



APRA

# insight

ISSUE TWO | 2013

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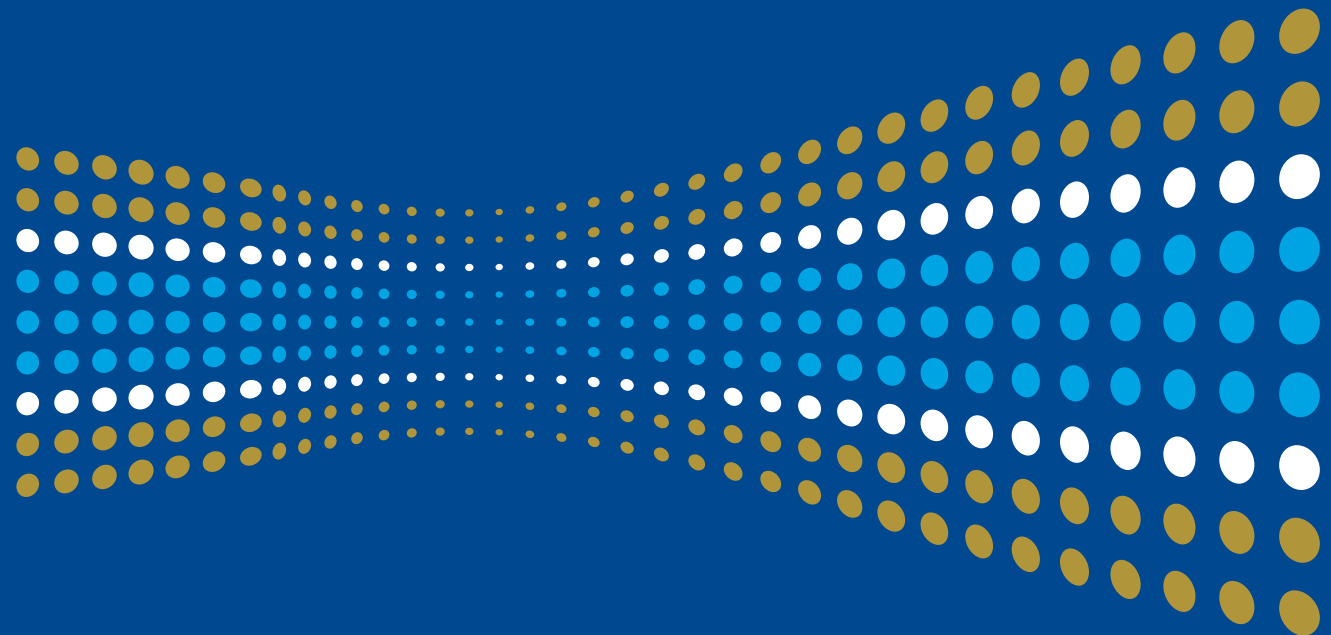
ADI industry risks

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Loan serviceability standards in housing lending

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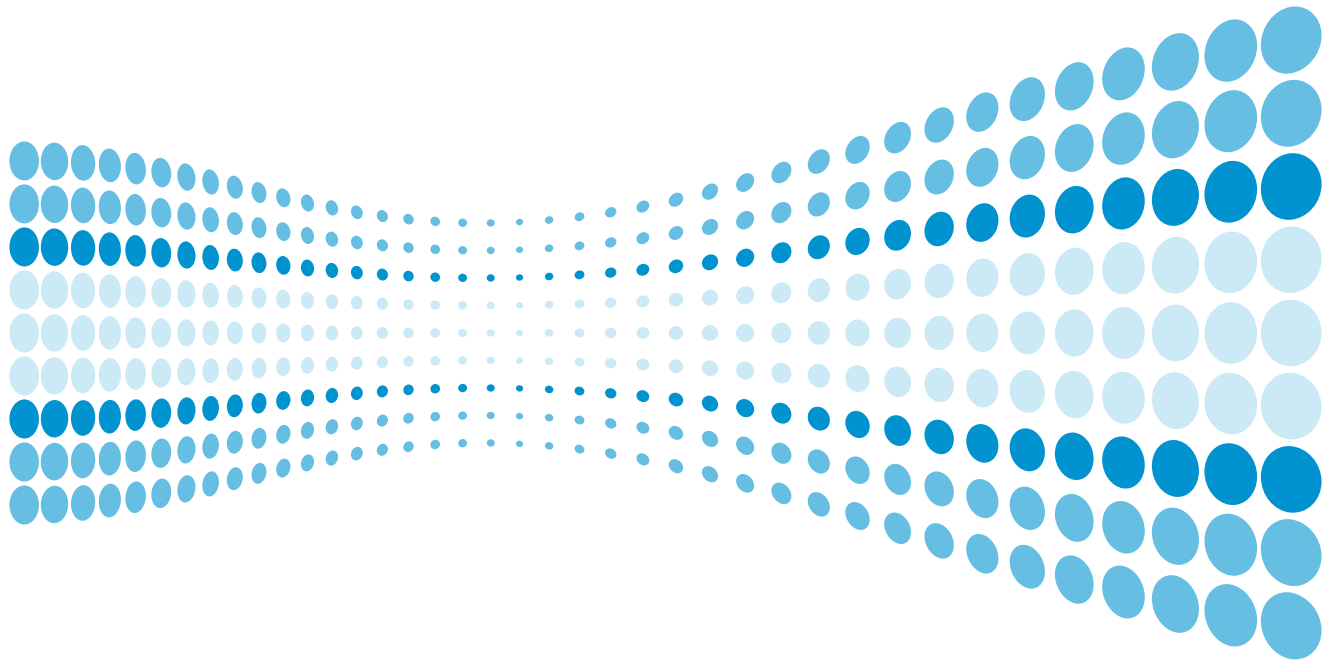




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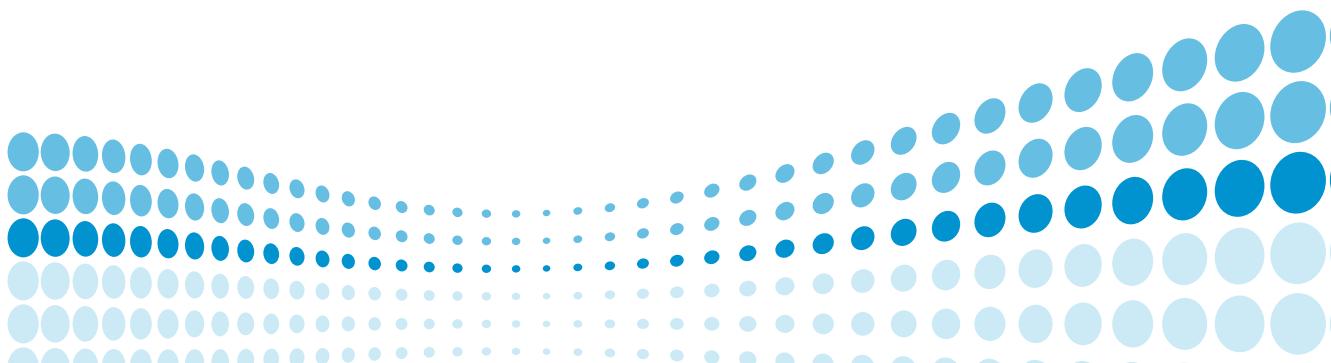
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**4****ADI INDUSTRY RISKS**

This article provides an overview of the risks facing the authorised deposit-taking institution (ADI) industry, in a low interest rate environment.

**40****LOAN SERVICEABILITY STANDARDS  
IN HOUSING LENDING**

This article outlines the key findings of a targeted review of housing loan approval standards by ADIs, with a particular focus on loan serviceability criteria. The targeted review was undertaken by the external auditors of a number of ADIs. The findings highlight good practices and suggest areas where improvements are needed.



# ADI INDUSTRY RISKS

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## **Introduction**

Over the past year, the authorised deposit-taking institution (ADI) industry in Australia has further strengthened its resilience, improving capital and liquidity positions during a period of relatively steady though below-trend economic growth. However, consumer caution and subdued business confidence, against the backdrop of gradually rising unemployment and a still-high exchange rate, have reflected in continued slow credit growth by historical standards. Looking ahead, the adjustment of the Australian economy to lower levels of mining investment will add uncertainties to the operating environment for ADIs. Downside risks to the global economic recovery also remain.

In this context, the low interest rate environment domestically is a key dynamic for the industry. In the short-term, lower interest rates can be supportive of ADI asset quality as they reduce interest payments, facilitate faster repayments of principal, and broadly support economic growth and employment. Over time, however, systemic risks can build. It will be important that ADIs maintain prudent risk appetites, sustainable levels of asset growth and sound lending standards, in particular by ensuring that new borrowers are able to afford higher repayments when interest rates ultimately return to more normal levels.

**ADI INDUSTRY RISKS**

Against this background, this article provides an overview of the ADI industry and key areas of prudential focus. It presents a snapshot of the industry and its capital and liquidity strength, and reviews the key risks to which the industry is exposed, which APRA continues to monitor closely.

*In the short-term, lower interest rates can be supportive of ADI asset quality... Over time, however, systemic risks can build.*

**Industry structure**

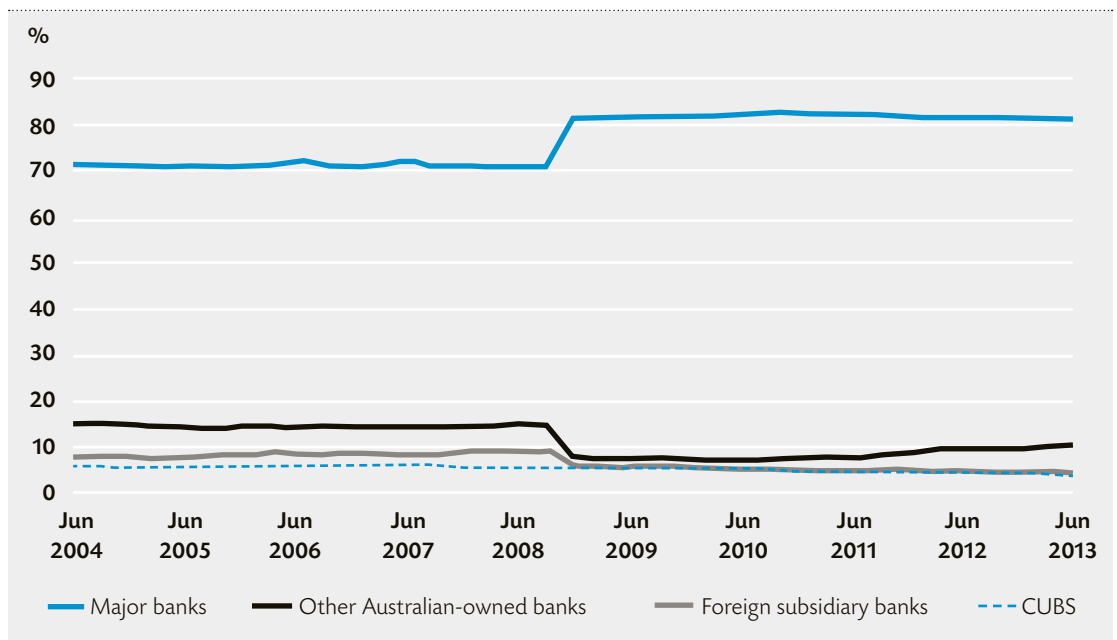
ADIs in Australia are predominantly focused on domestic markets, with traditional business models centred on lending and deposit-taking rather than on investment banking activities. The majority of ADIs have limited or no international operations. Loan portfolios are concentrated mainly in lending to the Australian household sector, which represents around 70 per cent of ADIs' domestic loans.<sup>1</sup>

The industry is dominated by the four major banks, which together account for around 80 per cent of key lending and deposit markets. Beyond the major banks, there has been a sustained consolidation within the industry, with the number of credit unions and building societies (CUBS) steadily reducing over the past decade due to mergers and, more recently, conversions to mutually owned banks.<sup>2</sup>

1 The ADI industry is composed of several sectors: major banks, other Australian-owned banks, foreign bank branches and subsidiaries, credit unions and building societies, and a small number of other specialised ADIs. In total, there were 172 ADIs licensed to operate in Australia as at 30 June 2013.

