3. The Australian Financial System

The Australian financial system remains in good condition, with banks' resilience to adverse shocks having increased over recent years. Banks' capital ratios are above regulatory minimums and those of most international peers (when measured on a comparable basis). Capital generation is being supported by high levels of aggregate profit, though there has been little growth in profit over the past couple of years. Banks' assets also continue to perform strongly; the charge for bad and doubtful debts remains low and non-performing assets have stabilised over the past six months, after increasing a little in the first half of 2016.

Overall credit growth has been broadly stable over the past six months, but the composition of this growth has changed, with investor housing credit growth increasing. Foreign bank lending – which tends to be more cyclical than lending by local banks – has continued to grow at a rapid pace, with growth concentrated in infrastructure and commercial property loans. This has partly offset a further reduction in lending by Australian banks for higher-density residential development and to the resource-related sector.

The Australian Prudential Regulation Authority (APRA) will provide more guidance over coming months about what capital standards it considers are necessary to ensure that Australian banks are 'unquestionably strong'. Banks have also been working to strengthen their resilience to liquidity shocks.

The increase in banks' capital over recent years has lowered their return on equity (ROE). This is expected to persist as banks raise more capital to comply with revised regulatory standards. The downward pressure on ROE may create an incentive for banks to take on additional risk to protect returns. A key element of preventing this is to ensure that banks retain sound risk culture and governance frameworks. The industry has announced a number of initiatives to improve its risk culture and regulators have increased their focus on bank culture and risk governance.

Risks within the non-bank financial sector also appear manageable. General insurers' profits increased in the second half of 2016, underpinned by an improvement in underwriting results as commercial premium rates increased following an extended period of underpricing and net claim costs declined. (The cost of Cyclone Debbie is yet to be fully determined.) In contrast, life insurers' profits fell because of rising claims that compounded long-standing deficiencies in pricing, provisioning and claims processes for individual disability income insurance. Lenders mortgage insurers also face ongoing challenges due to declining demand as banks tighten mortgage lending standards. Nonetheless, insurers in all three segments maintain capital ratios that are well in excess of their regulatory minimums and so appear well placed to manage these challenges. The shadow banking sector continues to pose only limited risk to financial stability due to its small share of financial system assets to date and minimal linkages to the regulated sector. Similarly, risks stemming from the superannuation sector remain low due to the limited use of leverage.

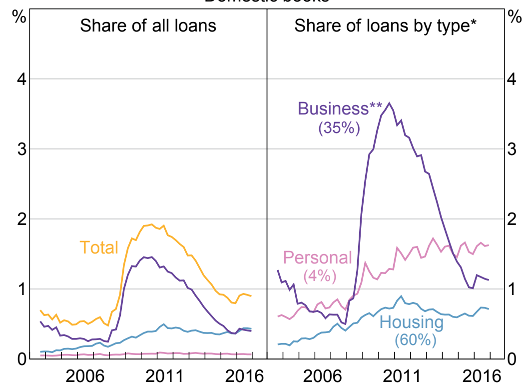
Banks' Domestic Asset Performance

Australian banks' domestic asset performance was little changed over the second half of 2016 (Graph 3.1). This followed a slight deterioration in asset performance earlier in 2016, especially in Western Australia where economic conditions have been generally weak and housing prices and rents have declined.

Indicators of banks' asset performance have continued to diverge across the country. Liaison with banks suggests that the performance of housing loans in mining-exposed regions may have stabilised towards the end of 2016. However, data on securitised housing loans suggest that delinquencies edged up further in Western Australia in early 2017 and remained higher in states with larger exposures to the mining sector, where economic conditions have been relatively weak (Graph 3.2). The majority of banks' non-performing housing loans remain well secured, with the impaired share very low.[1] In addition, stress testing conducted by APRA in 2014 indicated that housing prices would have to fall significantly before banks incurred sizeable losses.[2] In liaison, banks report that business loan arrears had continued to drift up in the states with large mining sectors, but that the low interest rate environment is supporting asset performance.

Future asset performance will continue to be influenced by conditions in real estate markets and the resources sector, as well as macroeconomic conditions more generally. The strengthening of housing lending standards over the past couple of years is also expected to support future loan performance on an ongoing basis. Nonetheless, if apartment markets in some cities were to turn down and settlement difficulties became widespread, banks could incur some losses, particularly on their property development lending.[3]

Graph 3.1
Banks' Non-performing Assets
Domestic books

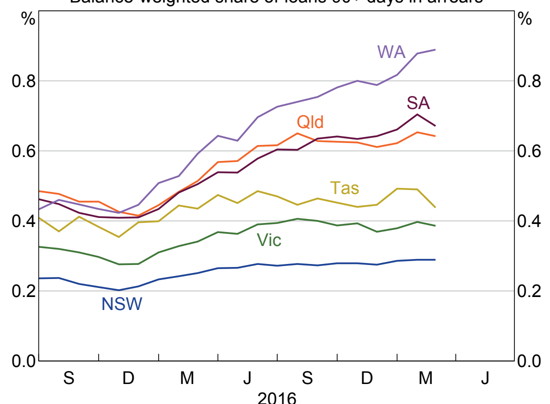


* Each category's share of total domestic lending at December 2016 is shown in parentheses; shares may not add up to 100 due to rounding

