

## 2. The Australian Financial System

A number of the key trends evident in the Australian banking system over recent years have continued since the previous *Review*: banks' capital ratios edged up again; their asset performance continued to steadily improve; and their profitability remained robust. In addition to their current low bad and doubtful debt charges, the major banks' higher profitability relative to international peers appears to partly reflect operational efficiencies – the cost-to-income ratios of the major banks are featured in 'Box B: Australian Major Banks' Cost-to-income Ratios' of this *Review*.

Australian banks are benefiting from improved wholesale funding conditions globally and, in turn, an easing in overall deposit market competition. Lower funding costs are facilitating strong price competition in housing and commercial property lending. Fast growth in property prices and investor activity has increased property-related risks to the macroeconomy. It is important for macroeconomic and financial stability that banks set their risk appetite and lending standards at least in line with current best practice, and take into account system-wide risks in property markets in their lending decisions. Over the past year APRA has increased the intensity of its supervision around housing market risks facing banks, and is currently consulting on new guidance for sound risk management practices in housing lending.

Shadow banking is an area of focus in international regulatory reforms, and this *Review* contains an update on the size and composition of the shadow banking sector in Australia. Shadow banking activity in Australia has declined noticeably since 2007 and

the sector accounts for only a small share of financial system assets. This, along with limited credit and funding links to the regular banking system, means that the shadow banking sector currently poses little systemic risk in Australia.

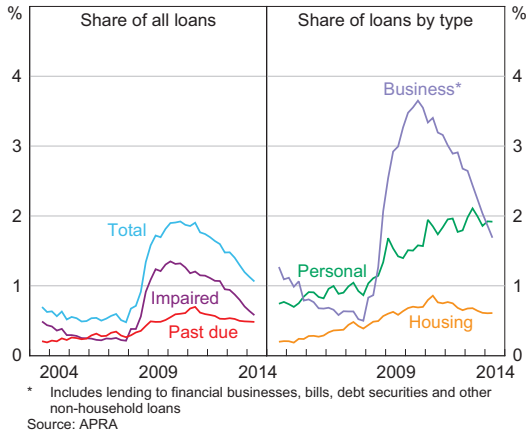
Profitability remains strong overall in the general insurance industry, supported by a benign claims environment. Buoyant conditions in the housing market have also contributed to better profit performance by lenders mortgage insurers. Conditions in the life insurance industry remain more challenging, partly reflecting previous under-pricing of risk on some policies.

### Asset Performance

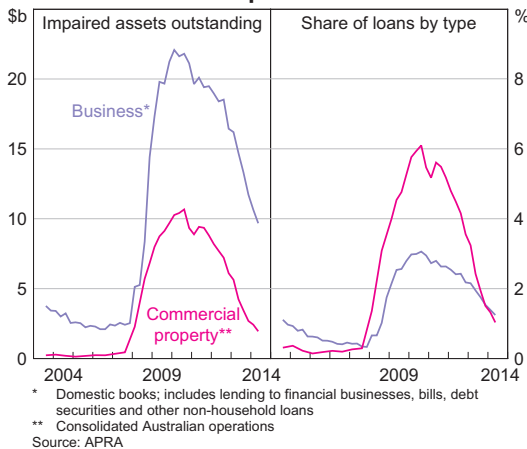
Asset performance is a key indicator of Australian banks' soundness and therefore a focus of financial stability analysis. Over the first half of 2014, the asset performance of Australian banks continued its steady improvement of recent years. In the banks' domestic portfolio, the ratio of non-performing assets to total loans was 1.1 per cent at June 2014, compared with a peak of 1.9 per cent in mid 2010 (Graph 2.1). This decline mostly reflects a reduction in the share of loans classified as impaired (those not well secured and with repayments doubtful), while the share of loans classified as past due (in arrears but well secured) has fallen modestly since its peak in 2011.

The reduction in banks' domestic impaired assets since 2008–09 has been concentrated in business loans, in particular commercial property loans (Graph 2.2). The strong recovery in commercial

**Graph 2.1**  
**Banks' Non-performing Assets**  
Domestic books



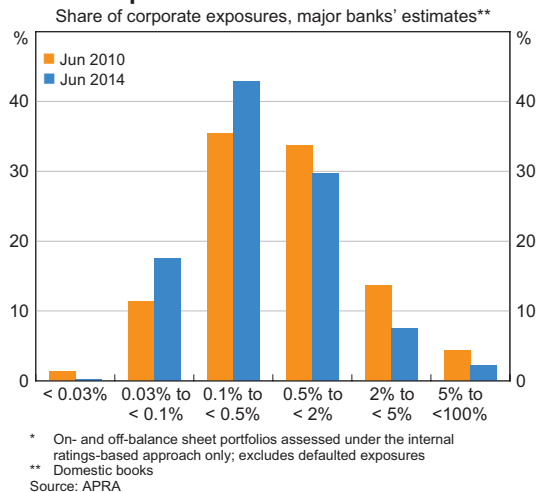
**Graph 2.2**  
**Banks' Impaired Assets**



property prices induced another sharp fall in the level of impaired commercial property loans over the first half of 2014; the corresponding impairment ratio fell a little below that for other business exposures. Further improvement in business loan performance will likely depend more on how other industries perform; notably, the impairment ratio remains elevated in the agriculture, fishery, forestry & mining category, which accounts for 15 per cent of the major banks' business lending.

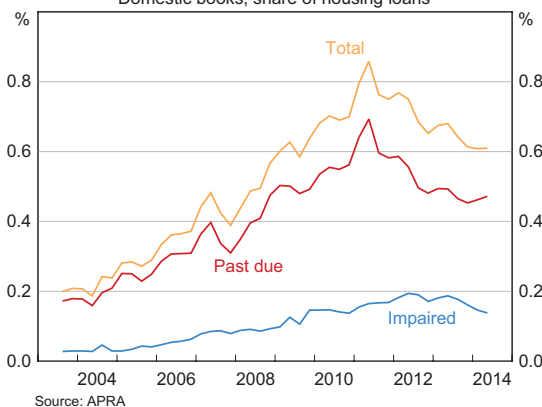
The decline in banks' impaired business assets over recent years suggests that the risk profile of their business loan portfolios has improved. One indicator of this is the share of corporate exposures that are assessed to have a relatively high probability of defaulting in the following year. (Probabilities of default (PDs) are derived from the internal credit risk models of those banks authorised by APRA to use these models to calculate their minimum regulatory capital requirement.) The share of the major banks' corporate exposures assigned a PD of 0.5 per cent or greater declined noticeably over the four years to June 2014 (Graph 2.3). Some of this decline would have resulted from better macroeconomic and property market conditions. The underlying quality of banks' business loan portfolios should also have strengthened given the tightening in business lending standards around 2008-09, thus increasing the resiliency of these portfolios to possible future adverse macroeconomic circumstances. However, as discussed below, it will be important for banks' future loan performance that these gains are not compromised by an imprudent loosening of business lending standards from their current configuration, especially given that the bulk of bank credit losses in Australia have historically occurred in business lending.

**Graph 2.3**  
**Corporate Default Probabilities\***



In contrast to banks' business lending, the performance of banks' domestic household loan portfolios has been broadly steady over recent quarters. The non-performing share of banks' housing loans was unchanged over the six months to June 2014 (Graph 2.4). Recent housing price inflation appears to have reduced the likelihood that past due housing loans will become impaired; they are also helping banks to dispose of their existing stock of troubled housing assets, with a number of banks reporting reductions in mortgagees-in-possession. While the non-performing ratio for banks' personal loans is higher than banks' other loan portfolios, personal lending is typically riskier than other types of lending and it represents only a small share of banks' total domestic loans.

