# DISCUSSION PAPER

## Revisions to the capital framework for authorised deposit-taking institutions

14 February 2018

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# Executive summary

Regulatory capital requirements are designed to broadly reflect risks in a financial institution's business and ensure they hold a minimum amount of capital to absorb potential losses. Australian banks and other authorised deposit-taking institutions (ADIs) have traditionally been well capitalised to withstand risks they have faced. Nonetheless, the 2014 Financial System Inquiry recommended that capital requirements for ADIs should be set such that they are 'unquestionably strong'.[1] The Australian Government subsequently endorsed that recommendation.

The capital framework that the Australian Prudential Regulation Authority (APRA) applies to ADIs in Australia is largely based on the international framework for banks developed by the Basel Committee on Banking Supervision (Basel Committee). In addition to its work on strengthening the quality and quantity of bank capital since the global financial crisis, the Basel Committee undertook a broader review of the capital framework. This review was designed to achieve a better balance between simplicity and risk sensitivity, and to promote greater comparability in the risk-based capital approaches by reducing variability in risk-weighted assets (RWAs) across banks and jurisdictions, particularly within the advanced modelling approaches used by more sophisticated banks. The review was largely completed in December 2017, with the Basel Committee's release of revisions to the RWA calculations, the introduction of a floor to minimum RWA for banks using the advanced approaches, and a non-risk-based minimum leverage ratio requirement as a backstop (collectively, the Basel III reforms).[2]

To address the FSI recommendation, in July 2017, APRA released the information paper, *Strengthening banking system resilience—establishing unquestionably strong capital ratios* (July 2017 information paper).[3] The paper set out APRA's estimate of the amount by which minimum capital requirements would need to be raised for ADIs to achieve unquestionably strong capital ratios. As detailed in that paper, APRA's implementation of capital standards would incorporate changes resulting from the Basel III reforms as well as measures to address Australian ADIs' structural concentration of exposures to residential mortgages.

This discussion paper commences APRA's consultation on revisions to the capital framework for ADIs to reflect these developments. It is part of a set of three complementary papers that APRA is releasing in the first half of 2018, comprising:

- a summary of APRA's proposals regarding the risk-based capital approaches, including credit, market and operational risk—this paper;

[1] FSI, *Final Report*, 7 November 2014, recommendation 1, available at: http://fsi.gov.au/publications/final-report/.

[2] Basel Committee, *Basel III: Finalising post-crisis reforms*, December 2017, available at: https://www.bis.org/bcbs/publ/d424.htm.

[3] This paper is available at: http://www.apra.gov.au/adi/Documents/Unquestionably%20Strong%20Information%20Paper.pdf.

- the design and application of a minimum leverage ratio requirement as a complement to the risk-based capital framework—released concurrently with this paper[4]; and
- potential adjustments to the overall design of the capital framework to improve transparency, international comparability and flexibility—to be released in the second quarter of 2018.

This paper outlines the main components of the revisions APRA expects to make to the risk-based capital requirements for ADIs using advanced and standardised approaches to credit, market and operational risk. Importantly, this paper does not provide definitive quantitative proposals. Further quantitative analysis needs to be undertaken by APRA to inform the final calibration of the revised framework, including appropriate risk weights and other parameters used to calculate minimum capital requirements across various asset classes. The risk weights detailed in this paper should therefore be regarded as indicative only. Based on feedback from ADIs, as well as a quantitative impact study (QIS), APRA will calibrate the overall impact of these risk weight changes such that they meet the higher benchmarks for unquestionably strong capital, as set out in the July 2017 information paper.

Addressing the systemic concentration of ADI portfolios in residential mortgages is an important element of the proposals. The proposals in this paper seek to target higher-risk residential mortgage lending, balanced against the need to avoid undue complexity. Under the proposals, residential mortgage exposures would be segmented into the following categories with different capital requirements applying to each segment:

- loans meeting serviceability requirements made to owner-occupiers where the borrower's repayment is on a principal and interest (P&I) basis;
- loans meeting serviceability requirements made for investment purposes or where the borrower's repayment is on an interest-only basis; and
- other residential property exposures, including those that do not meet serviceability requirements.

As well as the proposals relating to residential mortgage exposures, this discussion paper outlines proposals relating to:

- additional constraints on the use of ADIs' own risk-parameter estimates under the internal ratings-based (IRB) approach to determining capital requirements for credit risk;
- the treatment of exposures to small- to medium- sized enterprises, including those secured by residential property, under the standardised and IRB approaches to credit risk;
- other changes to regulatory capital requirements for commercial property exposures and retail exposures (other than those secured by residential property) and to credit conversion factors applying to off-balance sheet exposures;
- the operational risk capital framework, including the replacement methodology for the

[4] *Leverage ratio requirement for authorised deposit-taking institutions*, available at: http://www.apra.gov.au/adi/PrudentialFramework/Pages/revisions-capital-framework-and-leverage-ratio-Feb-2018.aspx.

advanced measurement and standardised approaches;

- APRA's timeline for implementing the Basel Committee's revised market risk framework; and
- the treatment of interest rate risk in the banking book.

It also outlines a proposal for a simpler capital framework for small ADIs, which is intended to reduce regulatory burden without compromising prudential soundness.

Submissions are welcome on all aspects of the proposals in this discussion paper; however, key matters on which APRA is seeking comments are detailed in chapter 9.

APRA is undertaking a QIS to assist in estimating the overall impact of the proposals in this discussion paper and the overall calibration of the capital calculations, including their contribution to meeting the unquestionably strong capital benchmarks. APRA has asked a sample of ADIs to participate in this exercise and will make the QIS available to other interested ADIs.

APRA notes the recently released Productivity Commission draft report, *Competition in the Australian Financial System*, and will consider relevant issues raised by the Commission, along with industry feedback and data from the QIS, as it develops its proposals.[5]

APRA expects to release draft revised prudential standards on the standardised and IRB approaches to credit risk and operational risk later in 2018. Other draft prudential standards incorporating the remaining Basel III revisions will be released for consultation in mid-2019.

**Relationship with benchmarks established for unquestionably strong capital ratios**

APRA announced in July 2017 that achieving unquestionably strong capital ratios will involve a strengthening of capital requirements by 150 basis points for ADIs using the IRB approach, and 50 basis points for ADIs using the standardised approach. For the four major banks (which utilise the IRB approach), this was translated to a Common Equity Tier 1 (CET1) capital ratio of at least 10.5 per cent, calculated under APRA's current capital framework.

Effectively, a change to risk weights is akin to utilising a different unit of measurement. Proposals to increase (reduce) risk weights will have the effect of reducing (increasing) reported capital ratios. The overall impact of proposals in this paper will be a net increase in RWAs. That will, all else being equal, reduce ADIs' reported capital ratios, even though there is no change to their underlying risk profile or quantum of capital. The only change is the way in which these are measured.

The objective of the changes APRA is proposing in this paper is to deliver the strengthening of capital requirements set out above. However, given the change of measurement methodology, the benchmarks set out by APRA in July 2017 (for example, a CET1 capital ratio of at least 10.5 per cent for the four major banks) will no longer be relevant. These benchmarks will need to be recalibrated to reflect the proposals detailed in this paper.

APRA has undertaken to ensure that, if ADIs meet the benchmarks set out in July 2017 for unquestionably strong capital ratios, any changes to the capital framework that eventuate from the finalisation of the proposals in this paper will be able to be accommodated by existing capital holdings and not necessitate additional capital raisings.

[5] This paper is available at: https://www.pc.gov.au/inquiries/current/financial-system/draft.

In the July 2017 information paper on establishing unquestionably strong capital requirements, APRA indicated that the revised prudential standards would commence in early 2021. In December 2017, the Basel Committee advised that the revised Basel III framework would commence from 1 January 2022, with transitional provisions for the RWA floor. Given APRA's expectation that ADIs will meet the unquestionably strong capital benchmarks by 1 January 2020, APRA continues to propose an implementation date of 1 January 2021 for all revised measures, including the full RWA floor, but invites feedback on the merits of aligning with the Basel Committee timetable and deferring implementation until 1 January 2022.

