



Information Paper

The countercyclical capital buffer in Australia

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Glossary

Term	Definition
ABS	Australian Bureau of Statistics
ADI	Authorised deposit-taking institution
APRA	Australian Prudential Regulation Authority
APS 110	<i>Prudential Standard APS 110 Capital Adequacy</i>
Basel Committee	Basel Committee on Banking Supervision
Basel III	Basel Committee, <i>Basel III: A global regulatory framework for more resilient banks and banking systems</i> , December 2010 (revised June 2011)
Capital conservation buffer	An additional layer of Common Equity Tier 1 Capital above the minimum regulatory requirement that can be drawn down in times of stress to absorb losses, subject to constraints on dividends and other distributions
Countercyclical capital buffer	An extension of the capital conservation buffer that can be imposed by the national authority to protect the banking sector from periods of excess credit growth that have often been associated with the build-up of system-wide risk
Credit-to-GDP gap	The difference between the credit-to-GDP ratio and its long term trend
GDP	Gross Domestic Product
LVR	Loan-to-valuation ratio
RBA	Reserve Bank of Australia

Executive summary

In 2010, the Basel Committee on Banking Supervision (Basel Committee) released a package of reforms to promote a more resilient global banking system (Basel III).¹ The Basel III measures included the introduction of the countercyclical capital buffer, which aims to build capital buffers that can be used in times of stress and to achieve the broader macroprudential goal of protecting the banking system from periods of excess credit growth.

The countercyclical capital buffer was incorporated into the Australian capital standards for banks and other authorised deposit-taking institutions (ADIs) through amendments to *Prudential Standard APS 110 Capital Adequacy* (APS 110). The countercyclical capital buffer comes into effect from January 2016. It will apply to Australian ADIs as well as the Australian exposures of foreign banks operating in Australia.

This Information Paper outlines the approach that the Australian Prudential Regulation Authority (APRA) intends to take in implementing the countercyclical capital buffer in Australia. This includes the framework for decision-making on whether to increase or decrease the level of the buffer, and core indicators that will inform these decisions.

The purpose of the countercyclical capital buffer is to raise banking sector capital requirements in periods of excess credit growth, which have often been associated with the build-up of systemic risk. This additional buffer can then be released during periods of stress, to reduce the risk of the supply of credit being impacted by regulatory capital requirements.²

APRA's approach to setting the level of the buffer in Australia will be based on forward-looking judgements, informed by a set of core indicators of systemic risk. These core indicators include the credit-to-GDP guide recommended by the Basel Committee, in addition to other indicators of systemic risk associated with the financial cycle.

Decisions to increase the buffer will be based on an assessment of whether credit growth is excessive, asset price growth is unsustainable, and lending conditions are loose. Decisions to decrease or release the buffer will be informed by a reversal of these trends, and evidence of the emergence of financial stress.

APRA will monitor and assess a range of core indicators to support judgements on the level of the buffer, in addition to other data, information and market intelligence. Given the potential broader implications for financial stability, APRA will consult closely with other agencies on the Council of Financial Regulators as part of the decision-making process.

The core indicators will be published by APRA on an annual basis. The initial buffer level and any change to the level of the buffer will be communicated to ADIs in writing and will be notified to the Bank for International Settlements.

¹ Basel Committee, *Basel III: A global regulatory framework for more resilient banks and banking systems - revised version June 2011*: <http://www.bis.org/publ/bcbs189.htm>

² See Basel Committee, *Guidance for national authorities operating the countercyclical capital buffer*, December 2010 (Basel Committee guidance): <http://www.bis.org/publ/bcbs187.htm>

Chapter 1 – Introduction

The countercyclical capital buffer was introduced as part of the Basel III capital reforms following the global financial crisis.

Objectives of the buffer

One of the lessons from the financial crisis was that losses incurred by banks following periods of excess growth in credit can be extremely large. As a result, there are several interrelated objectives of the countercyclical capital buffer:

- raising capital resilience when there is judged to be a build-up of systemic risk;
- moderating the cycle of credit growth and asset prices, through raising capital requirements during an upswing in credit demand. The increase in capital requirements may provide an incentive for banks to temper credit growth or raise the cost of credit to dampen demand;
- improving the flow of credit during a downturn, thereby supporting the real economy, through the reduction of the buffer and corresponding release of the additional capital requirement in a period of stress. The release of the buffer requirement should alleviate pressure that may otherwise be on banks to improve capital ratios through constraining balance sheet growth, in turn helping to support the supply of credit for the economy.

