

2. The Australian Financial System

The Australian banking system has performed strongly since the previous *Review*. Banks' profitability remains robust, supported by a further steady improvement in asset performance. Funding costs have declined modestly as competition in domestic deposit markets has eased. The major banks have continued to accumulate capital over recent quarters, and appear well placed to adjust to any further increases in capital targets in the period ahead. Another recent focus of Australian banks has been implementing the Liquidity Coverage Ratio (LCR) requirement from the start of this year. The new liquidity rules, outlined in 'Box A: The Basel III Liquidity Reforms in Australia', reinforce the need for banks to manage their liquidity risks prudently.

Nonetheless, risks in housing and commercial property markets are rising in association with fast price growth in some cities, heightened investor activity and strong price competition among lenders. It will be important for macroeconomic and financial stability that banks' lending practices take into account system-wide risks in these property markets, and in this light the Australian Prudential Regulation Authority (APRA) recently announced a number of supervisory measures aimed at ensuring banks maintain sound housing lending practices.

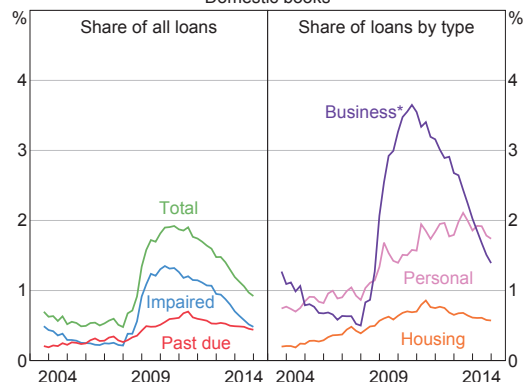
Profitability has been strong in the general insurance industry over recent years, although it declined in the most recent period due to above-average weather-related losses. The buoyant housing market has contributed to lower insurance claims and increased profitability for lenders mortgage insurers. With competition in the sector strong, insurers' pricing policies and the adequacy of their claims reserves will warrant ongoing attention.

Bank Asset Performance and Lending Conditions

Asset performance is a key indicator of Australian banks' soundness and a focus of financial stability analysis. Current and future asset performance depend on bank lending conditions, including price and non-price lending terms, as well as macroeconomic and property market conditions.

The asset performance of Australian banks has improved steadily over recent years, and this trend continued over the second half of 2014. In the banks' domestic loan portfolio, the ratio of non-performing assets to total loans was 0.9 per cent at December 2014, down from a peak of 1.9 per cent in mid 2010 (Graph 2.1). This improvement has been concentrated in business loans, although there have also been smaller declines in the ratios of non-performing housing and personal loans over the past few years.

Graph 2.1
Banks' Non-performing Assets
Domestic books



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

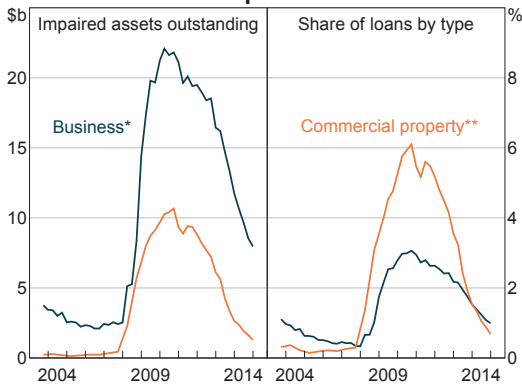
Source: APRA

The decline in non-performing business loans has been particularly evident in commercial property loans, which also drove much of the earlier increase (Graph 2.2). The impairment rate for commercial property loans has declined to a level below that for other business loans over recent quarters, assisted by the strong recovery in commercial property prices. More generally, the tightening in lending standards around 2008–09 has strengthened the underlying quality of banks' business loan portfolios, and has probably made this portfolio more resilient to possible adverse macroeconomic conditions.

years the share of large business lending extended by Asian-owned banks (mainly banks domiciled in China and Japan) has risen markedly; in contrast, the share extended by European-owned banks has continued to decline, in part because of difficulties in some banks' home jurisdictions (Graph 2.4).

Competitive pressures appear to be most pronounced in the commercial property loan segment, despite falling yields and an emerging oversupply in some major capital city markets (see

Graph 2.2
Banks' Impaired Assets



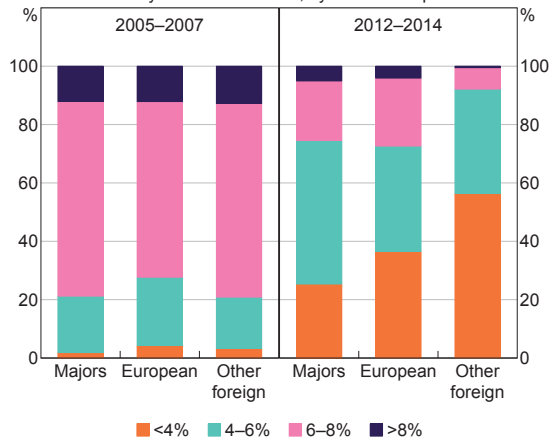
* Domestic books; includes lending to financial businesses, bills, debt securities and other non-household loans
** Consolidated Australian operations
Source: APRA

Nonetheless, in the current environment of low interest rates and relatively subdued demand for credit by businesses, business lending conditions have eased somewhat. According to industry liaison, strong competition among lenders has compressed margins on some large corporate loans, and this trend continued in recent quarters. Also contributing to pressure on margins are the narrow spreads available on market-based funding for these borrowers, as investors globally continue to search for yield. In addition, loan covenants have been relaxed for certain borrowers. Some foreign banks in particular are offering very competitive pricing and terms in an effort to increase their business lending in Australia (Graph 2.3). Over the past few

Graph 2.3

Banks' Large Business Loans*

Share by interest rate band, by domicile of parent

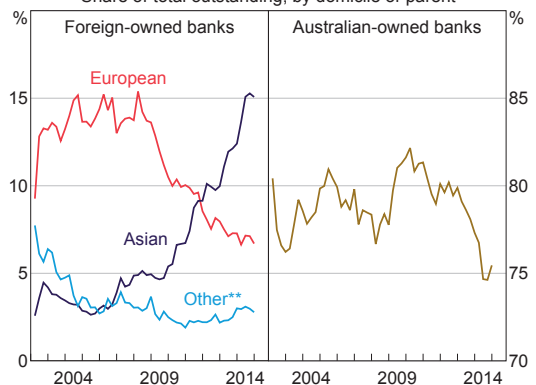


* Loans \$2 million and over
Sources: APRA; RBA

Graph 2.4

Banks' Large Business Lending*

Share of total outstanding, by domicile of parent



* Loans \$2 million and over
** Mostly North American
Sources: APRA; RBA

‘Household and Business Finances’ chapter). While the effect of these developments on overall financial stability has been modest to date, risks appear to be rising in the commercial property market. Banks will therefore need to be especially cautious in their commercial property valuations and in their loan-to-valuation ratios (LVRs) given that prices are rising strongly. They should also ensure they do not build up concentrated exposures within this sector (e.g. by geography, property segment or developer), as these can give rise to correlated losses for lenders, as occurred during 2008–09.