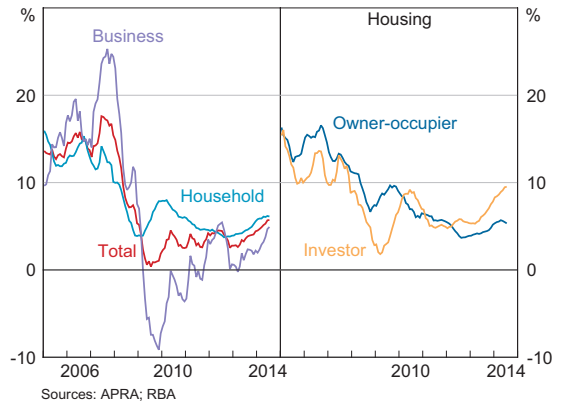
**Graph 2.4**  
**Banks' Non-performing Housing Loans**  
 Domestic books, share of housing loans



## Credit Conditions and Lending Standards

Growth in banks' domestic lending has lifted over the past six months, after a few years of modest growth (Graph 2.5). Housing credit expanded at an annualised rate of around 7 per cent over the six months to July 2014; growth in investor credit continued to strengthen and at nearly 10 per cent reached its fastest pace since 2007, well above the rate for owner-occupiers. Business credit growth also picked up, although it continues to be weighed upon by subdued non-mining business investment.

**Graph 2.5**  
**Credit Growth**  
 Six-month-ended, annualised

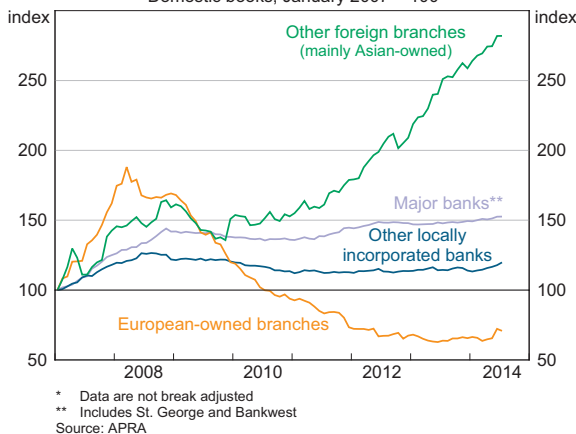


The pick-up in credit growth has been accompanied by stronger price competition in some loan markets. The ongoing improvement in bank funding conditions, including for smaller banks, has aided price competition. It will be important for banks' own risk management and, in turn, financial stability that they do not respond to revenue pressures by loosening lending standards, or making ill-considered moves into new markets or products. Banks need to ensure that loans originated in the current environment can still be serviced by borrowers in less favourable circumstances – for instance, at higher interest rates or during a period of weaker economic conditions. Furthermore, banks should be cautious in their property valuations, and conscious that extending loans at constant loan-to-valuation ratios (LVRs) can be riskier when property prices are rising strongly, as is currently the case in some commercial property and housing markets.

Lending conditions have eased in parts of the business loan market. According to industry liaison, strong competition among lenders has further narrowed margins on corporate loans, particularly in the 'wholesale' market (i.e. large value loans) and for commercial property. Nonetheless, while some borrowers continue to secure more favourable non-price loan terms, there does not appear to have been a widespread relaxation in corporate loan standards. Lending conditions appear little changed in the small business loan market.

Business lending by foreign-owned banks has increased at a relatively fast pace, driven by Asian-owned banks (Graph 2.6). APRA data and bank liaison suggest that some of these banks have been offering very competitive prices and terms in the syndicated loan market; they have also recently been active in commercial property lending. Foreign bank lending accounts for only 15 per cent of total business credit, but it can still contribute to overall systemic risk. Over the past decade foreign bank branches' lending in Australia has been quite procyclical and may have influenced some asset prices, including commercial property prices.

**Graph 2.6**  
**Banks' Business Lending\***  
 Domestic books, January 2007 = 100



In the residential mortgage market, price competition for new borrowers has intensified. Fixed rates have been lowered in recent months. According to industry liaison, a number of lenders have also extended larger discounts on their advertised variable rates and broadened the range of borrowers that receive these discounts. Banks are offering other incentives to attract new borrowers, including fee waivers, upfront cash bonuses or vouchers. In addition, some banks recently raised their commission rates paid to mortgage brokers. However, reports from banks and other mortgage market participants suggest that, in aggregate, banks' non-price lending standards, such as loan serviceability and deposit criteria, have remained

broadly steady over recent quarters. This seems to be supported by APRA data on the composition of banks' housing loan approvals, which suggest that the overall risk profile of new housing lending has not increased. It is noteworthy that the industry-wide share of 'low-doc' lending continues to represent less than 1 per cent of loan approvals, while the share of loans approved with an LVR greater than 90 per cent has fallen over the past year (see 'Household and Business Finances' chapter). That said, strong investor activity in the housing market has meant that the share of investor loans approved with LVRs between 80 per cent and 90 per cent has risen. The shares of interest-only loans for both investors and owner-occupiers have also drifted higher, and average loan sizes (relative to average income) have increased.

Although, in aggregate, bank housing lending standards do not appear to have eased lately, a crucial question for both macroeconomic and financial stability is whether lending practices across the banking industry are conservative enough for the current combination of low interest rates, strong housing price growth and higher household indebtedness than in past decades. Moreover, lending to investors is expanding at a fast pace, which could be funding additional speculative activity in the housing market and encourage other (more marginal) borrowers to increase debt. Lending growth is varied across geographical markets and individual lenders, which may suggest a build-up in loan concentrations and therefore correlated risks within the banking industry. The Reserve Bank's assessment is that the risk from the current strength in housing markets is more likely to be to future household spending than to lenders' balance sheets. However, the direct risks to banks will rise if current rates of growth in investor lending and housing prices persist, or increase further.

In light of the current risks, APRA has increased the focus of its supervision on banks' housing lending. Specifically, it has:

- begun a regular supervisory survey of a broader range of risk indicators for banks with material housing lending
- released a draft Prudential Practice Guide (PPG) for housing lending that outlined expectations for banks' risk management frameworks, serviceability assessments, deposit criteria and residential property valuations.<sup>1</sup> By way of example, prudent serviceability assessments are seen to involve: an interest rate add-on to the mortgage rate, in conjunction with an interest rate 'floor', to ensure the borrower can continue to service the loan if interest rates increase; a buffer above standard measures of household living expenses; and the exclusion, or reduction in value, of uncertain income streams. While much of the guidance in the PPG is already common practice within the industry, it is nonetheless important that practices are not deficient at even a minority of lenders
- written to individual bank boards and chief risk officers asking them to specify how they are monitoring housing loan standards and ensuing risks to the economy
- assessed the resilience of banks' housing loan (and other) portfolios to large negative macroeconomic shocks, including a severe downturn in the housing market, as part of its regular stress testing of banks' balance sheets.

In addition, the Reserve Bank is discussing with APRA, and other members of the Council of Financial Regulators (CFR), further steps that might be taken to reinforce sound lending practices, particularly for lending to investors.

## International Exposures

Australian-owned banks' international exposures arise from the activities of their overseas branches or subsidiaries, as well as the direct cross-border activities of their Australian-based operations. International exposures were just under one-quarter of Australian-owned banks' global consolidated assets at March 2014 (Table 2.1).