# Glossary

| | |
|---|---|
| **ADI** | Authorised deposit-taking institution |
| **Advanced ADI** | An ADI that has been granted approval from APRA to use internal models to determine capital requirements for credit risk, operational risk or interest rate risk in the banking book. |
| **AMA** | Advanced Measurement Approach for determining operational risk capital. |
| **APG 223** | *Prudential Practice Guide APG 223 Residential Mortgage Lending* |
| **APRA** | Australian Prudential Regulation Authority |
| **APS 112** | *Prudential Standard APS 112 Capital Adequacy: Standardised Approach to Credit Risk* |
| **APS 113** | *Prudential Standard APS 113 Capital Adequacy: Internal Ratings-based Approach to Credit Risk* |
| **APS 114** | *Prudential Standard APS 114 Capital Adequacy: Standardised Approach to Operational Risk* |
| **APS 115** | *Prudential Standard APS 115 Capital Adequacy: Advanced Measurement Approaches to Operational Risk* |
| **APS 116** | *Prudential Standard APS 116 Capital Adequacy: Market Risk* |
| **APS 117** | *Prudential Standard APS 117 Capital Adequacy: Interest Rate Risk in the Banking Book (Advanced ADIs)* |
| **APS 330** | *Prudential Standard APS 330 Public Disclosure* |
| **Basel II** | Basel Committee on Banking Supervision, *International Convergence of Capital Measurement and Capital Standards A Revised Framework*, June 2006. |
| **Basel III framework** | A series of revisions to the Basel capital framework following the global financial crisis that commenced with the Basel Committee on Banking Supervision's *Basel III: A global regulatory framework for more resilient banks and banking systems*, December 2010 (revised June 2011) and includes the following reforms:<br>• *Basel III: Finalising post-crisis reforms*, December 2017, which includes revisions to the frameworks for credit risk, credit |

| | |
|---|---|
| | valuation risk and operational risk, and introduces a floor on RWA using the standardised approaches and a non-risk-based minimum leverage requirement;<br>• *Minimum capital requirements for market risk*, January 2016; and<br>• *Interest rate risk in the banking book*, April 2016. |
| **Basel capital** | The internationally agreed capital framework for banks developed by the Basel Committee on Banking Supervision. |
| **Basel Committee** | Basel Committee on Banking Supervision |
| **CCF** | Credit conversion factor |
| **Correlation factor** | An input into the IRB risk-weight function that reflects the dependence of the borrower on the general state of the economy. |
| **EAD** | Exposure at default |
| **FSI** | Financial System Inquiry |
| **IRB ADI** | An ADI that has been granted approval from APRA to adopt the internal ratings-based approach for determining its capital adequacy requirements for credit risk. |
| **IRB risk-weight function** | A series of formulae within the internal ratings-based approach that uses the ADI's own estimates of the probability of default, loss given default and exposure at default to determine capital requirements. |
| **IRRBB** | Interest rate risk in the banking book |
| **July 2017 information paper** | APRA, *Strengthening banking sector resilience: establishing unquestionably strong capital ratios*, 19 July 2017 |
| **LGD** | Loss given default |
| **LVR** | Loan-to-valuation ratio |
| **P&I loan** | A loan where repayment is on a principal and interest basis. |
| **PD** | Probability of default |
| **QIS** | Quantitative Impact Study |
| **QRR** | Qualifying revolving retail asset class |
| **RWA** | Risk-weighted asset |

| | |
|---|---|
| **SMA** | Proposed Standardised Measurement Approach to determine capital adequacy requirements for operational risk. |
| **SME** | Small- and medium-sized enterprises |
| **Standardised ADI** | An ADI that uses standardised approaches to determine its capital adequacy requirements. |
| **Supervisory Slotting** | The supervisory slotting approach to determining capital requirements within the IRB approach. |

# Chapter 1 - Introduction

## 1.1 Background

### 1.1.1 The risk-based capital framework

Minimum regulatory capital requirements for banks and other authorised deposit-taking institutions (ADIs) in Australia are designed to broadly reflect risks in their business and ensure they hold a minimum amount of capital to absorb potential losses. These requirements have historically been largely based on the international framework developed by the Basel Committee on Banking Supervision (Basel Committee), the Basel capital framework.[6]

Under this framework, risk-based capital adequacy ratios are calculated by dividing an ADI's regulatory capital by its total risk-weighted assets (RWAs). These ratios must exceed specified minima. RWAs are calculated by taking into account and aggregating the risk of individual exposures along specified risk dimensions—broadly, credit, operational and market risks.

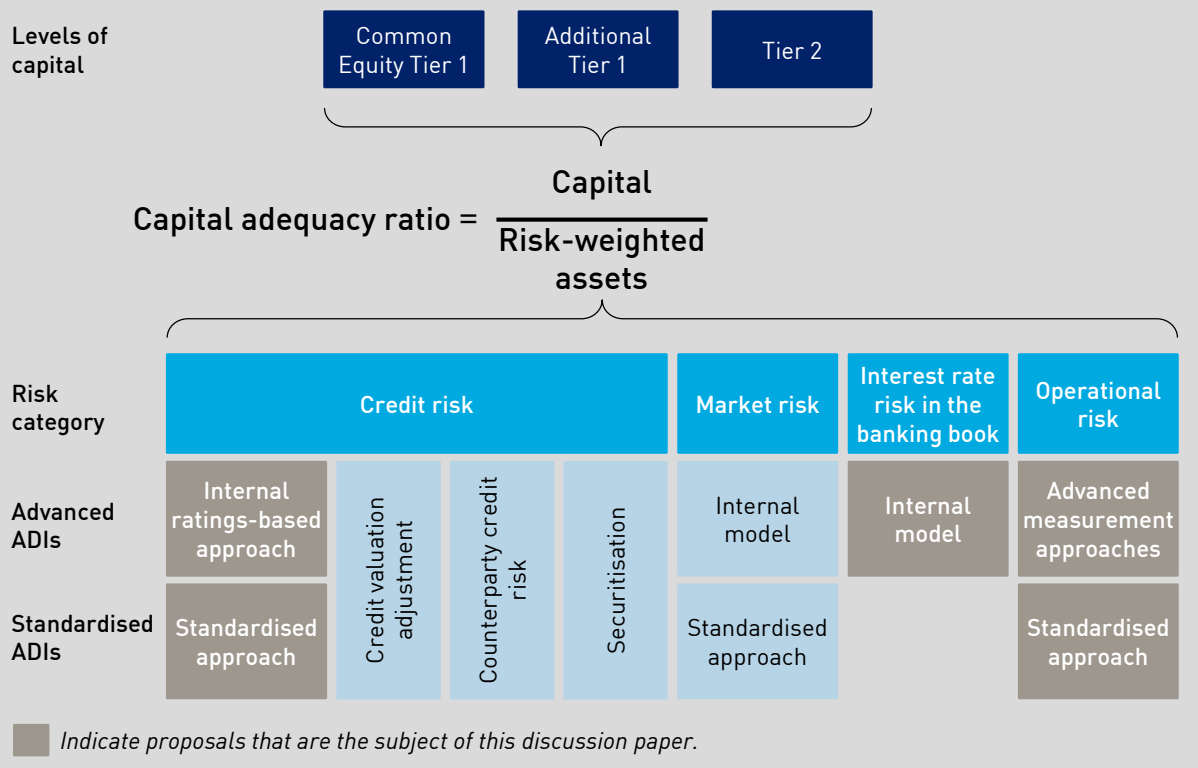
ADIs may be approved by APRA to use their own risk estimates to determine RWAs under the internal ratings-based (IRB) approach to credit risk, internal model approach to market risk and advanced measurement approach (AMA) to operational risk (advanced ADIs). Otherwise, ADIs apply simpler, supervisor-provided risk estimates under standardised approaches (standardised ADIs).[7]

Figure 1 summarises the key components of the capital adequacy ratio and where APRA is proposing changes as set out in this discussion paper.

[6] The Basel capital framework commenced with the July 1988 *International convergence of capital measurement and capital standards* (known as the Basle Capital Accord or Basel I, available at: https://www.bis.org/publ/bcbs04a.htm).

[7] The advanced and standardised approaches were introduced under the reforms to the Basel capital framework known as Basel II, *Basel II: International Convergence of Capital Measurement and Capital Standards: A Revised Framework - Comprehensive Version*, June 2006 (Basel II), available at: https://www.bis.org/publ/bcbs128.htm. Under the IRB approach to credit risk, banks may be approved to use the foundation IRB approach or the advanced IRB approach.

*Figure 1 The ADI capital framework*




## 1.1.2 The Basel capital framework and Basel III reforms

In response to the global financial crisis, the Basel Committee initiated a series of reforms to the Basel capital framework. Commonly referred to as Basel III, these reforms commenced with measures published in December 2010 to raise the level and quality of regulatory capital in the global banking system.[8] These measures focused on strengthening the definition of regulatory capital (the numerator of the capital adequacy ratio) and increased minimum capital requirements. APRA implemented these reforms in 2013.[9]

More recently, the Basel Committee has focused on reviewing the risk-based calculations, or RWA components of the capital framework, to balance simplicity and risk sensitivity and to promote consistency across banks and jurisdictions (the Basel III reforms). Among other things, this has resulted in decisions to remove some of the flexibility afforded banks under the Basel II revisions to the capital framework that allowed them to model their own risk estimates, and to place limits on the extent of any resulting capital reductions relative to the simpler approaches. In particular, the Basel Committee has decided to:

[8] Basel Committee, *Basel III: A global regulatory framework for more resilient banks and banking systems*, December 2010 (revised June 2011), available at: https://www.bis.org/publ/bcbs189.htm.

[9] APRA's implementation of these measures commenced with the discussion paper, *Implementing Basel III Capital Reforms in Australia*, September 2011, available at: http://www.apra.gov.au/adi/PrudentialFramework/Pages/Basel-III-Capital-Reforms-September-2011.aspx.

- constrain where banks may apply their own estimates under the advanced approach to credit risk for some exposure classes (banks and financial institutions, large and mid-sized corporates, and equities);
- remove the advanced approaches to determining credit valuation adjustment risk and for operational risk; and
- introduce a floor to minimum RWAs for banks approved to use internal models, with the floor based on the standardised approaches to calculating capital adequacy.