The performance of banks’ domestic household loan portfolios has continued to improve. The non-performing share of banks’ housing loans was about 0.6 per cent at December 2014, down from a peak of 0.9 per cent in 2011. Banks’ housing loan performance continues to be aided by low interest rates, which ease the debt-servicing requirements of borrowers. Rising housing prices have also contributed by making it easier for home owners to sell rather than stay in arrears should they run into servicing difficulties, and for banks to dispose of their existing stock of troubled housing assets. The non-performing ratio for personal loans is higher, at 1.7 per cent, but it has declined modestly over the past couple of years. Personal loans are only a small part of banks’ total domestic lending and therefore have little influence on banks’ overall asset performance.

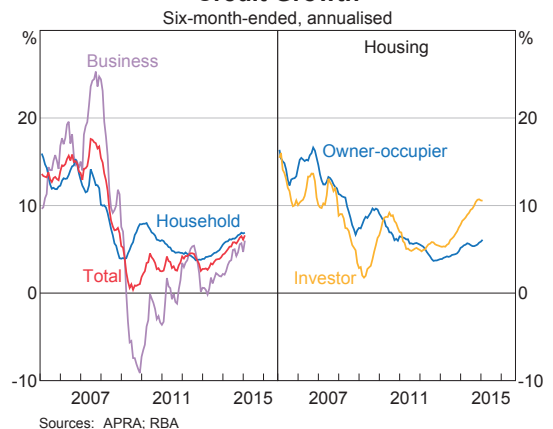
Price competition in the residential mortgage market has remained vigorous over the past six months. Lenders are competing for new borrowers by offering attractive fixed rates and significantly discounting their advertised variable rates; discounts of 100 basis points or more are now widely available. Short-term interest rate ‘specials’ targeted at specific borrower segments, such as borrowers refinancing with low LVRs, have become more prevalent. Banks have also increased commission rates paid to brokers and provided other incentives to their broker networks. These developments have coincided with an increase

in the share of loan approvals that are refinanced, as well as the share distributed through mortgage brokers; industry estimates indicate that 40–50 per cent of new housing loans are now sold through mortgage brokers. The more banks use brokers, the greater is the risk that a misaligned broker incentive structure would generate significant amounts of lending that is outside their risk tolerance or is otherwise inappropriate.

Reports from banks and other mortgage market participants suggest that key non-price loan criteria, such as serviceability and deposit criteria, have remained broadly steady overall; the exception is that some banks recently applied stricter criteria for some inner-city apartment markets and certain mining-exposed regional towns. Nonetheless, low housing loan rates and strong growth in investor housing credit have raised the macroeconomic risks arising from the housing market (Graph 2.5). For instance, speculative demand by investors may amplify the housing price cycle and increase the potential for prices to fall later on. In addition, the rising share of interest-only loans may increase risks because these loans are not required to amortise for a period of time, sometimes five years or longer, leaving households with more debt than otherwise.

In this environment, it is especially important for macroeconomic and financial stability that lending practices take into account system-wide risks in

Graph 2.5
Credit Growth



the housing and residential mortgage markets. In view of this, in December 2014 APRA announced a number of additional supervisory measures to reinforce sound housing lending standards at authorised deposit-taking institutions (ADIs). These measures include expectations that: ADIs should not be increasing their share of higher-risk lending, for example lending at high LVRs or high debt-servicing levels, as well as lending to owner-occupiers for lengthy interest-only periods; annual growth in ADIs' investor housing lending should not be materially above 10 per cent; and ADIs' serviceability assessments should include an interest rate buffer of at least 2 per cent above the loan rate, with a minimum floor assessment rate of 7 per cent (see 'Box B: Responses to Risks in the Housing and Mortgage Markets'). If an ADI does not meet these expectations, it will face heightened supervisory actions, possibly including additional capital charges. The Australian Securities and Investments Commission (ASIC) also announced that it will be reviewing whether lenders' interest-only housing lending complies with responsible lending laws. On the basis of the current data, these responses will likely prompt some banks to moderately tighten their lending practices and standards, and a number of banks to slow their investor housing lending. Importantly, APRA's supervisory measures and ASIC's review should help ensure that banks' housing lending standards do not weaken from here.

International Exposures

Australian-owned banks' international exposures arise from the activities of their overseas branches or subsidiaries, and the direct cross-border activities of their Australian-based operations. While these exposures provide diversification and other benefits to banks, they also expose them to a range of risks.

International geopolitical events, such as those in Greece and Russia, have been prominent in recent months (see 'The Global Financial Environment' chapter). Australian-owned banks' direct exposures

to Greece and emerging Europe (including Russia) are a negligible share of their global consolidated assets (Table 2.1); foreign banks operating in Australia have little exposure to these countries as well. As a consequence, these events do not present a direct risk to the Australian banking system. There could be indirect effects, however, if the economic and financial challenges in Greece and Russia were to result in generalised turbulence in global debt markets.

In contrast, Australian-owned banks' aggregate exposure to New Zealand is quite large, because all four major banks have substantial banking operations there. The performance of the major banks' New Zealand exposures continued to improve over the second half of 2014, with the aggregate non-performing asset ratio declining to 0.8 per cent at December 2014, compared with 1 per cent a year earlier. However, the Reserve Bank of New Zealand has expressed concern about further rapid housing price growth in Auckland, as well as indebtedness in the agricultural sector given the recent large fall in global dairy prices. Australian banks' New Zealand subsidiaries have sizeable exposures to the housing market and agricultural sector, so difficulties in these areas could weigh on their overall asset performance.

The performance of Australian-owned banks' assets in the United Kingdom has been relatively weak for some time, reflecting challenging economic and property market conditions. Nonetheless, the non-performing asset ratio fell sharply over the second half of 2014 (Graph 2.6). NAB has disclosed that it sold parts of its UK portfolio of impaired commercial property loans during this period. It continues to progress the run-off of its impaired commercial real estate portfolio, and is investigating options to sell its UK retail banking subsidiary.

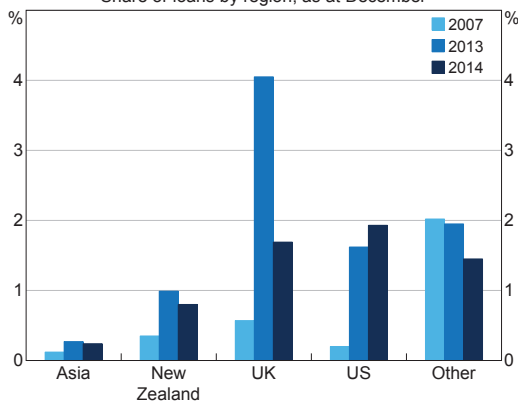
Exposures to the Asian region, in particular to China, have grown strongly over recent years, and now account for 19 per cent of Australian-owned banks' total international exposures. Longer-term lending

Table 2.1: Australian-owned Banks' International Exposures
Ultimate risk basis, September 2014

	Total exposure \$ billion	Share of international exposures Per cent	Share of global consolidated assets Per cent
New Zealand	319	38	8
United Kingdom	143	17	4
United States	116	14	3
Asia ^(a)	163	19	4
– Emerging Asia	96	11	2
Europe	52	6	1
– Emerging Europe	1	0	0
Other	48	6	1
– Emerging Other	5	1	0
Total	840	100	22

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

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



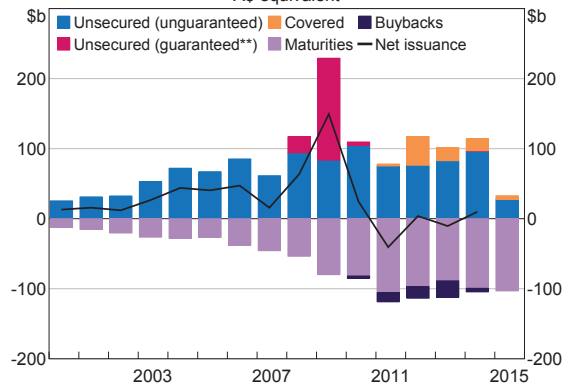
Sources: APRA; RBA

to households and businesses represents only a small proportion of these exposures; the majority of the banks' exposures are instead shorter term and trade-related, lending that typically poses lower funding and credit risks. Even so, further sharp falls in commodity prices and weaker economic conditions in Asia could still present a challenging environment for Australian banks' local operations in these countries.