The largest international exposure of the Australian-owned banks continues to be New Zealand, since each of the Australian major banks have a significant presence there. The major

**Table 2.1: Australian-owned Banks' International Exposures**  
Ultimate risk basis, as at March

	Level	Share of international exposures	Share of global consolidated assets	
	2014 \$ billion	2014 Per cent	2014 Per cent	2009 Per cent
New Zealand	323	40.1	9.4	9.6
United Kingdom	135	16.8	3.9	5.2
United States	101	12.6	2.9	2.0
Asia <sup>(a)</sup>	147	18.2	4.3	1.2
– China	39	4.9	1.1	0.1
Europe	54	6.6	1.6	2.6
Other	46	5.7	1.3	1.1
<b>Total</b>	<b>807</b>	<b>100.0</b>	<b>23.4</b>	<b>21.8</b>

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

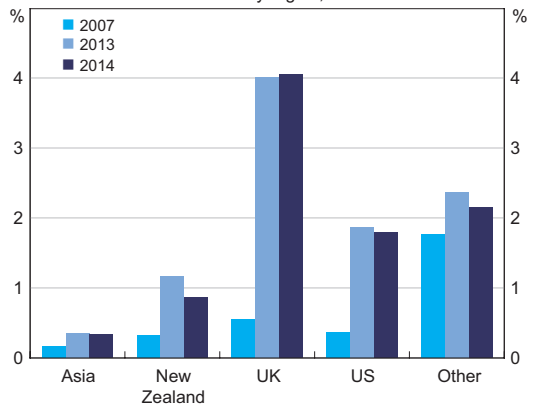
<sup>1</sup> For further details, see APRA (2014), 'Draft Prudential Practice Guide: APG 223 – Residential Mortgage Lending', May.

banks' operations in New Zealand are similar to their Australian operations: they focus largely on lending to households and businesses, although within this, lending to agriculture is a higher share because of the importance of the dairy industry in New Zealand. Loan performance at the New Zealand subsidiaries has continued to improve following the peak in their non-performing asset ratio of over 2 per cent in early 2011. Despite this improvement, there are some risks in the New Zealand financial system that could adversely affect future loan performance. Banks' housing market exposures have garnered particular attention recently given strong growth in housing prices and the high level of household debt in the context of the economic volatility that New Zealand has historically experienced. Housing price growth remains strong in some major cities despite rising interest rates and recent policy measures restricting high-LVR lending. The Reserve Bank of New Zealand has also expressed concern about high debt burdens for some agricultural producers, which increases their susceptibility to an adverse shock, such as a decline in agricultural prices.

Australian-owned banks' aggregate exposures to the United Kingdom are substantial, even though they have fallen relative to total international exposures over recent years. In the United Kingdom, the non-performing asset ratio has been quite high for some time because of ongoing difficult economic and property market conditions (Graph 2.7). NAB, which has a large UK operation, has reported publicly that it sold a sizeable portfolio of UK impaired commercial property loans in July, but at a little above its book value, consistent with some improvement in UK commercial property markets. NAB's UK operations have also suffered sizeable losses and uncertainty because of some conduct issues that have been experienced more generally across the UK financial sector, specifically around payment protection insurance and interest-rate hedging products.

Exposures to Asia represent almost one-fifth of Australian-owned banks' total international exposures. These exposures have grown substantially

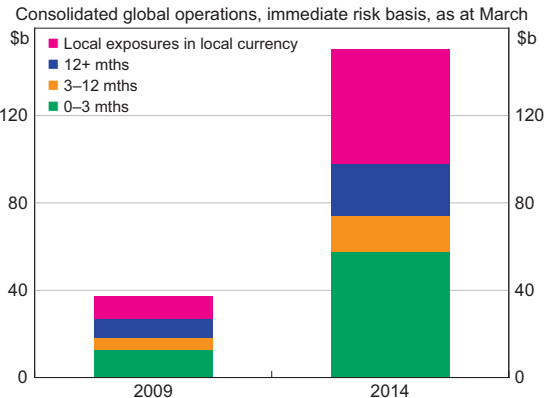
**Graph 2.7**  
**Non-performing Assets of Australian-owned Banks' Overseas Operations**  
Share of loans by region, as at June



Sources: APRA; RBA

over the past five years, particularly those to China. A key motivation for the Australian major banks' expansion into Asia has been to facilitate the large and growing trade and investment flows between Australia and Asia (indeed, this trend is also mirrored in the Asian banks' expansions in Australia noted above). Related to this, the majority of their exposures to Asia are shorter term and trade-related, which typically have lower funding and credit risks than long-term lending (Graph 2.8). Even so, expansion

**Graph 2.8**  
**Australian-owned Banks' Exposures to Asia\***



\* Immediate risk basis excludes risk transfers, such as guarantees; data by maturity are available for cross-border exposures and local exposures in foreign currency, they are not available for local exposures in local currency; Asia includes offshore centres Hong Kong and Singapore  
Sources: APRA; RBA

into Asian markets still poses a range of risks that banks need to manage carefully. This includes operational risks, given that conducting business in different jurisdictions adds to the complexity of a bank's operations. Further growth in exposures also increases the chance that direct financial linkages will be a channel by which any disruptions in Asia are transmitted to the Australian banking system (in addition to macroeconomic and global wholesale funding market channels).

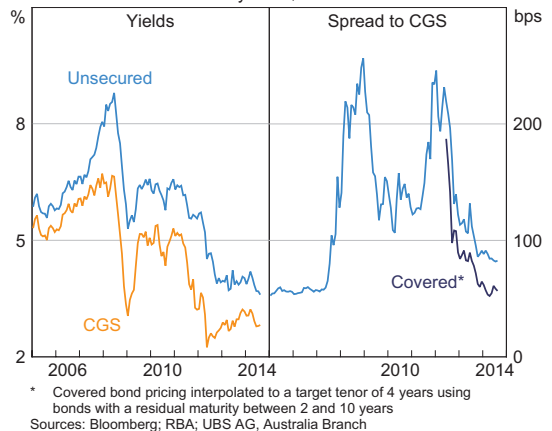
### Funding and Liquidity

The liability side of Australian banks' balance sheets is also affected by international financial and economic developments. Turbulent conditions in global capital markets created wholesale funding pressures for Australian banks after the onset of the financial crisis, but market conditions have been gradually improving since around the middle of 2012 as investor risk appetite and search for yield behaviour has strengthened (see 'The Global Financial Environment' chapter). Reflecting this, secondary market spreads on the major banks' 3–5 year senior unsecured bonds are currently at their lowest levels since 2007 (Graph 2.9). In addition, bonds issued at longer maturities or by lower rated banks are being more readily absorbed by markets than previously.

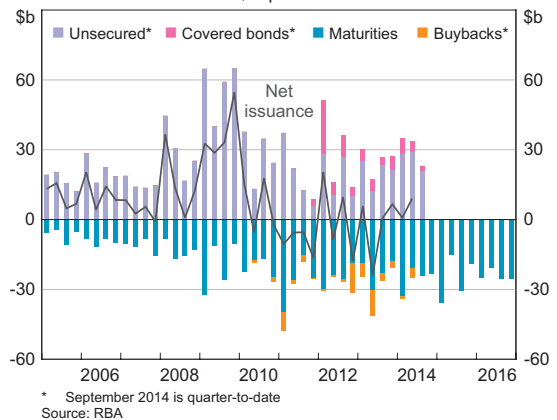
Australian banks have increased their net bond issuance as conditions in wholesale funding markets have become more favourable. Australian banks issued just under \$69 billion in bonds in the first half of 2014, around \$14 billion more than the previous six months and \$10 billion more than their bond maturities in this period (Graph 2.10). Covered bonds remained a small share of total bond issuance despite relatively favourable pricing on these instruments. Banks have currently issued about 40 per cent of their regulatory limit for covered bonds, leaving ample scope to increase issuance if unsecured bond market conditions deteriorate.

Conditions in the residential mortgage-backed securities (RMBS) market have also strengthened.

**Graph 2.9**  
**Major Banks' Bonds**  
3–5 year A\$ debt



**Graph 2.10**  
**Banks' Bond Issuance and Maturities**  
A\$ equivalent

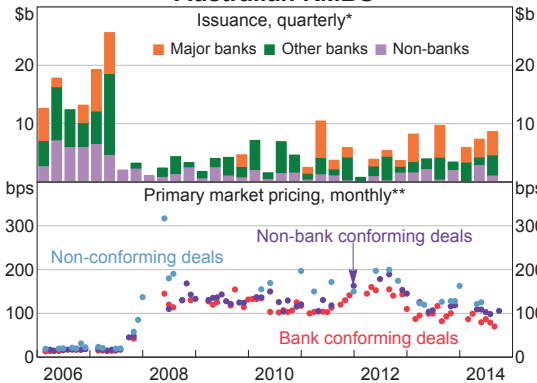


Primary market issuance spreads on senior RMBS tranches have tightened further this year for both bank and non-bank issuers, and issuance volumes have increased (Graph 2.11). Recent momentum in securitisation markets has been relatively beneficial for smaller institutions' funding, given they have more limited access to bond markets than the major banks.