Operation of the buffer

Under the Basel III framework, the countercyclical capital buffer for each bank is calculated as the weighted average of the jurisdictional countercyclical capital buffers in effect in the jurisdictions in which the bank has credit exposures to specified types of counterparty. The buffer operates as an extension to the capital conservation range.

Dividend payments and other distributions are increasingly restricted as a bank's capital falls below certain thresholds, as set out in APS 110.

The buffer can be increased up to a maximum of 2.5 per cent of risk-weighted assets. This may be implemented incrementally over time. As with the capital conservation buffer, APRA is not introducing the transitional arrangements of Basel III, which would phase in the countercyclical capital buffer between 2016 and 2019.

International reciprocity

This Information Paper focuses on the application of the countercyclical capital buffer requirement in Australia. APRA has responsibility for setting the level of the Australian jurisdictional countercyclical capital buffer, which applies to Australian ADIs as well as the Australian exposures of foreign banks operating in Australia.

The total countercyclical capital buffer that an ADI is required to hold reflects both the level of the Australian jurisdictional buffer and any buffer requirements in effect in other jurisdictions to which the ADI has exposure. These international reciprocity arrangements ensure a level playing field between domestic and foreign banks with respect to countercyclical capital buffers across jurisdictions.

For Australian ADIs, the buffer set by APRA will dominate the buffer calculation due to the weight of exposures. However, Australian ADIs will also need to monitor countercyclical capital buffers set by authorities in overseas jurisdictions in which they do business. In this regard, APRA has issued further guidance for ADIs on the calculation of the countercyclical capital buffer in *Prudential Practice Guide APG 110 – Capital Buffers*.

Chapter 2 – APRA’s framework for the countercyclical capital buffer

Decisions on when to increase or decrease the countercyclical capital buffer are complex judgements, and involve an assessment of whether, and to what degree, there is excess credit growth and rising systemic risk.

APRA’s indicator framework

To guide national decisions on the buffer, the Basel Committee has developed a common reference guide based on the aggregate private sector credit-to-GDP gap (the credit-to-GDP guide).³ As discussed further below, the credit to-GDP gap is the difference between the ratio of credit-to-GDP and its long term trend; a positive gap (i.e. a level above trend) is potentially indicative of excessive credit growth.

The Basel Committee recommends that the credit-to-GDP guide should be considered as a starting reference point, and that relevant authorities should also use judgement and other relevant indicators in setting the countercyclical capital buffer in their jurisdiction.

There is a wide array of potential indicators that could be used in addition to the credit-to-GDP guide to inform judgements on the buffer. Internationally, there is a range of practice emerging on indicator frameworks and countercyclical capital buffer decision-making processes.

APRA has reviewed these international approaches and has analysed the metrics that may be most relevant for Australian market conditions. This has included evaluating indicators that would have provided strong signals of excess credit growth and rising systemic risk during previous financial cycles, for example, the pre-financial crisis period of the early 2000s.

As a result of this analysis, APRA is adopting an approach that is:

- informed by a target set of core indicators of systemic risks associated with the financial cycle, including credit growth and asset prices;
- judgement-based, with a strong weight placed on the analysis and assessment of indicators, rather than on mechanical triggers;
- forward looking, based on early warning indicators during the risk build-up phase, to allow time for changes to bank capital to be implemented, and on timely indicators of stress to enable a quick release of requirements during a downturn; and
- clearly differentiated between a focus on indicators that would support decisions to increase the buffer during the risk build-up phase, and indicators that would support decisions to decrease the buffer during periods of financial system stress.

This framework centres on key quantitative indicators as well as qualitative input and analysis. As a result, APRA will regularly monitor a range of core indicators and other information to assess the level of systemic risk and inform judgements on the application and level of the buffer in Australia. Advice from other agencies on the Council of Financial Regulators will also be considered.

³ See Basel Committee guidance.