Funding and Liquidity

Australian banks are also exposed to international financial and economic risks affecting the liability side of their balance sheets. Global wholesale funding conditions have improved significantly over the past few years as investor risk appetite and search for yield behaviour have strengthened. Even so, Australian banks' bond issuance was broadly in line with maturities in 2014, as it has been for a number of years (Graph 2.7).

Graph 2.7
Banks' Bond Issuance and Maturities*
A\$ equivalent



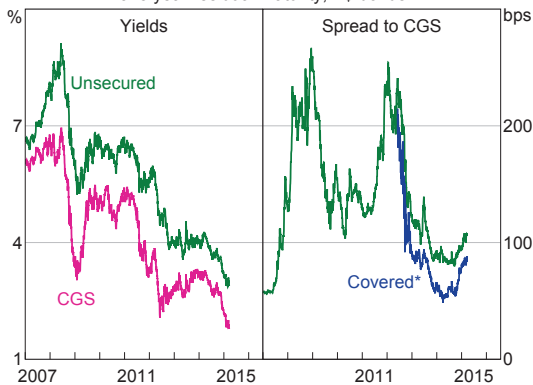
* 2015 issuance is year-to-date

** Guaranteed by the Commonwealth of Australia

Source: RBA

Over recent months, increased volatility in international markets has seen a moderate widening in spreads on the major banks' bonds (Graph 2.8). At this stage, the increase in spreads has been more than offset by the general decline in government bond yields, leaving bank bond yields lower than a few months ago. Banks have retained good access to a range of foreign currency bond markets, even though the cost of swapping some foreign currencies back into Australian dollars has increased a little. However, wholesale funding costs for Australian banks could increase significantly if ongoing vulnerabilities in a range of economies and banking systems were to spur more substantial and sustained volatility in global debt and currency markets (see 'The Global Financial Environment' chapter).

Graph 2.8
Major Banks' Bond Pricing
 3–5 year residual maturity, A\$ bonds



* Covered bond pricing interpolated to a target tenor of 4 years using bonds with a residual maturity between 2 and 10 years

Sources: Bloomberg; UBS AG, Australia Branch

Conditions in domestic deposit markets have continued to ease over the past six months, contributing to a further decline in Australian banks' overall funding costs.¹ Some of the major banks' at-call and term deposit rates have declined by more than the cash rate over this period – for example, interest rates on some 'bonus' savings accounts have been reduced by about 60 basis points.

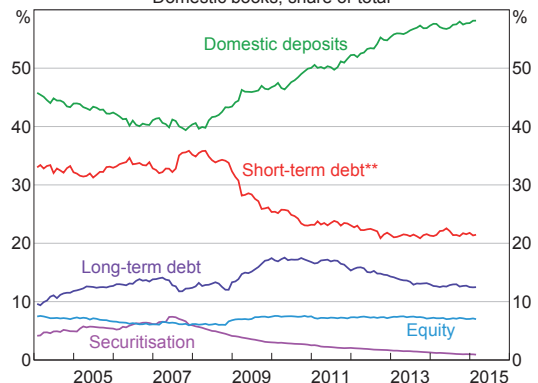
¹ For further discussion of banks' funding costs, see Tellez E (2015), 'Developments in Banks' Funding Costs and Lending Rates', RBA Bulletin, March, pp 55–61.

The LCR was implemented in Australia on 1 January 2015. The LCR is a global prudential requirement for banks to hold high-quality liquid assets that are greater than their expected net cash outflows within a 30-day stress period (see 'Box A: The Basel III Liquidity Reforms in Australia'). As at 1 January 2015, all locally incorporated banks that are subject to the LCR exceeded the 100 per cent minimum requirement. The aggregate LCR was around 115 per cent.

Australian banks had already made substantial adjustments to the composition and maturity structure of their funding following the global financial crisis, well ahead of the LCR requirement coming into force. Most notably, banks significantly increased their use of domestic deposits, in particular retail deposits, and reduced that of short-term wholesale funding, which is regarded as less stable than other forms of funding (Graph 2.9). Banks have also increased the average maturity of their short- and long-term debt, and there are indications that the diversity of their bond investor base has also increased.

The new liquidity rules are reinforcing the need for banks to manage their liquidity risks prudently and will help ensure that they continue to do so should the market environment become less conducive

Graph 2.9
Banks' Funding*
 Domestic books, share of total



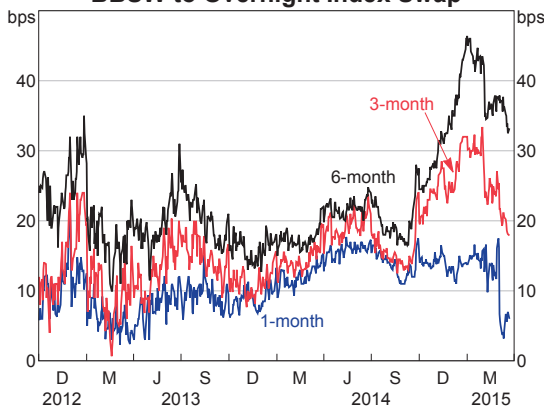
* Adjusted for movements in foreign exchange rates; tenor of debt is estimated on a residual maturity basis

** Includes deposits and intragroup funding from non-residents

Sources: APRA; RBA; Standard & Poor's

to self-discipline. Banks have recently put in place a number of targeted strategies to manage their regulatory liquidity requirement, such as refining the terms and pricing of their deposits to better reflect liquidity risk and introducing new accounts that require depositors to give notice before withdrawing funds. Banks report that this adjustment process has gathered pace over the past few months: interest rates on short-term deposits from financial institutions have declined by more than those for deposits with more favourable treatment under the LCR rules, while many retail customers have been advised that they must give notice of at least 31 days before breaking a term deposit. Another recent development is that banks have increased their issuance of 6-month and 12-month bills and reduced issuance of bills with shorter terms. Among other factors, this contributed to widening in the bills-OIS spreads for longer-dated bills in late 2014 and early 2015 (Graph 2.10).