Improved wholesale funding market conditions have also enabled some easing in deposit market competition, and over recent quarters banks' share of deposit funding has stopped rising. Banks report declines specifically in spreads on short-term deposits from financial institutions

**Graph 2.11**

**Australian RMBS**



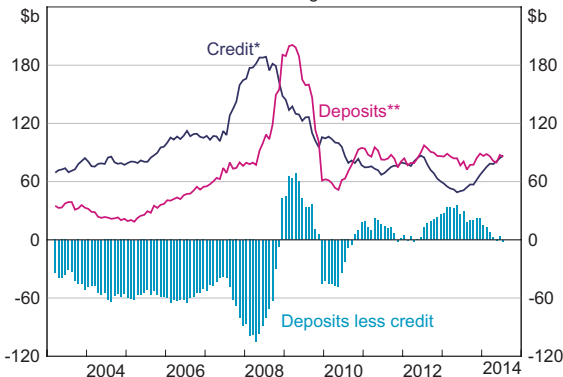
\* September 2014 is quarter-to-date  
 \*\* Face-value weighted monthly average of the primary market spread to bank bill rate  
 Source: RBA

and large corporations, consistent with these being treated less favourably under the upcoming Liquidity Coverage Ratio (LCR) requirement. While competition for retail deposits remains relatively strong overall, retail deposit rates have generally fallen relative to wholesale market rates over recent quarters. Banks are likely to further adjust the pricing and terms of their deposit products in the lead-up to the commencement of the LCR on 1 January 2015. The recent pick-up in credit growth has meant that the major banks' net deposit flows are no longer exceeding their net credit flows, as was the case in previous years (Graph 2.12).

**Graph 2.12**

**Major Banks' Credit and Deposits**

Year-ended change in stock



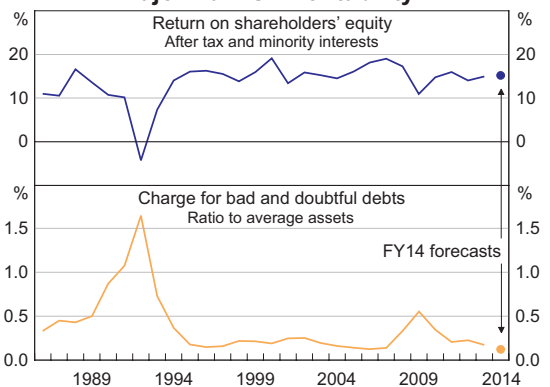
\* Excludes securitisations  
 \*\* Excludes intragroup deposits  
 Sources: APRA; RBA

**Profitability**

The improvement in banks' overall asset performance has been an important contributor to their profit growth over recent years, and this trend continued in the most recent period. The major banks' aggregate charge for bad and doubtful debts fell by 17 per cent in their latest half-yearly results and, for the 2014 financial year as a whole, it is expected to decline to a historically low level as a share of assets (Graph 2.13). Aggregate profit of the major banks was a little over \$14 billion in their latest half-yearly results, an increase of around 13 per cent on the corresponding period a year earlier (Graph 2.14). In addition to lower bad and doubtful debt charges, profit growth was supported by higher net interest income: stronger growth in interest-earning assets more than offset a small decline in the aggregate net interest margin arising from strong competition in lending markets. After declining in 2013, operating expenses increased over the year to the latest half, reflecting higher staff and investment-related costs. The major banks' annual return on equity is expected to be 15 per cent in their 2014 financial year, similar to the average return they recorded over the 2010–13 period.

**Graph 2.13**

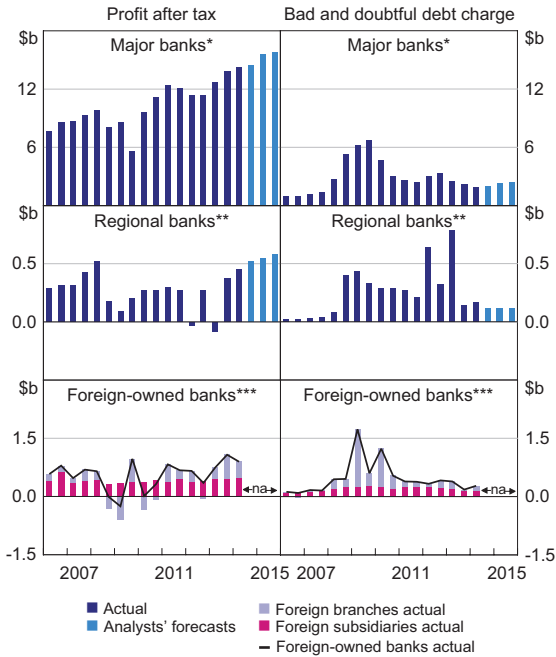
**Major Banks' Profitability\***



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



**Graph 2.14**  
**Banks' Profit**



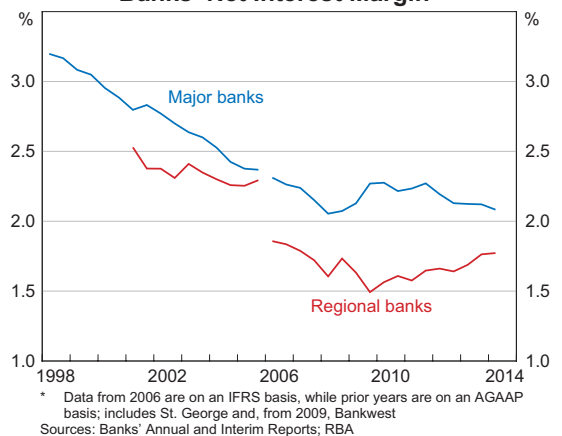
\* ANZ, NAB and Westpac report half year to March and September, while CBA reports to June and December  
 \*\* Suncorp Bank and Bendigo and Adelaide Bank report half year to June and December, while Bank of Queensland reports to February and August  
 \*\*\* All results are half year to March and September  
 Sources: APRA; Banks' Annual and Interim Reports; Credit Suisse; Deutsche Bank; Nomura Equity Research; RBA; UBS Securities Australia

Over recent years, the Australian major banks' returns on equity have been well above those recorded by large banks in many other advanced economy banking systems (see 'The Global Financial Environment' chapter). This partly reflects the relatively stronger asset performance of the Australian major banks. Another factor is their lower cost-to-income ratios than large banks in Europe and the United States, with the disparity having increased since the onset of the financial crisis (see 'Box B: Australian Major Banks' Cost-to-income Ratios'). The reduction in the major banks' aggregate cost-to-income ratio has been an offset to the decline in their net interest margin over the past couple of decades. However, given the relatively low level of this measure of operational efficiency, there is a question as to how much the major banks' costs can be further contained in future without their risk management capabilities or controls being affected.

Looking ahead, equity analysts are forecasting the major banks' profit growth to moderate, to 9 per cent in 2015 and 5 per cent in 2016. This is partly because bad and doubtful debt charges are now at low levels and will no longer provide the impetus to profit growth that they have in recent years. In addition, analysts expect the major banks' net interest margins to compress further, mainly due to competition in lending markets.