Chapter 3 – Indicators of the financial cycle

APRA will monitor and assess several core indicators of the financial cycle to inform decisions on the appropriate level of the countercyclical capital buffer. In the upswing of a financial cycle, the purpose of these core indicators is to help to identify whether there is a build-up of unsustainable cyclical leverage.

This unsustainable cyclical leverage can be characterised by three broad trends:

- credit growth that is excessive, relative to credit normally associated with the current level of economic activity;
- inflated asset values that are higher than might be implied by the assets' long-run income-generating potential; and
- the system-wide lowering of lending standards driven by competition for marginal borrowers or optimism that credit risk is (and will remain) very low based on recent experience.

Credit growth

Credit growth is a concept that is central to the definition of the financial cycle, and there is a significant amount of research that shows that excessive credit growth is a key leading indicator of banking crises.

To test the validity of potential indicators, it is instructive to consider their performance historically as indicators of potential systemic-risk build-up in Australia. Credit growth is a readily available indicator, which provided a strong indication of increasing levels of systemic risk prior to the global financial crisis: housing credit growth increased from an annual rate of 12 per cent in 1999 to over 20 per cent in 2004, driving a rapid rise in household leverage. Business credit growth was lower during this period, but increased very rapidly from 2004 to 2007, suggesting that systemic concerns were emerging at a later stage in this portfolio.

The rate of credit growth is a timely indicator but, by itself, can be misleading. Relatively high credit growth may be well supported by growth in the

economy, while conversely relatively low credit growth may be concerning if overall indebtedness is already high. For example, in the current environment with household debt at record highs, housing credit growth would not necessarily need to return to the growth rates reached in the early 2000s to trigger systemic concerns.

The Credit-to-GDP guide in Australia

Strong credit growth has been the precursor to many episodes of financial crises internationally, including the global financial crisis and the Nordic and Japanese crises in the late 1980s and early 1990s. The Basel Committee found that the credit-to-GDP gap was the best performing measure from a statistical perspective based on available cross-country data, as an early warning indicator of banking crises.

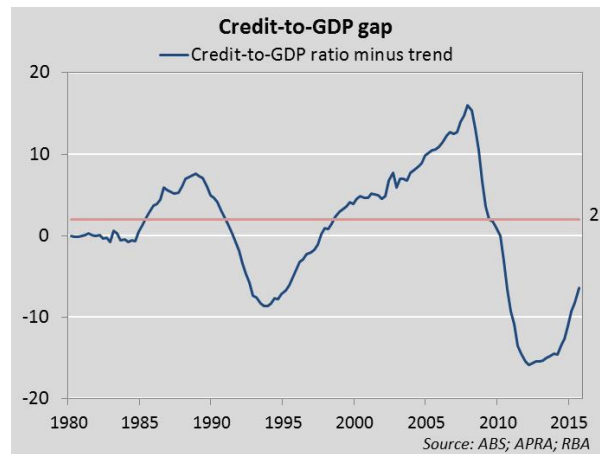
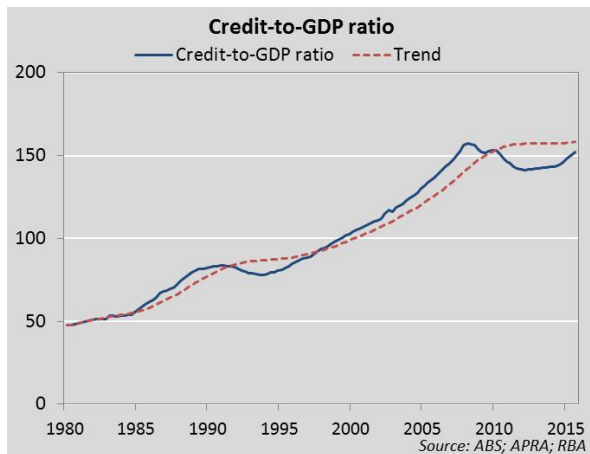
The charts below present the three elements of the credit-to-GDP guide for Australia: the credit-to-GDP ratio, its trend and the gap between the two. The Basel Committee suggests that a gap level between 2 and 10 percentage points could equate to a countercyclical capital buffer of between 0 and 2.5 percent of risk-weighted assets.⁴

In Australia, the credit-to-GDP guide would have flagged the strong credit growth in both the late 1980s and the early 2000s, which may at the time have been an indicator of emerging systemic concerns.