The Basel III reforms are detailed in the following documents:

- *Basel III: Finalising post-crisis reforms*, December 2017, which includes revisions to the RWA methodologies for credit risk and operational risk, introduces a floor on RWA using the standardised approaches and a non-risk-based leverage ratio requirement;[10]
- *Minimum capital requirements for market risk*, January 2016;[11] and
- *Interest rate risk in the banking book*, April 2016.[12]

### 1.1.3 Unquestionably strong capital - the Financial System Inquiry and APRA's framework

In December 2013, the Australian Government initiated the Financial System Inquiry (FSI) to examine how the Australian financial system could be positioned to best meet Australia's evolving needs and support economic growth. The final report of the FSI was released in November 2014 and, among other things, made a number of recommendations to improve the resilience of the Australian financial system. Most significantly, the FSI recommended that APRA, *'.....set capital standards such that Australian ADI capital ratios are unquestionably strong'.*[13] Noting the need for the Australian financial sector regulatory framework to be stronger than those of comparable economies, this recommendation was endorsed by the Government in its formal response to the FSI report.[14]

Since the FSI report, APRA has published a series of analyses on bank capital levels. In July 2017, APRA released an information paper, *Strengthening banking sector resilience: establishing unquestionably strong capital ratios* (the July 2017 information paper), setting out its assessment of the amount of additional capital required for Australian ADI capital ratios to

[10] This is available at: https://www.bis.org/bcbs/publ/d424.htm. The credit risk reforms do not include capital requirements for sovereign exposures, which are the subject of a separate discussion paper, *The regulatory treatment of sovereign exposures*, December 2017, available at: https://www.bis.org/bcbs/publ/d425.htm.

[11] This is available at: https://www.bis.org/bcbs/publ/d352.htm.

[12] This is available at: https://www.bis.org/bcbs/publ/d368.htm.

[13] FSI *Final Report*, 7 November 2014, available at: http://fsi.gov.au/publications/final-report/.

[14] Australian Government, *Government response to the Financial System Inquiry,* 20 October 2015, available at: https://treasury.gov.au/publication/government-response-to-the-financial-system-inquiry/.

be considered unquestionably strong.[15] The capital targets for Australian ADIs resulting from this assessment will be implemented through revisions to APRA's capital framework to incorporate the Basel III reforms, measures to address risks posed by Australian ADIs' structural concentration of residential mortgage exposures and changes to improve transparency and international comparability of capital ratios.

### 1.1.4 The current proposals

APRA is commencing consultation on revisions to its capital requirements based on the Basel III reforms and meeting the objectives of unquestionably strong capital. The paper also details other proposed amendments to the ADI capital framework where improvements are warranted to better align regulatory capital with risk or to simplify aspects of the framework.

In conjunction with this paper, APRA is also releasing a discussion paper on the application of a leverage ratio as a complement to the risk-based capital framework.[16] Subsequent to these papers, APRA will release a further discussion paper on potential adjustments to the overall design of the capital framework to improve transparency, international comparability and flexibility.

This paper outlines APRA's proposed revisions relating to:

- credit risk, specifically the treatment of the residential mortgage portfolio (chapter 2) and other revisions to the standardised and IRB approaches (chapters 3 and 4, respectively); and
- the operational risk framework, including the replacement methodology for the advanced measurement and standardised approaches (chapter 5).

Chapter 6 provides an update on APRA's approach to implementing the Basel III market risk framework and on proposed revisions to the treatment of interest rate risk in the banking book (IRRBB).

Consistent with the Basel III reforms, APRA also proposes to introduce a floor to limit the potential reduction in RWA associated with advanced modelling methodologies relative to the standardised approaches (chapter 7).

Chapter 8 outlines a proposal for a simpler capital framework for small ADIs, which is intended to reduce regulatory burden without compromising prudential soundness.

The measures outlined in this discussion paper indicate APRA's proposed policy direction. The specific quantitative risk weight calibrations will not be finalised, however, until after completion of a quantitative impact study (QIS). At the same time, the overall calibration of the framework for IRB and standardised ADIs will be targeted at meeting APRA's benchmarks for unquestionably strong capital as set out in the July 2017 information paper.

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[15] This is available at: http://www.apra.gov.au/adi/Documents/Unquestionably%20Strong%20Information%20Paper.pdf.

[16] *Leverage ratio requirement for authorised deposit-taking institutions*, available at: http://www.apra.gov.au/adi/PrudentialFramework/Pages/revisions-capital-framework-and-leverage-ratio-Feb-2018.aspx.

APRA will progressively release more detailed proposals through draft revised prudential and reporting standards, commencing in the second half of 2018. It is likely that this process will begin with consultation on draft revised prudential standards relating to credit and operational risk. Further information on next steps is set out in chapter 9.

## 1.2 Balancing APRA's objectives

APRA's mandate includes balancing the objectives of financial safety and efficiency, competition, contestability and competitive neutrality, and, in balancing these objectives, promote financial system stability in Australia. APRA considers that, on balance, the proposals in this discussion paper will strengthen the resilience of the Australian regulatory financial framework, improve financial safety and promote financial system stability.

| PRIMARY OBJECTIVES | |
|---|---|
| **Financial safety** ↑ | **Financial system stability** ↑ |
| **Improved**: the proposals would improve financial safety by revising the capital adequacy framework to meet the objective of unquestionably strong capital ratios. | **Improved:** the proposals address the systemic concentration and risk profile of housing lending exposures. |

| OTHER CONSIDERATIONS | |
|---|---|
| **Efficiency** ↓ | **Marginally reduced:** APRA's proposals to simplify the prudential framework for smaller ADIs are expected to reduce regulatory burden for impacted ADIs. However, the proposed constraints on internal models and the introduction of a floor on advanced ADIs' RWAs may reduce risk sensitivity and, as a result, the efficiency of capital and credit allocation. |
| **Competition** ↓ | **Marginally reduced:** the increase in regulatory capital requirements for certain exposures proposed in this paper may reduce the competitive position of ADIs vis-à-vis lenders that are not prudentially regulated. However, the revised risk weight framework is likely to reduce any competitive differential in regulatory capital requirements between large and small ADIs, improving the competitive position of the latter. |
| **Contestability** ↔ | **No material change**: a simplified approach for smaller, less complex ADIs may lower barriers for new entrants but the overall impact would likely be marginal. |
| **Competitive neutrality** ↔ | **No change:** the proposals in this paper have no impact on competitive neutrality. |

# Chapter 2 - Credit risk: residential mortgage lending

This chapter outlines APRA's proposed revisions to the capital treatment of residential mortgage portfolios under the standardised and IRB approaches to credit risk set out in *Prudential Standard APS 112 Capital Adequacy: Standardised Approach to Credit Risk* (APS 112) and *Prudential Standard APS 113 Capital Adequacy: Internal Ratings-based Approach to Credit Risk* (APS 113), respectively.

## 2.1 Residential mortgage lending risks

Over the past two decades, residential mortgages in Australia as a share of ADIs' total loans have increased significantly, from just under half to more than 60 per cent. While losses incurred on residential mortgage portfolios in this period have been limited, this level of structural concentration poses prudential and financial stability risks, particularly in an environment of high household debt, high property prices, weak income growth and strong competitive pressures among lenders. In such circumstances, households, individual ADIs and the broader banking sector are vulnerable to economic shocks.

Similar to other jurisdictions facing comparable risks, APRA has undertaken a series of actions to help contain the risks associated with ADIs' residential mortgage portfolios.[17] These actions include promoting significantly strengthened loan underwriting practices, increasing the amount of capital held by IRB ADIs for residential mortgage exposures and establishing benchmarks to moderate lending for property investment and lending on an interest-only basis. As set out in APRA's July 2017 information paper on unquestionably strong capital, APRA also intends to further strengthen capital requirements for residential mortgage lending to reflect the concentration risk it poses to the banking sector.

A key focus is the appropriate capital requirement for investment and interest-only mortgage loans. Although, as a class, investment loans have typically performed well under normal economic conditions in Australia, this segment has not been tested in a nationwide downturn. Further, an increasing proportion of highly indebted households own investment property relative to past economic cycles.[18] Experience in the United Kingdom and Ireland during the global financial crisis, for example, showed that previously better-performing investment loans can fall into arrears in higher volumes than loans to owner-occupiers in times of stress.[19]

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[17] Reserve Bank of Australia (RBA), 'Box A Risks in international housing markets' in *Financial Stability Review*, October 2017, available at: http://www.rba.gov.au/publications/fsr/2017/oct/pdf/box-a.pdf.

[18] RBA, 'Characteristics of Highly Indebted Households' in *Financial Stability Review*, April 2017, available at: http://www.rba.gov.au/publications/fsr/2017/apr/box-c.html.

[19] HM Treasury, 'The buy-to-let market' in *Consultation outcome: Financial Policy Committee powers of direction in the buy-to-let market*, updated 16 November 2016, (UK buy-to-let consultation), chapter 3, available at:

Importantly, regardless of historical loan performance, APRA's view is that there are potential systemic vulnerabilities to the financial system created from high levels of residential mortgage lending for investment purposes. As noted by the RBA, investment lending can amplify borrowing and house pricing cycles:

> *Periods of rapidly rising prices can create the expectation of further price rises, drawing more households in the market, increasing the willingness to pay more for a given property, and leading to an overall increase in household indebtedness.*[20]

Similarly, the significant share of interest-only housing lending, including to owner-occupiers, is a structural feature that increases the risk profile of the Australian banking system. Interest-only borrowers face a longer period of higher indebtedness, increasing the risk of falling into negative equity should housing prices fall.[21] Borrowers may also use interest-only loans to maximise leverage, or for short-term affordability reasons.[22] Even though loan servicing ability (serviceability) is now tested at levels that include the subsequent principal repayments, borrowers may face 'payment shock' when the interest-only period ends and regular repayments increase, in some cases significantly. This payment shock is particularly acute when interest rates are low.

