3. The Australian Financial System

The Australian financial system remains in good condition overall. Banks' profitability is at a high level and the performance of banks' assets has continued to steadily improve, driven by their business loan portfolio. The performance of housing lending remains strong and some of the concerns associated with banks' mortgage portfolios have lessened since the previous *Review* (as discussed in the previous chapter). Nonetheless, risks have become more pronounced, though still manageable, in a number of other areas.

One of these risks is the possibility of large losses on lending to residential property developers and on banks' commercial property portfolios, given the concerns about oversupply that were outlined in the previous chapter. In addition, banks' resourcerelated exposures have shown further signs of stress, but, as noted, these represent only a small share of their total exposures. Vulnerabilities in the global economy also pose a risk to banks generally, including Australian banks with international exposures. Australian banks' largest international exposures are to New Zealand, where high levels of mortgage debt and rapidly rising housing prices have raised the risk that a price correction could adversely affect banks' asset quality, while persistently low milk prices and declining land values have increased the probability of defaults and likely losses on loans to the dairy industry. A further deterioration in global risk sentiment could raise the cost of wholesale funding, though, to date, the increase in spreads has been modest and yields remain low.

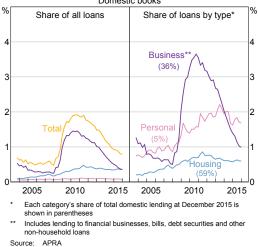
While banks face heightened risks in some areas, their resilience to adverse shocks has increased significantly via a strengthening of their capital and liquidity positions since the previous Review. In particular, the major banks' capital positions have moved further above their minimum regulatory requirements. This has largely been in anticipation of higher future capital requirements as the Australian Prudential Regulation Authority (APRA) finalises the level required to ensure that the capital positions of authorised deposit-taking institutions (ADIs) are 'unquestionably strong' by international standards. As a result, banks' return on equity (ROE) has declined a little, despite strong profitability, as more capital has been raised. It is important that banks and investors recognise that this decline has been associated with an increase in resilience and do not seek to offset it by increasing the overall level of risk-taking or by weakening risk controls and culture; the latter, in particular, can have both financial and reputational ramifications.

Profitability of the general insurance industry declined in 2015, reflecting lower investment income and a deterioration in underwriting results as insurers faced strong competition for commercial lines of business. While these pressures appear to have subsided somewhat through the year, there is little sign of an imminent rebound in profits. Lenders mortgage insurers' (LMIs) profitability has also been reduced as some banks switched to offshore insurers and the volume of high loan-to-valuation (LVR) loans declined in response to tighter lending standards. Given these developments, insurers' pricing policies and the adequacy of their claims reserves warrant ongoing attention.

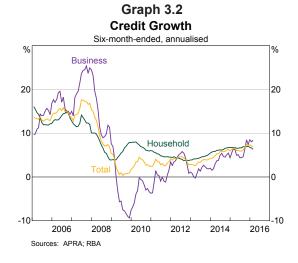
Bank Asset Performance and Lending Conditions

The asset performance of Australian banks has improved steadily over the past five years and this trend continued over the second half of 2015. In the banks' domestic loan portfolios, the ratio of non-performing assets to total loans was 0.8 per cent at December 2015, down from a peak of 1.9 per cent in mid 2010 (Graph 3.1). This improvement has been driven by business loans, though the non-performing ratios for housing and personal loans have also declined a little over recent years. Future asset performance, in particular, will depend on lending standards and the evolution of macroeconomic conditions as well as conditions in the mining and property sectors.





Total credit growth picked up over the past six months, led by growth in business lending (Graph 3.2). Household credit growth has declined modestly over recent months, and the composition of housing credit growth has shifted away from investor lending and towards owner-occupier lending. As discussed in the previous *Review*, lenders tightened lending standards in the housing market over 2015 in response to regulatory actions, with some further tightening occurring over recent



months. Lenders have implemented tighter housing loan serviceability criteria such as:

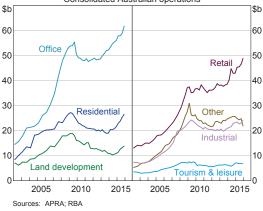
- applying higher interest rate buffers and floors, including to existing debt
- applying haircuts to uncertain income sources such as bonuses and overtime
- more accurately assessing borrowers' actual living expenses and scaling minimum living expense estimates by income.¹