Graph 2.10
BBSW to Overnight Index Swap



Sources: AFMA; Tullett Prebon (Australia)

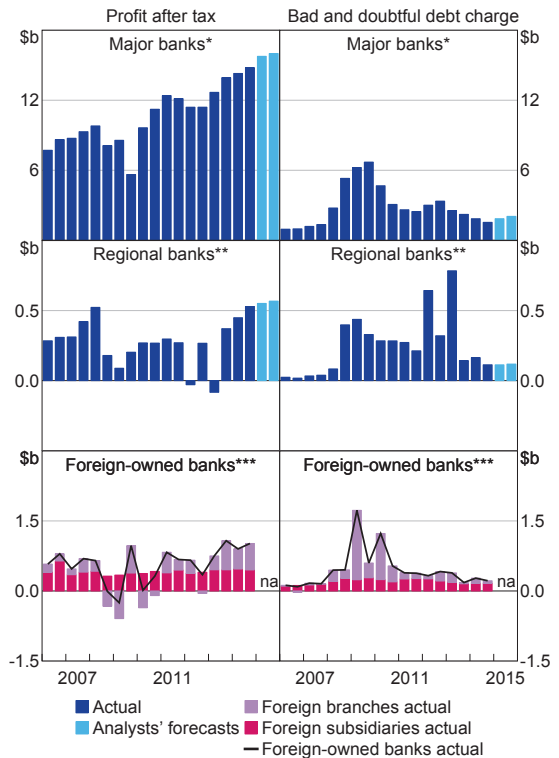
More generally, although much of the adjustment to the LCR has already occurred, some further changes are likely as banks seek to price liquidity risk efficiently throughout their business. To this end, banks report that they are investing in better data systems to track customers' decisions around funds withdrawal.

Profitability

Strong profitability in recent years has contributed to banks' capital adequacy and supported public and investor confidence in the banking system. Banks' profit outcomes have been driven by improving loan performance and solid income growth.

Aggregate profit of the major banks was \$14.8 billion in their latest half-yearly results, 6 per cent higher than the corresponding period a year ago (Graph 2.11). The major banks' bad and doubtful debt charge declined substantially and is now at a historically low level as a share of total assets

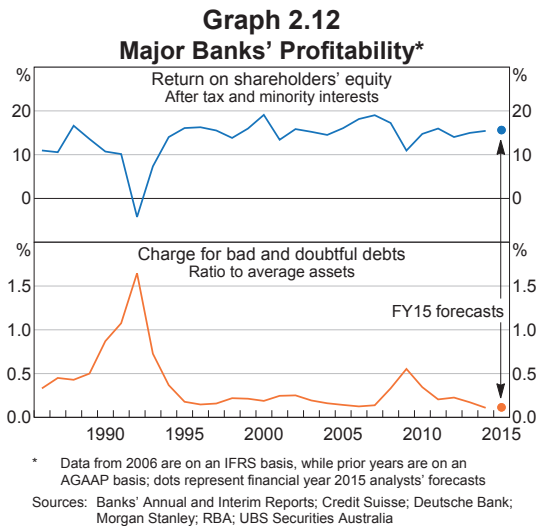
Graph 2.11
Banks' Profit



* 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; RBA; UBS Securities Australia

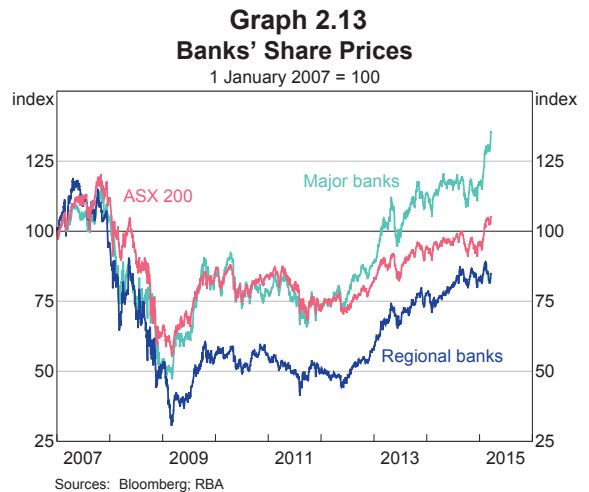
(Graph 2.12). In addition, net interest income grew at a solid pace, even though price competition in lending markets induced a slight narrowing in net interest margins. NAB reported a sharp increase in expenses in the latest half of the year, reflecting a substantial increase in provisions for UK conduct charges as well as software writedowns.



Aggregate profit for the three regional banks (Suncorp, Bank of Queensland, and Bendigo and Adelaide Bank) was \$529 million in their latest half-year results. This outcome was 43 per cent higher than the corresponding period a year earlier and was driven by continued improvement in these banks' loan performance. In contrast to the major banks, regional banks' profit was also supported by a small rise in their net interest margins. Foreign-owned banks' profit was around \$1 billion in the six months to September 2014, a little lower than the corresponding period a year earlier, due to a rise in the bad and doubtful debt charge and higher operating expenses.

Looking ahead, equity market analysts expect that the major banks' aggregate return on equity in their 2015 financial year will be a bit above 15 per cent, broadly similar to the returns recorded over the past few years. This is despite the expectation that profits will not be boosted by further reductions in bad

and doubtful debt charges. Equity market investors also seem to be viewing the major banks' financial positions and earnings prospects favourably, with their share prices rising by about 20 per cent over the past six months (Graph 2.13). The major banks' relatively high dividend yields have been attractive to many investors given the low interest rate environment.



Over the medium term, Australian banks' profitability will be affected by the efficiency gains they can achieve from investment in new technology. Significant investment is already underway in digital banking. Banks' revenues from this investment (and hence their ability to achieve lower unit costs) will depend on how strongly banks compete in this market, how well the digital transition is managed and how risks around these new banking channels can be controlled. Given the large investment costs involved relative to their asset base, a key challenge for smaller ADIs will be to ensure that they are able to provide the digital banking services demanded by their customer base in the future.

Capital

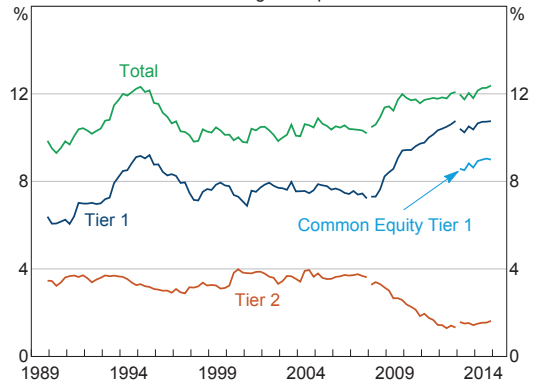
The Australian banking system has strengthened its capital position in recent years, thereby increasing its resilience to adverse shocks. Banks' aggregate Common Equity Tier 1 (CET1) capital ratio stood

at 9 per cent of risk-weighted assets (RWAs) at December 2014, up from around 8½ per cent in early 2013 (Graph 2.14). Robust profitability over this period helped banks accumulate common equity capital mainly through retained earnings. In the second half of 2014, most major banks raised additional capital through dividend reinvestment plans; over recent years the major banks had generally offset the boost to common equity arising from their dividend reinvestment plans by repurchasing their shares on the market.

Banks' issuance of non-common equity capital instruments (Additional Tier 1 and Tier 2 instruments, sometimes referred to as 'hybrids') was strong in 2014, at around \$12 billion (Graph 2.15). This amount exceeded maturities in the period, and thus contributed to an increase in banks' total capital ratio, which stood at 12.4 per cent at December 2014. The significant increase in issuance in late 2014 appears to have weighed upon secondary market pricing of listed Additional Tier 1 capital instruments; accordingly, issuance spreads on comparable instruments priced in early 2015 have widened. Several major banks issued Tier 2 instruments denominated in renminbi in early 2015 to help diversify their offshore investor bases.