## 2.2 Basel III framework

The Basel III reforms to the standardised approach to credit risk introduce new criteria for the allocation of risk weights that differ from the simpler treatment of residential mortgage exposures that currently apply under Basel II.[23] However, some of these criteria—operational requirements and loan-to-valuation ratios (LVR)—largely align with the approach already taken by APRA in APS 112. Where Basel III differs materially from APRA's current approach is in segmenting the residential property portfolio based on whether repayment of a residential mortgage exposure is materially dependent on cash flows from the secured property.

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https://www.gov.uk/government/consultations/consultation-on-financial-policy-committee-powers-of-direction-in-the-buy-to-let-market/financial-policy-committee-powers-of-direction-in-the-buy-to-let-market#the-buy-to-let-market.

[20] RBA, 'Household and Business Finances' in *Financial Stability Review*, April 2017, available at: http://www.rba.gov.au/publications/fsr/2017/apr/household-business-finances.html. See also 'Buy-to-let lending and financial stability', UK buy-to-let consultation, chapter 4.

[21] See also APRA, 'Residential mortgages: Update on interest-only lending' in *APRA Insight*, Issue Four 2017, available at: http://www.apra.gov.au/Insight/Pages/Insight-Issue4-2017.HTML.

[22] RBA, 'Box B Interest-only Mortgage Lending' in *Financial Stability Review*, April 2017, available at: http://www.rba.gov.au/publications/fsr/2017/apr/box-b.html.

[23] Under Basel II, residential property exposures receive a risk weight of 35 per cent where the loans are granted in accordance with strict prudential criteria, such as the existence of a substantial margin of additional security over the amount of the loan based on strict valuation rules. The application of this provision varies across jurisdictions.

The residential mortgage portfolio was not a specific focus for revisions to the IRB approach under Basel III, although the portfolio may still be affected by overall constraints such as the new RWA floor based on the standardised approach.

### 2.2.1 Risk weight drivers

Basel III provides for different risk weights depending on whether a residential mortgage exposure meets the operational requirements set out in Table 1.[24] Risk weights are in most cases lower where the operational requirements are met, as set out in Table 2.

*Table 1 Basel III operational requirements for residential mortgage exposures*

| | Operational requirements |
|---|---|
| **Completed property** | • The property securing the exposure must be fully completed.<br>• Supervisory discretion to exclude specified types of exposures, such as where a property under construction is to become the borrower's primary residence. |
| **Legal enforceability** | • Any claim on the property must be legally enforceable within a reasonable time frame. |
| **First lien** | • The lending bank must hold a first lien, although subsequent liens may be recognised if the holder can initiate sale and is required to seek a reasonable price. |
| **Ability to repay** | • Banks must have underwriting policies that include metrics to assess repayment ability. |
| **Valuation** | • The property must be prudently valued independently from the loan origination process.<br>• The property value must maintain the value at origination or be decreased. |
| **Documentation** | • All information required for loan origination and monitoring must be properly documented, including the borrower's repayment ability and property valuation. |

The Basel III framework also includes a differential treatment of certain investment-purpose loans. Specifically, the framework assigns exposures to either of two categories, depending on whether or not repayment of the loan materially depends on the cash flows generated by the property securing the loan. Higher risk weights are applied to these 'materially dependent' exposures, as both the servicing of the loan and the prospects for recovery in the event of default depend on the same cash flows (refer to Table 2). The Basel framework does, however, give national supervisors discretion to exclude from these higher risk weights loans

[24] Lower risk weights for exposures to commercial property also depend on meeting these operational criteria.

to individuals for investment purposes where the number of mortgaged investment properties is below a specified threshold.

Under Basel III, residential property exposures that do not meet the operational requirements above are also segmented based on whether the repayment is materially dependent on cash flows from the property; the risk weight of the counterparty is applied to loans where repayment is not materially dependent on cash flows while a flat risk weight applies to those that are (Table 2).

Basel III has also introduced LVR as a determinant of the risk weight for loans that meet the operational requirements. The inclusion of LVR is broadly similar to the segmentation already included in APS 112.[25]

*Table 2 Basel III risk weights for residential mortgage exposures*

| | | RW % | | | | | |
|---|---|---|---|---|---|---|---|
| | LVR % | ≤ 50 | ≤ 60 | ≤ 80 | ≤ 90 | ≤ 100 | > 100 |
| Meets operational requirements | Repayment is not materially dependent on cash flows from property | 20 | 25 | 30 | 40 | 50 | 70 |
| | Repayment is materially dependent on cash flows from property | 30 | 35 | 45 | 60 | 75 | 105 |
| Does not meet operational requirements | Repayment is not materially dependent on cash flows from property | RW of unsecured exposure to counterparty (e.g. 75 for a retail borrower or 85 for SME) | | | | | |
| | Repayment is materially dependent on cash flows from property | 150 | | | | | |

[25] Basel III alternatively provides for a specified risk weight to be applied to a proportion of the exposure, with the remaining part to be given the risk weight that would apply if it were unsecured. This alternative is not, however, consistent with APRA's historical 'whole of loan' approach to residential mortgage exposures.

## 2.3 APRA's proposals

### 2.3.1 Standardised approach

**Operational requirements for standard mortgages**

APS 112 defines 'standard eligible residential mortgage' exposures as those that meet serviceability, marketability and valuation criteria, which largely align with the Basel III operational requirements outlined in Table 1.

APRA proposes to update its criteria for standard residential mortgages where necessary to incorporate the Basel III reforms, subject to any adjustments appropriate for Australian circumstances. Risk weights for standard eligible mortgages would continue to be based on the outstanding LVR, using the more granular Basel III LVR categories. APRA also proposes embedding its expectations for underwriting practices by incorporating into APS 112 certain serviceability parameters from *Prudential Practice Guide APG Residential Mortgage Lending* (APG 223). In particular, APRA proposes that APS 112 would require ADIs to designate as non-standard eligible mortgages those where the ADI:

- did not include an interest rate buffer of at least two percentage points and a minimum floor assessment interest rate of at least seven per cent in the serviceability methodology used to approve the loan;
- did not verify that a borrower is able to service the loan on an ongoing basis (i.e. positive net income surplus); and
- approved the loan outside the ADI's loan serviceability policy.

APRA is also considering excluding certain other categories of loans considered higher risk from the definition of standard eligible mortgages, such as those with very high multiples of a borrower's income.

APRA proposes to formalise through amendments to APS 112 its existing requirement that loans to self-managed superannuation funds secured by residential property should be treated as non-standard loans, reflecting the relative complexity of these loans and the fact that ADIs do not have recourse to other assets of the fund or to the beneficiary.[26]

APRA also proposes that reverse mortgages, which are currently risk-weighted at 50 per cent (where LVR is less than 60 per cent) or 100 per cent (for LVRs over 60 per cent), would be treated as non-standard in light of the heightened operational, legal and reputational risks associated with these loans.[27]

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[26] Refer to APRA's letter *Treatment of loans to self-managed superannuation funds*, 17 January 2013, available at: http://www.apra.gov.au/adi/Publications/Pages/Letter-to-all-locally-incorporated-ADIs-Treatment-of-loans-to-self-managed-superannuation-funds.aspx

[27] Refer to APRA's letter *Basel II—Treatment of reverse mortgages and shared equity mortgages*, 5 July 2010, available at: http://www.apra.gov.au/adi/Publications/Pages/Letter-to-ADIs-Basel-II-treatment-reverse-shared-equity-mortgages.aspx and paragraph 68 of APG 223.

Subject to final calibration, APRA proposes that all non-standard eligible mortgages would be subject to a risk weight of 100 per cent.

### Segmentation by risk

APRA proposes to segment the standard eligible mortgage portfolio into lower-risk and higher-risk exposures in addition to assigning risk weights according to LVR. This approach is aligned to, but deliberately not strictly consistent with, the Basel III 'material dependence' concept outlined in section 2.2.1 above, to appropriately reflect Australian conditions.

For the lower-risk segment, APRA proposes to broadly align the risk weights with those under the Basel III framework loans where repayments are not materially dependent on cash flows generated by the property securing the loan (refer to Table 2 for indicative risk weights by LVR). This category would include owner-occupied P&I loans and would apply after consideration of any lenders mortgage insurance (LMI).

The higher-risk segment would include interest-only loans, loans for investment property and, as discussed in section 3.2, loans to SMEs secured by residential property. The determination of higher risk weights for this segment would be either by way of a fixed risk-weight schedule, or a multiplier on the risk weights applied to owner-occupied P&I loans. The benefit of a multiplier is that APRA could more easily vary the capital uplift for these higher risk loans over time depending on prevailing prudential or financial stability objectives or concerns.

Table 3 shows the indicative proposed risk-weight schedule based on the Basel III risk weights for materially dependent residential mortgage exposures.