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

Sources: APRA; RBA

Graph 3.2
Securitised Mortgage Arrears Rates*
Balance-weighted share of loans 90+ days in arrears



* Measured at trust report dates

Sources: ABS; RBA

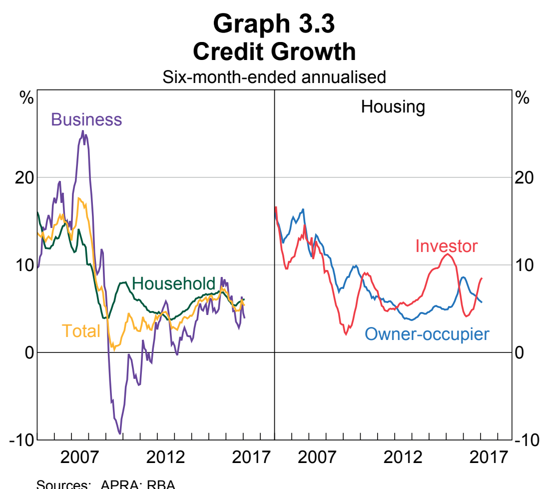
1 Impaired loans are those that are not well secured and there are doubts as to whether the full amounts due will be obtained in a timely manner. Past-due loans are at least 90 days in arrears, but well secured.

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

3 Previous work has shown that, if apartment conditions were to deteriorate in inner-city areas, banks would be more likely to experience material losses on their development lending than on their mortgages. For further details, see RBA (Reserve Bank of Australia) (2016), 'Box B: Banks' Exposures to Inner-city Apartment Markets', *Financial Stability Review*, October, pp 25–28.

Credit Conditions

Overall domestic credit growth has moderated over the past two months after increasing in late 2016, mainly reflecting developments in business credit (Graph 3.3).

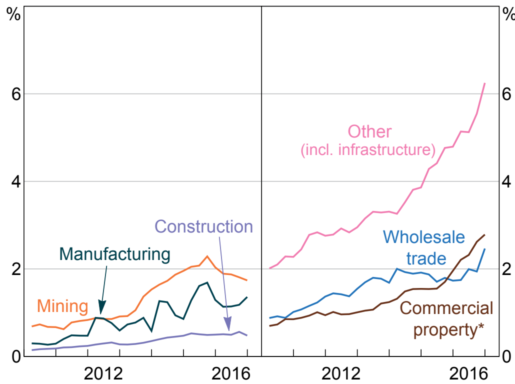


After falling back following the measures announced by APRA at end 2014, investor housing credit growth has increased noticeably since the previous *Review,* and is now above the rate for owner-occupier housing credit in six-month-ended annualised terms. In liaison, banks attributed the pick-up in investor credit growth both to strong underlying demand and to investors and brokers developing a better understanding over time of how to comply with the changes to lending standards introduced from late 2014. Of late, the monthly growth rate of investor housing credit has slowed a little, in line with a slight decline in investor loan approvals over the past few months. As noted in the previous chapter, a number of banks have raised interest rates on investor and interest-only (IO) loans over recent months – in part to stay within the 10 per cent investor growth threshold set by APRA – and some banks have further tightened housing lending standards. A few banks have also stopped accepting refinancing applications from new customers on some investment property loans and have moved to limit negative gearing benefits when assessing serviceability. The most recent round of banks' interest rate rises for investor loans may dampen investor demand in coming months.

Credit conditions in the business sector have been broadly stable over the past six months, although a few lenders have reported further tightening in financing conditions for residential development, particularly for projects in geographic areas considered at risk of deteriorating housing market conditions and localised oversupply. Business credit growth has moderated, following strong growth in late 2016 driven by a few large infrastructure privatisation deals. Outside of these deals, the underlying pace of business credit growth slowed over most of 2016, although business credit to small and medium enterprises is growing at its fastest pace since 2009. Banks have further reduced their direct exposures to the resources sector.

Lending by foreign-owned banks operating in Australia has continued to increase, with lending by banks headquartered in Asia accounting for almost all of this growth. Asian banks now supply around 11 per cent of the stock of business credit in Australia, up from around 6 per cent in 2012. Their increased lending has been spread across industries, most notably infrastructure and commercial property (Graph 3.4). While foreign banks have long been active in providing such specialised lending, their activity in Australia has historically been highly pro-cyclical and has tended to exacerbate asset price and economic cycles.