The major banks are adjusting to higher regulatory capital requirements arising from their designation as domestic systemically important banks (D-SIBs) by APRA. As discussed in previous *Reviews*, the major banks' minimum regulatory CET1 capital ratio (including the capital conservation buffer and D-SIB add-on) will be set at 8 per cent of RWAs from 1 January 2016, 1 percentage point above that for smaller banks. In practice, banks' capital targets will need to be somewhat higher than these minimums to meet any additional risk-based capital charges that APRA may impose and to provide a buffer in case of a temporary negative shock to capital. Accordingly, two major banks have recently announced an increase in their capital targets. Based on their current pace of capital accumulation, the

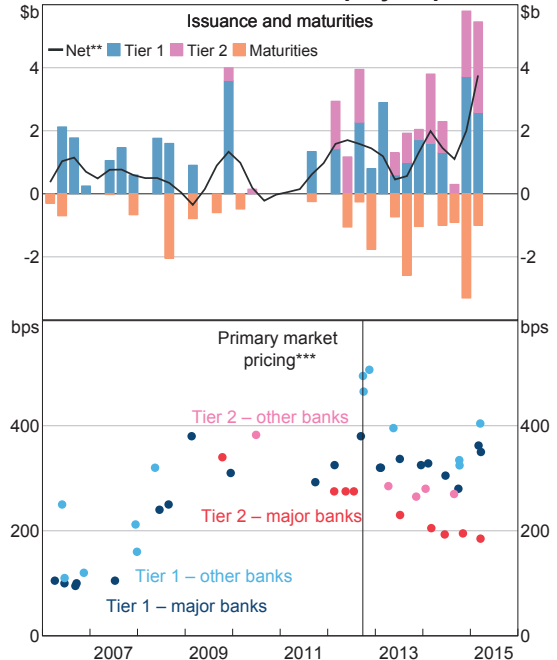
Graph 2.14
Banks' Capital Ratios*
Consolidated global operations



* 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 introduction of Basel III for all ADIs

Source: APRA

Graph 2.15
Banks' Non-common-equity Capital*



* Includes securities that have been priced but not yet issued; March 2015 is quarter-to-date

** 7- period Henderson trend; net issuance may not directly translate to net movement in capital as maturing instruments may not be fully Basel III compliant

*** Spread to 90-day bank bill swap rate; excludes offshore issuance; vertical line indicates the timing of APRA's clarification of Basel III requirements for Additional Tier 1 and Tier 2 capital

Source: RBA

major banks appear well placed to transition to higher capital targets over the course of this year.

A number of potential capital policies on the horizon, if implemented as proposed, would require banks to increase their capital positions even further. These include the government's response to recommendations from the Final Report of the Financial System Inquiry (FSI), and the Basel Committee on Banking Supervision's (BCBS's) proposals to revise the capital floor for banks using the internal ratings-based (IRB) approach and alter the standardised framework for credit risk (see 'Developments in the Financial System Architecture' chapter).

A possible outcome from the current capital policy considerations is an increase in the residential mortgage risk weights that are derived from banks' IRB capital models, bringing them closer to the higher risk weights of banks using the more prescribed standardised method. For example, the FSI considered a range between 25 and 30 per cent to be appropriate in targeting an average IRB mortgage risk weight; this compares with the current average mortgage risk weight of about 18 per cent across the major banks' IRB residential mortgage exposures. Given this disparity, as well as the size of the major banks' residential mortgage portfolios, such a policy could significantly increase the major banks' capital requirements.²

APRA's regular stress tests of banks' balance sheets can provide a perspective on the adequacy of individual bank and system-wide capital positions. The most recent stress test, which was finalised in late 2014, assessed banks' resilience to large negative macroeconomic shocks, including a severe downturn in the housing market.³ Under this scenario, banks would have incurred significant

credit losses, higher funding costs and an increase in average risk-weights. Losses on residential mortgage portfolios (around two-thirds of lending) accounted for around one-third of banks' aggregate credit losses. No bank would have breached the minimum CET1 capital requirement of 4.5 per cent, but some would have been required to constrain dividend payments and trigger convertible capital instruments. How banks would recover from such a scenario remains an important question. APRA concluded that some banks' stated recovery actions may not have been feasible and were only loosely connected to their existing recovery plans; it is likely that they would have curtailed supply of new credit to the economy, and thereby exacerbated the downturn. In view of these results, APRA will be engaging with banks to review and improve these areas of their crisis preparedness.

Another area of focus for Australian banks is their conduct and culture. These issues are receiving greater attention among market commentators and the global regulatory community, following a number of conduct-related problems that have resulted in substantial legal expenses for certain global banks. Australian banks are required to maintain a sound operational risk framework that ensures the proper functioning and behaviour of systems, processes and people; complex and diversified banks should have a more robust framework in place. Banks are also expected to understand their 'risk culture', which can be thought of as the way the management of risk is viewed in practice across the institution. Conduct-related events in one area of a banking group may be a signal of broader governance, cultural and risk management deficiencies, and could give rise to entity-wide reputational risks.

Shadow Banking

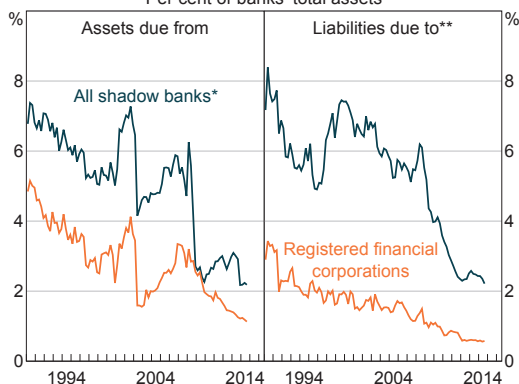
Addressing risks in shadow banking – defined as credit intermediation involving entities and activities outside the prudentially regulated banking system – has been a core area of international reform since

2 For further discussion of this policy, see Commonwealth of Australia (2014), *Financial System Inquiry Final Report* (D Murray, Chair), Canberra, pp 60–66.

3 For further details, see Byres W (2014), 'Seeking Strength in Adversity: Lessons from APRA's 2014 Stress Test on Australia's Largest Banks', Speech to the AB+F Randstad Leaders Lecture Series, Sydney, 7 November.

the crisis. The shadow banking sector in Australia is estimated at around 4 per cent of financial system assets, having declined markedly since the financial crisis.⁴ In addition to its small size, the shadow banking sector is judged to pose limited systemic risk in Australia because of its minimal credit and funding links to the regulated banking system (Graph 2.16). Nonetheless, the Reserve Bank and other agencies in the Council of Financial Regulators continue to monitor shadow banking activity for signs of potential systemic risk.

Graph 2.16
Banks' Connections to Shadow Banks
Per cent of banks' total assets

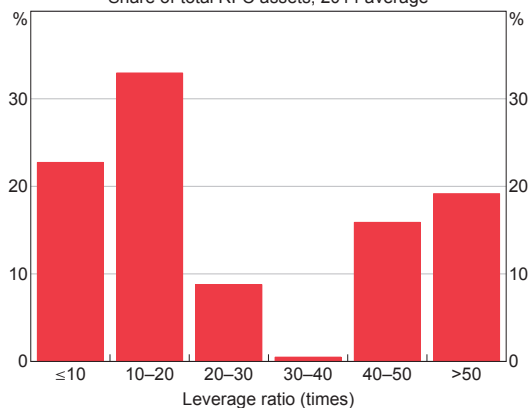


* Based on a less-preferred measure of shadow banking due to data constraints; includes prudentially consolidated entities that are not usually considered as shadow banks; excludes bond and mortgage investment funds
 ** Includes equity funding
 Sources: ABS; APRA; RBA

One concern is that, in the absence of prudential regulation, shadow banks may seek to operate at relatively high levels of leverage to maximise returns, thereby increasing risk in the financial system. This is particularly relevant for registered financial corporations (RFCs), which are the shadow banking entities with business structures that are most similar to banks. While many RFCs have a leverage ratio (total assets to equity) of 20 or less, a portion of the RFC sector operates at much higher levels of leverage (Graph 2.17). Some of the larger RFCs

4 This estimate is based on the Financial Stability Board's 'narrow measure' of shadow banking. For further details on the components and trends in Australia's shadow banking sector, see Manalo J, K McLoughlin and C Schwartz (2015), 'Shadow Banking – International and Domestic Developments', RBA Bulletin, March, pp 75–83.