*Table 3 Indicative risk weights for residential mortgage exposures under the standardised approach*

| | | RW % | | | | | |
|---|---|---|---|---|---|---|---|
| | LVR % | ⩽ 50 | ⩽ 60 | ⩽ 80 | ⩽ 90 | ⩽ 100 | > 100 |
| Standard | Owner-occupied P&I | 20 | 25 | 30 | 40 | 50 | 70 |
| | Other residential mortgages[28] | 30 | 35 | 45 | 60 | 75 | 85 |
| Non-standard | | 100 | | | | | |

APRA is also considering whether exposures to individuals with a large investment portfolio (such as those with more than four residential properties) would be treated as non-standard

[28] As outlined in section 3.2.2, this category would also include exposures to SMEs secured by residential property.

residential mortgage loans or as loans secured by commercial property. APRA invites feedback on this issue.

APRA expects to continue to incorporate relatively lower capital requirements in the standardised approach for exposures covered by LMI. LMI can reduce the risk of loss for an ADI, subject to meeting the insurer's conditions for valid claims and the financial capacity of the LMI to pay claims. APRA is considering the appropriate methodology to recognise LMI in the capital framework for both the standardised and IRB approaches. For the standardised approach to credit risk, APRA expects that any capital benefit would continue to apply to loans with an LVR over 80 per cent. APRA's preferred approach is to increase the Table 3 risk weights (as finally calibrated) for standard loans with an LVR over 80 per cent that do not have LMI. For the IRB approach, APRA is considering potential options for the recognition of LMI (refer to the following section).

### 2.3.2 IRB approach

While the IRB capital requirements for residential mortgages are largely unchanged under Basel III, APRA believes that material changes are required in Australia in order to:

- improve the alignment of capital requirements with risk for particular exposures;
- further address the FSI recommendation that the difference in average mortgage risk weights between the standardised and IRB approaches is narrowed; and
- ensure an appropriate overall calibration of capital for residential mortgage exposures given the concentration of IRB ADI portfolios in this segment.

#### Improved alignment of capital requirements with risk

APRA proposes four main revisions, set out in Table 4, to improve the alignment of capital requirements with risk.

*Table 4 Proposed revisions to the IRB treatment of residential mortgage exposures*

| Proposal | Details |
|---|---|
| **Increased capital requirements for investment and interest-only exposures** | Similar to the proposals for the standardised approach to credit risk, APRA proposes to introduce a higher correlation factor in the IRB mortgage risk-weight function for investment and interest-only exposures.[29] |
| **Amend the correlation factor to depend on probability of default (PD)** | The default risk of lower PD exposures is more dependent on the economic cycle and can consequently increase at a relatively higher rate in a downturn. Including this dependence in the correlation factor would be in line with empirical evidence and dampen procyclicality. It would also make the mortgage risk-weight function consistent with other IRB asset classes. |
| **Reduce the minimum loss given default (LGD) from 20 per cent to 10 per cent for ADIs that have a satisfactory LGD model**[30] | This should lead to better alignment of LGD estimates to key drivers of loss such as LVR and LMI. APRA is also considering the use of supervisory factors for certain LGD parameters, such as LMI, to ensure a consistent approach across IRB ADIs. APRA will be inviting ADIs to submit mortgage LGD models for assessment in late 2018 but is not expecting a significant decrease in average LGD estimates. In the absence of a satisfactory LGD model, the floor would be 20 per cent. |
| **Capital requirements for non-standard mortgages use the standardised approach** | The definition of non-standard residential mortgage exposures would apply to IRB ADIs, including the operational requirements for serviceability, marketability and valuation and the treatment of loans to SMSFs and reverse and shared equity mortgages. This proposal increases consistency between the IRB and standardised approaches. |

APRA is also revising the treatment of retail SME exposures secured by residential property, as discussed in section 4.3.

### Addressing FSI recommendation 2 and APRA's unquestionably strong capital objectives

Consistent with the objectives of the APRA's July 2017 information paper on achieving unquestionably strong capital, APRA is planning to strengthen the regulatory capital requirement for residential mortgage exposures from their current levels.

In 2015, APRA announced an interim increase in the calibration of the IRB mortgage risk-weight function in response to recommendation 2 of the FSI on narrowing the difference between average risk weights for residential mortgage exposures under the IRB and

[29] The treatment of SME exposures secured by residential property under the IRB approach is discussed in section 4.2.

[30] Although the Basel Committee has reduced the residential mortgage LGD floor to 5 per cent, APRA considers a 10 per cent floor to be more appropriate.

standardised approaches. The average residential mortgage risk weight under the IRB approach was raised to at least a 25 per cent risk weight by increasing the correlation factor.

Based on a similar segmentation to the standardised approach, two potential IRB risk-weight functions for residential mortgage exposures are shown in Table 5. These formulae will be subject to change as the final calibration is determined. An alternative approach to implementing the higher correlation for other residential mortgages could be through a multiplicative factor similar to the option being considered for the standardised approach.

***Table 5 Indicative correlation formulae for residential mortgages under the IRB approach***

| | |
|---|---|
| **Owner-occupied P&I** | $0.15 \cdot \frac{1 - e^{-35\,PD}}{1 - e^{-35}} + 0.22 \cdot \frac{1 - (1 - e^{-35\,PD})}{1 - e^{-35}}$ |
| **Other residential mortgages** | $0.2 \cdot \frac{1 - e^{-35\,PD}}{1 - e^{-35}} + 0.27 \cdot \frac{1 - (1 - e^{-35\,PD})}{1 - e^{-35}}$ |

The proposals in this discussion paper result in a similar average correlation to current levels, while moving to a more granular approach to better align with risk. On their own, however, these IRB mortgage risk-weight functions are not expected to result in a sufficient level of capital to meet APRA's objectives for increased capital for residential mortgage exposures. However, any further increase in correlation for the IRB mortgage risk-weight function creates inconsistencies with correlation factors for other asset classes.

As a result, as discussed further in Chapter 7, other adjustments are likely to be necessary to meet unquestionably strong capital expectations. For residential mortgages, this is expected to be through additional RWA overlays on top of the outputs of the IRB risk-weight function, including both an overlay specifically for residential mortgages and an overlay for total RWA.

The exact form and size of these overlays will be determined after APRA has completed its QIS analysis. In determining final calibration of the regulatory capital requirement for residential mortgage exposures, APRA will consider the appropriate difference in the average risk weights under the IRB and standardised approaches, consistent with recommendation 2 of the FSI. As detailed in the final report of the FSI, given the IRB approach is more risk sensitive, some difference between the average risk weights for residential mortgage exposures under the different approaches to credit risk may be justified; however, it should not be of a magnitude to create unwarranted competitive distortions.

# Chapter 3 - Credit risk: other standardised exposures

The Basel III reforms also revised the treatment of exposures other than residential property under the standardised approach. These revisions improve the risk sensitivity of RWA outcomes and include both additional granularity and recalibration of existing risk weights and credit conversion factors (CCFs) for some portfolios. APRA generally proposes to implement these revisions, with some adjustments to reflect APRA's preferred approach in specific areas.

This chapter outlines the most significant of these proposed adjustments, which are to risk weights for some corporate and retail exposures and to some CCFs for off-balance sheet exposures.

Attachment A summarises the current, Basel III and proposed treatment of key asset classes under the revised standardised approach to credit risk.

## 3.1 Retail exposures

### 3.1.1 Basel III framework

Under the Basel III framework, exposures to an individual person or persons that are not secured by residential or commercial property are classified as 'retail exposures'. Retail exposures for particular product types (such as credit cards and personal loans) that are under €1 million and do not exceed a specified proportion of the bank's retail portfolio may be classified as 'regulatory retail' exposures subject to a risk weight of 75 per cent. 'Other retail' exposures that do not meet these criteria are subject to a risk weight of 100 per cent. These two categories remain unchanged from Basel II.

The Basel III reforms introduced a new category for exposures to 'transactors', borrowers who have paid the balance of their credit card, charge card or overdraft exposures in full at each repayment date over the previous 12 months. Under the revised framework, transactors are assigned a 45 per cent risk weight.

### 3.1.2 APRA's proposals

APRA currently applies a 100 per cent risk weight to retail exposures; it did not adopt the 'regulatory retail' category when implementing Basel II. APRA is concerned that this risk weight is inadequate for retail exposures—APRA's stress tests have consistently shown that the retail portfolio experiences the highest potential loss rates in downturn scenarios relative

to current levels of capital. This result is consistent with the findings of a 2017 Bank of England stress test.[31]

APRA therefore proposes to increase the risk weight to 125 per cent for retail exposures other than credit cards. All credit card exposures would continue to be subject to a risk weight of 100 per cent.[32] APRA does not propose to adopt the Basel III transactors category because it considers that lowering the risk weight to 45 per cent could lead to a material rise in RWA during a downturn as borrowers move out of this category to a category attracting a significantly higher risk weight. Also, the 45 per cent risk weight does not sufficiently align with proposed risk weights for residential mortgages.

## 3.2 Small- and medium- sized enterprise exposures

### 3.2.1 Basel III framework

Under the Basel III framework, SME exposures secured by residential or commercial property are treated in the same way as property-secured exposures to any other counterparty.

For SME exposures that are not secured by property, the framework sets out two categories, 'corporate SME' and 'retail SME' under which:

- a 75 per cent risk weight applies to an exposure to a 'retail SME', where the exposure meets the regulatory retail criteria outline in section 3.1.1 (e.g. where the aggregated exposure is less than €1m); and
- an 85 per cent risk weight applies to an exposure to a 'corporate SME', which is a corporate entity for which the consolidated sales of the entity's corporate group are less than or equal to €50m in the most recent year. This category is new under the Basel III reforms.