The credit-to-GDP guide would have suggested application of a countercyclical capital buffer over a lengthy (up to 10 year) period leading up to the global financial crisis.

There are, however, several limitations of the Basel Committee's credit-to-GDP guide that also need to be considered. In particular, the credit-to-

⁴ For further details, see Basel Committee guidance.



GDP guide may understate potentially excessive credit growth following lengthy periods of very strong credit growth, as has been seen in Australia.⁵

In addition, by design, this measure is focused on the extent to which the growth in credit is above the long-term trend, but does not necessarily assess whether the absolute level of credit and overall indebtedness is at a concerning level. The trend is sensitive to the chosen data period over which it is calculated, which can significantly influence results.

The credit-to-GDP guide may also not distinguish harmful credit growth scenarios from more benign credit booms, such as when growth reflects financial deepening following deregulation or economic development. Using alternative statistical techniques may mitigate some, but not all, of the technical limitations of the measure.

Asset prices

As with credit growth, there is evidence suggesting that unsustainable asset price growth is also a reliable indicator of potential financial stress. Asset price growth is a particular concern in this context when the assets are used to secure

increased levels of leverage, namely residential and commercial property (and, to a lesser extent, corporate assets as defined by share prices). The strong house price growth in the United States, Spain and Ireland preceding the global financial crisis is one illustration of the role of asset prices in fuelling leverage cycles.

The ratio of house prices to rents or to household income provides one means of assessing over- and under-valuation relative to future income producing potential, although judgement will still be key to determining the level at which these would become concerning.

In Australia, the increase in credit growth in the early 2000s also coincided with a strong pick-up in house prices. Between 2001 and 2003, house prices rose sharply, with annual growth peaking at nearly 20 per cent.⁶ Commercial property prices also increased significantly. As with credit growth, however, the acceleration would have been more evident at a later stage, with prices rising by a cumulative 60 per cent over 2005-07.

Lending indicators

Indicators of lending standards in the banking system are also useful in assessing cyclical credit conditions, both for the risk build-up phase when credit conditions may be too loose and the stress phase when conditions may be too tight to support economic recovery.

⁵ The credit-to-GDP guide may also not be very effective in informing decisions to release the buffer during a period of stress. This is because the measure can rise further or remain high during economic downturns if GDP falls, providing a misleading signal.

⁶ This increase would have been particularly concerning when viewed relative to growth in household income and rents. The house price-to-rent ratio peaked in 2003; house prices relative to income show a similar trend.

APRA monitors a broad array of data and qualitative information on lending standards. APRA conducts a confidential survey of credit conditions on a quarterly basis, asking for views from large banks on whether conditions have tightened or loosened for their institutions and the industry more generally. This survey provides a qualitative perspective on business lending standards. For example, after the global financial crisis, the survey indicated a tightening of business lending standards.

For residential mortgages, a key metric is the proportion of higher-risk lending, for example, the share of new lending at a loan-to-valuation ratio (LVR) greater than 90 per cent. APRA will also make use of other data on mortgage lending standards, including lending at high loan-to-income ratios. Not all of this information is publicly available.

Loan pricing is also a useful signal in assessing lending conditions. Relative interest-rate margins can provide an indication of the extent of competitive pressure in the market, with narrower margins generally indicating greater potential for competitive loosening of lending standards. The absolute level of loan pricing influences borrower demand and the potential for credit growth.

Financial stress

Indicators of financial stress will be critical in informing timely decisions to release any countercyclical capital buffer. These can include both indicators of impacts on bank balance sheets, which can signal a deterioration in asset quality and change in conditions, as well as market-based indicators that may be more forward-looking but are also potentially more volatile and less reliable.

Historically, an increase in non-performing loans and loan-loss provisions generally signals a downturn is underway, but on a somewhat lagged basis. Bank share prices can be a useful supplementary leading indicator of this trend.

Core indicators

For each of the indicators outlined above, APRA will monitor and assess a wide range of specific

metrics. APRA has prioritised a set of core metrics that are well understood and generally publicly available, relevant and representative of the risks of concern. The table below summarises the core measures for each of the key indicators in APRA's framework. To understand the reasons for movements in these indicators, APRA will also monitor a range of supplementary metrics and other data, including sub-segments and more granular data.