Graph 3.4
Asian Banks' Business Lending
Share of total business credit



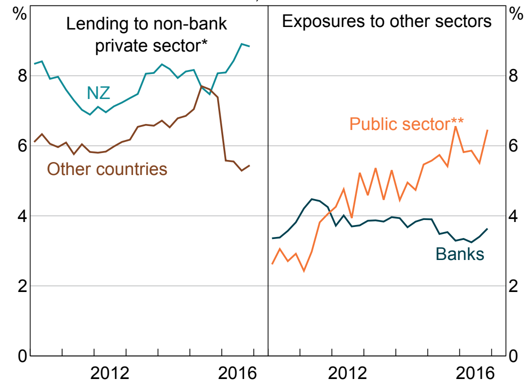
* Commercial property exposures overlap with industry categories
Sources: APRA; RBA

International Exposures

Australian-owned banks have reduced their international exposures over the past year. Reduced lending in the United Kingdom and Asia more than offset rising exposures to New Zealand and a trend increase in Australian-owned banks' holdings of liquid foreign assets, such as sovereign bonds and central bank deposits (Graph 3.5; Graph 3.6). Most prominently, NAB sold its UK subsidiary in early 2016 and ANZ continued to reduce its exposures to institutional lending and trade finance activities in Asia. Exposures to Asia are expected to decline further over the coming year as ANZ completes the sale of several of its retail banking and wealth management businesses in the region.

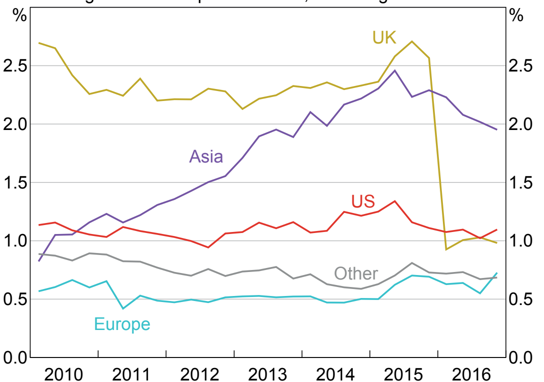
In contrast, Australian-owned banks' lending in New Zealand has continued to grow quickly. Given low unemployment, the performance of the major banks' New Zealand housing portfolios has remained strong to date; mortgage arrears are around their lowest levels in at least a decade. However, as discussed in 'The Global Financial Environment' chapter, the combination of rapid housing price growth and high levels of household debt increases the risks to these exposures and has prompted a further tightening of New Zealand's macroprudential requirements. While Australian banks' exposures to the New Zealand dairy sector remain under watch, the immediate risks have receded over the past six months given higher milk prices and ongoing reductions in producers' operating costs. Provisions held against dairy loans have not increased further.

Graph 3.5
Australian-owned Banks' International Exposures
Share of assets, ultimate risk basis



* Includes all exposures to non-bank private sector, comprised predominantly of lending
** Predominantly sovereign bonds held outright or on repo and central bank deposits
Sources: APRA; RBA

Graph 3.6
International Lending by Region
Lending to non-bank private sector, excluding New Zealand*



* Australian-owned banks; share of assets, ultimate risk basis; exposures to non-bank private sector, comprised predominantly of lending
Sources: APRA; RBA

Liquidity and Funding

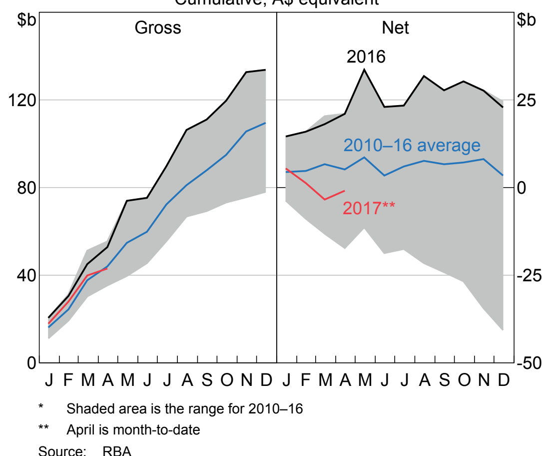
Australian banks have continued to build resilience to liquidity and funding shocks. Banks' aggregate holdings of high-quality liquid assets, which provide a buffer against short periods of liquidity stress, were around 130 per cent of their projected net cash outflows as at December 2016, well above the 100 per cent minimum Liquidity Coverage Ratio (LCR) requirement. Most banks that will be subject to the Net Stable Funding Ratio (NSFR) requirement have a ratio that is currently above 100 per cent, following the finalisation of standards by APRA in December. The NSFR is intended to complement the LCR by encouraging banks to fund less liquid assets with more stable liabilities, such as long-term debt and retail deposits, and is due to come into effect from the start of 2018.

Looking ahead, banks are likely to further increase their NSFRs to provide a suitable buffer above the regulatory minimum. This will most likely be achieved by raising additional long-term wholesale funding, though 2017 issuance may not surpass last year's strong outcome (Graph 3.7). Retail term deposits are also a stable source of funding that support banks' NSFRs. Competition for these deposits remains high, but has eased recently as banks' NSFRs have risen and because extending the term of these deposits does only a little to increase the NSFR. In comparison, extending the term of wholesale deposits, such as those for superannuation funds and businesses, has a greater positive effect on banks' NSFRs. This has prompted some banks to introduce wholesale deposit products that offer more stability to their funding mix.