Some lenders have also lowered the maximum allowable LVR for new investor lending to between 80 and 90 per cent and reduced the maximum interest-only period for owner-occupiers. In addition to the changes in non-price conditions, lenders increased pricing for investor loans in mid 2015 and on all variable-rate mortgages later in the year. These various measures have contributed to the fall in investor housing loan approvals. In contrast, pricing competition for owner-occupier loans has reportedly intensified, particularly for lower-risk borrowers given the tightening in general lending standards, with discounting for some borrowers increasing significantly across the industry over the past six months.

¹ APRA conducted a hypothetical borrower exercise in early 2015 and in late 2015. These exercises were used to examine the effect of changes to banks' residential mortgage lending standards in response to policies introduced during 2015. For further information, see Richards H (2016), 'A Prudential Approach to Mortgage Lending', Speech at the Macquarie University conference,'Financial Risk Day', Sydney, 18 March and APRA (2016), 'APRA Insight', Issue One.

Business credit growth has picked up since the previous *Review*, especially large business loans. By industry, growth has been driven by lending to the property & business services and finance & insurance industries, which together account for more than half of total business lending. Within property & business services, commercial property exposures have continued to grow strongly, outpacing growth in other business credit, though, as a share of total lending, they remain below the levels reached around the financial crisis. The pick-up in commercial property lending has been broad based across office, retail, residential and land development (Graph 3.3). The major banks and Asian banks have driven much of this growth, with the Asian banks growing their business rapidly from a low base.





In liaison, Australian-owned banks have expressed caution about the outlook for residential property developers as well as concerns over the growth in these exposures as a share of banks' total lending. In response, they have tightened lending criteria over the past six months, with widened margins, increased pre-sales requirements, lowered maximum loan-to-development cost ratios, and reduced appetite to lend for new developments in areas considered most at risk of oversupply. Competition among lenders for non-residential property investment loans, however, appears to have intensified; banks report that margins narrowed further over the second half of 2015. Given the increase in risk, commercial property lending, including for residential development, will require continued close monitoring for some time yet.

Competition between lenders in business lending areas outside commercial property has stabilised after intensifying over a number of years, although it remains strong. Margins on large business loans remain around historic lows.

International Exposures

Australian-owned banks are exposed to risks arising from international developments because of their international exposures, which account for one-quarter of their consolidated assets (Table 3.1). As discussed in 'The Global Financial Environment' chapter, recent global concerns have largely reflected risks associated with the outlook for China and other emerging economies. Australian-owned banks' direct exposures to China account for only around 1 per cent of consolidated assets and declined marginally over 2015 after a number of years of rapid expansion (Graph 3.4). In addition, many of these exposures are short-term, trade-related claims, which should limit credit and funding risks. As a result, events in China do not present a significant direct risk to the stability of Australian banks. However, a significant weakening in economic conditions in China could contribute to a sustained period of volatility in global funding markets that would raise costs for the Australian banking system. To the extent that weaker economic conditions spill over to economies where Australian banks have a greater presence, including Australia, asset performance might also be expected to be adversely affected.

More broadly, Australian-owned banks' exposures to Asia have begun to grow more slowly. Over 2015, exposures to Asia declined as a share of assets for the first time since the financial crisis, and this trend is likely to continue following ANZ's announcement that it will narrow its focus in Asia. Exposures to the United Kingdom are also expected to almost

	Value	Share of international exposures	Share of global consolidated assets
	\$ billion	Per cent	Per cent
New Zealand	361	36	9
Asia	186	18	5
– China	45	4	1
United Kingdom	183	18	5
United States	147	15	4
Europe	66	7	2
Other	71	7	2
Total	1 014	100	25

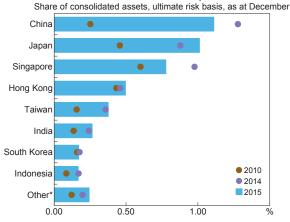
Table 3.1: Australian-owned Banks' International Exposures

Ultimate risk basis, December 2015

Sources: APRA; RBA

Graph 3.4





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

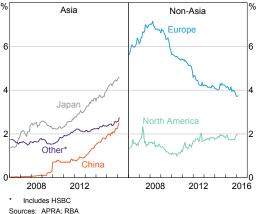
halve following the demerger of NAB's Clydesdale subsidiary in February.