While the indicators provide a signal on the direction of systemic risk, they will not translate formulaically into decisions on the level of the buffer. Other factors will be important in this decision, including an assessment of current bank capital positions, prudential concerns and the economic outlook. APRA will also consider findings and trends arising from its supervisory activities involving individual regulated institutions where relevant.

APRA will assess each of the above indicator areas individually and as a group, together with other relevant information, to arrive at an overall view of the degree of concern with respect to a build-up of systemic risk. This will inform the decision on the level of the countercyclical capital buffer in Australia.

Risk	Core indicators
Credit growth	Credit-to-GDP ratio (level, trend and gap) Housing credit growth Business credit growth
Asset prices	Commercial property price growth Housing price growth
Lending indicators	Higher-risk residential mortgage lending Business lending conditions Loan pricing and margins
Financial stress	Non-performing loans

Chapter 4 – Communication

Publication of indicators

The set of core indicators will be monitored by APRA on a quarterly basis, and discussed at the Council of Financial Regulators on a regular basis.

All of the proposed core measures are available as existing statistical releases by APRA, the Reserve Bank of Australia (RBA) or the Australian Bureau of Statistics (ABS), or are regularly included within the RBA's semi-annual *Financial Stability Review*.

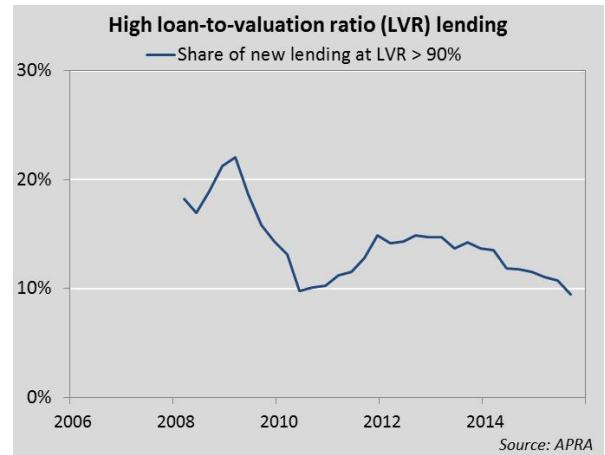
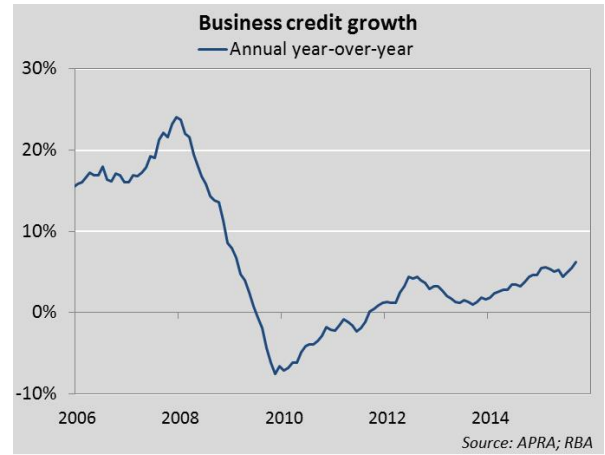
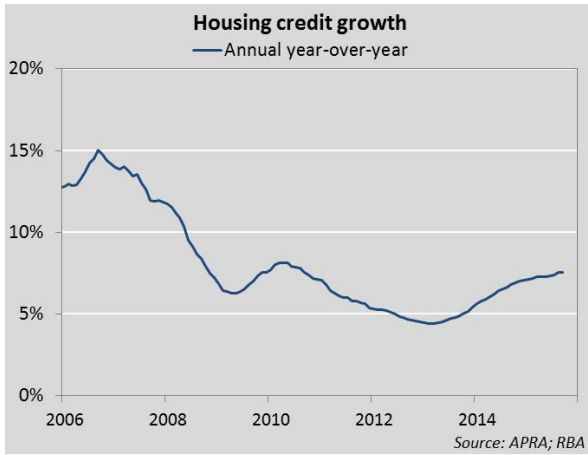
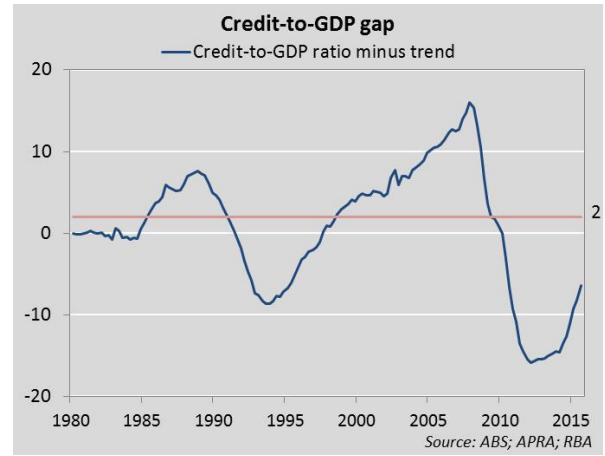
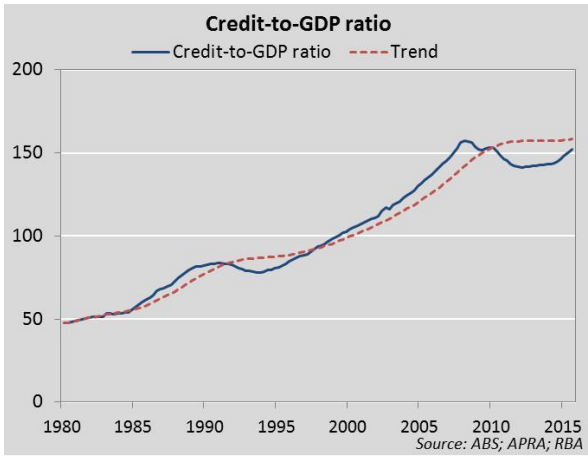
A summary of the core indicator measures is presented in Appendix 1.