Wholesale funding market conditions have remained very favourable over the past year. Spreads on banks' short-term and long-term wholesale funding have declined despite a range of risk events in 2016 and the rise in global bond yields (Graph 3.8). Nonetheless, most Australian banks are on outlook for downgrade by the major credit rating agencies, which cite rising levels of household debt and risks to the housing market as key factors behind their assessments.

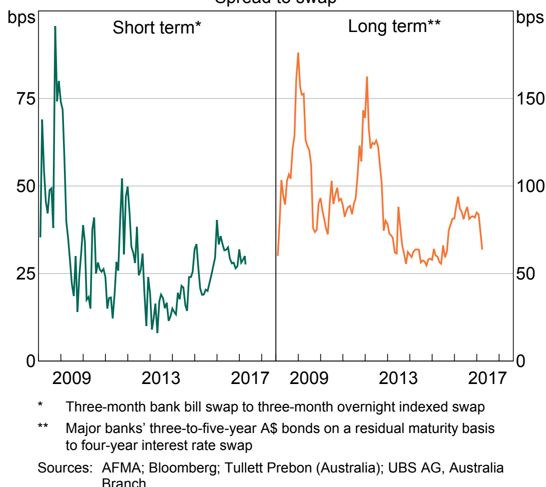
Conditions in securitisation markets improved over the past year. Issuance in the December 2016 and March 2017 quarters was high compared with recent years and spreads at issuance have narrowed significantly (Graph 3.9). Despite the

Graph 3.7
Banks' Bond Issuance*
Cumulative, A$ equivalent

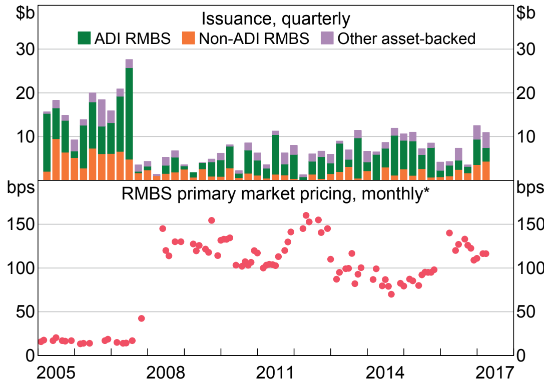


* Shaded area is the range for 2010–16
** April is month-to-date
Source: RBA

Graph 3.8
Banks' Debt Pricing
Spread to swap



* Three-month bank bill swap to three-month overnight indexed swap
** Major banks' three-to-five-year A$ bonds on a residual maturity basis to four-year interest rate swap
Sources: AFMA; Bloomberg; Tullett Prebon (Australia); UBS AG, Australia Branch



* Bank conforming deals; face value weighted monthly average of the primary market spread to bank bill swap rate for AAA-rated notes

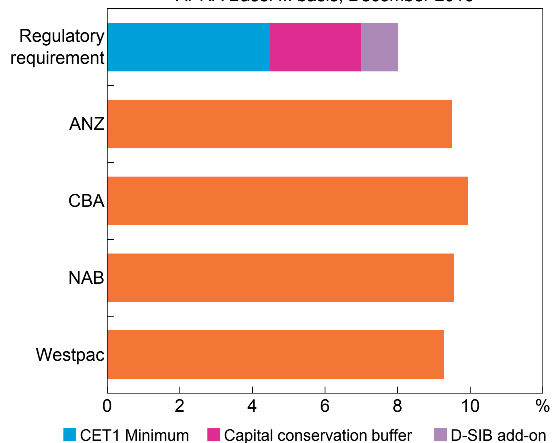
Source: RBA

recent improvement, activity in securitisation markets remains well below pre-crisis levels and this source of funding accounts for less than 2 per cent of banks' total funding.

In November 2016, APRA finalised its revised securitisation framework, with the new rules to apply from January 2018.[4] The revised framework aims to make securitisation a more viable funding source by offering issuers more flexibility and clarity around transaction structures. This includes a greater ability to issue bullet maturity securities (which appeal to a wider range of investors) and clarity around classifying transactions as either for funding-only or capital relief purposes (with issuers having the ability to switch qualifying transactions to capital relief after issuance). The revised framework also implements Basel III reforms, which generally require banks to hold more capital against asset-backed securities.

Capital and Profitability

Australian banks' resilience is supported by capital levels that are significantly above minimum requirements. The major banks retain a buffer of around 1½ percentage points above the 8 per cent Common Equity Tier 1 (CET1) threshold, which includes the 4½ per cent minimum in the prudential standard and a 3½ per cent capital conservation buffer (of which 1 percentage point is the add-on for domestic systemically important banks; Graph 3.10). The countercyclical capital buffer, which can be used to raise capital requirements in periods of rising systemic risk, remains at zero per cent.