Australian-owned banks' largest international exposure is to New Zealand, largely via the major banks' New Zealand subsidiaries, which comprise around one-tenth of Australian-owned banks' total consolidated assets. Housing lending in New Zealand represents a little under half of these exposures. The recent performance of the major banks' New Zealand housing lending has been strong – the NPL ratio was 0.2 per cent at end 2015, down from a peak of 1.3 per cent in mid 2010. However, as noted earlier, high levels of household debt and the rapid rise in housing prices in recent years raises the risk of a price correction that could result in a deterioration in banks' loan performance; that said, the loss rates on this portfolio would generally be limited by the housing collateral backing such loans.

The major banks also have substantial exposures to the dairy industry in New Zealand, amounting to about 1 per cent of their consolidated assets. Exposures to this industry increased by around 10 per cent over the year to June 2015 and appear to have continued to grow subsequently, as demand for working capital has increased in a loss-making environment and banks have supported borrowers they consider viable in the medium term. Persistently low milk prices as well as a decline in dairy land values over the past year have increased the probability of defaults and likely losses on lending to the sector, especially if the banks' assessments of borrower viability prove too optimistic.

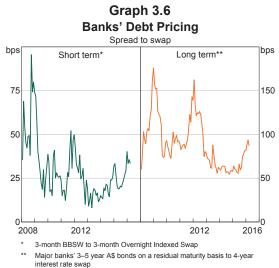
Foreign banks operating in Australia have a different risk profile than their locally owned counterparts. Asian banks, particularly the branches of Chinese and Japanese banks, have significantly increased their activities in Australia since the financial crisis (Graph 3.5). This expansion has been concentrated in specialised lending activities, such as commercial property and syndicated lending to the mining sector, and relies heavily on intragroup funding. A key risk associated with the expansion of lending by foreign banks is that they can make lending more procyclical by expanding rapidly when conditions are favourable and reducing lending substantially or even exiting the Australian market during a downturn.² This was the case with some European bank branches in the lead-up to, and in the aftermath of, the financial crisis.



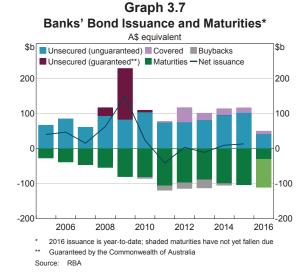


Funding and Liquidity

Spreads on Australian banks' wholesale funding increased over the past six months (Graph 3.6). Several one-off changes have contributed to this, including changes to various domestic and international regulations that reduced demand for bank paper. In addition, the deterioration in global risk sentiment has raised spreads. However, wholesale funding spreads remain well below those seen during 2008 and 2012. Moreover, banks have retained good access to a range of wholesale credit markets, issuing around \$50 billion of bonds since the start of the year (Graph 3.7). Liaison suggests that banks expect to retain this good access and comfortably meet their funding requirements for 2016. In any case, Australian banks are less



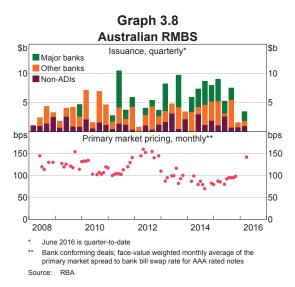
Sources: AFMA; Bloomberg; Tullett Prebon (Australia); UBS AG, Australia Branch



exposed to wholesale funding markets than they were during the financial crisis because the shares of deposit and, more recently, equity funding have increased. However, offshore wholesale funding still accounts for around one-fifth of banks' total funding.

There has been only modest issuance of residential mortgage-backed securities (RMBS) since November, and the cost of such funding has been higher than it was mid last year (Graph 3.8). One reason for this has been the global rise in spreads on fixed income securities.

² For a broader discussion of the financial stability risk arising from foreign-owned banks' operations in Australia, see Turner G and J Nugent (2015), 'International Linkages of the Australian Banking System', FINSIA Journal of Applied Finance, Issue 3, pp 34–43.