### 3.2.2 APRA's proposals

As stated in section 2.3, SME exposures secured by residential property that meet certain serviceability criteria would be included in the same category of exposures as residential mortgages for investment purposes and interest-only loans. In APRA's experience, these exposures have historically had higher losses than non-SME owner-occupier residential mortgage exposures.[33]

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[31] Bank of England, 'Overview of risks to UK financial stability and UK countercyclical capital buffer' in *Financial Stability Review*, November 2017, available at: https://www.bankofengland.co.uk/financial-stability-report/2017/november-2017.

[32] While the risk weight for credit card exposures is unchanged, capital requirements for these exposures will rise from applying a higher CCF, as detailed in section 3.3.2.

[33] Response by APRA to a question taken on notice, *House of Representatives Standing Committee on Economics Inquiry into Australian Prudential Regulation Authority annual report 2015*, 14 October 2016, question four, available at:

For SME exposures that are not secured by property, APRA proposes to reduce the 100 per cent risk weight currently applied under APS 112 to 85 per cent. This gives some recognition to the various types of collateral, other than property, that SMEs provide as security. APRA does not propose to implement the Basel III 75 per cent risk weight for retail SME exposures, as there is insufficient empirical evidence that retail SME exposures in Australia exhibit a lower default or loss experience through the cycle than corporate SME exposures. SME exposures in this category would be limited to corporate entities where consolidated group sales are less than or equal to $50 million.

## 3.3 Credit conversion factors

### 3.3.1 Basel III framework

Similar to Basel II, Basel III requires ADIs to apply CCFs to off-balance sheet exposures, such as undrawn loan limits and commitments to determine an on-balance sheet credit-equivalent amount. The credit-equivalent amount is then treated in the same way as an on-balance sheet exposure. Basel III has refined the definition of a commitment where a CCF must be applied to any credit exposure that has been offered by the bank and accepted by the borrower, including any unconditionally cancellable arrangement.

There are two main changes to CCFs under the Basel III framework:

- removal of the distinction by maturity for 'other commitments', as this approach was not sufficiently supported by empirical evidence. These exposures are now assigned a 40 per cent CCF; and
- increase in the CCF for unconditionally cancellable commitments from zero to 10 per cent to reflect concerns that banks do not, in practice, cancel these facilities in advance of default. Consumer protection laws, risk management capabilities and reputational risk considerations may constrain an ADI's ability to do so. These commitments may include unused portions of retail or corporate lines of credit where the ADI has the unconditional right to cancel at any time.

Table 31 in Attachment A provides the full list of CCFs.

### 3.3.2 APRA's proposals

APRA proposes to adopt the Basel III definition of commitment, which is likely to capture exposures that ADIs previously classified as uncommitted and therefore effectively assigned a zero CCF. In line with Basel III, APRA also proposes to more closely align CCFs between the IRB and standardised approaches, as the underlying borrower behaviour is unlikely to differ for equivalent products.

Currently, CCFs for 'other commitments' with maturity greater than one year range from 50 to 100 per cent across the standardised and foundation IRB approaches. To ensure there is

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http://www.aph.gov.au/Parliamentary_Business/Committees/House/Economics/APRAAnnualReport/Additional_Documents

not a significant loosening of existing capital requirements, APRA proposes to retain this CCF range rather than implement the Basel III 40 per cent CCF.

APRA considers that there is value in differentiating by the type of counterparty based on the likelihood of the ADI intervening before default. A relatively lower CCF is appropriate for credit card limits and for certain exposures to larger counterparties that are more closely managed. APRA proposes a simpler segmentation for the standardised approach compared to IRB.

For unconditionally cancellable commitments, APRA considers that the CCF estimate should not be below the lower end of CCF estimates for other exposures and proposes a CCF of 20 per cent.

ADIs may currently include undrawn credit card limits at a zero per cent CCF under the standardised approach. APRA proposes a 50 per cent CCF for these exposures, which is consistent with estimates from IRB ADIs and captures the risk that customers draw down some of the undrawn limit before default.

Table 6 summarises APRA's proposed changes to APS 112.

***Table 6 Changes to supervisory CCF estimates***

| Facility | APS 112<br>% | Basel III<br>% | Proposed<br>% |
|---|---|---|---|
| **Other commitments—maturity ⩽ 1 year** | 20 | 40 | Bank, sovereign, credit cards: 50<br>Other exposures (including residential mortgages): 100 |
| **Other commitments—maturity > 1 year** | 50 | 40 | Bank, sovereign, credit cards: 50<br>Other exposures (including residential mortgages): 100 |
| **Other commitments—unconditionally cancellable** | 0 | 10 | 20 |

## 3.4 Other proposals

APRA is also considering changes to other specific exposures, the details of which will be advised during development of the revised prudential standards. APRA's proposals are outlined in the following sections.

### 3.4.1 Margin lending

APRA plans to review the risk weight for margin lending exposures. The current capital treatment is to apply a risk weight of 20 per cent to an exposure secured by listed instruments on recognised exchanges. This treatment applies to both standardised and IRB ADIs. At the time of implementing the Basel II framework, APRA decided to apply a 20 per cent risk weight as an interim measure and noted that further review was required. As part of this review, APRA is examining whether the existing capital treatment remains appropriate.

### 3.4.2 Subordinated debt, equity and other capital instruments

Under the Basel II framework, subordinated debt, equity and other capital instruments issued by banks that are not deducted are risk-weighted at either 100 or 250 per cent, depending on the counterparty.

The Basel III reforms have introduced a separate category and revised risk weights for these instruments, whether issued by banks or corporate counterparties. These are set out in Table 30 in Attachment A.

Under APRA's current approach, most equity holdings and other capital support provided by banks or corporates are deducted from regulatory capital, with the exception of holdings of subordinated debt issued by commercial entities. These types of subordinated debt are subject to a risk weight of 100 per cent; under the Basel III reforms, the risk weight is 150 per cent. APRA will consider the appropriate approach for these exposures as part of its review of APS 112.

# Chapter 4 - Credit risk: other IRB exposures

The changes in Basel III for the IRB approach to credit risk focus on where models can be used and constraining model outcomes, rather than changing the underlying approach. APRA has, however, identified aspects of the current IRB approach where improvements are warranted either to better align regulatory capital to risk or to ensure a simpler and consistent approach. This chapter outlines APRA's proposed additional revisions for commercial property, SME and qualifying revolving retail exposures.

Table 32 in Attachment B summarises the proposed revisions to the IRB approach for all asset classes.

## 4.1 Constraints to IRB modelling

### 4.1.1 Basel III framework

In recent years the Basel Committee has undertaken studies that have shown unwarranted variance in RWA under the IRB approach. In these circumstances, the Basel Committee considers that constraints to IRB modelling are appropriate as banks' underlying data may not be of sufficient quantity and quality to model in a reliable manner.[34] One measure to address this, under Basel III, requires IRB banks to use foundation (not advanced) IRB estimates for LGD and exposure at default (EAD) for exposures to corporate counterparties with total consolidated annual revenues greater than €500m and exposures to banks and other securities firms and financial institutions.

Basel III also introduces an overall floor to RWAs relative to the standardised approaches, which is discussed in Chapter 7, and additional input floors to the parameters estimated by ADIs in the IRB risk-weight function, which are detailed in Table 33 in Attachment B.

### 4.1.2 APRA's proposals

APRA has identified a number of LGD and EAD estimates where there is limited value in modelling under the IRB approach, compared to common APRA-provided factors being applied by ADIs. APRA proposes to extend the Basel III constraints to a wider range of LGD and EAD estimates. This approach will generate capital requirements that are simpler and more consistent between IRB ADIs.

**Loss given default**

APRA proposes to constrain LGD modelling for all unsecured non-retail exposures. For these exposures, ADIs have limited internal default data to develop their own estimates and, as a result, rely on the same external datasets. To enhance the transparency and consistency of

[34] Basel Committee, *Reducing variation in credit risk-weighted assets—constraints on the use of internal model approaches—consultative document*, March 2016, available at: www.bis.org/bcbs/publ/d362.html

the IRB approach, APRA proposes the use of the foundation IRB approach for unsecured non-retail LGD estimates.

For retail and secured non-retail exposures, APRA considers that ADIs have sufficient internal data to continue to model and use their own LGD estimates. Table 7 summarises APRA's proposed approaches to LGD.

*Table 7 Proposed application of internal and APRA LGD estimates*

| Segment | Internally determined | APRA determined |
|---|---|---|
| Non-retail unsecured | No | Yes |
| Non-retail secured | Yes | No |
| Retail | Yes | No |

APRA also proposes changes to the LGD estimates applied by ADIs under the foundation IRB approach. APRA proposes higher estimates for some exposures relative to Basel III to better align both the secured and unsecured estimates with the LGD estimates currently applied by Australian ADIs using the advanced IRB approach. Table 8 shows the proposed changes to LGD estimates.

*Table 8 Changes to foundation IRB LGD estimates*

| Exposure type | APS 113<br>% | Basel III<br>% | Proposed<br>% |
|---|---|---|---|
| Secured - eligible financial collateral | 0 | 0 | 0 |
| Secured - commercial or residential property | 35 | 20 | 25 |
| Secured - receivables | 35 | 20 | 25 |
| Senior unsecured | 45 | 40 | 45 / 60 |

In the case of senior unsecured exposures, APRA is considering implementing either two or three LGD categories compared to the current foundation IRB approach, which has a single 45 per cent estimate. There would be a range of conditions in order to be eligible for an unsecured LGD lower than 60 per cent, which may include:

- the assets of the borrower are readily realisable;
- the ADI has appropriate covenants in place, including a negative pledge on assets; and
- the borrower holds low levels of debt relative to assets.