Sources: APRA; Banks' financial disclosures; RBA

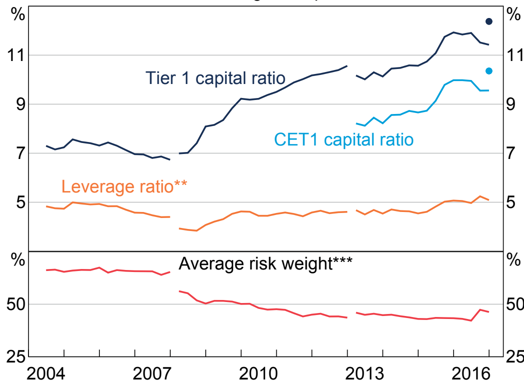
As was expected, the implementation in July 2016 of APRA's decision to increase risk weights on mortgages for banks that use internal models to assess credit risk lowered the major banks' CET1 capital ratios by just under 80 basis points (Graph 3.11). This offset part of the capital that the banks had raised earlier in anticipation of this and other changes. In the absence of this change, the major banks' CET1 ratios would have increased a little over the past six months, with capital accumulation outpacing growth in risk-weighted assets.

The total capital ratio of the banking system also declined slightly over the second half of 2016, to be just under 14 per cent (Graph 3.12). The

4 APRA Prudential Standard, APS 120 Securitisation. Available at <http://apra.gov.au/adi/PrudentialFramework/Documents/APS%20120%20Securitisation.pdf>. For a discussion of the aims of these reforms, see Brennan P (2016), 'Securitisation in Australia – a Milestone Reached – a New Beginning?', Speech at the Australian Securitisation Forum Conference, Sydney, 21 November.

Graph 3.11
Major Banks' Capital Ratios*

Consolidated global operations



* Dots are estimates of capital ratios in the absence of higher mortgage risk weights; break in March 2008 due to the introduction of Basel II; break in March 2013 due to the introduction of Basel III

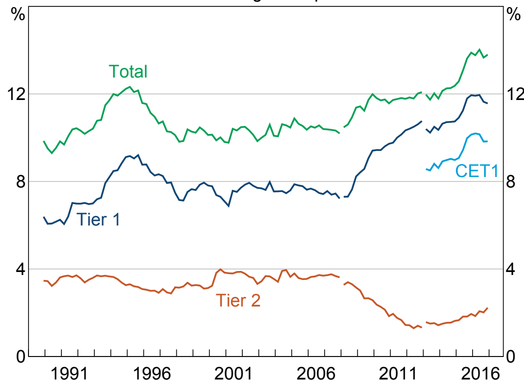
** Estimated prior to September 2015 as Tier 1 capital as a per cent of assets

*** Risk-weighted assets as a per cent of assets

Sources: APRA; RBA

Graph 3.12
Banks' Capital Ratios*

Consolidated global operations



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

Source: APRA

negative effect of higher mortgage risk weights was partly offset by an increase in non-common equity capital. Unlike in the first half of 2016, this issuance did not coincide with large maturities or regulatory deductions, and so resulted in a net increase in non-common equity capital.

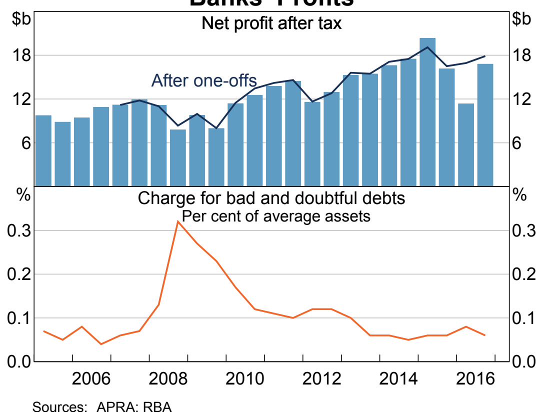
The major banks' aggregate leverage ratio increased a little over the second half of 2016 to 5.1 per cent and remains well above the planned 3 per cent minimum due to be introduced in 2018. The leverage ratio is a non-risk-based measure of a bank's Tier 1 capital relative to its total exposures, and is intended to be a backstop to the risk-based capital requirements.

APRA will provide further guidance in coming months on what capital standards it believes are necessary to make banks 'unquestionably strong'. It has reiterated that revisions to the capital framework will be guided by a range of factors, including the recommendation in the Financial System Inquiry that CET1 capital ratios should be in the top quartile of international peers, stress test results, rating agency measures and allowing for flexibility throughout the economic cycle. It will also consider banks' broader risk profiles, including funding and liquidity, earnings and governance. As part of this process, APRA will review whether and how to adjust risk weights on mortgages.

It is likely that Australian banks will need to increase their capital ratios over coming years to comply with APRA's framework for 'unquestionably strong' standards. APRA expects that banks will be able to manage any increase in capital requirements with appropriate capital planning. Banks' high levels of profits continue to support retained earnings. In addition, risk-weighted asset growth (which subtracts from banks' capital ratios) has been subdued over the past year as banks have pulled back from less profitable institutional exposures with higher risk weights, but there are limits to banks' ability to continue improving capital ratios by shedding riskier assets.