2 Since 2011, 9 credit unions and 1 building society have converted to mutual banks.

Figure 1: Market share – housing loans



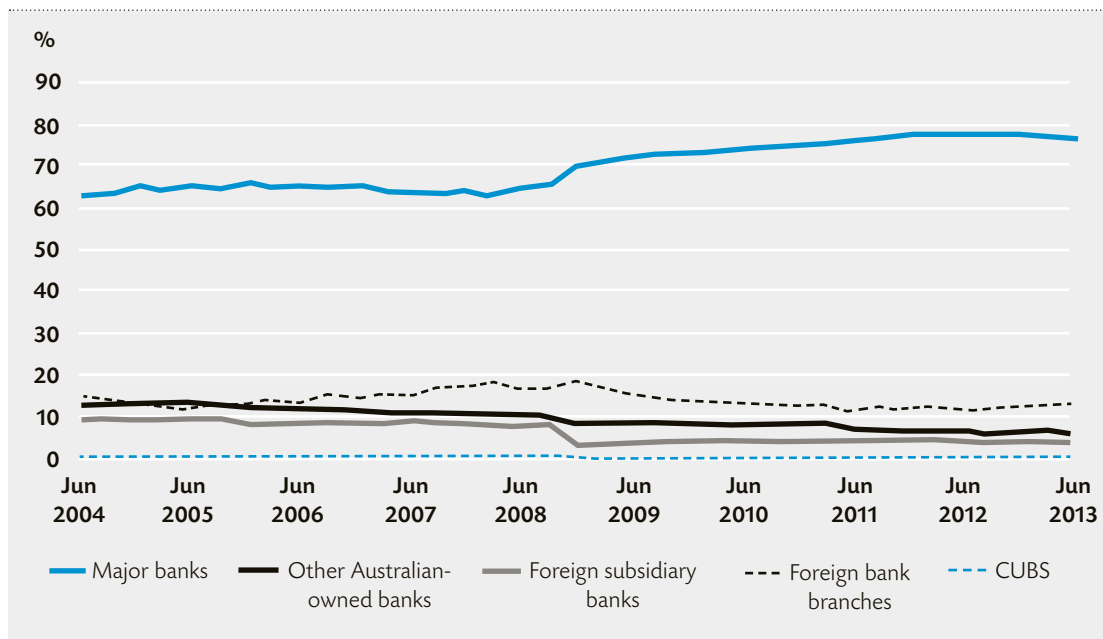
Source: APRA



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Figure 2: Market share – business loans



Source: APRA

## Capital resilience

In January 2013, APRA formally implemented the Basel III capital framework in Australia. This is part of a global initiative to strengthen the quantity and quality of capital in response to the global financial crisis, and to harmonise capital standards across different jurisdictions.

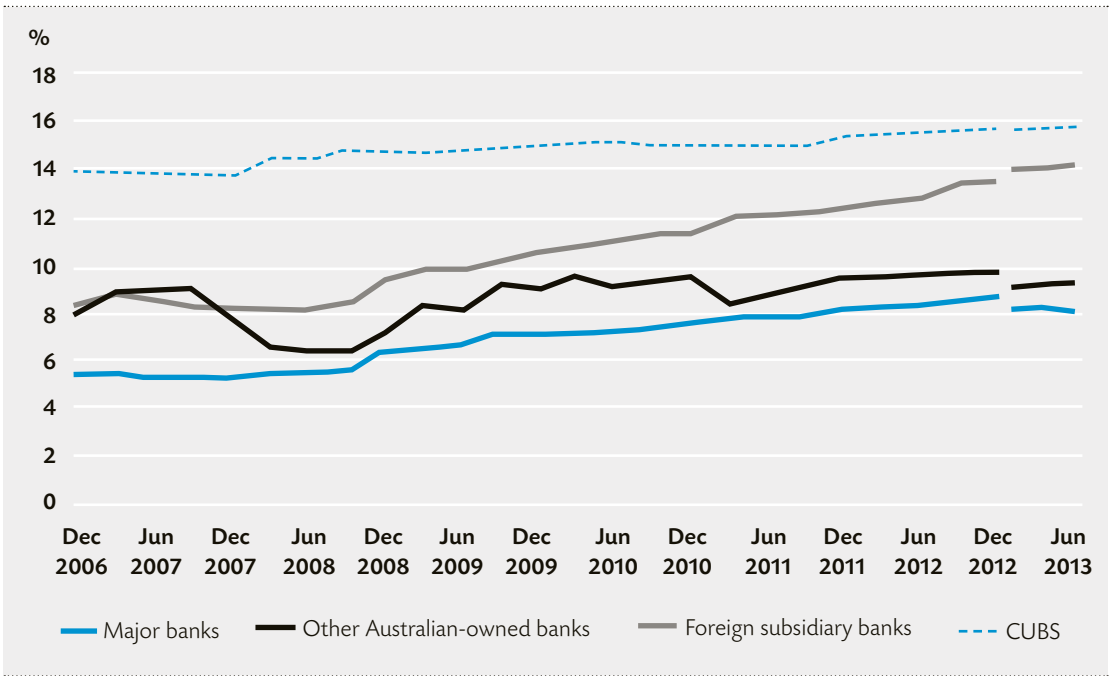
The Basel III capital framework sets a minimum Common Equity Tier 1 (CET1) requirement of 4.5 per cent of risk-weighted assets (RWAs), after regulatory adjustments. It also introduces regulatory buffers above this level, designed to ensure that ADIs build and maintain sufficient capital through the cycle, and are able to absorb losses in times of stress without breaching minimum regulatory levels.

The capital conservation buffer (CCB) is one of these buffers. The CCB will apply from January 2016 and will bring the minimum CET1 requirement to seven per cent of RWAs. It provides automatic trigger levels for constraints on capital distributions, including bonuses and dividend payments. Having strengthened their capital positions over recent years in response to market expectations and in anticipation of higher Basel III requirements, all ADIs already meet this minimum requirement, with current CET1 ratios above 7 per cent.<sup>3</sup>

3 All data in this article is for the year ended 30 June 2013, unless otherwise stated.

ADI INDUSTRY RISKS

Figure 3: CET1 capital ratios by sector\*



Source: APRA

\*Note: Break in March 2013 due to the introduction of the Basel III capital framework. Prior to 2013, Fundamental Tier 1 capital (net of deductions from Tier 1 capital) has been used as a proxy for CET1 capital.

Table 1 outlines the CET1, Tier 1 and Total Capital ratios for the ADI industry in aggregate and by sector. As at 30 June 2013, the aggregate CET1 capital ratio for the ADI industry was 8.7 per cent.

**Table 1: Capital ratios by sector as at 30 June 2013 (%)**

ADI sector	CET1 capital ratio	Tier 1 capital ratio	Total capital ratio
Major banks	8.1	10.0	11.4
Other Australian-owned banks	9.3	10.4	12.8
Foreign subsidiary banks	14.1	14.1	15.6
CUBS	15.7	15.9	16.7
<b>Total ADIs</b>	<b>8.7</b>	<b>10.4</b>	<b>11.8</b>

Source: APRA

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### ADI INDUSTRY RISKS

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The outlook for ADIs' capital positions will depend on a number of factors, influenced by both internal management strategies and external operating conditions. Capital ratios are driven by:

- issuance of capital instruments;
- movements in RWAs; and
- organic capital generation through retention of profits.

#### (i) Capital issuance

ADIs have built capital positions in recent years primarily through profit retention (organic capital growth) rather than the issuance of capital instruments. However, with the finalisation of the Basel III framework, ADIs have begun to issue instruments that qualify as Additional Tier 1 or Tier 2 capital.

The run-down in Tier 2 capital since 2008 appears to have levelled off and Additional Tier 1 capital has remained steady. The issuance of Additional Tier 1 and Tier 2 capital is an important element of transition to the new framework, as non-compliant capital instruments will be 'phased out' in the period up to 2022.