Aggregate profit for the three regional banks (Suncorp, Bank of Queensland, and Bendigo and Adelaide Bank) was \$449 million in their latest half-yearly results. This follows a small aggregate loss in the corresponding period a year earlier, which mainly resulted from losses on Suncorp's sale of a portfolio of non-performing commercial property and corporate loans that had been in run-off. In contrast to the major banks, regional banks' profit was supported by a small rise in their net interest margin (Graph 2.15). Foreign-owned banks' profit in the six months to March 2014 was 20 per cent higher than the same period a year earlier. This increase was largely due to a significant fall in bad and doubtful debts at foreign branches, and a moderate rise in aggregate non-interest income.

**Graph 2.15**  
**Banks' Net Interest Margin\***

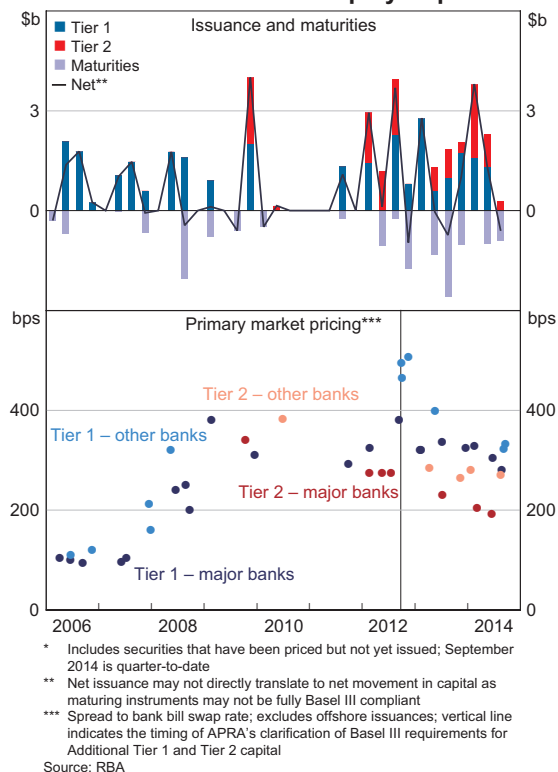


## Capital

Robust bank profitability has underpinned a further strengthening in the Australian banking system's capital position. Banks' aggregate Common Equity Tier 1 (CET1) capital ratio rose by 0.4 percentage points over the six months to June 2014, to 9 per cent of risk-weighted assets (RWAs), largely reflecting the accumulation of retained earnings. Banks' total regulatory capital ratio rose in line with this, to stand at 12.3 per cent at June 2014.

Banks' issuance of non-common-equity capital instruments (Additional Tier 1 and Tier 2 instruments, that are sometimes referred to as 'hybrids') has been sizeable so far this year, consistent with the trend in a number of large banking systems internationally (see 'Box A: Recent Trends in the Issuance of Basel III Compliant Contingent Capital Instruments') (Graph 2.16). Investor take-up of these capital instruments continues to be supported by their high yields relative to some less risky financial products given the low interest rate environment, although recent strong demand has pushed down yields (relative to benchmark interest rates). Retail investors, particularly self-managed superannuation funds, have been the predominant buyers of these instruments. However, banks report that institutional investors (including foreign investors) have been significant purchasers of Tier 2 instruments this year, having become more comfortable with pricing the risk that a 'non-viability' trigger event will occur, which would result in the instrument being written down or converted to common equity.

**Graph 2.16**  
**Banks' Non-common-equity Capital\***



In addition to the increase in banks' common equity and non-common-equity capital, banks' capital ratios also benefited from slow growth in aggregate RWAs – that is, the denominator of the ratio – over the first half (Table 2.2). The credit risk component, which accounts for the bulk of total RWAs, grew at a slower pace than banks' on-balance sheet lending over this period. In addition, the market risk

**Table 2.2: Australian Banks' Risk-weighted Assets**  
As at June 2014

	Level	Share of total	Six-month-ended annualised change
	\$ billion	Per cent	Per cent
Credit risk	1 416	86	2.8
Operational risk	152	9	1.9
Market risk	76	5	-15.7
<b>Total risk-weighted assets</b>	<b>1 644</b>	<b>100</b>	<b>1.7</b>

Source: APRA

component of RWAs fell, partly due to a decline in long-term interest rates. While this component is relatively volatile, it represents only 5 per cent of the total given the large Australian banks' businesses are mainly focused on commercial banking rather than trading activities.

The other component of banks' RWAs, operational risk, has increased as a share of the total over the past couple of years. It has recently received greater attention among market commentators and the global regulatory community following a number of conduct-related issues that have resulted in significant legal expenses for certain global banks. Australian banks have generally been less affected by these issues than some banks in other countries, but there have still been some operational losses. The recent incidents globally highlight the importance of a sound operational risk framework that ensures the proper functioning and behaviour of systems, processes and people.

In addition to risk-based regulatory capital ratios, under APRA's implementation of the Basel III international capital framework Australian banks will be required to meet non-risk-weighted capital ratios, or 'leverage ratios', by 2018. The Basel III leverage ratio measures the size of banks' Tier 1 capital base relative to their total on- and off-balance-sheet exposures, with a low ratio indicating a greater reliance on non-equity funding. Banks globally, including the large Australian banks, will be required to begin publicly reporting their Basel III leverage ratios from 1 January 2015 (see 'Developments in the Financial System Architecture' chapter). The specification of the minimum ratio calculation is still to be finalised, although based on data provided to APRA, the large Australian banks currently meet the draft minimum leverage ratio requirement of 3 per cent.

As discussed in the previous *Review*, APRA designated the four major banks as domestic systemically important banks (D-SIBs) and they will be required to meet an additional CET1 capital requirement equivalent to 1 per cent of their

RWAs from 1 January 2016. This will increase their minimum regulatory CET1 capital ratio to 8 per cent from 2016 (compared with 7 per cent for smaller banks). The major banks' capital targets will need to be somewhat higher than this to meet any capital add-ons that APRA imposes because of their risk profile, and to provide a buffer above their minimum requirements in case of a temporary negative shock to capital. APRA's recent clarification that wealth management non-operating holding companies (NOHCs) are to be included in banking groups for capital purposes will also add to the major banks' future capital needs; most of the major banks have had capital benefits by treating NOHCs as 'non-consolidated' subsidiaries.<sup>2</sup> APRA will phase out this treatment by 2018.

The major banks are well placed to adjust to these higher requirements through earnings retention if current profitability persists. However, given their overall task and the potential for market scrutiny of their progress, the major banks may want to build up common equity at a faster pace. Most major banks have done so during recent months by issuing a modest amount of equity through dividend reinvestment plans. Over the past couple of years the major banks have generally offset the boost to common equity arising from their dividend reinvestment plans by purchasing their shares on the market.

## Shadow Banking

As reported in previous *Reviews*, one of the four main international regulatory reform areas since the crisis has been to respond to risks from shadow banking, broadly defined as credit intermediation involving entities and activities outside the prudentially regulated banking system. The shadow banking sector in Australia is estimated at around 5 per cent of financial system assets, with this share declining noticeably since the onset of the financial crisis (Table 2.3). Given its small size, and limited credit

<sup>2</sup> For further details, see APRA (2014), 'Composition of a Level 2 Authorised Deposit-Taking Institution Group', Letter to Authorised Deposit-taking Institutions, 14 May.