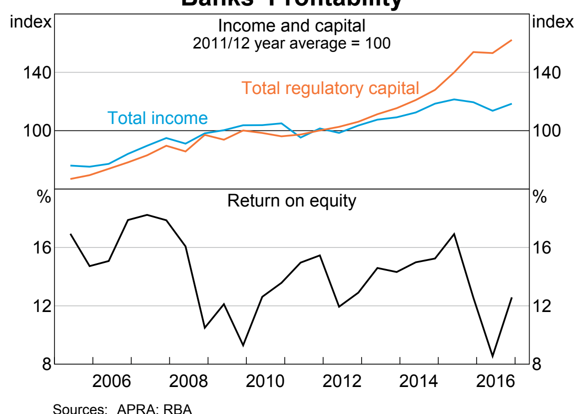
Australian banks continue to generate significant levels of profit, but aggregate profit in the most recent half year was only slightly higher than a couple of years ago (Graph 3.13). The lack of profit growth is partly explained by lower non-interest income as wealth management and life insurance income has declined and banks have booked unrealised losses on some assets. Net interest income has also grown only

Graph 3.13
Banks' Profits



Sources: APRA; RBA

Graph 3.14
Banks' Profitability



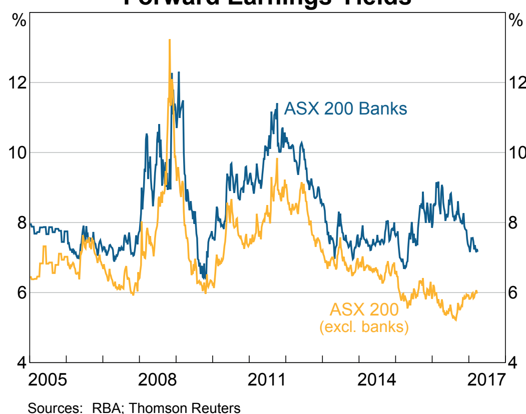
Sources: APRA; RBA

modestly as asset growth has slowed and the net interest margin has narrowed. The charge for bad and doubtful debts remains around historically low levels but stopped falling – and supporting profit growth – in 2014. Analysts expect bank profit growth to pick up a little over coming years, supported by forecast stronger asset growth and a recovery in non-interest income. Analysts also expect the charge for bad and doubtful debts to remain low as a share of assets after deteriorating in the first half of 2016.

The rise in bank capital over the past two years, combined with minimal profit growth, has reduced banks' ROE below its historical average of 15 per cent (Graph 3.14). Lower ROE seems likely to persist as banks accumulate more capital to meet an 'unquestionably strong' standard. So far banks have mainly responded to lower ROE by repricing their loans and selling lower-return wealth management and international assets. Westpac also recently lowered its ROE target. However, it is possible that Australian banks may attempt to restore their ROE to historical levels by taking on additional risk in ways that are not fully captured by regulatory risk weights.

Bank share prices have risen strongly over the past six months, in line with global trends. Increases to analysts' earnings forecasts have been much more moderate, resulting in banks' forward earnings yields declining (particularly compared with the broader market; Graph 3.15).[5] However, banks' earnings yields are still similar to the levels prevailing pre-crisis, despite a large decline in risk-free rates.

Graph 3.15
Forward Earnings Yields



Sources: RBA; Thomson Reuters

Bank Culture

A key to preventing excessive risk-taking by banks is to ensure that they maintain sound

5 The forward earnings yield is a measure of banks' cost of equity – the return that is required to entice investors to purchase and hold bank shares. See Norman D (2017), 'Returns on Equity, Cost of Equity and the Implications for Banks', RBA *Bulletin*, March, pp 51–58 for more detail.

risk culture and governance frameworks. International experience has shown that banks that allow or encourage a culture of excessive risk-taking can pose significant harm to financial stability if poor culture becomes pervasive. This can result in credit being extended to customers that cannot service it or misconduct charges against banks that erode their capital.

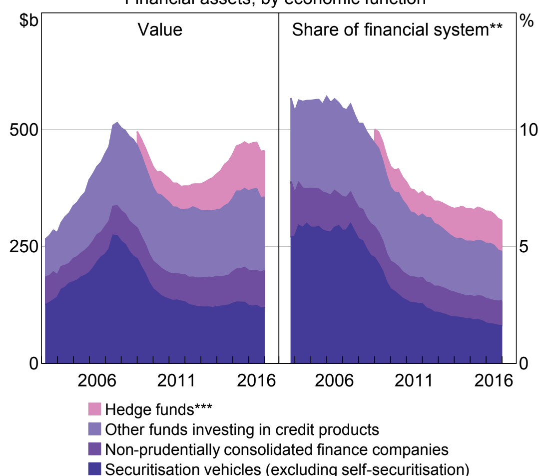
In Australia, there have been some recent examples of poor conduct within the banking industry. The most prominent of these have arisen in banks' life insurance and wealth management subsidiaries. More generally, APRA's observation is that in some cases banks allowed a culture to develop within their core banking divisions over recent years that prioritised protecting market share in mortgage origination over sound lending practices.[6]