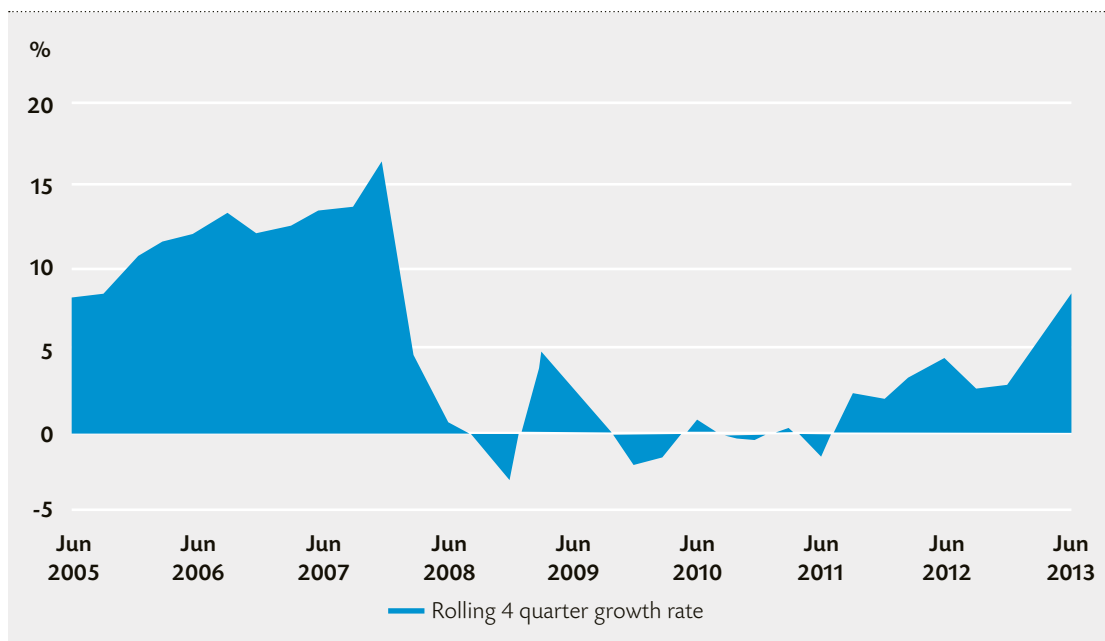
#### (ii) RWAs

Relatively low credit growth in recent years has slowed growth in RWAs and reduced pressure on ADIs' capital ratios. Since 2008, annual RWA growth has averaged 2 per cent, compared with a peak growth rate of 17 per cent in 2007 (Figure 4).

APRA has accredited the major banks to use internal models for calculating RWAs, including the advanced internal ratings-based (IRB) approach for credit risk and the advanced measurement approaches for operational risk.<sup>4</sup> Growth in total RWAs for the major banks was 9.1 per cent over the year, largely reflecting asset growth, regulatory changes resulting from the introduction of Basel III and higher operational RWAs. The impact of asset growth on RWAs was partly offset by a shift in portfolio composition towards less risky asset classes. There was little change in RWAs due to ratings migration.

<sup>4</sup> Besides the major banks and one other bank, all ADIs use the standardised approach for credit risk, which specifies risk-weights for the different loan types.

Figure 4: Risk-weighted assets growth\*



Source: APRA

\*Note: RWAs impacted in March 2008 by the introduction of Basel II

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### ADI INDUSTRY RISKS

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Over the past year, the average credit risk-weight for the major banks, a measure of risk intensity, declined by 2 percentage points to 35 per cent.<sup>5</sup> The average credit risk-weight for other ADIs also declined by 1 percentage point to 51 per cent.

The remaining element of the Basel III capital framework is a leverage ratio, a non-risk-weighted measure of the ratio of an ADI's Tier 1 capital to its total (on-and off-) balance sheet assets. The leverage ratio is scheduled for introduction in 2018, with disclosure from 2015. The simplicity of this ratio avoids the opacity and variation in risk-weights that can arise from differences in

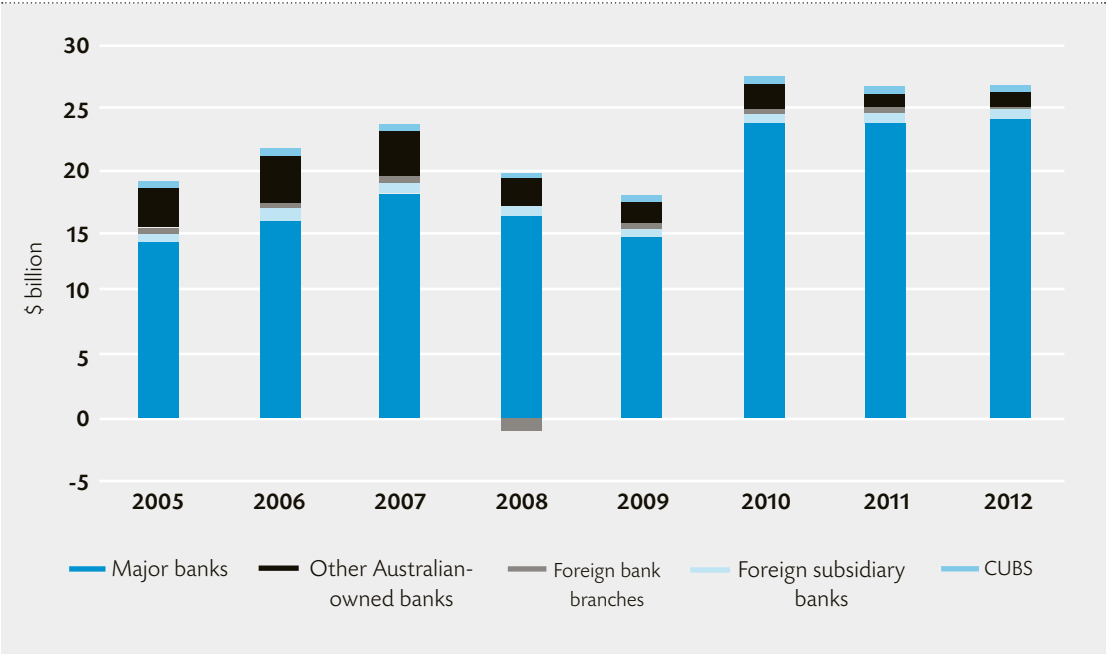
modelling approaches. However, because it is not risk-sensitive, it treats assets with very different risk profiles identically. As such, the leverage ratio is a backstop measure in the Basel III capital framework and not a substitute for the risk-weighting approach.

#### (iii) Profitability

Net profit after tax for the ADI industry was \$26.6 billion in the year to 31 March 2013, broadly unchanged from the previous year (Figure 5). Industry profitability was supported by broadly stable net interest margins, cost control and productivity initiatives, and relatively low and stable bad debt charges.

<sup>5</sup> Average credit risk-weight is calculated as on-balance sheet credit RWAs divided by on-balance sheet credit exposures.

Figure 5: Net profit after tax

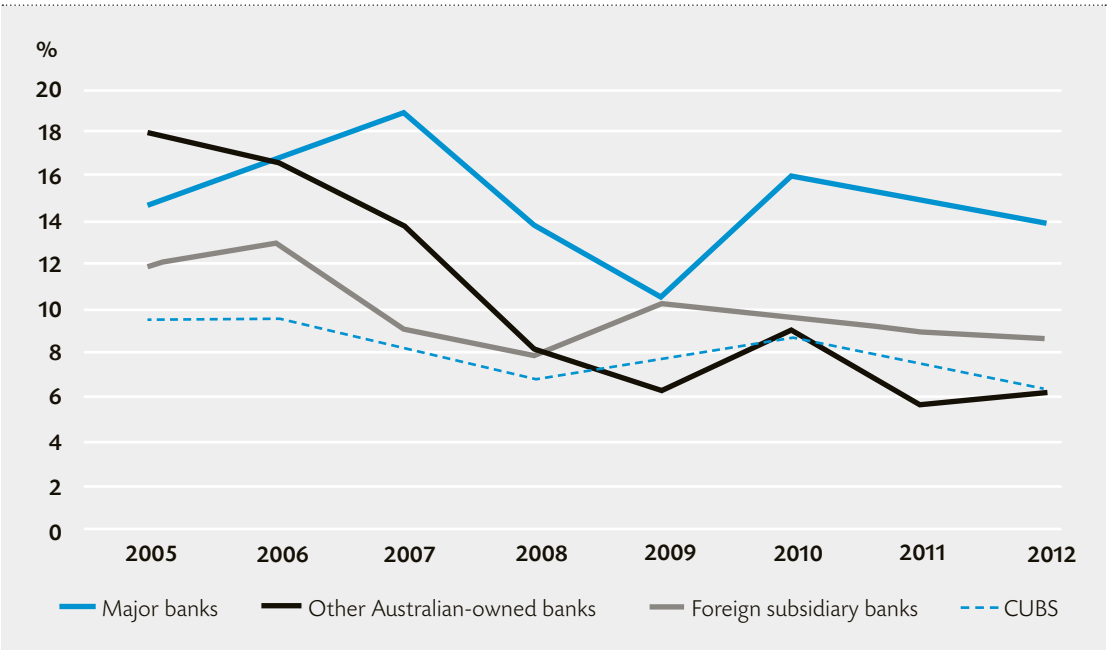


Source: APRA



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Figure 6: Return on equity



Source: APRA

While return on equity (ROE) at an industry level averaged 13 per cent, differences in profitability between sectors of the industry have persisted (Figure 6).

The continued profitability of the ADI industry has been a key driver of growth in capital ratios, with the retention of profits and contributions from dividend reinvestment programs (DRP) responsible for most of the increase in CET1 capital since 2010. More recently, ADIs have implemented various capital management initiatives that have started to slow the build-up of capital from profit retention. Such initiatives have included removing discounts on DRPs, raising actual and target dividend payout ratios, paying special dividends and neutralising DRPs.<sup>6</sup>

As highlighted recently by APRA<sup>7</sup>, capital initiatives need to be carefully considered by ADIs to ensure adequate buffers are built and maintained above the Prudential Capital Requirement (PCR) that APRA sets specifically for each ADI. From January 2016, an additional capital requirement for those banks designated by APRA as domestic systemically important banks (D-SIBs) will also apply. ADIs also need to hold sufficient capital to support their own business objectives (see *Box 1: Capital targets*).

*...capital initiatives need to be carefully considered by ADIs to ensure adequate buffers are built and maintained above the Prudential Capital Requirement...*

6 The neutralisation of the DRP involves the on-market purchase and transfer of ordinary shares to participating shareholders, which results in the DRP's impact on capital ratios being fully or partly offset.

7 J.F. Laker, 'Financial regulation and financial sector evolution – Looking ahead', Address to the Australian Centre for Financial Studies/Finsia Leadership Luncheon Series, Melbourne, March 2013.