Graph 2.17
RFC Assets by Leverage Ratio*
Share of total RFC assets, 2014 average



* Ratio of assets to equity; excludes some small institutions; excludes institutions that reported negative average equity in 2014 or did not report data in all 12 months

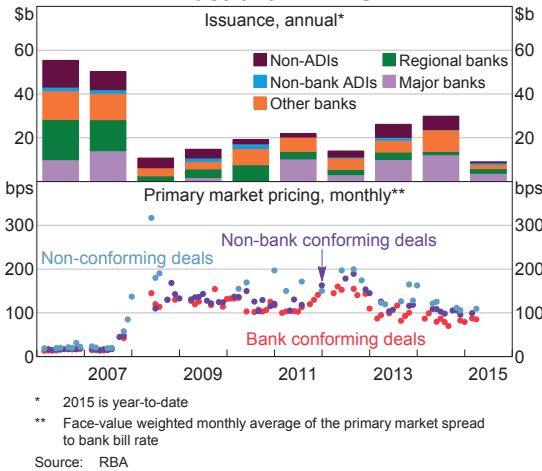
Sources: APRA; RBA

have sizeable repurchase agreements ('repos') on both sides of their balance sheet. Most repos in Australia are transacted using high-quality Australian government securities as collateral, which limits the credit and funding risks that can arise from this activity.

Another area of shadow banking activity in Australia that warrants attention is securitisation, given its connections with the housing market and banking system. Consistent with the buoyant housing market, issuance of residential mortgage-backed securities (RMBS) has picked up over the past year and spreads have narrowed, including for non-bank issuers such as mortgage originators (Graph 2.18). Mortgage originators tend to have riskier loan pools than banks; for example, their RMBS are backed by larger shares of low doc and high LVR loans. These originators currently represent only a small share of the housing loan market, but a significant pick-up in their activity could signal a broader strengthening in debt investors' risk appetite for housing loans.

Australian regulators remain alert to the potential risks from securitisation activity. APRA's proposed reforms to the prudential framework for securitisation should help reduce complexity in issuance by regulated lenders, as well as better align

Graph 2.18
Australian RMBS



their incentives with those of RMBS investors. APRA has also proposed to limit the concessional capital treatment on warehouse facilities to only cover those of up to one year in duration, which should encourage banks to hold sufficient capital to cover rollover risks associated with funding warehouse facilities (including those to mortgage originators). The Reserve Bank will introduce mandatory reporting requirements for repo-eligible asset-backed securities, including RMBS, from 30 June 2015. The required information, which must also be made available to permitted users, will promote greater transparency in the RMBS market.

Superannuation

Superannuation funds represent about three-quarters of assets in the managed fund sector in Australia, a higher share than in the major economies' financial systems. Superannuation funds are subject to prudential regulation by APRA, unlike most other managed funds.

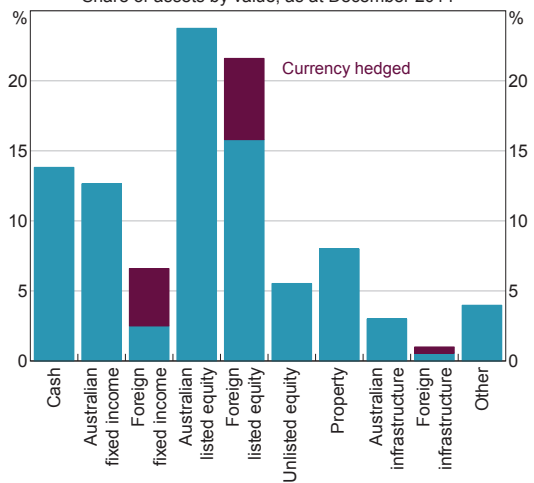
Superannuation funds' asset growth picked up over the second half of 2014, in part due to valuation effects on overseas assets as the Australian dollar depreciated over the period. Nonetheless, growth remained slower than in 2013, with assets rising by around 10½ per cent in six-month-ended

annualised terms, to \$1.93 trillion. At the end of 2014, the requirement that all new default contributions be paid into MySuper products had been in place for one year, with around one-fifth of superannuation assets held in these products.

While the broad asset allocation of APRA-regulated funds has been quite stable over recent years, the allocation towards foreign assets has increased gradually, to be 30 per cent of total assets at the end of 2014. Around two-thirds of these foreign asset holdings are not currency hedged, leaving fund members exposed to exchange rate movements in addition to movements in the foreign assets' prices (Graph 2.19). While the recent depreciation of the Australian dollar means that unhedged foreign currency exposures have been quite profitable of late, accounting for around 7 per cent of funds' investment income in 2014, increased volatility in foreign exchange and other global financial markets increases the chance of market losses on these positions.

Over the longer term, superannuation funds' asset allocations are likely to be affected by the ageing of the population. Until recently, the majority of superannuation funds' members have been in

Graph 2.19
Superannuation Funds' Asset Allocation*
Share of assets by value, as at December 2014



* APRA-regulated superannuation funds
Source: APRA

the accumulation phase; funds' asset allocations have consequently been tilted towards growth assets. A significant number of members are now moving into the drawdown phase, with members over 60 years of age owning more than one-third of superannuation assets. As this transition progresses, funds are likely to increasingly invest in more conservative and liquid assets, such as cash and deposits, potentially increasing the interconnectedness between banks and the superannuation industry. This tendency is evident in the high allocation to deposits by self-managed superannuation funds (more than one-quarter of their assets); these funds have a significantly higher share of members in, or near, retirement than do other fund types. Superannuation funds will also need to carefully manage the liquidity implications arising from the ageing of the population and the maturing of the superannuation system, as benefit payments increase relative to contributions.

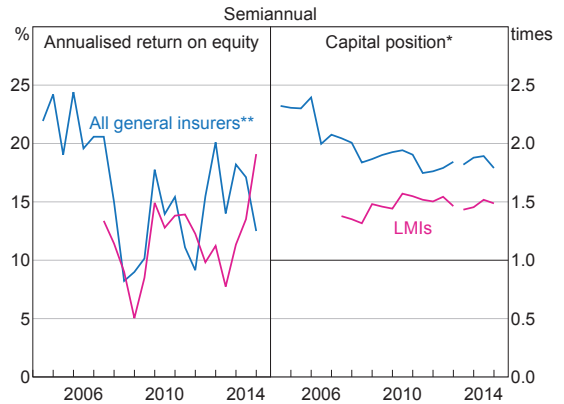
Insurance

Insurers assume the risk of financial loss from physical events, in exchange for an up-front premium. By shielding households and businesses from potentially severe losses, insurers can contribute to financial stability, but they need to ensure their own finances are sufficiently robust in order to perform this role.