The banking industry has announced initiatives to improve culture in the financial services sector. These include steps to improve consumer protection, address inappropriate remuneration incentives and strengthen risk management frameworks. APRA has also increased its focus on the risk culture of the institutions it regulates to ensure that banks' efforts in this area are lasting, while the Australian Securities and Investments Commission has been vigilant in identifying poor practices. APRA's efforts focus on two areas: requiring the boards of each bank to form a view on the risk culture within their institution and the extent to which that culture encourages it to operate within its risk appetite; and requiring the boards of each bank to identify desirable changes to risk culture and ensure steps are taken to address these.[7]

Shadow Banking

The tighter post-crisis prudential framework for the regular banking system creates a risk that credit provision will migrate to the less regulated shadow banking sector. However, there is estimated to have been little growth in shadow banking activity over the past two years (Graph 3.16). The size of the shadow banking system is still small, at around 6 per cent of financial system assets compared with over 10 per cent in 2007, and is considerably smaller than in a number of large economies. Systemic risks to the financial system are also limited by the small linkages shadow banks have with the prudentially regulated financial sector, with banks' exposures to the sector only around 4 per cent of total financial assets.

Securitisation is one area of the domestic shadow banking sector that continues to warrant particular attention, given that prudentially regulated entities have tightened their lending standards in recent years and mortgage



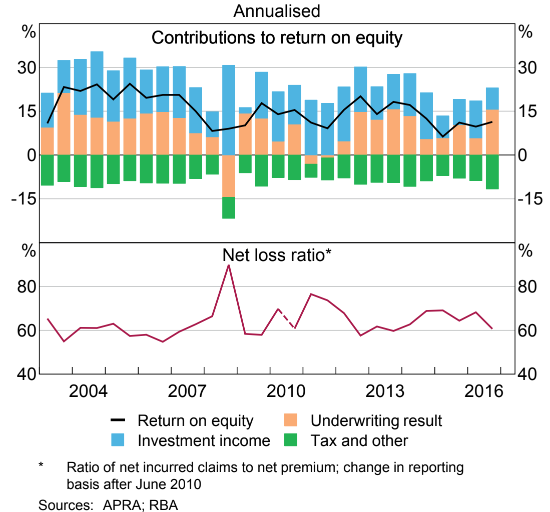
6 APRA (2016), 'Risk Culture', Information Paper, October.

7 APRA, Prudential Standard CPS 220 Risk Management. Available at <http://www.apra.gov.au/CrossIndustry/Documents/Prudential-Standard-CPS-220-Risk-Management-January-2015.pdf>.

originators tend to have somewhat riskier loan pools than banks. For example, mortgage originators' residential mortgage-backed securities (RMBS) are backed by higher shares of loans with low documentation and high loan-to-valuation ratios. Mortgage originators' issuance of RMBS picked up in late 2016 as market conditions improved, but non-bank securitised mortgages are still only around 1 per cent of Australian mortgages. Mortgage originators are in part constrained from adding much to overall credit growth because they have limited access to warehouse funding from banks (that is, short-term finance to the originator prior to the mortgages being securitised) and because they lack capacity to process large loan volumes. APRA recently emphasised that it would be concerned if banks allowed their warehouse facilities to grow materially faster than their own housing loan portfolios.

Insurance

General insurers' profits increased in the second half of 2016 after several periods of soft underwriting results, although ROE for the sector remains below its historical average because of ongoing subdued investment returns (Graph 3.17). The recent rise in profits was underpinned by stronger underwriting results, because of higher domestic commercial premium rates (as insurers sought to correct a long period of underpricing) and an increase in compulsory third-party insurance premiums. Net claims also fell because of a decline in payouts for natural disasters and higher reserves releases, reducing the net loss ratio (the ratio of net incurred claims to net premium) to its lowest level in several years. This follows a decade in which natural disaster claims consistently exceeded provisions. Payouts for natural disasters may rise again in 2017 because of Cyclone Debbie, but existing provisions and reinsurance



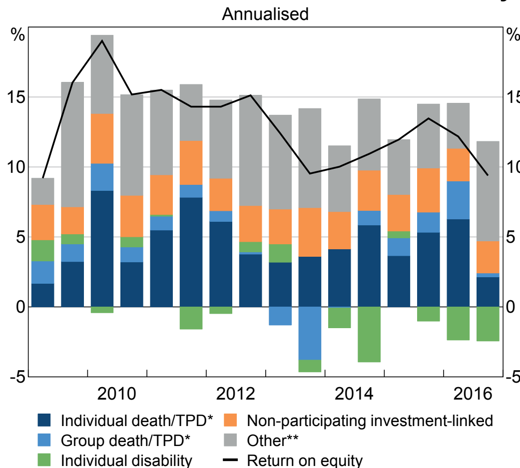
cover should limit the impact on profits. The general insurance industry has remained well capitalised, with capital equivalent to 1.8 times APRA's prescribed amount.