Higher spreads on wholesale funding have not affected average deposit rates to date, despite some impact on wholesale term deposit costs. Banks report that competition for most deposits eased over the past year. The major banks' average outstanding deposit rate has fallen by almost 60 basis points since the start of last year, compared with a 50 basis point decline in the cash rate over the same period. However, competition for deposits may increase if conditions in wholesale funding markets become less accommodative in the period ahead.

Banks have continued to increase their resilience to liquidity shocks over the past six months. The aggregate Liquidity Coverage Ratio (LCR) increased by 5 percentage points to 123 per cent at end December 2015, as banks' holdings of high-quality liquid assets (HQLA) increased by more than their projected net cash outflows (Table 3.2). Banks' holdings of HQLA have increased substantially since mid 2015, with the bulk of their holdings being state government securities ('semis') or deposits with central banks.

The Net Stable Funding Ratio (NSFR) is part of the Basel III liquidity framework and is intended to complement the LCR by requiring banks to maintain a stable funding profile over the medium term, thus lessening the impact of any deterioration in wholesale funding conditions. While the NSFR is not due to be implemented until 2018, banks are already lengthening their funding maturity profiles to meet the requirement and will likely continue to do so. APRA recently released a consultation paper on the NSFR that set out details of proposed requirements for stable funding and the ability of different kinds of liabilities to provide it in the Australian context.

Profitability

Banks have recorded strong profit growth in recent years as revenues have increased and loan performance has improved. While headline profit in the latest half was 7 per cent lower than a year earlier, at \$16 billion, the decline largely reflected the effect of extraordinary items (including writedowns of capitalised software). Net interest income increased over the period due to moderate asset growth, but net interest margins narrowed slightly as the boost to margins from mortgage repricing was offset by strong competition in

Table 3.2: Components of the Liquidity Coverage Ratio
All currencies, December 2015

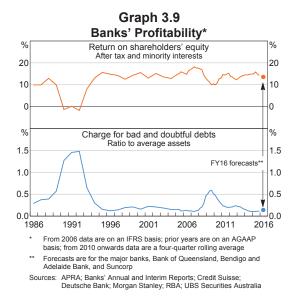
	Value	Change since June 2015	Share of consolidated assets
	\$ billion	\$ billion	Per cent
Net cash outflows	558	27	14
High-quality liquid assets	436	61	11
Committed liquidity facility ^(a)	250	-1	6

(a) Eligible collateral, excluding that which is encumbered. Sources: APRA; RBA

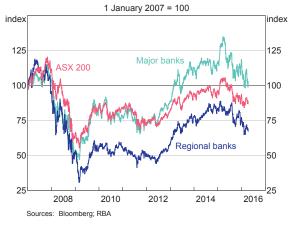
business lending markets. Charges for bad and doubtful debts were steady as a share of total assets and remained at a low level relative to their history (Graph 3.9). Some major banks indicated that credit quality had deteriorated in their resource-related portfolios, but highlighted that these exposures represent only a small proportion of total credit exposures (for further discussion of these trends, see the 'Household and Business Finances' chapter).

The banking sector's aggregate ROE declined in the most recent half because of lower headline. profits and large increases in the capital positions of major banks, but it remains within the range seen in recent years and high by international standards. The increase in capital is expected to have a persistent effect on ROE; equity market analysts expect the major banks' ROE to decline by around 1 percentage point in the current financial year. Investors may accept that a lower ROE is offset to some extent by a reduction in risk associated with stronger capital positions, but if investors' expectations are not adjusted it could push banks to take more risk to maintain returns. Indeed, banks that publish explicit ROE targets have set these at levels that exceed both current returns and analysts' expectations and are at least as high as those achieved over recent years. If these targets are maintained, it will be important that banks also maintain appropriate risk management practices and operational capabilities. So far the major banks appear to be focusing on divesting low-return and capital-intensive businesses, both internationally and domestically, as well as repricing their loan books to support profitability. For example, NAB announced the sale of 80 per cent of its life insurance business to Nippon Life in 2015 and finalised the demerger of its UK Clydesdale subsidiary in February this year.