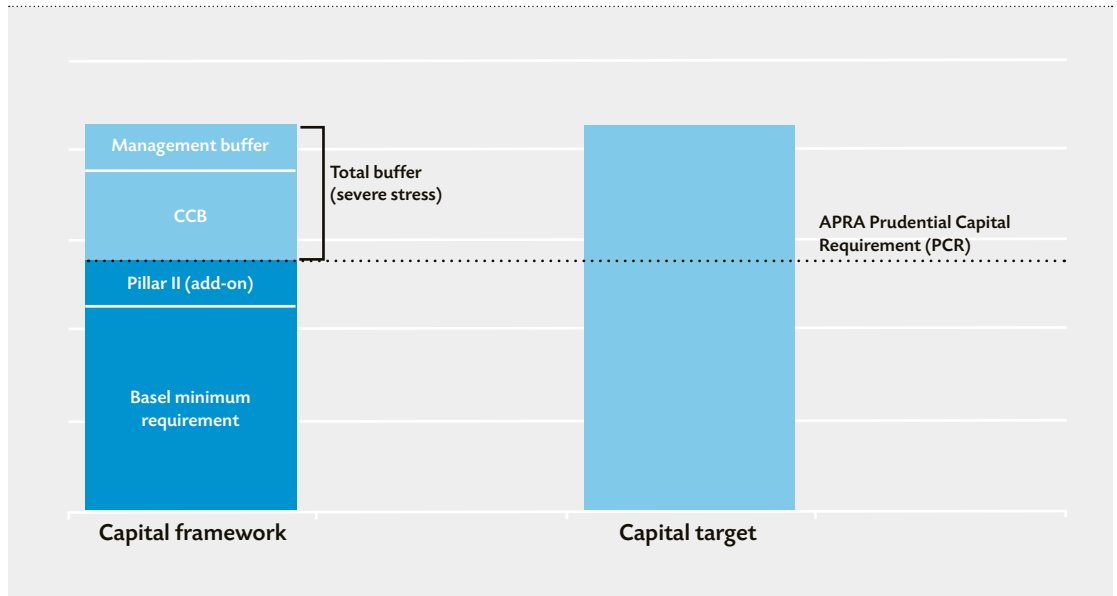
**ADI INDUSTRY RISKS****Box 1: Capital targets**

As ADIs transition to the Basel III capital framework, the setting of new capital targets and buffers is a key focus for review by APRA supervisors. Capital targets indicate the level of capital at which the Board and management plans to operate on a day-to-day basis in a normal operating environment. As such, these targets are a critical part of capital planning.

Capital targets need to provide a sufficient buffer to enable an ADI to withstand significant stress without breaching its PCR and without relying on potentially undeliverable mitigating actions. Determining an appropriate capital target is an important decision for an ADI's Board, and should be reviewed for changes in risk profile, economic outlook and management strategy as part of the annual capital planning process.

*Prudential Practice Guide CPG 110 Internal Capital Adequacy Assessment Process and Supervisory Review (CPG 110) provides guidance on APRA's expectations for this process. Central to the determination of capital targets is regular and effective stress testing, which can calibrate stress buffers above minimum regulatory requirements on the basis of severe but plausible scenarios. An ADI will also consider other relevant factors when setting capital targets, such as strategic plans, dividend policy and rating agency assessments. APRA does not expect an ADI to set its target capital at the top of the capital conservation buffer (CCB) in normal operating conditions, since this would not provide sufficient allowance for growth or capital volatility. Figure 7 illustrates a framework for capital targets.*

**Figure 7: Capital targets framework\***



\*Note: An ADI's capital target should primarily be determined by a buffer above its PCR sufficient to absorb a severe stress. Part of that buffer is provided by the CCB and APRA expects that ADIs will manage with a further buffer above the CCB in normal operating conditions. The chart above does not include the countercyclical capital buffer.

**ADI INDUSTRY RISKS****Prudential risks**

ADIs have strengthened their financial position since the global financial crisis began, supported by a generally prudent approach to risk management, the further development of the prudential framework and APRA's close supervisory oversight. Looking ahead, continuing uncertainties around the global economic recovery and the economic outlook for Australia underline the importance of maintaining this prudent approach.

**Credit risk**

Credit risk is the principal source of risk for the ADI industry, with credit exposures accounting for over 85 per cent of total RWAs.

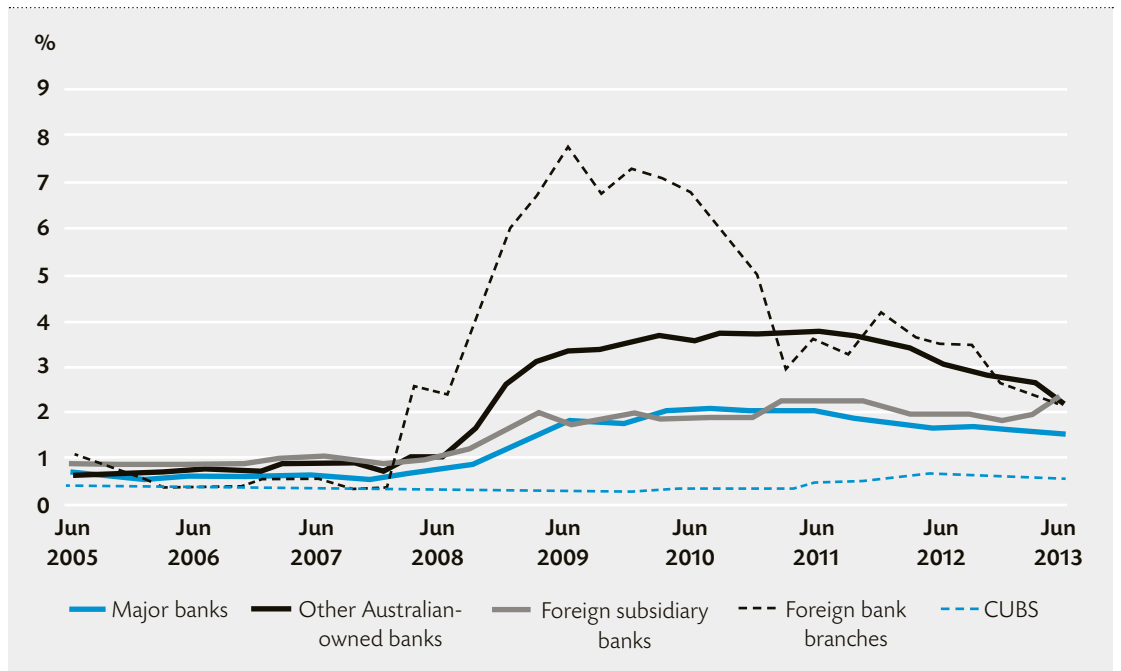
ADI credit quality has continued to improve gradually since 2010, and is strong in comparison to banks in a number of other countries. This relative strength has resulted from, and is contingent on, a conservative appetite for risk, robust lending standards and supportive macroeconomic conditions. These conditions are principally reflected in the strength of the labour market, business conditions and collateral asset prices.

Non-performing loans have declined from 1.8 per cent to 1.6 per cent of total loans over the past year.<sup>8</sup> The improvement has been fairly broad-based across sectors and differences in non-performing loan ratios between sectors have narrowed (Figure 8). The sectors with the highest non-performing loan ratios are the foreign banks and other Australian-owned banks. For the latter, which generally have less diversified loan portfolios relative to the major banks, this result is mainly due to exposures to commercial property and weaknesses in parts of the Queensland economy.

Total provisions have also declined, from 1.0 per cent to 0.9 per cent of total loans. Within this, however, specific provisions remain elevated compared to their pre-crisis levels. In the prevailing uncertainties, ADIs need to ensure that they adequately provision for expected losses, including through prudent levels of general reserves for credit losses as required by *Prudential Standard APS 220 Credit Quality*.

8 Non-performing loans include impaired and past-due loans.

Figure 8: Non-performing loans (% of gross loans)\*



Source: APRA

\*Note: Non-performing loans relating to foreign bank branches' operations in Australia may be reported on their head office's books.

**ADI INDUSTRY RISKS****Housing credit**

Housing lending standards are a central focus for APRA supervisors, given that housing loans represent around 60 per cent of total ADI lending, and a significantly greater proportion for some ADIs. ADI housing loan portfolios have performed significantly better than other portfolios over recent years and, traditionally, have not accounted for a substantial share of credit losses.

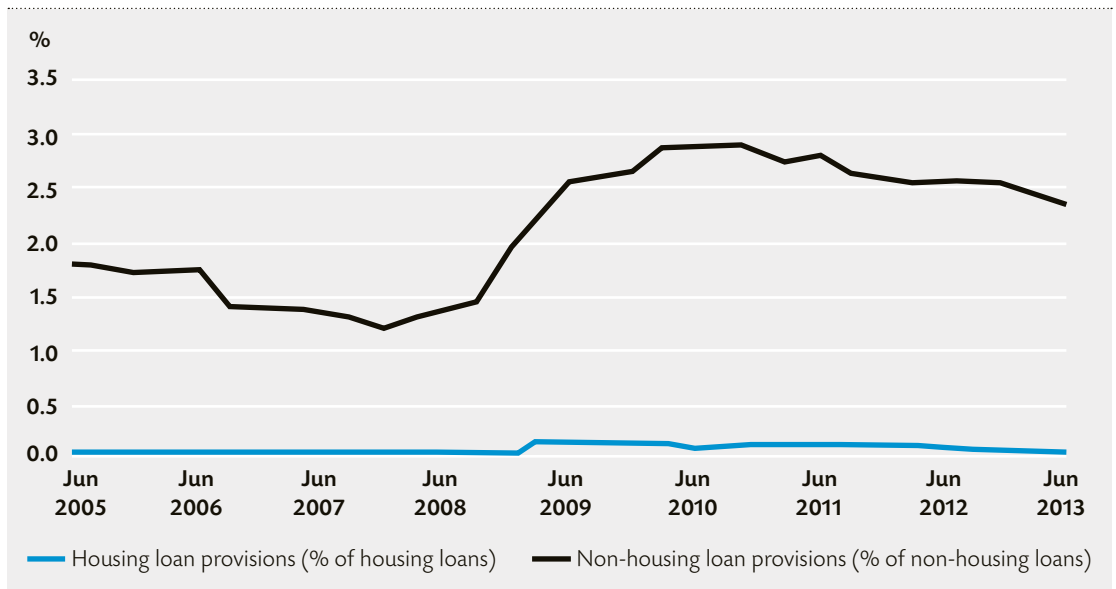
*Recent international experience indicates that a prolonged period of low interest rates can lead to rising household leverage and housing market pressures...*

Non-performing housing loans have drifted slightly lower since peaking in mid-2011 and were less than 0.7 per cent of total housing loans in June 2013. Provisions for losses on housing loans have remained very low, especially in comparison with other loan portfolios (Figure 9).

Prudent lending standards are essential for preserving the track record of housing loans as a relatively low risk portfolio for ADIs. The experience of some markets overseas shows that housing loan portfolios can be fairly resilient to modest rises in unemployment when lending standards have remained prudent, but not in markets where origination practices are ill disciplined.

The low credit growth and low interest rate environment presents a twin challenge to lending standards for ADIs. The outlook for housing portfolios will depend on how ADIs respond to these challenges.

**Figure 9: Provisions on housing and non-housing loans\***



Source: APRA

\*Note: Provisions include specific provisions and general reserves for credit losses. Not all ADIs report provisions by loan type and provisions relating to foreign bank branches' operations in Australia may be held at head office level.



