better balanced within the Basel capital framework. A range of policy options were proposed for consideration, including: increasing disclosure requirements; constraining internal modelling practices; and limiting the discretion afforded to national supervisors in how they apply the standards domestically.

In June, the BCBS released for consultation further refinements to the leverage ratio that will supplement the risk-based capital requirements. These define the 'exposures measure' (the denominator of the leverage ratio), and clarify how derivatives and related collateral will be treated. Also part of the consultation were proposals to harmonise banks' disclosure practices for the main components of the leverage ratio, to help facilitate greater comparability of the regulatory ratios of banks operating in jurisdictions with different accounting frameworks. The BCBS intends to conduct a QIS to assess the calibration of the leverage ratio before it is implemented, and to ensure its relationship with the risk-based capital framework remains appropriate. Banks in jurisdictions which have introduced the Basel III capital reforms began reporting their leverage ratios to national supervisors from January 2013. Under Basel III time lines, banks are due to commence publicly disclosing their leverage ratio in January 2015, with full implementation of the requirement taking place in January 2018.

Banks' large exposures

In March, the BCBS issued for consultation a revised framework for measuring and controlling banks' large credit exposures. Large exposure limits are designed to ensure that the failure of a single counterparty would not impose excessive strain on a bank's capital position. While the risks posed by large exposures have long been recognised by the BCBS, a review of measures in place in member jurisdictions to address these risks identified material differences in practice, including in the scope of application, the large exposure limits imposed, the definition of capital on which limits were based and methods for calculating large exposure values.

The proposed framework introduces a new international standard for the definition of a 'large exposure', set at 5 per cent of a bank's eligible capital base, which all banks must report to their supervisors. It is proposed that the definition of the capital base include only common equity Tier 1 capital or Tier 1 capital, rather than total capital, as is currently used in some jurisdictions. In addition, banks will be required to assess their aggregate exposure to a 'connected group' of entities which may pose a 'single risk'. A group will be considered connected where there is a relationship of control or the entities are economically interdependent. Banks are also required to look through investments in shadow banking entities to identify underlying exposures to counterparties and assess the additional risks they may pose. Banks must ensure that their exposure to any single counterparty or connected group does not exceed 25 per cent of their eligible capital base at all times. Where the bank is a G-SIB, an exposure limit of 10–15 per cent is proposed for exposures to other G-SIBs. Authorities have the discretion to impose stricter limits on banks active in their jurisdictions. It is intended that the proposals be implemented by January 2019, in line with when the Basel III capital reforms and the G-SIB framework are due to be fully implemented. APRA will consult on proposed changes to its existing large exposures framework once the BCBS' proposals are finalised.

Other Domestic Regulatory Developments

Implementation of Basel III liquidity reforms

In May, APRA released for consultation a revised set of proposals to implement key elements of the Basel III liquidity framework in Australia. This followed feedback on an earlier consultation paper, as well as revisions to the international liquidity framework announced by the BCBS in January (which were discussed in the March 2013 *Review*). Consistent with the BCBS' changes, APRA's revised draft standard reduces the assumed outflow rates applicable to certain deposit and liquidity facilities for calculation of the Liquidity Coverage Ratio (LCR) requirement. It will also permit ADIs to temporarily draw down their stock of high-quality liquid assets (HQLA) in periods of stress such that their LCR falls below the 100 per cent minimum requirement, recognising that HQLA should be available for use in periods of financial stress. APRA will require larger, more complex ADIs to meet the LCR requirement in full on 1 January 2015, ahead of the BCBS' amended timetable, which allows banks until 2019 to fully meet the standard. APRA is expected to release its final standard on liquidity incorporating the LCR requirement in the coming months. Smaller ADIs will continue to operate under APRA's simpler minimum liquid holdings regime.