**Table 2.3: Financial Sector Composition by Entity Type<sup>(a)</sup>**  
Share of financial system assets, as at December

	2007 Per cent	2013 Per cent
Banks, credit unions and building societies	52	55
Superannuation funds <sup>(b)</sup>	24	27
Insurers	3	3
<b>Total prudentially regulated</b>	<b>79</b>	<b>85</b>
Structured finance vehicles	6	6
Other investment funds	9	5
Finance companies	3	2
Money market corporations	2	1
Cash management trusts	1	0
<b>Total non-prudentially regulated</b>	<b>21</b>	<b>15</b>
<i>Less:</i>		
– Self-securitisation	0	4
– Real estate investment funds	4	3
– Equity funds	4	2
– Prudentially consolidated assets <sup>(c)</sup>	3	1
<b>Shadow banking sector estimate</b>	<b>10</b>	<b>5</b>

(a) Excludes central bank

(b) Includes self-managed superannuation funds which are regulated by the Australian Taxation Office

(c) Assets that are consolidated as part of the prudentially consolidated banking group

Sources: ABS; APRA; RBA

and funding links to the regulated banking system, the shadow banking sector continues to pose little systemic risk in Australia. This is in contrast to the case in some other countries. Nonetheless, the Reserve Bank continues to monitor these trends given the potential for bank-like activities to migrate to the shadow banking sector, particularly as full implementation of the tighter post-crisis prudential framework for banks progresses. As part of its monitoring efforts, the Reserve Bank provides annual updates to the CFR and participates in the annual assessment of global developments that is conducted by the Financial Stability Board (FSB).<sup>3</sup>

One area of shadow banking activity in Australia that warrants particular attention is non-bank securitisation activity, given strengthening investor risk appetite as well as the connections between this

activity, the housing market and the banking system (through the various support facilities provided by banks). As discussed, RMBS issuance has picked up since 2013 and spreads have narrowed, including for non-bank issuers (i.e. mortgage originators). Mortgage originators tend to have riskier loan pools than banks; this is partly because they are the only suppliers of non-conforming residential mortgages, which are typically made to borrowers who do not meet the standard underwriting criteria of banks. These originators currently account for about 2 per cent of the Australian mortgage market (not all of which is non-conforming), and so have limited influence on competition in the mortgage market and the housing price cycle. Even so, it is useful to monitor any signs of greater non-bank activity, as this could signal a broader pick-up in risk appetite for housing.

<sup>3</sup> See Financial Stability Board (2013), 'Global Shadow Banking Monitoring Report 2013', 14 November.

## Managed Funds

Consolidated assets held by domestic funds management institutions continued to grow at a strong, albeit slower, pace over the six months to June 2014 (Table 2.4). Growth in superannuation funds' assets, which make up around three-quarters of total managed funds' assets, was somewhat slower than in 2013. Superannuation funds' net investment income was softer, largely attributable to broadly flat domestic equity market prices and valuation effects on overseas assets from the appreciation of the Australian dollar during the period.

As part of the Government's superannuation safety reforms, APRA released a suite of prudential and reporting standards for the superannuation industry over 2012 and 2013 relating to, among other things, risk management and governance. From the beginning of 2014, all default superannuation contributions were required to be paid into MySuper products, which are offered by APRA-authorized providers that satisfy certain requirements regarding investment strategy, fees, and governance.<sup>4</sup> In light of these reforms, APRA will be closely monitoring

compliance with MySuper requirements, including operational risk requirements. Over the medium term, the availability of a low-cost default option may have implications for the asset allocation of the superannuation industry and linkages with the banking sector more broadly, although the precise shape of such changes is difficult to predict. Any changes would be in addition to the structural changes already occurring as a result of the rise in self-managed superannuation funds.

## Insurance

The general insurance industry is well capitalised, with its capital equivalent to 1.9 times APRA's prescribed amount. General insurers' profitability is also strong – the industry recorded an annualised return on equity of 17 per cent in the first half of 2014 (Graph 2.17). The aggregate underwriting result remained robust, mainly reflecting a favourable outcome for claims expenses. Natural catastrophe claims in 2014 to date are at their lowest levels in a couple of decades, with no substantial claims events recorded as yet (Graph 2.18). Insurers' investment

**Table 2.4: Assets of Domestic Funds Management Institutions**  
As at June 2014

	Level \$ billion	Share of total Per cent	Six-month-ended annualised change	
			Dec 2013 Per cent	Jun 2014 Per cent
Superannuation funds	1 745	74	19.2	6.0
Life insurers <sup>(a)</sup>	281	12	14.9	5.4
Public unit trusts	294	12	2.9	1.7
Other managed funds <sup>(b)</sup>	36	2	-12.8	-2.7
<b>Total (unconsolidated)</b>	<b>2 356</b>	<b>100</b>	<b>15.8</b>	<b>5.2</b>
<i>of which:</i>				
Cross investments	461	–	19.9	-5.5
<b>Total (consolidated)</b>	<b>1 895</b>	<b>–</b>	<b>14.8</b>	<b>8.1</b>

(a) Includes superannuation funds held in the statutory funds of life insurers

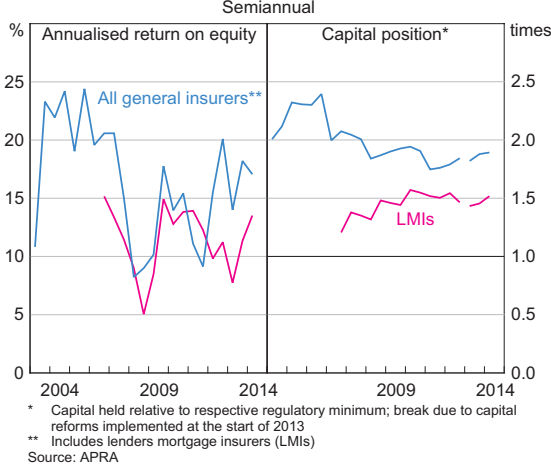
(b) Cash management trusts, common funds and friendly societies

Sources: ABS; RBA

<sup>4</sup> See APRA (2014), 'MySuper Authorisation', *APRA Insight*, Issue One, pp 30–56.

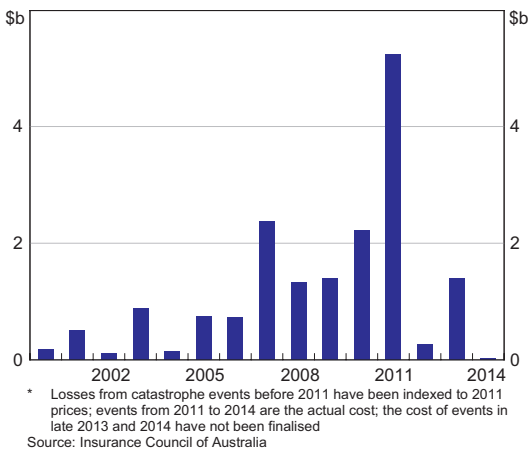
**Graph 2.17**

**Financial Performance of General Insurers**



**Graph 2.18**

**Claims from Natural Catastrophes in Australia\***



income also increased in the latest period due to tighter credit spreads on benchmark fixed-income securities.

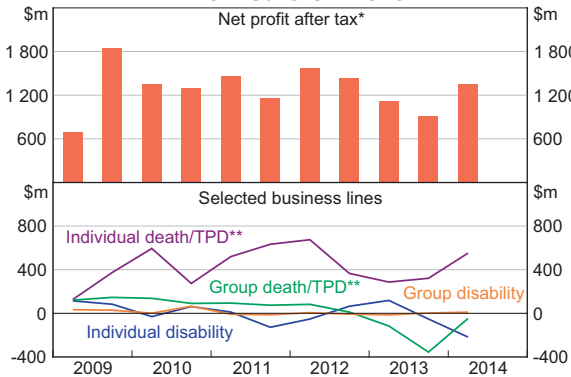
Insurers' profitability in the past couple of years has also been supported by rises in premium rates on some business lines (particularly home insurance) following natural catastrophes in 2010 and 2011. However, insurers report that strong price competition has emerged this year for 'short tail' classes of insurance, such as home and motor vehicle, with the outlook for associated premium

rates therefore weaker than in previous years. This has been mainly attributed to the entry of some lower-cost brands to the general insurance market. An emerging challenge for the general insurance industry has been the growth of 'aggregator' or price comparison websites. Although these websites can provide a valuable comparison tool for consumers and promote competition, some insurers have raised concerns that the focus on price (as opposed to other product features) could lead to consumers making uninformed choices and placing themselves at risk of underinsurance. More generally, given these developments, there is also the potential for insurers to under price risk in order to remain competitive, which could adversely impact insurers' overall future profitability.