General insurance

The general insurance industry in Australia remains well capitalised, with its capital equivalent to 1.8 times APRA's prescribed capital amount (Graph 2.20). General insurers' profitability has been strong in recent years, mainly due to favourable catastrophe claims outcomes. Reinsurance costs have also declined, as investor search for yield has attracted capital towards the global reinsurance market. Insurers' profitability declined sharply in the second half of 2014, however, driven by a significant increase in claims arising from the South East Queensland hailstorms in November. The Insurance

Graph 2.20
Financial Performance of General Insurers



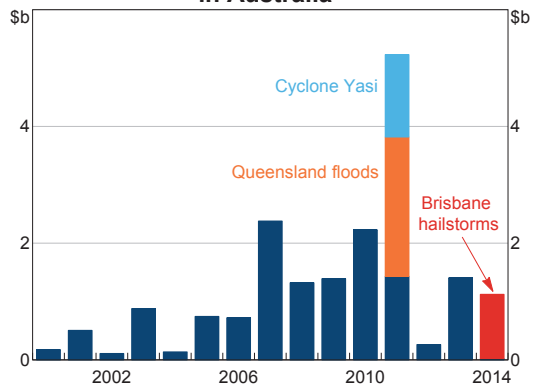
* Capital held relative to respective regulatory minimum; break due to capital reforms implemented at the start of 2013

** Includes lenders mortgage insurers (LMIs)

Source: APRA

Council of Australia currently estimates the value of claims from this event to be \$1.1 billion; this would be the largest single loss event since Cyclone Yasi and the Queensland floods in 2011 (Graph 2.21). Insurers are experiencing additional claims from Cyclone Marcia in late February 2015. The share prices of major insurers IAG and Suncorp have declined by around 5 per cent since they reported their results earlier in February (Graph 2.22). In contrast, QBE's share price rose after it reported an

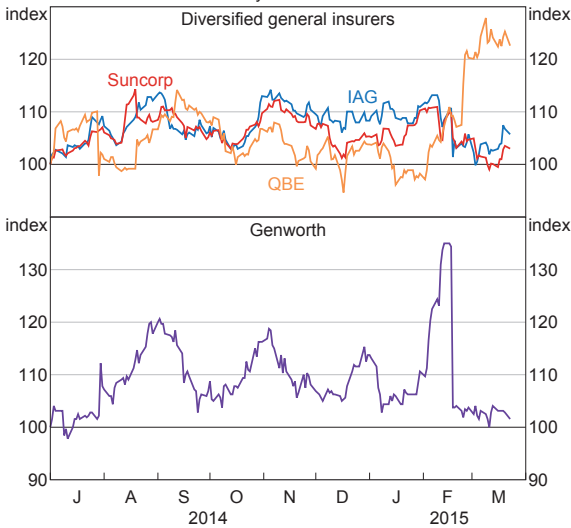
Graph 2.21
Claims from Natural Catastrophes in Australia*



* Losses from catastrophe events before 2011 have been indexed to 2011 prices; events from 2011 to 2014 are the actual cost; the cost of events in late 2013 and 2014 have not been finalised

Source: Insurance Council of Australia

Graph 2.22
General Insurers' Share Prices
 1 July 2014 = 100



Source: Bloomberg

improved underwriting result, largely because of a turnaround in its North American operations.

Insurers report that strong price competition has weighed on premium rates for both personal and commercial lines of insurance over recent quarters. A particular concern is that competitive pressures are inhibiting insurers from raising prices in 'long tail' commercial lines (e.g. liability insurance) by enough to cover future claims payments, as low interest rates weigh on insurers' investment revenue. APRA is closely examining commercial insurers' pricing policies and continues to monitor the adequacy of insurers' reserves against future claims.

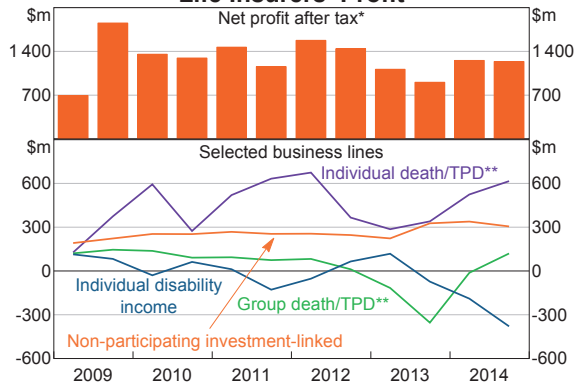
Lenders mortgage insurers (LMIs) are specialist general insurers that offer protection to banks and other lenders against losses on defaulted mortgages. LMIs' profitability continued to improve in the second half of 2014, with the industry posting a return on equity of 19 per cent, considerably higher than the rates recorded a couple of years earlier. The value of claims on LMIs declined further, partly in response to the buoyant housing market. Despite this, some market commentators have expressed concern

that the major banks will reduce their business with Australian LMIs over the longer term. This followed an announcement by Westpac that it would stop using Genworth (one of two major Australian LMIs) as its external provider, which sparked a sharp drop in Genworth's share price, after a large run-up the month before. In addition, over recent years some banks have increased the proportion of high-LVR loans that they 'self-insure', by charging the borrower a low-equity fee and retaining the risk themselves.

Life insurance

Life insurers' profit was little changed in the second half of 2014 but remained higher than in 2013 (Graph 2.23). Profits on superannuation 'group' life insurance products picked up, after life insurers sharply increased premium rates in response to significant losses and a previous underpricing of risk. However, APRA remains concerned that insurers have not fully addressed some underlying structural challenges, including poor product design, weak underwriting standards and inadequate claims management capabilities. Insurers are also continuing to respond to changes in social attitudes to insurance – such as claimants' increased use of lawyers and greater recognition of mental health illnesses – that have increased the propensity of

Graph 2.23
Life Insurers' Profit



* Includes profit from other non-risk business
 ** TPD = total and permanent disability

Source: APRA

policyholders to make claims.⁵ Meanwhile, the industry has also been dealing with a trend increase in lapse rates for 'individual' life insurance policies and with recent losses on individual disability income insurance. Despite these difficulties, the life insurance industry's capital position is sound, at 1.8 times APRA's prescribed capital amount.

Financial Market Infrastructure

Financial market infrastructures (FMIs), such as payment systems, central counterparties (CCPs) and securities settlement systems, support most financial market transactions in the economy. FMIs can contribute to the efficiency and stability of the financial system, although the concentration of services and risk in FMIs necessitates strong regulation and supervision. In the case of CCPs, work is underway globally to further enhance their resilience. This is increasingly important as global regulatory reforms encourage the central clearing of over-the-counter (OTC) derivatives.

Reserve Bank Information and Transfer System

The Reserve Bank Information and Transfer System (RITS) is the system through which banks and other approved institutions settle their Australian dollar payment obligations on a real-time gross settlement basis. Around five million payments worth \$20 trillion were settled in RITS over the past six months. RITS is designed to be a highly resilient system, with critical functions duplicated in two geographically separate sites. RITS operations were unaffected by the security incident in Martin Place on 15 December 2014.

While most transactions are submitted to RITS for settlement on a real-time gross basis, RITS settles some interbank obligations on a multilaterally netted basis, including obligations arising from low-value payments, such as cheques, direct entry and consumer electronic (card-based) transactions.

⁵ For further discussion of these issues, see Laughlin I (2015), 'Life Risk Insurance – A Challenge to the Life Industry: Managing for Long Term Portfolio Health', Speech to the Actuaries Institute, Sydney, 3 March.