The Reserve Bank and APRA continue to make arrangements for ADIs to meet their LCR requirement through access to the Committed Liquidity Facility (CLF) established by the Bank. (Such a facility is permitted under the Basel III rules as an alternative way for banks to meet the LCR requirement in countries, such as Australia, with insufficient supplies of government securities and other HQLA.) In August, APRA issued further background on the intended approach of both agencies to the operation of the CLF. To access the CLF, eligible ADIs will need to submit to APRA a three-year funding plan on an annual basis, and demonstrate that they have taken 'all reasonable steps' to improve their liquidity risk profile by, where possible, using stable, long-term sources of funding. The size of the CLF for each ADI will be limited to a percentage of their target net cash outflows, as determined by APRA, taking into account the aggregate outflows of all ADIs and the aggregate amount of HQLA that ADIs can reasonably be expected to hold without disrupting financial markets, as assessed by the Bank. APRA is currently undertaking a trial exercise with relevant ADIs, involving their proposed liquidity management strategies and use of the CLF, and will provide further detail on the operation of the CLF on completion of the exercise. In preparation for its use, the Bank has introduced new information reporting requirements for repo-eligible residential mortgage-backed securities, which will likely comprise a significant share of the securities ADIs will pledge as collateral to access the CLF.

Other prudential standards

In May, APRA issued draft prudential standards on the capital adequacy and risk management components of its new supervisory framework for financial conglomerates ('Level 3' groups). Under the proposed new rules, conglomerates would be required to:

- have eligible capital in excess of their prudential capital requirements and have enough unrestricted surplus capital to offset any shortfalls in unregulated parts of the group. Capital requirements for Level 3 groups will be determined by aggregating the requirements of ADIs, insurers and superannuation funds, as well as for funds management and other activities, which are not regulated by APRA
- develop and maintain group-wide risk management frameworks that encompass material risks in both APRA-regulated entities and other parts of the group.

These requirements are in addition to earlier group governance and risk exposure measures that were discussed in the previous *Review*. The new framework will be finalised by January 2014 and take effect in 2015.

Also in May, APRA proposed prudential amendments to reinforce sound governance and risk management processes at APRA-regulated institutions. A new harmonised prudential standard will be introduced to consolidate and replace existing standards and requirements on risk management for ADIs, insurers, Level 2 (i.e. single industry) groups and Level 3 groups. Revisions are also proposed to existing cross-industry standards on governance. Under the amendments, APRA-regulated institutions will be required to:

- designate a Chief Risk Officer (CRO) to head the institution's risk management function and to be involved in, and provide 'effective challenge' to, activities and decisions that may materially affect the risk profile of the institution
- establish a Board Risk Committee to oversee and assess the institution's risk management framework and ensure its proper implementation.

CROs and Board Risk Committees will be required to meet certain conditions to maintain their objectivity and independence and to minimise the potential for conflicts of interest. APRA anticipates finalising both prudential standards by the end of 2013, with affected entities expected to meet the standards by January 2015. APRA's proposed standards broadly reflect the FSB's *Principles for An Effective Risk Appetite Framework*, which were released for consultation this year following a thematic peer review in 2012.

Regulation of market and payments infrastructure

As noted in the March 2013 *Review*, following a report by the CFR and the Australian Competition and Consumer Commission, the government called on the Australian Securities Exchange (ASX) to work with industry to develop a code of practice for the clearing and settlement of cash equities in Australia. In response, the ASX released in July its final *Code of Practice for Clearing and Settlement of Cash Equities in Australia* (the Code). In line with the CFR's recommendations, the ASX commits in the Code to: enhance user engagement by establishing an advisory forum comprising senior representatives of users and other stakeholders; ensure transparent and non-discriminatory pricing; and ensure transparent and non-discriminatory access to the ASX's clearing and settlement services.

The CFR has been closely engaged with the ASX during the development of the Code and considered it at its July 2013 meeting. After a two-year period, the CFR intends to carry out a public review of the Code's implementation and effectiveness. At the same time, the CFR will reconsider the case for recommending that competition in clearing be permitted, or if competition were to be ruled out indefinitely, consider whether a regulatory response would be appropriate. Implementation of the access provisions of the Code will be reviewed particularly closely by the CFR agencies.