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. LMIs' profitability improved in the first half of 2014, with the industry posting a return on equity of about 14 per cent, up from an average of around 10 per cent over the preceding few years. The number and average value of claims on LMIs has declined recently in response to the buoyant housing market, as well as previous improvements in underwriting standards. In addition, some LMIs have recently increased their premium rates. In May, the largest LMI, Genworth Australia, successfully listed on the ASX, with around one-third of the company now independently owned. Also, in August QBE announced plans to partially float its subsidiary, which is the other major LMI in Australia. Share market listing will subject the relatively concentrated Australian LMI industry to greater market scrutiny and increase its access to domestic capital markets; such developments could be beneficial to financial stability given the LMI industry's involvement in the credit creation process and linkages to the banking system.

Life insurers' profit increased in the first half of 2014 following a sharp decline in 2013 (Graph 2.19). The increase was partly due to a better result for

**Graph 2.19**  
**Life Insurers' Profit**



\* Includes profit from other non-risk business  
 \*\* TPD = total and permanent disability  
 Source: APRA

superannuation 'group' life insurance business, which has been facing a challenging operating environment in recent years. As discussed in the previous *Review*, excessive competition for group life insurance policies led to an under-pricing of risk and subsequent losses. Some life insurers have responded by increasing premium rates recently on group policies. APRA is liaising closely with both life insurers and superannuation fund trustees to address sustainability issues in this line of business, particularly with regards to policy design, underwriting standards, claims management and data quality.<sup>5</sup> More broadly, the profitability of the life insurance industry has also been weighed upon by high policy lapse rates, as well as changes in social attitudes to insurance, which have increased the propensity of policyholders to make claims and for a broader range of reasons (for example, mental illnesses). Despite the difficult conditions, the life insurance industry's capital position is sound, at 1.9 times APRA's prescribed capital amount.

## Financial Market Infrastructure

Financial market infrastructures (FMIs), such as payments systems, central counterparties (CCPs) and securities settlements systems, facilitate most

financial market transactions in the economy.<sup>6</sup> FMIs can, if well-designed, contribute to the efficiency and stability of the financial system. But they can also be a source of risk because of their size, strong connections with banks and other financial institutions, and the lack of substitutes for the services that they provide. The resilience and risk management practices of FMIs are therefore important for financial stability. This is increasingly so given global regulatory reforms are driving the increased use of centralised infrastructure, such as CCPs.

## Reserve Bank Information and Transfer System

The Reserve Bank owns and operates Australia's real-time gross settlement (RTGS) system, the Reserve Bank Information and Transfer System (RITS), through which most Australian dollar-denominated interbank payments are settled. RITS continued to operate smoothly over the past six months, settling around five million payments worth \$20 trillion.

The Reserve Bank invests in regular upgrades to its systems to ensure that RITS maintains resilient operations. An upgrade of core infrastructure was completed in the six months to June 2014, including the replacement of operating systems and databases, while system monitoring capabilities were enhanced. The Reserve Bank also invests in developing new functionality in RITS to help meet the changing needs of the payments system. One such piece of work nearing completion will settle the interbank cash settlement leg of property transactions, as part of a national electronic conveyancing system. The new system is intended to remove the manual processes and paperwork associated with property transactions, thereby delivering efficiency gains and cost savings to consumers and industry participants. Enhancement to RITS functionality to support settlement of these transactions will be implemented in late 2014.

5 For further discussion, see Rowell (2014), 'APRA's Expectations of Superannuation Fund Trustees', Speech to ASFA Unpacks: The Future of Insurance in Superannuation, Sydney, 29 April.

6 A full list of FMIs operating in Australia, as well as indicators of their systemic importance, is available in RBA (2014), *Submission to the Financial System Inquiry*, March, pp 91–92.

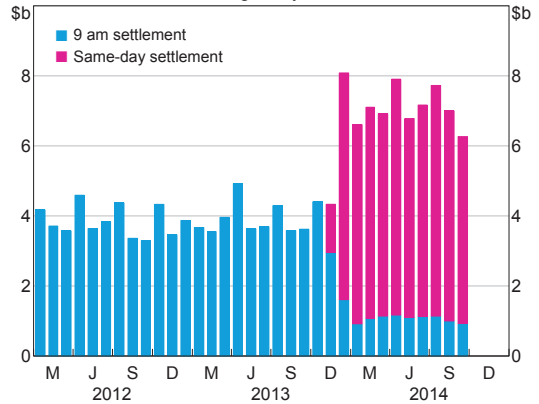
Interbank obligations arising from low-value payments, such as cheques, direct entry, and consumer electronic (card-based) transactions, settle in RITS on a multilaterally netted basis, rather than on an RTGS basis. Over the past six months, the average daily gross value of these obligations accounted for around 9 per cent of total daily payments settled in RITS. Cheques and consumer electronic obligations are settled at 9.00 am on the business day following their exchange. Since November 2013, most non-government direct entry obligations have been settled on a same-day basis in five intraday multilateral net batches, at 10.45 am, 1.45 pm, 4.45 pm, 7.15 pm and 9.15 pm.<sup>7</sup> This has allowed direct entry transactions to be finalised in a more timely fashion, and reduced the credit exposure that can arise when payments are posted to customer accounts ahead of interbank settlement.

Same-day settlement of interbank direct entry obligations has also resulted in a significant increase in the average daily multilateral net settlement value because the direct entry obligations are now separated into five daily settlements, which are no longer being netted against other low-value payments. Prior to November 2013, the net average daily value of the 9.00 am settlement was \$4 billion, whereas subsequently around \$7 billion in net multilateral settlements have been settled each day (Graph 2.20).

To facilitate the same-day settlement of direct entry obligations, the Reserve Bank introduced new liquidity arrangements in RITS, whereby the Reserve Bank makes Exchange Settlement Account (ESA) funds available to participants via repurchase agreements (repos) with an open-ended repurchase date. These open repos allow participants to meet the funding requirements of the two 'late' (7.15 pm and 9.15 pm) multilateral settlements that settle outside of normal banking hours. As a result, total system liquidity increased significantly in November 2013 and has remained at these elevated levels since (Graph 2.21).

The additional system liquidity has contributed to shorter queue times for RTGS payments, on average, as well as earlier settlement of payments in the day.

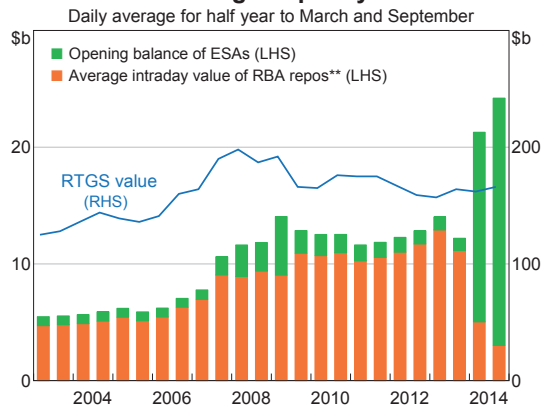
**Graph 2.20**  
**Multilateral Net Settlement in RITS\***  
 Average daily value



\* Multilateral net settlements of low-value clearing obligations; excludes the CHESSE batch – that is, settlement of transactions in the ASX Limited's Clearing House Electronic Subregister System; September 2014 is month-to-date

Source: RBA

**Graph 2.21**  
**Average Liquidity\***  
 Daily average for half year to March and September



\* September 2014 is six-months-to-date

\*\* Measured as the average balance of intraday RBA repos during the Daily Settlement Session; not adjusted for overnight repos

Source: RBA

<sup>7</sup> For further details on the implementation of same-day settlement of direct entry obligations, see Fraser S and A Gatty (2014), 'The Introduction of Same-day Settlement of Direct Entry Obligations in Australia', Reserve Bank of Australia *Bulletin*, June, pp 55–64.