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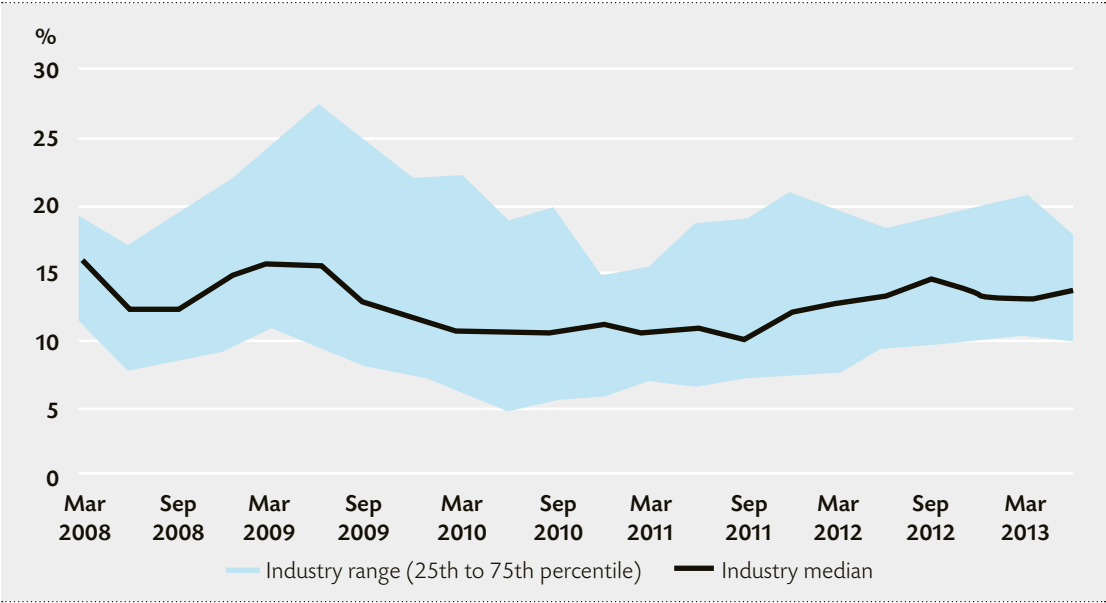
Housing credit growth is currently low by historical standards, with households taking a more prudent approach to their finances. This is evidenced by a higher savings rate and many borrowers taking advantage of lower interest rates to repay debt earlier than required. Slow credit growth increases the pressure on ADIs to compete for business on price and – of concern to APRA – by relaxing lending standards: this can be through increasing risk appetite, relaxing targets and limits, adjusting lending policies and approving more loans as exceptions to these policies. One indicator that APRA monitors closely is the value of new lending at high loan-to-valuation ratios (LVRs). Since 2010, there has been an increase in new lending at LVRs above 90 per cent, particularly in the recent quarter.

A sustained low interest rate environment poses further risks to lending standards. It is important for ADIs to ensure that new borrowers are able to service debt and afford higher repayments when interest rates rise from current record low levels. APRA expects ADIs' serviceability assessments to test borrowers' capacity to meet higher repayments

through adequate interest rate buffers and floors, applied to new and existing loan commitments. Loan serviceability standards in housing lending were the focus of a targeted review commissioned by APRA in 2012 and conducted by the external auditors of a number of larger ADIs. The review focused on loan serviceability criteria and their practical application, including the identification, monitoring and management of policy 'overrides' and 'exceptions'. The findings of the review are discussed in a separate article in this issue of *Insight*.

Recent international experience indicates that a prolonged period of low interest rates can lead to rising household leverage and housing market pressures, with potential flow-on impacts on the credit quality of housing loan portfolios. This reinforces the importance of ADIs adopting sustainable lending growth targets and prudent lending strategies, including in relation to high LVR lending and loan serviceability standards. APRA is currently developing a Prudential Practice Guide, which will provide guidance to the industry on good practice in housing credit risk management.

Figure 10: Residential mortgages with LVR>90% (% of mortgages approved)



Source: APRA

**ADI INDUSTRY RISKS****Box 2: Impact of prolonged low interest rates: international experience**

Internationally, a number of regulators have recently expressed concern over rising household indebtedness and house prices, against the backdrop of a prolonged low interest rate environment and high exchange rates.

A prolonged period of low interest rates can pose a risk to future loan quality if borrowers take on debt without considering the higher servicing costs that they will face when interest rates rise again in the future. The Bank of England has recently warned of this risk, noting that some new mortgage lending in the United Kingdom is at multiples of income that may fail to prudently account for a future rise in interest rates. In other jurisdictions such as Canada, New Zealand, Norway, Sweden and Switzerland, the risks have mainly centred on rising household indebtedness and house prices. In part, this reflects prior periods of

rapid growth in household debt and house prices; concerns have therefore emerged despite the fact that credit growth recently has been much slower than in earlier periods.

Regulators in these economies have implemented a range of initiatives to help counter risks, without the use of a monetary policy response. In New Zealand, Norway and Sweden, regulators have sought to strengthen the resilience of their banking sectors by requiring banks to hold more capital against mortgage exposures. Switzerland has followed a similar approach, including the early implementation of the Basel III countercyclical capital buffer. This is a pre-emptive measure that requires banks to build up capital as imbalances in the credit (housing) market develop, which can then be used to help absorb potential future losses.

In other instances, policy responses have been aimed primarily at leaning against the build-up of excesses, including by restricting the flow of new mortgages to higher risk borrowers. Regulators in Canada, New Zealand, Norway and Sweden have all implemented, or are proposing to implement, policies aimed at restricting the share of new lending that is done at high LVRs. In Canada, this has mainly involved

tighter minimum standards for government-backed insured mortgages, including reductions in the maximum allowable loan amortisation period and debt servicing ratio. The Reserve Bank of New Zealand has announced that new residential mortgage lending at LVRs of over 80 per cent will be limited to 10 per cent of new housing lending from October 2013.

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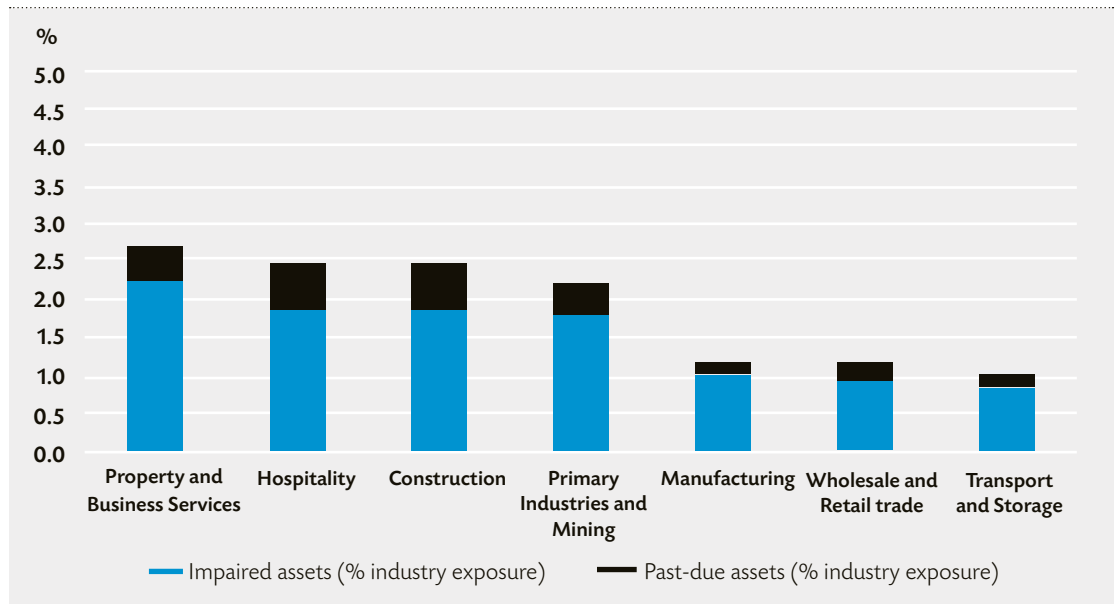
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#### Business credit

Business loans account for a significantly greater share of non-performing loans than housing loans. While the business non-performing loan ratio has gradually declined over the past few years, it remains elevated relative to pre-crisis levels. This reflects weaknesses in a number of industries, particularly the commercial property industry and those industries impacted by a high exchange rate and subdued consumer spending (Figure 11).

Commercial property exposures have decreased since 2009 and currently stand at around \$200 billion, reflecting a reduction in ADIs' appetite for this risk. Current exposures represent about 9 per cent of total loans, equivalent to 123 per cent of Tier 1 capital compared to the peak of nearly 200 per cent reached in 2008. Impaired commercial property exposures have continued to decline at a gradual pace as ADIs have worked through problem exposures (Figure 12), but these impairments still account for a significant share of total impaired assets in ADIs' business loan portfolios.

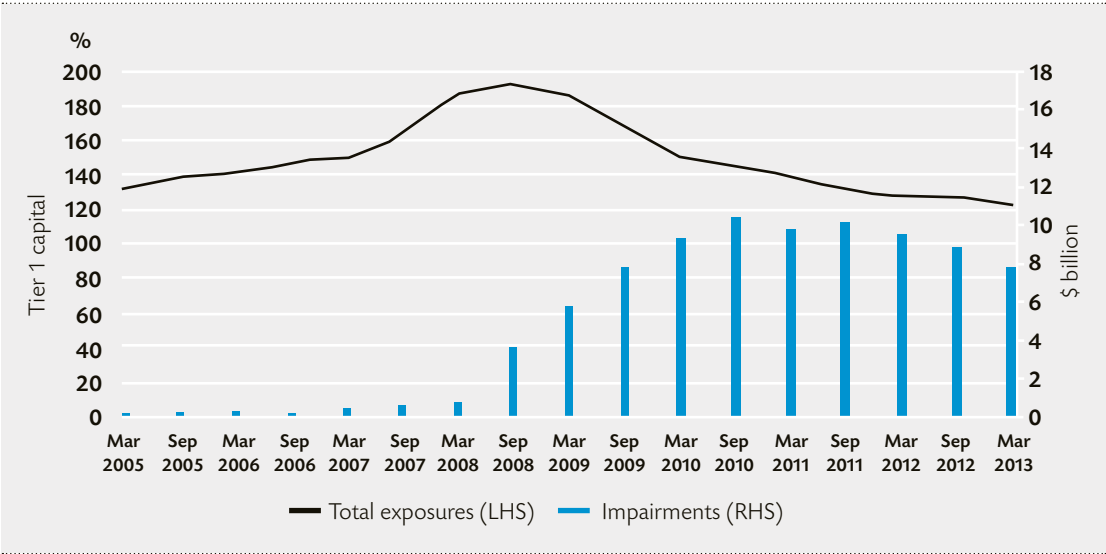
Figure 11: Business credit quality by industry



Source: Major Bank Pillar 3 Reports - March 2013 (CBA June 2013)

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Figure 12: Commercial property exposures\*



Source: APRA

\*Note: Excludes foreign bank branches as this sector does not have capital requirements.