Banks' share prices are more than 15 per cent lower than mid last year, and have been volatile over recent months (Graph 3.10). These developments largely reflected the deterioration in sentiment towards banks globally. Recent announcements of



Graph 3.10 Banks' Share Prices



increased charges for bad and doubtful debts have also contributed, as have analysts' expectations that the major banks may need to lower their dividend payout ratios to meet anticipated higher capital requirements if profit growth slows. These expectations for lower profit growth reflect a variety of factors, including an anticipated end to declining charges for bad and doubtful debts, possibly lower net interest margins, and the potential for growth in mortgage lending to slow as the housing market cools and lending standards tighten.

Capital

Australian banks have increased their resilience to adverse shocks over recent years. Most recently, this has occurred by a strengthening of their capital positions in anticipation of APRA's measures to address the Financial System Inquiry's recommendation for Australian ADIs' capital ratios to be 'unquestionably strong' by international standards. The focus on strengthening capital positions builds on previous changes to banks' liquidity positions that make them more resilient to adverse funding shocks. Together, these measures aim to ensure the banking system is able to maintain core economic functions even under stress.

The standards required to achieve an 'unquestionably strong' capital position are yet to be determined, with APRA expected to provide further detail around the end of 2016 on a framework for achieving this.³ The international capital framework is also due to be finalised over the year ahead and will inform changes to these standards. APRA has indicated that the Australian banking system is likely to face higher capital requirements as a result of these initiatives, in addition to those arising from higher mortgage risk weights for banks using the internal ratings-based (IRB) approach to credit risk (the four major banks plus Macquarie), discussed in more detail in the previous *Review*. However, APRA considers that any resulting increases in capital requirements should be well within the capacity of the banking system to absorb over the next few years. APRA's countercyclical capital buffer policy also took effect from January 2016. While this was set at 0 per cent, any adjustment to this in the future would also result in higher capital requirements (see 'Box C: The Countercyclical Capital Buffer').

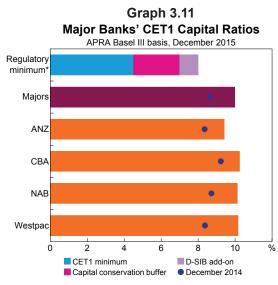
The need for unquestionable strength in capital levels is particularly relevant for the major banks

given their dominant share of banking activities in Australia, which creates a concentration risk in the system, and their greater exposure to global market conditions. This makes it important that the major banks are not only able to withstand severe external shocks, but can also support the economy during such episodes by maintaining their ability to fund themselves and extend new lending. As a result, each of the four major banks has been designated as a domestic systemically important bank (D-SIB) by APRA, requiring them to hold an additional capital buffer of 1 per cent of risk-weighted assets from January 2016.

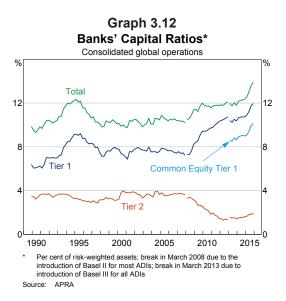
In response to these developments, banks have continued to increase their capital positions. The major banks have raised around \$5 billion of common equity since the previous *Review*, including Westpac's \$31/2 billion rights issue and an additional \$11/2 billion from the major banks' dividend reinvestment plans. This increased the major banks' CET1 capital ratio to around 10 per cent of risk-weighted assets at December 2015, 1¼ percentage points higher than a year ago and well above the current standard minimum regulatory CET1 ratio of 8 per cent for Australian D-SIBs (Graph 3.11). The capital positions of some major banks are also being supported by the completion of asset sales. However, higher capital requirements for their residential mortgages, discussed above, could absorb around 0.8 percentage points of their CET1 capital ratios when the changes come into effect from July this year.

The total capital ratio of the banking system increased by 0.8 percentage points over the second half of 2015, to be around 14 per cent of risk-weighted assets (Graph 3.12). While this largely reflected the increase in major banks' CET1 capital, issuance of non-common equity capital (Additional Tier 1 and Tier 2 instruments, sometimes called 'hybrids') also contributed to the higher capital position. Net issuance of non-common equity capital was around \$41/2 billion in the second

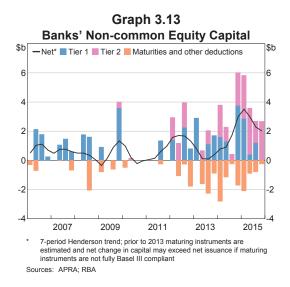
³ The government also outlined a timeline for other specific measures to strengthen the Australian financial system. For further information, see Australian Government (2015), *Government Response to the Financial System Inquiry*, October.