From 10 November 2014, these also included interbank cash settlements related to property transactions, as part of a new national electronic conveyancing system. Each property settlement in RITS is processed as a batch, so that all payments related to that property transaction are settled simultaneously. Funds for paying participants in the batch are initially reserved in RITS while title changes are lodged with the relevant land titles office, with settlement only following successful acceptance of the title lodgement. In this way, the system minimises the risk that a party to the settlement does not fulfil its settlement obligations. The average daily value of property transactions in RITS increased to about \$21 million in early March.

Reflecting its importance, the Reserve Bank assesses RITS annually against the internationally agreed *Principles for Financial Market Infrastructures*. These principles, set by the Committee on Payments and Market Infrastructures and the Technical Committee of the International Organization of Securities Commissions, aim to ensure the resilience of financial market infrastructures. The 2014 assessment concluded that RITS observed all the relevant principles, and supported ongoing work by the Reserve Bank to ensure that RITS continues to meet international best practice, including a comprehensive review of its regulations and conditions of operation.⁶ Reviews are also being undertaken in the areas of cyber security, recovery from an operational incident and participants' compliance with new business continuity standards.

Developments in CCP risk management

CCPs offer market participants centralised management of counterparty credit risk. In Australia, there are four licensed CCPs:

- ASX Clear and ASX Clear (Futures) – both owned by the ASX Group (ASX) – which clear trades originating from ASX's equities and derivatives markets, and the OTC interest rate derivatives market.

⁶ For further details, see RBA (2014), '2014 Assessment of the Reserve Bank Information and Transfer System', December.

- Chicago Mercantile Exchange Inc. (CME), which was granted an Australian clearing and settlement facility licence in September 2014. This licence permits CME to clear only OTC interest rate derivatives and certain non-Australian dollar-denominated interest rate derivatives traded on the CME market or the Chicago Board of Trade market.
- LCH.Clearnet Limited (LCH.C Ltd), which is licensed in Australia to clear OTC interest rate derivatives through its SwapClear service and certain financial products that will be traded on a new 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, which are based on the internationally agreed *Principles for Financial Market Infrastructures*. The FSS for CCPs impose requirements on several aspects of a CCP's operations such as its legal basis, governance, risk management and disclosures. Under the FSS, a CCP is required to prepare a recovery plan that includes mechanisms for the CCP to address any uncovered credit losses and liquidity shortfalls, and replenish financial resources. In October 2014, international guidance on such recovery plans was finalised (see 'Developments in the Financial System Architecture' chapter).

In parallel, ASX released a consultation paper setting out recovery planning proposals for ASX Clear and ASX Clear (Futures). The ASX consultation proposes the following approaches for the two CCPs to address a severe shock.

- Both CCPs would initially seek to allocate losses via calls for cash contributions from surviving participants, subject to a cap. ASX Clear (Futures) would also be able to allocate additional losses by applying a 'haircut' to its outgoing variation margin payments to participants.
- Both CCPs would have the power to force the settlement or termination of some or all open contracts in order to rebalance their books.

ASX is expected to further develop its recovery proposals over the coming months, including providing more detail on how the CCPs' financial resources would be replenished following a severe financial shock. ASX is also expected to articulate how the CCPs would address losses that were not caused by a participant default, such as investment or general business losses. ASX's recovery proposals are complemented by government proposals to establish a special resolution regime for FMIs, which would provide the Reserve Bank with powers to intervene if an ASX-initiated recovery could not be successfully implemented.

CME is also in the process of developing recovery and wind-down plans. The recovery plan will address how CME would allocate any losses and liquidity shortfalls. CME already has within its rules the power to allocate losses through additional cash contributions from surviving participants. The recovery plan will also consider the replenishment of prefunded financial resources.

LCH.C Ltd introduced recovery and wind-down plans in the first half of 2014. In the SwapClear service, if losses were greater than the size of its prefunded financial resources, LCH.C Ltd could:

- call non-defaulting clearing participants for cash contributions, subject to a cap
- allocate remaining losses by haircutting variation margin payments due to clearing participants with net gains, again subject to a cap
- request non-defaulting participants make voluntary payments to meet the unallocated losses.

If insufficient voluntary payments were made, under the wind-down plan all SwapClear contracts would be terminated and the service would be shut down. Now that the international recovery guidance has been finalised, it is expected that LCH.C Ltd will review its recovery plan to ensure that it is consistent with this guidance.

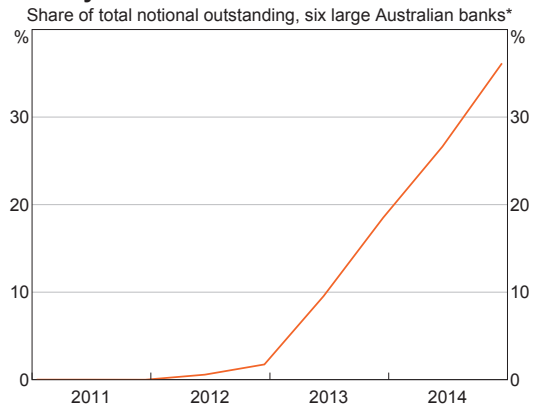
Consistent with the G20 commitment to implement the FSB's *Key Attributes of Effective Resolution Regimes for Financial Institutions*, it is expected that CME and LCH.C Ltd would be subject to special resolution regimes in their respective home jurisdictions in the event that their recovery plan could not be successfully implemented. However, the crisis management arrangements for these CCPs will have important implications for all jurisdictions in which they operate.

Use of CCPs for clearing OTC derivatives

Australian banks continue to increase their use of CCPs to clear OTC interest rate derivatives. More than 95 per cent of centrally cleared Australian-dollar denominated OTC interest rate derivatives are cleared through LCH.C Ltd, with CME and ASX Clear (Futures) each accounting for only a small share of this business. The major Australian banks are now all direct participants in both LCH.C Ltd and ASX Clear (Futures). Some of these banks, as well as other Australian financial institutions, also have clearing arrangements for OTC derivatives with LCH.C Ltd and CME as customers of direct participants. Now that CME is licensed in Australia, Australian entities can join CME as direct participants. However, in the short term, CME expects Australian entities to continue to clear as customers of international banks.

The share of Australian banks' interest rate derivatives positions cleared by LCH.C Ltd rose sharply over the second half of 2014, to 36 per cent (Graph 2.24). Current and expected overseas requirements to centrally clear, as well as commercial incentives, continue to be the main drivers of this growth. Participants have also shifted to central clearing in anticipation of future domestic clearing mandates (see 'Developments in the Financial System Architecture' chapter).

Graph 2.24
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; observation for December 2014 is provisional and is subject to revision

Sources: BIS; LCH.C Ltd; RBA

Globally, market liquidity has increased in derivatives markets that are centrally cleared, although there is some evidence that it has fallen in many bilateral derivatives markets that face higher capital charges and margin requirements due to recent regulatory reforms. For instance, in Australia, turnover in interest rate swaps (which are moving to centrally cleared solutions) is above pre-crisis levels, whereas turnover in cross-currency swaps (which remain bilateral) is slightly below.⁷ The cross-currency swap market is particularly important for the Australian financial system because it enables financial and non-financial institutions to hedge the currency risk on their long-term borrowing. The Reserve Bank continues to closely monitor developments in this market. ✎

⁷ For further discussion of these issues, see Cheshire J (2015), 'Market Making in Bond Markets', RBA *Bulletin*, March, pp 63–73.