## International exposures

The largest offshore exposures of Australian-owned banks are to New Zealand, the United Kingdom and the United States. Although relatively smaller as a proportion of Tier 1 capital, exposures to the Asian region have been growing rapidly over the past few years, with the most significant exposures to Singapore, Hong Kong, China and Japan (Figure 13).<sup>9</sup> Exposures to counterparties in the euro area are very limited.

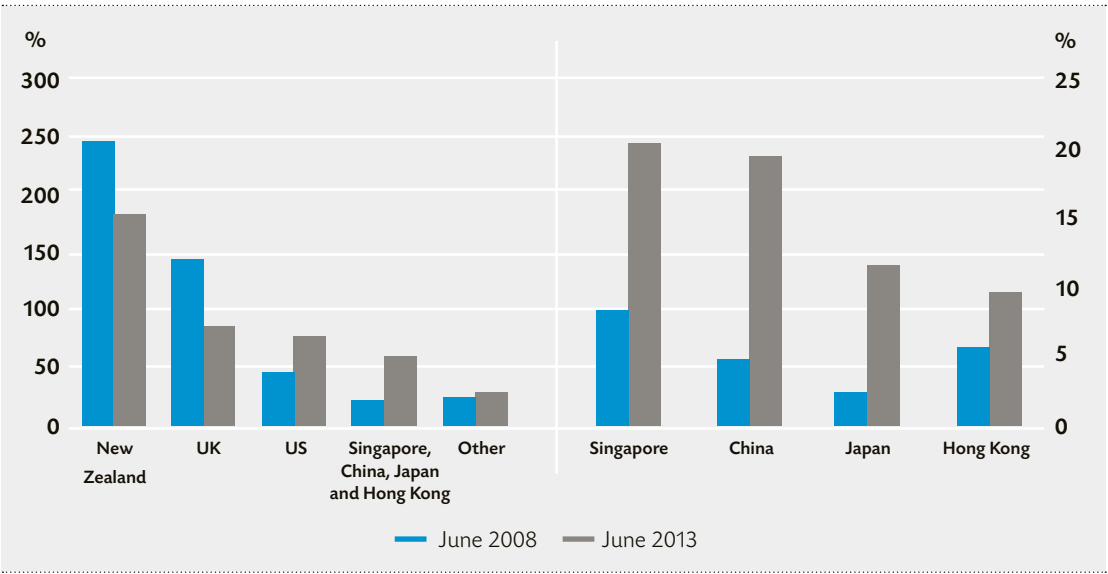
While expansion into new markets can provide benefits from income diversification, it also presents new risks. Risk management frameworks are not always exported with the same rigour and level of diligence outside home markets, economic conditions may be more volatile in certain countries, and growth through mergers and acquisitions needs appropriate due diligence to ensure the change in risk profile is well understood and effectively managed.

<sup>9</sup> Exposures are measured on an 'ultimate risk basis', which is where the counterparty risk ultimately resides. This may be different to the location of the direct counterparty to the exposure due to guarantees and other risk transfers.



ADI INDUSTRY RISKS

Figure 13: International exposures of Australian-owned banks (% of Tier 1 capital)\*



Source: APRA

\*Note: The left panel of Figure 13 shows the 10 largest country exposures as at 30 June 2013. "Other" includes Canada, Germany and India.

## Liquidity and funding risks

ADIs have broadly strengthened their liquidity and funding positions since 2008/09 and are better placed to manage if funding market conditions were again to deteriorate sharply. In aggregate, banks have increased their holdings of liquid assets, increased their deposit funding and reduced their use of short-term wholesale funding (Figure 14). Domestic deposit funding currently accounts for 56 per cent of banks' total funding, compared to around 40 per cent in 2008. Offshore wholesale funding has fallen over the same period to around 20 per cent of total funding, although the short-term component of this has not materially decreased.

Wholesale funding conditions have improved since the middle of 2012, notwithstanding further bouts of financial market volatility. Over this period, wholesale funding costs have reduced significantly, with spreads on the major banks' unsecured and covered bonds relative to Commonwealth Government securities declining

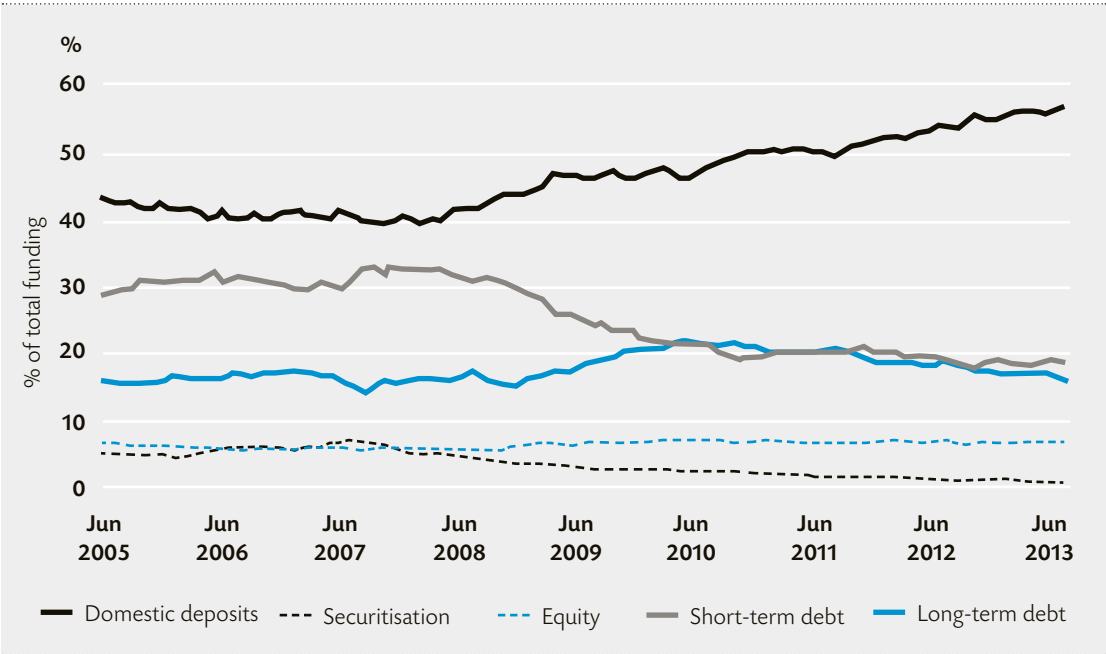
by about 110 and 100 basis points, respectively. Competition for deposits, however, has been strong and deposit spreads over benchmark wholesale rates remain at elevated levels.

Reflecting the more stable funding conditions, Australian banks have had steady access to wholesale markets and issued around \$100 billion of bonds over the year to June 2013 (Figure 15). Covered bonds have recently accounted for a lower share of banks' bond issuance. This demonstrates the banks' ability to issue unsecured bonds and also their intentions to conserve some covered bond capacity within prudential limits should there be further disruptions in funding markets. To date, the major banks have used around 30-45 per cent of their capacity.

Conditions in the residential mortgage-backed securities (RMBS) market have also improved, and further participation by the Australian Office of Financial Management in RMBS transactions has not been considered necessary to support the market.

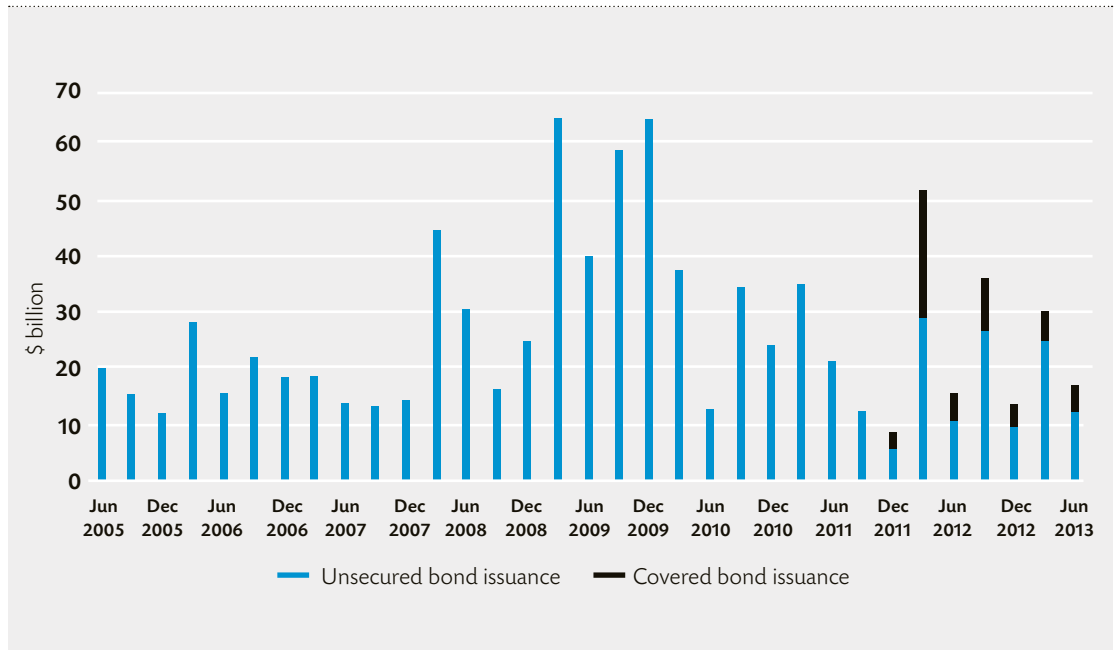
ADI INDUSTRY RISKS

Figure 14: Bank funding composition



Sources: APRA, RBA

Figure 15: Banks' bond issuance



Source: RBA

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### ADI INDUSTRY RISKS

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Despite the broad improvement in funding conditions, the renewed market volatility and temporary rise in credit spreads in mid-2013 are reminders of the potential for funding difficulties to quickly re-emerge. During this period, the issuance of long-term debt by banks was limited but issuance has picked up since then. APRA continues to closely monitor market conditions and ADIs' funding and liquidity risks.

#### Basel III liquidity framework

The transition to the Basel III liquidity framework will be a significant change for the industry and will also be a key focus for APRA. The centrepiece of this framework is a new global liquidity standard, the Liquidity Coverage Ratio (LCR), which will apply to the larger ADIs and will come into effect in Australia from January 2015 through *Prudential Standard APS 210 Liquidity* (APS 210).