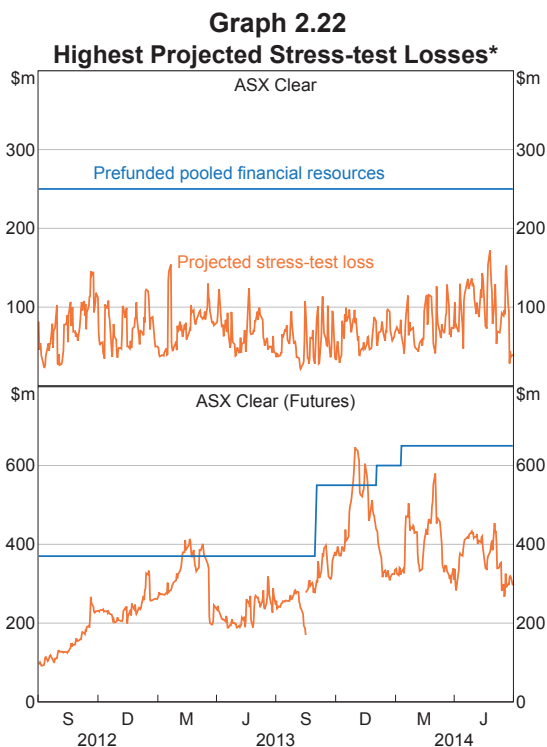
## Developments in CCP risk management

CCPs provide centralised management of counterparty risk to their participants. In Australia there are three licensed CCPs:

- ASX Clear and ASX Clear (Futures) are both owned by the ASX Group (ASX) and clear trades from ASX's equities and derivatives markets, and the over-the-counter (OTC) interest rate derivatives market
- LCH.Clearnet Limited (LCH.C Ltd) is licensed in Australia to clear OTC interest rate derivatives and certain financial products that are to be traded on a soon-to-launch derivatives market, the Financial and Energy Exchange.

Given their importance to the financial system, CCPs licensed to operate in Australia must meet Financial Stability Standards (FSS) determined by the Reserve Bank. The FSS were adjusted in early 2013 to align with new international standards, the *Principles for Financial Market Infrastructures* (see 'Developments in the Financial System Architecture' chapter). Amongst other changes, the revised FSS introduced more detailed requirements for the validation of CCP risk models. These include the assessment of model performance against historical data, analysis of the sensitivity of models to key assumptions, and periodic independent reviews of the modelling approach.

Consequently, during 2013/14, a major focus of the Bank's oversight of ASX's CCPs has been on how the CCPs validate the performance of their risk models. CCPs use risk models to estimate their potential credit and liquidity exposures in both normal and stressed market conditions. For example, in order to assess the adequacy of their financial resources, ASX Clear and ASX Clear (Futures) each perform daily capital stress tests that compare available prefunded resources against the largest potential loss in the event of the default of a participant (Graph 2.22). The CCPs also maintain models to ensure that the value of collateral they receive from participants to cover these exposures can be relied upon, even in stressed market conditions.



\* Projected largest potential loss in the event of the default of a participant (and affiliates of the participant from 2 April 2013) under a range of extreme but plausible scenarios; for ASX Clear (Futures), from 19 August 2013 projected losses are in the event of the default of two participants

Source: ASX

The ASX CCPs have made significant progress in implementing enhancements to all areas of their model validation framework. The Reserve Bank found in its 2013/14 Assessment of the ASX CCPs that they now observe the majority of the model validation requirements in the FSS. Overall, the Assessment concluded that the ASX CCPs had either observed or broadly observed the full range of relevant requirements under the FSS, while making a number of recommendations to strengthen further the CCPs' observance of these requirements.<sup>8</sup> Other key matters covered in the report included initial work by the CCPs to plan for recovery from an extreme event that threatened their ongoing provision of clearing services, and ASX's risk management arrangements for its investment portfolio.

<sup>8</sup> For further details, see RBA (2014), '2013/14 Assessment of ASX Clearing and Settlement Facilities', September.

The Bank has also recently released its first assessment of LCH.C Ltd against the FSS, covering the financial year 2013/14.<sup>9</sup> This period was a time of transition for LCH.C Ltd, during which it admitted its first Australian participants. The tailoring of LCH.C Ltd's services to Australian participants has been a focus of the Reserve Bank's oversight of LCH.C Ltd. During the period, LCH.C Ltd introduced a formal structure to facilitate the input of Australian participants into its governance and risk management. It has also applied to the Reserve Bank to open an Exchange Settlement Account, and intends to extend the operating hours of its OTC interest rate derivatives clearing service to cater for the Australian time zone.

### Use of CCPs for clearing OTC derivatives

The volume and value of OTC interest rate derivatives that are centrally cleared by Australian banks has continued to rise; the value of banks' interest-rate derivatives cleared at LCH.C Ltd, which clears the majority of banks' activity in this market, rose from 19 per cent to 27 per cent of the total notional principal outstanding over the six months to June 2014 (Graph 2.23). This increase has occurred even though a mandatory clearing requirement for interest rate derivatives has not yet come into effect in

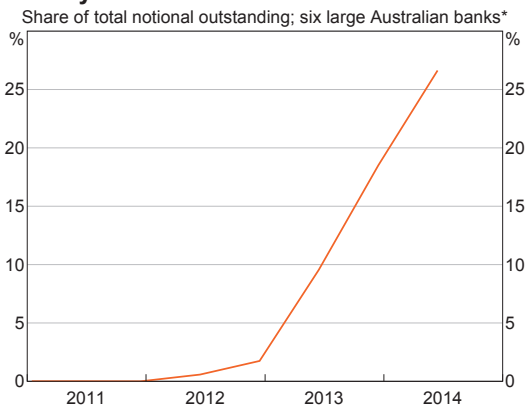
Australia (see 'Developments in the Financial System Architecture' chapter). This at least partly reflects that mandatory central clearing requirements are already in place in certain overseas markets and banks are anticipating the introduction of additional mandates both domestically and overseas. In addition, there are commercial incentives to move to the centrally cleared market. In particular, with most interest rate derivatives trades between large internationally active dealers being centrally cleared, liquidity and pricing are generally more favourable for centrally cleared trades. This has been driven, in part, by dealers seeking to maximise operational and netting efficiencies, and minimise capital requirements.

The two CCPs licensed in Australia to clear OTC interest rate derivatives – ASX Clear (Futures) and LCH.C Ltd – continue to accept Australian banks as direct participants. Four of the large domestic banks have joined ASX Clear (Futures) as direct participants and three have joined LCH.C Ltd, although some additional participants are expected in the near future. A number of domestic banks also continue to clear OTC interest rate derivatives indirectly – that is, using a 'client' clearing arrangement with a clearing agent that is a direct clearing participant – through LCH.C Ltd and the Chicago Mercantile Exchange.

Although central clearing among smaller financial institutions and non-financial corporations (collectively referred to as non-dealers) is currently limited, a small number of large non-dealers have client clearing arrangements in place. Central clearing by non-dealers is most common in products that are subject to foreign mandatory clearing requirements.

Both ASX Clear (Futures) and LCH.C Ltd's services allow non-dealers that clear indirectly the option to segregate their positions and collateral from both their clearing agent and other clients of their clearing agent. This allows non-dealers to better manage the risks they face from clearing indirectly, and increases the likelihood that, in the event of the default of their clearing agent, their positions and associated collateral could be transferred ('ported') to an alternative clearing participant. ❖

**Graph 2.23**  
**Centrally Cleared OTC Interest Rate Derivatives**



\* Principal notional outstanding with LCH.C Ltd as a percentage of all AUD and non-AUD OTC interest rate derivative positions reported by Australian banks in the BIS semiannual derivatives survey

Sources: BIS; LCH.C Ltd; RBA

9 For further details, see RBA (2014), '2013/14 Assessment of LCH.Cleantnet Limited's SwapClear Service', September.