* The capital conservation buffer and D-SIB add-on took effect on 1 January 2016 Sources: APRA; Banks' Financial Disclosures; RBA



half of 2015, largely driven by Tier 2 instruments (Graph 3.13). More recently, CBA issued \$1½ billion of Additional Tier 1 capital, although this largely replaced capital from previously issued instruments. Spreads on banks' new Additional Tier 1 issuance continued to increase over the past six months, and prices of most of the major banks' instruments in the secondary market traded at a substantial discount to their listing prices, consistent with global developments.

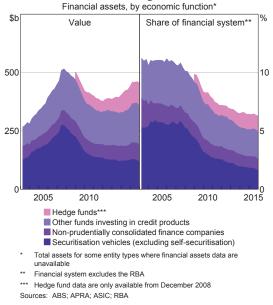


Australian banks using the IRB approach to credit risk have been required to disclose their leverage ratio from mid 2015. The leverage ratio is a non-risk-based measure of a bank's Tier 1 capital relative to its total exposures, and is intended to be a backstop to the risk-based capital requirements. The leverage ratio framework is yet to be finalised internationally, although the Basel Committee's governing body agreed the minimum requirement should be 3 per cent. The Basel Committee is expected to make final adjustments to the measure by the end of 2016, with a view to establishing the requirement from January 2018. Each of the Australian banks required to disclose the measure reported a leverage ratio close to 5 per cent at December 2015, well above the minimum.

Shadow Banking

Addressing risks in shadow banking – defined as credit intermediation involving entities and activities outside the regular banking system – has been a core area of international regulatory reform since the financial crisis. This has included assessing the potential risks that might arise from bank-like activities migrating to the shadow banking sector in response to the tighter post-crisis prudential framework for banks. The shadow banking sector represents only around 7 per cent of financial system assets in Australia, based on a new, broader definition implemented by the Financial Stability Board (FSB) in November 2015 (Graph 3.14).⁴ This share has declined from over 10 per cent in 2007 and is well below that for a number of large economies. Because of its small size and minimal credit and funding links to the regulated banking system, the shadow banking sector in Australia is judged to pose limited systemic risk, even though a few entities within the sector are highly leveraged. Nonetheless, the Reserve Bank and other Australian financial regulators continue to monitor shadow banking activity for signs of risk.

Mortgage lending by the shadow banking sector appears to have been fairly stable of late, despite the tightening of mortgage lending standards at prudentially regulated entities. Issuance of RMBS by entities other than ADIs in 2015 was lower than in 2014 and there has been modest non-ADI



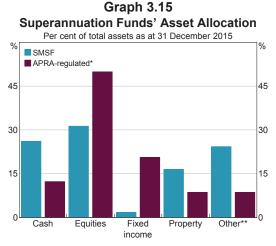
Graph 3.14 Shadow Banking in Australia

4 The new definition is based on the economic function of financial entities' activities, rather than the legal form of 'Other Financial Institutions' (OFIs). For further details, see FSB (2015), 'Global Shadow Banking Monitoring Report 2015'. RMBS issuance since November 2015 (as discussed above). The higher cost of funding via RMBS is likely to curtail the capacity of the non-bank sector to expand. Limits to mortgage originators' access to warehouse funding from banks and to their capacity to process sufficient lending volumes to make a material difference to overall credit growth are also constraints. Nonetheless, it is important to continue to monitor whether there is any significant switch of lending to non-ADIs in response to tighter housing lending practices at ADIs, given that non-ADI mortgage originators fall outside the prudential regulatory perimeter and tend to have riskier loan pools than banks.

Superannuation

The superannuation sector is a large part of Australia's financial system. Total assets in the sector amount to over \$2 trillion, equivalent to around half the size of the Australian banking system and accounting for around three-quarters of assets in the managed fund sector (a higher share than in other advanced economies).