Lenders mortgage insurers (LMIs) – which support banks' resilience by offering protection against losses on defaulted mortgages – continue to face challenges. LMI profits declined sharply over the past couple of years due to a decrease in high LVR lending, as banks tightened mortgage lending standards, and increased claims in Western Australia and Queensland. These headwinds seem likely to persist, given APRA's recent directive to limit the flow of new high-LVR IO loans. An additional challenge for the LMI industry is to renew existing contracts as the major banks consider whether to follow Westpac's decision in 2015 to self-insure its mortgages. Despite these issues, the LMI sector remains well capitalised at 1.5 times APRA's prescribed amount.

Challenges in the life insurance industry have increased further, though the sector also remains well capitalised, with capital equivalent to 1.8 times APRA's prescribed amount. Life insurers'

profits fell markedly in 2016 and overall ROE dropped to its lowest level since the financial crisis (Graph 3.18). The recent weakness in life insurers' profits was driven largely by a fall in individual total and permanent disability profits and ongoing losses on individual disability income insurance (commonly known as 'income protection insurance'). Underlying this deterioration has been an increase in claims that insurers now assess to be permanent, compounded by long-standing deficiencies in pricing, provisioning and claims processes. These structural weaknesses were highlighted last year by APRA in its stress tests on domestic life insurers and form some of the matters being considered by the parliamentary inquiry into the life insurance industry that was announced in September 2016.

Graph 3.18
Contributions to Life Insurers' Profitability



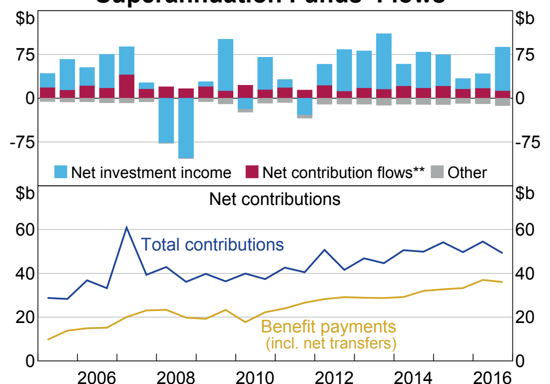
* TPD = total and permanent disability
** Includes profit from other non-risk business
Source: APRA; RBA

Superannuation

The superannuation sector remains a large and growing part of Australia's financial system. Total assets amount to over $2 trillion, accounting for three-quarters of the assets in the managed fund sector (a higher share than in other advanced economies) and equivalent to around half the size of the Australian banking system. Total superannuation assets grew by 7 per cent in 2016, around the post-crisis average rate, supported by stronger investment returns as global share markets rallied (Graph 3.19).

The financial stability risks inherent in the superannuation industry are lower than for other parts of the financial system because debt funding accounts for a very small share of its total liabilities (particularly for APRA-regulated funds). However, APRA-regulated superannuation funds face increased liquidity risks as the ageing of Australia's population results in a trend increase in members entering the drawdown phase, or as members roll funds into self-managed superannuation funds.

Graph 3.19
Superannuation Funds' Flows*



* APRA-regulated entities with more than four members
** Total contributions received by funds plus net rollovers minus benefit payments
Sources: APRA; RBA

Financial Market Infrastructures

Financial market infrastructures (FMIs) – such as payment systems, central counterparties (CCPs) and securities settlement systems – facilitate the completion of most financial transactions in the economy. FMIs need strong regulation and supervision because they concentrate both services and risk as a result of their activities.

FMIs operating in Australia have continued to function smoothly over the past six months. The Reserve Bank Information and Transfer System (RITS) – which is used by financial institutions to settle payments – processed around 6 million transactions in the six months to March, with an aggregate value of $22 trillion. There were no major RITS operational incidents during this period and the frequency and duration of members' operational incidents remained at historical lows. For CCPs, a major test was during the period of heightened volatility associated with the US Presidential election. The ASX Group CCPs implemented a number of changes to margin requirements ahead of the election to mitigate the risks associated with potentially elevated market volatility. These included maintaining margin rates at the elevated level in the period following the UK referendum and reducing intraday exposure limits. ASX communicated to market participants in advance of the measures being used to ensure that participants were adequately prepared for the additional margin calls. The additional margin calls enabled by the changes – particularly those conducted late in the Australian trading day – provided additional protection against the risks associated with potentially elevated volatility during the overnight session, when adhoc margin calls are currently not operationally possible.

Additional work is underway to further enhance the resilience of FMIs. In relation to RITS, the Reserve Bank's recent evaluation included a focus on projects to review cyber security controls and the system's ability to detect and recover from operational incidents. This exercise concluded that security controls were generally very strong. Nonetheless, a number of recommendations were made for further improvements, some of which have already been implemented while others are in progress.