*...renewed market volatility and temporary rise in credit spreads in mid-2013 are reminders of the potential for funding difficulties to quickly re-emerge.*

Under the LCR, ADIs are required to maintain sufficient high-quality liquid assets (HQLA) to meet their liquidity needs for a 30-day period under a severe liquidity stress scenario. APRA has determined that Commonwealth Government securities (CGS) and semi-government securities satisfy the relevant criteria to be included as HQLA in the LCR calculation. Given the shortage of such securities in Australia, the Reserve Bank of Australia (RBA) will provide a Committed Liquidity Facility (CLF) to individual ADIs that they will be able to include in meeting the LCR requirement. ADIs will need to demonstrate to APRA that they have taken 'all reasonable steps' towards meeting their LCR requirements through their own balance sheet management, before relying on the CLF for this purpose.

APRA has recently provided further information on its process for determining the appropriate size of the CLF for each ADI.<sup>10</sup> On an annual basis, APRA will review applications from ADIs requiring a CLF against the 'all reasonable steps' requirement, on the basis of their three-year funding plan and APRA's assessment of their target net cash outflows. ADIs will be required to comply with a number of key liquidity risk requirements including having in place a statement of the Board's tolerance for liquidity risk, an appropriately robust liquidity transfer pricing mechanism, and appropriate remuneration arrangements for those executives responsible for the ADI's funding plan and liquidity management. To prepare for implementation, APRA is undertaking a trial CLF assessment process in 2013.

<sup>10</sup> *Implementation of the Basel III liquidity framework in Australia*, August 2013, [http://www.apra.gov.au/MediaReleases/Pages/13\\_25.aspx](http://www.apra.gov.au/MediaReleases/Pages/13_25.aspx)

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**ADI INDUSTRY RISKS**


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Where APRA determines that an ADI is not taking sufficient steps to reduce its liquidity risk, an appropriate supervisory response may include progressively reducing the amount of the CLF that the ADI can include in the LCR until a more appropriate liquidity risk profile is achieved.

**Other ADI risks**

ADIs in Australia generally have simpler business models than many of their overseas peers and, consequently, market and operational risk are less significant in Australia than in some other banking systems. However, risks can still materialise in these areas, and they receive continued supervisory attention from APRA.

**Market risk**

Despite the introduction of higher market risk capital charges under Basel 2.5 in January 2012, market risk accounts for a relatively small proportion of risk exposure for ADIs (about 5 per cent of total RWAs). In response to the higher capital charges, some ADIs have modified or restructured their trading activities to reduce their capital requirements.

At the same time, some ADIs have significantly increased their use of credit derivatives over the last two years. These instruments are used for the purposes of portfolio diversification and to hedge balance sheet credit exposures. They are also used for Credit Value Adjustment (CVA) hedging.<sup>11</sup> International trends suggest that CVA hedging, which represents a fundamental change in market activity, will continue to grow. Some ADIs have also expanded their trading activities in offshore jurisdictions. As market risk profiles shift, ADIs must ensure that their supporting risk control framework and risk resources keep pace.

**Interest rate risk in the banking book**

Advanced ADIs are subject to an additional capital charge for interest rate risk in the banking book (IRRBB), which is measured through additional RWAs. This charge provides a disincentive to enter into speculative interest rate positions. IRRBB accounts for around 4 per cent of total RWAs on average for these banks. For ADIs on the standardised approach, interest rate risk is considered within the broader Pillar 2 supervisory review process.

<sup>11</sup> A credit value adjustment is an accounting adjustment that an ADI is required to make to the value of its derivatives to reflect counterparty credit risk (the risk that the counterparty to the derivative transaction defaults).

Over the past year, the proportion of (owner-occupier) fixed-rate home loan approvals has nearly doubled to around 20 per cent of total home loan approvals. This shift has the potential to introduce additional IRRBB and it is important that ADIs manage this risk appropriately. In addition, as interest rates decline, margins on non-interest-rate sensitive funding such as low or zero interest-bearing deposits are likely to compress, adversely impacting on profitability.

## **Operational risk**

In 2012/13, operational risk losses have been relatively stable. Globally, however, there have been a series of high-profile loss events that have demonstrated the potential for severe losses and reputational damage. These events include mis-selling of products, trading incidents and manipulation of benchmark interest rates.

The continued development of operational risk management frameworks therefore remains a priority. APRA has observed weaknesses in some areas, including the design and implementation of operational risk management frameworks, governance and independent review, and business continuity management. These areas are being addressed. In addition, the operational risk modelling approaches of the advanced ADIs continue to evolve. In 2011/12, APRA reviewed the operational risk regulatory capital levels of these ADIs and concluded that these levels needed to be increased. As a consequence, higher operational risk capital requirements were introduced from late 2012.

Other areas of focus for ADIs, particularly those progressing core system replacement programs, are technology risk, the sustainability of IT investment, and the growing risk of cyber threats.

**Jamshed Khambatta**

**Gideon Holland**

*Industry Analysis Team*

*Diversified Institutions Division*



# LOAN SERVICEABILITY STANDARDS IN HOUSING LENDING

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This article outlines the key findings of a targeted review of housing  
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loan approval standards by ADIs, with a particular focus on loan  
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serviceability criteria. The targeted review was undertaken by  
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the external auditors of a number of ADIs. The findings highlight good  
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practices and suggest areas where improvements are needed.  
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## Introduction

One of the themes to emerge from the global financial crisis was the importance of strong housing loan approval standards that are maintained throughout the economic cycle. Common experience that these standards tend to erode when housing markets are booming was reinforced by the failure of banks lending to the US subprime mortgage market and to residential property markets in other countries. The crisis also demonstrated that the consequences of weak lending practices in one country can be transferred globally through the securitisation of mortgages. In response, the Financial Stability Board (FSB) has developed a principles-based framework for good practice in mortgage underwriting standards.<sup>1</sup>

APRA's prudential requirements place responsibility on the Board and senior management of an ADI to oversee the nature and level of credit risk that an ADI undertakes.<sup>2</sup> Boards set the risk appetite for their institution and approve the credit risk framework. This framework – the policies, procedures and controls needed to identify, monitor and manage credit risk – must be appropriate to the complexity, scope and scale of an ADI's lending business and must, of course, work in practice.

<sup>1</sup> Financial Stability Board, *Principles for Sound Residential Mortgage Underwriting Practices*, April 2012. These principles are available at: [http://www.financialstabilityboard.org/cos/cos\\_120401.htm](http://www.financialstabilityboard.org/cos/cos_120401.htm)

<sup>2</sup> Refer to Prudential Standard APS 220 Credit Quality.

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### LOAN SERVICEABILITY STANDARDS IN HOUSING LENDING

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Under longstanding arrangements, external auditors of ADIs undertake 'targeted' reviews, generally on an annual basis, of particular aspects of ADIs' operations or risk management systems, at APRA's behest. The two most recent reviews have focussed on housing lending.

In 2010/11, the targeted review topic was collateral management and foreclosure management. This was in the wake of the difficulties US banks had faced during the crisis in managing problem loans and disposing of the collateral. These difficulties highlighted that inadequate documentation, inflexible systems or inaccurate valuations can translate into higher credit losses. The targeted review of a number of larger ADIs found no material deficiencies in collateral management but identified common areas for improvement.<sup>3</sup>

*Around*

**97%** 

*of total ADI housing loans were represented in the targeted review*

<sup>3</sup> 'The management of collateral and foreclosures', APRA *Insight*, Issue 2, 2011.

The topic of the targeted review in 2012/13 was housing loan approval standards, focusing on the income tests that ADIs use to assess whether borrowers can afford the interest and principal repayments on their loans. Loan serviceability criteria are a fundamental component of the approval process, since weaknesses in serviceability policies can quickly lead to increases in the volume of loans defaulting in an economic downturn. The targeted review asked external auditors to assess the robustness of the serviceability criteria used for housing loan approvals by the ADIs

involved. The scope of the review encompassed the ADI's serviceability policy and an assessment of its practical application, including policy 'overrides' or 'exceptions' and how these were identified, monitored and managed. APRA set the scope of the review and coordinated the project.

A total of 27 ADIs participated in the targeted review, including major banks, regional banks, credit unions and building societies. Together, these ADIs represented around 97 per cent of total ADI housing loans as at March 2013.

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## **Good practices in loan serviceability evaluation**

The targeted review identified a number of good practices in the application of loan serviceability criteria, which were generally followed. These practices included:

- *documented policies and procedures in credit risk management systems for evaluating loan serviceability.* Many ADIs have looked to simplify and consolidate their loan serviceability policies and procedures in recent years. As a result, several ADIs now have a single serviceability framework that sets out all the serviceability criteria across all mortgage products within the ADI;
- *effective governance frameworks and board oversight over loan serviceability policies.* Governance frameworks included various levels of Delegated Lending Authorities (DLAs) to individuals and committees. The use of DLAs appeared to be well established and the delegation levels ranged from three to nine across the ADIs surveyed. In addition, ADIs generally had an extensive and effective credit assurance program, segregation of duties and delegations within their internal control systems, along with a centralised credit approval process;
- *regular reviews of policies to align risk appetite with the changing external operating environment.* The annual limit review process appeared well established. Most ADIs had their policies reviewed by their risk management function and endorsed by the credit risk committee;

- *use of an 'interest rate buffer' over the current lending rate in evaluations of loan serviceability.* This approach ensures that potential increases in interest rates do not adversely impact on a borrower's capacity to repay a new housing loan. This practice is one of the distinguishing features of housing lending in Australia; some other jurisdictions appear to assess loan serviceability on the basis of the prevailing interest rate only; and
- *hindsight reviews (or independent reviews of compliance with serviceability policy) of housing loan portfolios.* ADIs generally conducted multiple levels of hindsight reviews. The average sample of files reviewed by ADIs was around five per cent of the mortgage book. However, some ADIs reviewed up to 10 per cent of the book with a more extensive coverage of the serviceability assessments made by new holders of DLAs.

***The average sample of files reviewed by ADIs was around***

**5%** 

***of the mortgage book.***

## Shortcomings in loan serviceability evaluation

Notwithstanding this generally positive assessment, the targeted review also identified a number of possible areas for improvement.

### Loan serviceability policies

The review highlighted differences in the loan serviceability policies of ADIs surveyed. Some ADIs had multiple serviceability policies for different product lines; others, as noted above, had a single serviceability framework set out in an overarching policy document for all products. The overarching policy document included DLAs and procedures for the calculation of income and expenses, and for verification of information. In some cases, however, the serviceability policy allowed for the application of different serviceability criteria for various products to target specific borrower segments. This could lead to inconsistencies in application.

*In APRA's view, ADIs need to develop a set of consistent serviceability criteria across all their mortgage products if they have not already done so.*

In APRA's view, ADIs need to develop a set of consistent serviceability criteria across all their mortgage products if they have not already done so. A single set of serviceability criteria would promote consistency by applying the same interest rate buffer, serviceability calculation and override/exception framework across different brands or distribution channels used by the ADI.