Total superannuation assets grew at an annualised rate of 2¼ per cent over the second half of 2015, well below the average pace of recent years. Growth was weighed down by a fall in investment income, and it is likely that declines in equity prices since the start of the year have continued to weigh on asset growth in 2016. As the Australian population ages and more members enter the drawdown phase, it is likely that outflows will trend higher relative to contributions, creating a need to consider the associated liquidity implications. Self-managed super funds' (SMSFs) assets have increased more rapidly than those of other super funds over the past decade and represented almost one-third of total superannuation assets at the end of 2015. The asset allocation of SMSFs is different to APRA-regulated funds, including a higher share of assets in (mainly commercial) property, which exposes investors to a different set of risks (Graph 3.15).



* Includes exempt public sector superannuation schemes

** Includes investments in managed funds, listed trusts and unlisted trusts which invest in a variety of asset classes Sources: APRA; ATO

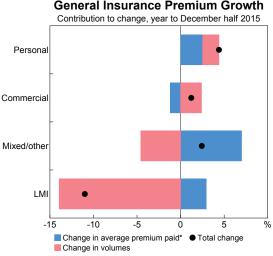
An extended period of low returns could pose challenges for superannuation funds because they typically set long-term target returns for investments based on a spread above CPI inflation. To date it appears that most funds have responded to lower returns by decreasing their targets or communicating to members that returns may be below target for the foreseeable future, but there is a risk that some funds could increase their exposure to more risky asset classes (such as commercial property) in an attempt to boost returns.

Australian superannuation funds rely substantially on outsourced service providers to act as administrators, custodians and asset managers. In recent years, these providers have become more concentrated and most of them fall outside of APRA's regulatory mandate. Operational or financial failures at any of the large service providers could cause a material disruption to the superannuation system. Superannuation funds are legally responsible for managing their service provision and for developing contingency plans in the event of disruptions to outsourced services. Hence, it continues to be important that superannuation funds allocate adequate resources and focus to managing these risks.

Insurance

The general insurance industry remains well capitalised with a capital position equivalent to 1.7 times APRA's prescribed amount. However, general insurers' profitability declined over 2015 after strong outcomes in previous years. The decline in profitability reflected reduced investment income because of lower bond yields and deteriorating underwriting results. Insurers' underwriting results were affected by both a spike in natural catastrophe claims in the 2014/15 financial year and strong competitive pressures on premium rates (particularly for commercial lines of business). These pressures abated somewhat in the second half of 2015 as premiums on some commercial lines of business stabilised, those on personal lines of business increased and natural catastrophe claims were lower as severe weather events were not repeated (Graph 3.16).

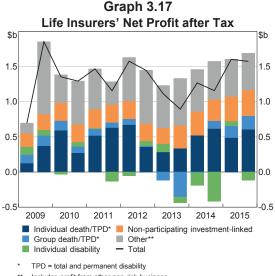
LMIs are specialist general insurers that offer protection to banks and other lenders against losses on defaulted mortgages. LMIs experienced a large fall in premium volumes in 2015, largely because of Westpac's decision to switch its business



Graph 3.16 General Insurance Premium Growth

 Gross written premium divided by number of policies written; includes a small cross-product term
Sources: APRA; RBA from Genworth and QBE (two major Australian LMIs) to an offshore reinsurer. While other banks have maintained their relationships with LMIs, these insurers remain vulnerable to such decisions given that their customer base is concentrated on the major banks. More generally, LMIs have benefited from a below-average level of claims over recent years in a climate of rising housing prices and relatively stable unemployment. However, a decline in high-LVR loans as banks tightened their mortgage lending practices has reduced their revenue, while higher claims from the miningexposed states of Western Australia and Queensland have increased costs.

The life insurance industry remains well capitalised, with their capital position equivalent to 1.9 times APRA's prescribed amount. Profits increased in 2015, driven by a smaller loss on individual disability income insurance (commonly known as 'income protection insurance'), a business line that has been unprofitable since mid 2013 (Graph 3.17). As discussed in previous *Reviews*, life insurers are addressing a number of structural weaknesses that have contributed to low profitability over recent years. These include poor definitions of product benefits, pricing not being adjusted for



** Includes profit from other non-risk business Source: APRA enhanced benefits, a lack of data on insurance risk and a shortage of skills for claims management. Nonetheless, the effect of previously weak underwriting practices is likely to weigh on insurers' profitability for a while yet.