The final approach will be determined as part of APRA's consultation on revised prudential standards. For secured exposures, the proposed reduction in LGD from the current APS 113 will be accompanied by higher supervisory haircuts in line with Basel III (e.g. 40 per cent).

### Exposure at default

Modelling of EAD estimates has proven challenging for ADIs, particularly for non-retail portfolios. Even for segments where there is more default data, substantial changes to a customer's product mix in the lead-up to default affect the ability to determine appropriate EAD estimates. Given ADIs' reliance on judgement to overcome these issues, APRA considers simple and consistent foundation IRB CCF estimates to be more appropriate for all non-retail EAD estimates.

For retail portfolios, there is generally sufficient data for ADIs to model EAD. That said, given how non-revolving retail products are managed by ADIs, there is insufficient evidence to support an estimate below 100 per cent of the limit. For these products, APRA proposes a simple CCF estimate.

Table 9 summarises APRA's proposed approaches to EAD.

*Table 9 Proposed application of internal and APRA EAD estimates*

| Segment | Internally determined | APRA determined |
|---|---|---|
| Non-retail | No | Yes |
| Retail non-revolving | No | Yes |
| Retail revolving | Yes | No |

APRA also proposes changes to CCFs to be applied by ADIs under the foundation IRB approach. Similar to Basel III, APRA proposes to more closely align CCFs and the definition of a commitment between the IRB and standardised approaches.

APRA also proposes higher CCFs for 'other commitments' than those under the Basel III reforms, as part of ensuring there is not a significant loosening of existing IRB capital requirements in Australia. This includes segmenting CCFs for commitments by counterparty type, according to the likelihood of the ADI intervening before default. APRA also proposes a range of CCFs for commitments from 50 to 100 per cent, which is the same range as for current estimates under the standardised and foundation IRB approaches.

For unconditionally cancellable commitments, APRA considers that the 10 per cent CCF under Basel III is too low given available evidence. Instead, APRA proposes a 20 per cent CCF, which aligns with the lower end of current CCF estimates.

APRA's proposals are summarised in Table 10.

*Table 10 Changes to foundation IRB CCF estimates*

| Facility type | APS 113 % | Basel III % | Proposed % |
|---|---|---|---|
| Commitments | 100[35] | 40 | Bank: 50<br>Corporate: 75<br>Retail (non-revolving), SME, commercial property: 100 |
| Commitments—unconditionally cancellable | 0 | 10 | 20 |
| Note issuance & underwriting facilities | 100 | 50 | 50 |

## 4.2 Commercial property exposures

### 4.2.1 Current approach

APRA currently requires advanced IRB ADIs to use the Basel II 'supervisory slotting' approach to assign capital for most commercial property lending.[36] Under this approach, exposures are assigned to one of five 'slots', ranging from 'strong' to 'default', rather than using the IRB risk-weight function. In APRA's view, at the time Basel II was adopted corporate IRB risk models and the risk-weight function were not adequate for commercial property exposures, which have historically been a source of significant risk in the Australian banking sector.

While APRA considers the supervisory slotting approach results in a more appropriate level of capital compared to the corporate risk-weight function, it is a less risk-sensitive approach. APRA's approach to commercial property also means that the capital outcomes of Australian ADIs are not directly comparable to other internationally active banks where supervisory slotting is generally not required.

[35] ADIs may apply a 75 per cent risk weight for commitments to borrowers that have access to debt securities markets in their own name.

[36] Refer to APRA's letter *Identification of income producing real estate (IPRE) specialised lending exposures*, October 2009, available at: http://apra.gov.au/adi/Publications/Documents/22-October-2009-IPRE-letter-website.pdf

### 4.2.2 APRA's proposals

To improve the risk sensitivity of regulatory capital for commercial property lending, APRA proposes two new non-retail asset classes:

- land acquisition, development and construction exposures;[37] and
- other commercial property exposures.

Under APRA's proposed changes, all commercial property exposures, including those that were previously excluded from supervisory slotting, would be assigned to one of these two commercial property asset classes which would use an IRB risk-weight function to determine the regulatory capital requirement. This approach is consistent with other IRB asset classes and is more risk-sensitive.

Given the potential level of losses from commercial property exposures as demonstrated by ADIs' historical downturn loss experience, APRA does not consider that the current IRB corporate risk-weight function in APS 113 results in an appropriate amount of regulatory capital. Instead, APRA proposes new risk-weight functions that are better aligned with the underlying risks. APRA also proposes a separate risk-weight function for land acquisition, development and construction exposures, reflecting the higher potential for downturn losses from these exposures. Proposed correlation formulae are set out in Table 11.

*Table 11 Indicative correlation formulae for commercial property*

| | |
|---|---|
| **Land acquisition, development and construction** | $0.28 \cdot \frac{1 - e^{-50\,PD}}{1 - e^{-50}} + 0.35 \cdot \frac{1 - (1 - e^{-50\,PD})}{1 - e^{-50}}$ |
| **Other commercial property** | $0.23 \cdot \frac{1 - e^{-50\,PD}}{1 - e^{-50}} + 0.3 \cdot \frac{1 - (1 - e^{-50\,PD})}{1 - e^{-50}}$ |

Similar to the approach anticipated for residential mortgages, when determining final calibration APRA may consider an overlay to the RWA outcome specifically for commercial property. This will depend on the results of the QIS. APRA is not anticipating a material decline in RWA for the commercial property portfolio.

## 4.3 Small- and medium-sized enterprise exposures

### 4.3.1 Current approach

Under Basel II, SME exposures under €1m that are originated and managed in a manner consistent with other retail exposures may be classified as 'SME retail'. RWA calculations for SME retail use either the 'other retail' or residential mortgage risk-weight functions depending on whether the exposure has residential property as collateral. APRA

[37] Mixed purpose borrowers are likely to be classified based on the predominant source of income.

implemented this approach, using a $1m limit. Basel III has not materially changed the treatment of SME exposures.

### 4.3.2 APRA's proposals

Under the current treatment of SME lending under the IRB approach, APRA is concerned that:

- differences in risk characteristics and empirical default/loss outcomes through the economic cycle across SME retail and corporate exposures are not commensurate with a significant difference in regulatory capital requirements; and
- there is some misalignment in the IRB risk-weight function between SME retail exposures with residential property security and those without.

To better align regulatory capital with the risk in this portfolio, APRA proposes to merge the SME retail and SME corporate asset classes into a single SME asset class, with the regulatory capital function to be based on the current corporate function, including the firm-size adjustment.[38] Loans to SMEs with residential property security are also intended to move from the residential mortgage asset class to this asset class. Under the IRB approach, recoveries from security are included in LGD estimates.

This proposal also generates other benefits such as:

- ADIs may have more flexibility to tailor their approach to origination and management of SME customers;
- a simpler capital framework and reduced variability in RWA by limiting boundary and definitional issues; and
- consistency with the direction of IRB banks' modelling and validation methods, which are moving to a customer-level basis for SME exposures.

## 4.4 Qualifying revolving retail exposures

### 4.4.1 Current approach

Exposures currently included in the qualifying revolving retail (QRR) asset class are typically credit cards. The use of the QRR risk-weight function results in relatively low risk weights compared to other asset classes. For example, there is currently a narrow gap in risk weights between residential mortgages and credit cards, with the average risk weight for credit cards being just over 30 per cent. This outcome is mainly driven by the much lower correlation factor for QRR of four per cent and is not reflective of ADIs' higher loss experience through the cycle for credit card portfolios compared to residential mortgage exposures. The Basel III framework has not materially changed for QRR lending compared to Basel II.

[38] For commercial property exposures, ADIs would apply a commercial property risk-weight function.

### 4.4.2 APRA's proposals

To better align the regulatory capital held for qualifying revolving retail exposures with other asset classes, APRA proposes removing the QRR asset class. Instead, QRR exposures would be included in the 'other retail' asset class and would not be subject to the higher PD and LGD floors for QRR under Basel III.

## 4.5 Other proposals

APRA is also considering changes to other specific exposures, the details of which will be advised during development of the revised prudential standards. APRA's proposals are outlined in the following sections.

### 4.5.1 Treatment of offshore exposures

APRA proposes to apply the same IRB requirements for offshore exposures as for domestic exposures, including any scaling factors or adjustments to correlation factors. This includes residential mortgages, where the higher correlation for IRB banks currently only applies to Australian exposures. However, APRA does not propose to apply adjustments to the prescribed risk-weight function applied to New Zealand subsidiaries of ADIs by the Reserve Bank of New Zealand in Level 2 capital calculations. The impact of this proposal is being considered further as part of the QIS.

### 4.5.2 Leases and other exposures to physical assets

APRA is reviewing the regulatory capital treatment of leasing activity where an ADI acts as lessor. Leases can expose ADIs to the risks of owning various types of physical assets commonly subject to leasing, such as aircraft. The financial risks associated with physical asset ownership are particularly evident in instances where an ADI acts as a lessor of assets under an operating lease.