## Serviceability assessments

ADIs use three kinds of serviceability models to assess a borrower's ability to repay a mortgage: the net income surplus (NIS) model<sup>4</sup>, the debt servicing ratio (DSR)<sup>5</sup>, or a combination of both.

The majority of ADIs surveyed used the NIS model. In some cases, ADIs only require that the net income surplus be positive for a mortgage application to be automatically approved. Conceptually, this would mean that a trivial change in a borrower's circumstances could adversely affect their capacity to service the loan. It is important for ADIs to ensure that borrowers approved at the limits of NIS or DSR models can continue to service their loans in the face of even modest adverse changes in circumstances. Hence, APRA expects these models to contain appropriate interest rate buffers and/or margins on living expenses when used to make serviceability assessments.

## Interest risk buffers

For most borrowers, a significant component of their income is dedicated to meeting debt commitments. All ADIs surveyed stressed a borrower's new debt commitments as part of the serviceability assessment, but several methods were used. Some ADIs applied an interest rate buffer over the loan product's actual interest rate, over the ADI's standard variable rate or over the Reserve Bank of Australia's cash rate. Others applied an interest rate buffer with an interest rate floor, the floor playing an important role in ensuring that the buffer used is adequate if interest rates were to rise rapidly. However, some ADIs applied an interest rate buffer without an interest rate floor. APRA would expect ADIs to use an interest rate floor, based on the average mortgage interest rate over an appropriately long time period, being at least one cycle in interest rates, in their serviceability assessment.

<sup>4</sup> The net income surplus model measures a borrower's surplus income over all general living expenses after loan repayments. The net income surplus is generally determined on an after-tax basis.

<sup>5</sup> The debt servicing ratio is the ratio of the annual or monthly total debt servicing requirements, including principal, interest, taxes and insurance, as a percentage of annual or monthly income that is available to repay the debt.



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*...the method for reviewing buffers should allow an ADI to ascertain whether the current buffer is appropriate in relation to the interest rate cycle...*

A minority of ADIs used an ADI-wide affordability benchmark rate or an affordability rate from a lenders mortgage insurance (LMI) provider. An ADI-wide affordability benchmark applies a single 'flat' interest rate to all serviceability assessments. In effect, the interest rate buffer can vary considerably with changes to underlying interest rates.

Other adjustments are made as part of the overall serviceability assessment. These include stressing a borrower's minimum living expenses (see below), discounting the borrower's declared income or adjusting the surplus available for debt servicing. For these reasons, it may not be appropriate simply to compare interest rate buffers between ADIs as an indicator of relative underwriting standards.

The targeted review did not identify any common method for assessing the adequacy of debt serviceability buffers. Moreover, the method, quality and frequency of interest rate buffer reviews also differed significantly across ADIs, from monthly in some cases to annually in others. In APRA's view, the method for reviewing buffers should allow an ADI to ascertain whether the current buffer is appropriate in relation to the interest rate cycle, and would need to take into account historical interest rate movements and interest rate forecasts, as well as key economic indicators over an appropriate time horizon. It would be good practice for reviews to be done on a quarterly basis, and when interest rates change.

APRA also encourages ADIs to stress the interest rate applying to a borrower's existing debt commitments as part of the serviceability assessment.

## Living expenses

Understanding a borrower's living expenses is crucial as these are key cash outflows that influence the outcome of the serviceability assessment. All ADIs surveyed used either the Household Expenditure Measure (HEM) or the Henderson Poverty Index (HPI) in their loan calculators to estimate a borrower's living expenses. The HEM or HPI indices are calibrated to reflect the required expenses for a basic standard of living. Their wide use reflects their simplicity in application but they do not necessarily reflect an applicant's actual living expenses, which can be considerably higher. Sole reliance on these indices as a measure of a borrower's living expenses is not considered prudent practice.

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Recognising this, some ADIs using the HPI added a margin over the index but the manner in which the margin was applied varied. Margins were not generally linked to the borrower's income level. Many ADIs also require borrowers to provide details of their living expenses, and use declared living expenses if they are higher than the HEM or HPI indices. However, declared living expenses were generally not validated.

APRA expects ADIs to use a borrower's declared living expenses as a more representative measure of their actual living expenses than the HEM or HPI indices. However, if the HEM or HPI is used, APRA would highlight two areas for improvement. One is to add a margin linked to the borrower's income to the relevant index. The other is to update the HEM or HPI used in loan calculators on a frequent basis, particularly given that updated figures for these indices are published each quarter.

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*APRA expects ADIs to have formal procedures to verify a potential borrower's existing debt commitments...*

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## **Verification of income and other debt obligations**

The majority of ADIs had detailed policies requiring a borrower's employment and other income sources to be verified against third-party evidence. However, it was not common practice to extend this to the verification of a borrower's other declared debt commitments, unless the borrower was refinancing loans. Moreover, there was no indication that ADIs had appropriate policies and procedures for ensuring that borrowers do not have undeclared debt obligations.

APRA expects ADIs to have formal procedures to verify a potential borrower's existing debt commitments, irrespective of whether these commitments are being refinanced by the ADI, and to identify possible undeclared debt commitments.

## **Overrides/exceptions**

An override or exception occurs when a loan is approved outside of an ADI's loan serviceability policy. The targeted review found that the framework for reporting and monitoring exceptions and overrides varied across ADIs. Where the lending policy (and the DLA) does not clearly provide a framework for overrides/exceptions, they are less likely to be identified, monitored and/or reported. In some cases, the framework for defining overrides/exceptions was not consistently applied within the ADI; in other cases, the framework was either non-existent or not clearly documented. In addition, a number of ADIs did not have appropriate procedures in place to identify, track and report overrides/exceptions.

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APRA expects ADIs to have a framework that clearly defines the protocols for overrides/exceptions. A clear and consistent definition for overrides/exceptions would give ADI boards and management better oversight of changes in their housing lending practices. The framework would also include the documentary requirements for override/exception decisions and how overrides/exceptions are to be identified, reported and monitored. For example, when an override is made, it would be prudent practice to keep on file an appropriate level of documentation that supports the decision. There also needs to be regular override/exception reporting to the appropriate level of management and, ultimately, to the board.

### **Other areas for improvement**

The targeted review also identified that, in a minority of ADIs, the mortgage documentation supporting the serviceability assessment was incomplete and that there were inaccuracies in the income verification process.

The review also noted that, in many ADIs, changes to their loan serviceability policy do not have a direct impact on the levels of provisioning. Provisioning is affected by arrears rates which, in turn, are inherently correlated with the serviceability criteria. APRA would expect ADIs to consider the implications of changes to serviceability criteria for credit risk models, capital management (including levels of loan provisions) and the Internal Capital Adequacy Assessment Process.

## Summary box

### Elements of a prudent approach to debt serviceability

- Clearly documented policies and procedures for evaluating loan serviceability, subject to effective governance arrangements and board oversight.
- A set of consistent serviceability criteria across all of an ADI's mortgage products.
- Application of an interest rate buffer to stress new and existing loan commitments, which is regularly reviewed in relation to the interest rate cycle and key economic indicators.
- Inclusion of an interest rate floor in serviceability assessments, based on the average mortgage interest rate over an appropriately long time period, being at least one cycle in interest rates.
- Use of a borrower's declared living expenses as a more representative measure of their actual living expenses than the HEM or HPI indices.
- Where the HEM or HPI indices are used, the addition of a margin to the relevant index linked to a borrower's income, and regular updating of these indices.
- Formal procedures to verify a potential borrower's existing debt commitments and to identify possible undeclared debt commitments.
- A framework that clearly defines overrides/exceptions and includes the documentary requirements for override/exception decisions and how overrides/exceptions are to be identified, reported and monitored.
- Regular override/exception reporting to the appropriate level of management and to the board.

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## **Conclusion**

Housing lending has historically been a low-risk asset class for ADIs in Australia. The quality of ADI housing lending portfolios has proven very resilient during the global financial crisis, particularly compared with the experience of some of the crisis economies. This positive outcome owes much to the generally sound housing lending standards applied by ADIs, including their assessments of a loan applicant's debt servicing capacity. The targeted review confirmed that the ADIs surveyed had policies and procedures for evaluating loan serviceability that were subject to board oversight. At the same time, the review identified areas where serviceability practices can be improved. APRA supervisors will be following these matters up with individual ADIs.

A strong focus on debt serviceability is critical in a low interest rate environment. In particular, low interest rates can mask debt serviceability assessments, creating opportunities for borrowers to increase their leverage. The resulting growth in demand for housing loans can also put pressure on housing lending standards as ADIs compete to maintain or increase their market share. ADIs need to carefully monitor the debt servicing capacity of their borrowers over the duration of housing loans, not just at origination, to ensure that borrowers are able to manage the transition to higher interest rates, when that inevitably occurs.

The targeted review also highlighted good practice in different elements of debt serviceability policies. These have been discussed in this article and are summarised in the accompanying box. In response to the review's finding, APRA is reviewing its expectations for prudent housing lending standards and will outline these expectations in a forthcoming prudential practice guide.





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**NOTES**

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## APRA OFFICES

### Head Office

#### SYDNEY

##### Level 26

400 George Street  
Sydney NSW 2000  
GPO Box 9836  
Sydney NSW 2001

Tel: 02 9210 3000  
Fax: 02 9210 3411

Info Line: 1300 55 88 49  
Web: [www.apra.gov.au](http://www.apra.gov.au)

#### ADELAIDE

##### Level 22

25 Grenfell Street  
Adelaide SA 5000  
GPO Box 9836  
Adelaide SA 5001

Tel: 08 8235 3200  
Fax: 08 8232 5180

#### BRISBANE

##### Level 9

500 Queen Street  
Brisbane QLD 4000  
GPO Box 9836  
Brisbane QLD 4001  
Tel: 07 3001 8500  
Fax: 07 3001 8501

#### CANBERRA

##### Level 4

10 Rudd Street  
Canberra, ACT 2601  
GPO Box 9836  
Canberra ACT 2601

Tel: 1300 55 88 49  
Fax: 02 6213 5251

#### MELBOURNE

##### Level 21

Casselden Place  
2 Lonsdale Street  
Melbourne VIC 3000  
GPO Box 9836  
Melbourne VIC 3001  
Tel: 03 9246 7500  
Fax: 03 9663 5085

#### PERTH

##### Level 15, QV1 Building

250 St Georges Terrace  
Perth WA 6000  
GPO Box 9836  
Perth WA 6001

Tel: 08 9481 8266  
Fax: 08 9481 8142