Financial Market Infrastructures

Financial market infrastructures (FMIs) – including payment systems, central counterparties (CCPs) and securities settlement systems – facilitate important post-trade activities underlying most financial transactions in the economy. Because FMIs concentrate both services and risks, they need strong regulation and supervision of their financial position, governance and risk management practices.⁵ In the case of CCPs, work is continuing globally to assess their level of resilience and to consider the need for additional regulatory guidance. This is particularly important given the G20's commitment that all standardised over-thecounter (OTC) derivatives should be centrally cleared.

Reserve Bank Information and Transfer System

The Reserve Bank Information and Transfer System (RITS) is used by banks and other approved institutions to settle Australian dollar payment obligations on a real-time gross settlement (RTGS) basis. Around 6 million payments worth \$21 trillion were settled over the past six months. RITS is a systemically important payment system, and the Bank assesses RITS annually against the internationally agreed *Principles for Financial Market Infrastructures* (PFMI). The 2015 assessment concluded that RITS observed all the relevant principles.

In addition to the regular assessment of RITS against the PFMI, projects are underway to review the system's resilience. The ongoing work in this area is considering the Bank's capabilities

⁵ For more information on the regulation of CCPs, see Hughes D and M Manning (2015), 'CCPs and Banks: Different Risks, Different Regulations', RBA *Bulletin*, December, pp 67–79.

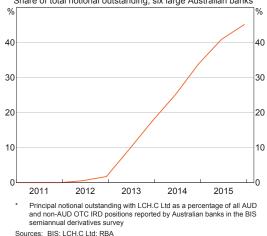
in the areas of cyber security and recovery from operational incidents. While RITS is designed to be a highly resilient system, with critical infrastructure duplicated in two geographically separate sites, this work is part of the Bank's efforts to ensure that RITS continues to be a secure system that meets international best practice and the needs of its participants. The work includes reviews of existing security controls, recovery options and the payments contingency arrangements that could be used if RITS was unavailable for an extended period.

Use of CCPs for clearing OTC derivatives

The proportion of Australian banks' OTC interest rate derivatives (IRD) exposures that are centrally cleared continued to increase, ahead of central clearing becoming mandatory in early April (see 'Developments in the Financial System Architecture' chapter). More than 45 per cent of Australian banks' outstanding OTC IRD (across all currencies) were centrally cleared via LCH.Clearnet Ltd (LCH.C Ltd) as at December 2015, up from 34 per cent in December 2014 (Graph 3.18). Liaison conducted by the RBA, ASIC and APRA in 2015 to inform the 'Report on the Australian OTC Derivatives Market' revealed that Australian banks are now centrally clearing all - or almost all - new trades that are eligible for clearing, and have also made considerable progress in moving legacy bilateral trades to CCPs. Since the mandatory clearing requirements will apply only to new trades, the transition of legacy bilateral trades to CCPs reflects banks' private commercial incentives. These include benefits arising from netting of exposures and lower capital requirements.

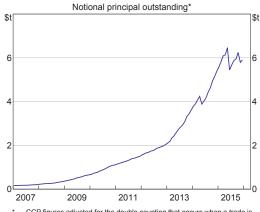
Around 90 per cent of Australian dollardenominated OTC IRD that are centrally cleared by all participants globally are cleared through LCH.C Ltd. However, the shares cleared by ASX Clear (Futures) and CME Inc. increased over 2015,





each to around 5 per cent by December 2015. The global total notional outstanding in Australian dollar-denominated OTC IRD that were centrally cleared across all CCPs was broadly steady over the year at around \$6 trillion, reflecting, in part, the compression of trades during the year (see 'Box D: Trade Compression'; Graph 3.19).

Graph 3.19 A\$ OTC Interest Rate Derivatives Cleared at Global CCPs



* CCP figures adjusted for the double counting that occurs when a trade is novated; ASX Clear (Futures) data not available before December 2014 Sources: ASX Clear (Futures); CME Inc.; LCH.C Ltd