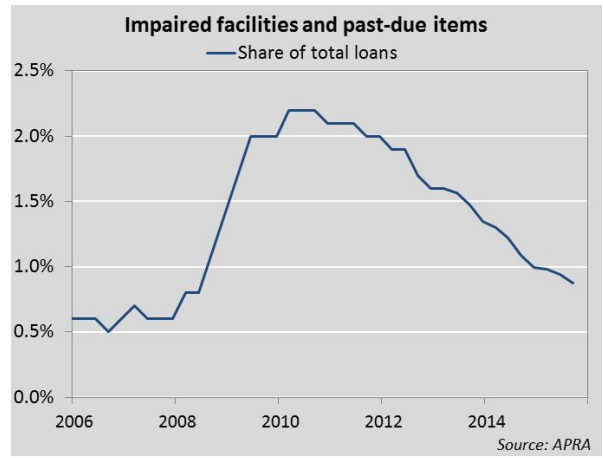
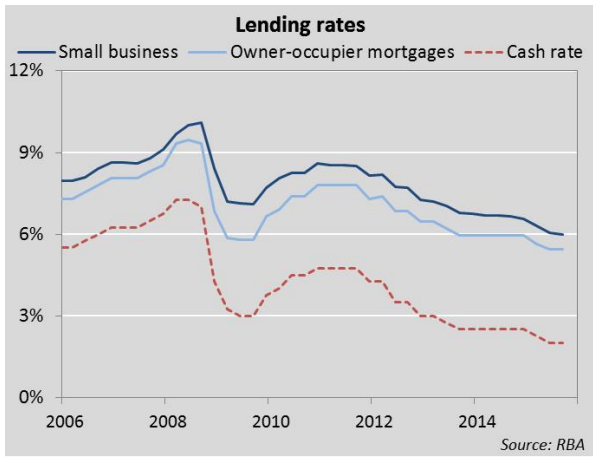
Announcement of changes to the buffer

Any change to the countercyclical capital buffer will be announced publicly by APRA. APRA will notify ADIs in writing and will advise the Basel Committee, which will publish a list of countercyclical capital buffers in each Basel Committee member jurisdiction and, if notified, in non-member jurisdictions.

APRA will provide up to 12 months' notice prior to an increase in the buffer being effective; APRA will take ADIs' current capital position into account in determining an appropriate notice period. As set out in APS 110, decisions to decrease the buffer requirement take effect immediately.

Appendix 1 – Summary of core indicators







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