APRA is concerned that the current capital treatment of leased assets does not appropriately capture the asset valuation and concentration risk that may arise where an ADI, as lessor, maintains a significant operating lease portfolio. Concerns with the current capital treatment of ADIs' exposures to physical assets would also extend to instances where ADIs hold material exposures to fixed assets beyond their own premises.

Physical assets represent a very broad class of assets and the extent of associated risk will depend somewhat on asset type. Nonetheless, APRA is of the view that it is necessary to consider the financial risks posed to ADIs' balance sheets by significant concentrations in physical assets. One means to address these concerns may be to apply higher risk weights to exposures to physical asset ownership beyond a certain threshold.

### 4.5.3 Purchase of defaulted assets

Currently, under the foundation IRB and supervisory slotting approaches, no additional capital is required for the 'unexpected loss' component for defaulted assets as there is an assumption of no further unexpected loss because the risk has already crystallised. Although

the corresponding expected loss is often very high, this approach creates some perverse outcomes for distressed assets that are purchased at a large discount to face value.

ADIs are required to adjust capital downward where provisions held by the ADI do not cover expected losses. The discount to face value when purchasing distressed assets is eligible as provisions and where this exceeds expected losses, it can also be used to offset shortfalls in provisions for other defaulted exposures. As part of the review of the capital framework, APRA will consider the appropriate approach for these exposures.

### 4.5.4 Subordinated exposures

Under the foundation IRB approach, exposures that are subordinated in the debt structure are assigned a higher LGD estimate, reflecting their junior claim to another facility. The definition of subordination currently in APS 113 is focussed on contractual subordination. APRA is considering widening this definition to ensure that exposures that are economically subordinated but contractually senior in nature are captured.

# Chapter 5 - Operational risk

This chapter outlines APRA's proposed revisions to the capital treatment of operational risk set out in *Prudential Standard APS 114 Capital Adequacy: Standardised Approach to Operational Risk* (APS 114) and *Prudential Standard APS 115 Capital Adequacy: Advanced Measurement Approaches to Operational Risk* (APS 115).

## 5.1 Basel III framework

### Capital calculation

As part of its Basel III reforms, the Basel Committee concluded that the Advanced Measurement Approach (AMA) is inherently complex and there is a lack of comparability arising from the wide range of modelling practices globally. Also, for some banks, operational risk capital requirements proved insufficient to cover incurred losses. For these reasons, under the Basel III operational risk proposals, the AMA has been replaced with a new Standardised Measurement Approach (SMA), which also replaces the Basel II standardised approaches to operational risk.

The SMA bases an ADI's operational risk capital requirement on a business (activity) indicator (BI), which is intended to be a simple, financial statement data-based proxy of operational risk exposure. The BI is multiplied by prescribed factors, which increase in line with BI size, to determine the BI Component (BIC) of the SMA. Table 12 sets out these factors.

***Table 12 Factors used to calculate the BIC for operational risk***

| Bucket | BI range €b[39] | BI marginal coefficients % |
|---|---|---|
| 1 | BI ⩽1 | 12 |
| 2 | 1 < BI ⩽ 30 | 15 |
| 3 | BI > 30 | 18 |

For example, for an ADI with a BI of €3b, the BIC would be calculated as BIC = 12% x €1b + 15% x (€3b-€1b) = €0.42b. The operational risk capital requirement is the BIC multiplied by the Loss Component Multiplier, which is determined based on an ADI's loss history. However, the Basel III framework affords national supervisors discretion to eschew the loss component; in such cases, the BIC constitutes the operational risk requirement for all banks within that jurisdiction.

[39] Although the Basel III framework specifies the bucket boundaries in Euros, these would be converted to Australian dollars in APRA's implementation of the framework.

### Qualitative requirements

By replacing the two existing capital calculation approaches with a single approach, Basel III has removed the qualitative requirements within the qualifying criteria for the Basel II standardised approach and the AMA. However, Basel III introduces new qualitative criteria on loss data identification, collection and treatment. These criteria, which apply only to banks in buckets 2 or 3 (i.e. those with BI > €1b as indicated in Table 12), also include additional disclosure requirements.

## 5.2 APRA's proposals

### Capital calculation

In considering the Basel III reforms, APRA notes that the existing standardised approach is comparatively simple and represents established practice for standardised ADIs. However, the SMA explicitly considers entity size, and APRA is of the view that this results in a superior alignment of relative capital with size, nature and complexity. The expected international alignment and comparability that the SMA will deliver lend further weight to its adoption.

To implement the SMA, APRA would need to specify the BI ranges in terms of Australian dollars rather than Euros, noting that the FX conversion factor chosen will affect the capital calculation for some ADIs. This will be taken into consideration as part of the calibration process.

In adopting the Basel III SMA framework, APRA considers that the incorporation of loss data via the Loss Component Multiplier is subject to a number of challenges, including:

- the effect that capital rises after a loss event rather than being in place to provide for a loss event;
- the potential for extraneous volatility in capital and a significant misalignment between current exposure and capital; and
- the linkage of capital to events related to historical businesses and controls which may have since changed.

Accordingly, APRA proposes to exercise its national discretion to not implement the loss component, and instead set the operational risk requirement equal to the BIC for all ADIs. Should APRA assess that an ADI's operational risk capital requirement lacks sufficient credibility—taking into account the ADI's size, nature and complexity, informed by qualitative and quantitative information (including loss history)—then supervisory adjustments to the ADI's prudential capital requirement may be considered.

### Qualitative requirements

As outlined in a letter to all ADIs in December 2015, APRA expects an advanced ADI, or an ADI that applies for advanced accreditation, to demonstrate advanced risk management practices across all its material risks, including operational risk.[40] In adopting the Basel III

[40] Letter to all ADIs: *Internal ratings-based (IRB) approach to credit risk: accreditation process*, 15 December 2015, available at: http://www.apra.gov.au/adi/Publications/Pages/IRB-Approach-to-Credit-Risk-Accreditation-Process.aspx.

SMA framework, APRA proposes to clarify that advanced risk management practices include the qualitative criteria on loss data identification, collection and treatment set out in the Basel III framework. APRA also proposes that the additional disclosure requirements under Basel III would apply to advanced ADIs.

# Chapter 6 - Interest rate risk, market risk and credit valuation adjustment

This chapter outlines APRA's proposed revisions to the determination of regulatory capital, reporting and disclosure requirements for interest rate risk in the banking book (IRRBB). It also provides an overview of APRA's approach to implementing the Basel Committee's market risk and credit valuation adjustment (CVA) frameworks.

## 6.1 Interest rate risk in the banking book

### 6.1.1 Basel III framework

The Basel III framework does not significantly change the capital treatment for IRRBB from Basel II. Both frameworks impose a regulatory capital requirement for IRRBB through the supervisory review process rather than as a minimum capital requirement.

The main revisions to the Basel III framework are:

- expanded IRRBB calculations using both net interest income at risk and economic value of equity measures under six prescribed interest rate shock scenarios that must be disclosed;
- other enhanced disclosure requirements—for example, various model assumptions and the ADI's overall IRRBB objectives and management approach;
- an updated standardised framework; and
- more granular qualitative requirements.

### 6.1.2 APRA's proposals

Under APRA's current framework, capital for IRRBB is a minimum requirement for advanced ADIs using internal models in accordance with *Prudential Standard APS 117 Capital Adequacy: Interest Rate Risk in the Banking Book (Advanced ADIs)* (APS 117). The incorporation of a minimum IRRBB capital requirement is different from the approach under both Basel II and Basel III. APRA proposes to retain a minimum capital requirement but how this is imposed may change as a result of the proposals outlined in the forthcoming discussion paper on potential adjustments to the overall design of the capital framework to improve transparency, international comparability and flexibility.

APRA also proposes amending APS 117 and reporting requirements, as set out in the following sections. APRA does not expect these proposals to materially increase the total amount of capital that advanced ADIs hold for IRRBB; however, capital requirements for individual ADIs may vary from current levels.

### Reducing undue variability in RWA

Currently under APS 117, ADIs can determine their own methods to measure basis and optionality risks and make their own assumptions about the duration of certain portfolios such as non-interest bearing deposits. APRA has observed that such approaches have resulted in undue variability of RWA between advanced ADIs, despite similar IRRBB exposures and characteristics.

Accordingly, APRA proposes to require the use of standardised basis and optionality risk calculations and to standardise the duration assumptions for the non-interest bearing deposits portfolio. While these amendments will restrict aspects of internal modelling under the IRRBB framework, APRA considers there to be benefits to risk sensitivity and risk management from retaining a modelling approach.

### Reducing volatility in RWA

Currently, advanced ADIs calculate and report their IRRBB capital requirements as at the last day of each quarter. This has resulted in significant volatility in RWA at certain quarter-ends. To reduce this volatility, APRA proposes to require ADIs to calculate their IRRBB capital requirement based on the average of more frequent (e.g. monthly or weekly) calculations over the quarter. APRA is aware that advanced ADIs are already calculating and reporting their IRRBB capital requirement on a more frequent basis for internal reporting purposes and, as such, does not expect that this proposal would significantly increase regulatory burden.

### Reporting requirements

Although standardised ADIs are not subject to a specific IRRBB regulatory capital requirement, all ADIs are currently required to provide APRA with balance sheet repricing profile information under *Reporting Standard ARS 117.0 Repricing analysis* (ARS 117.0). APRA uses the information reported in ARS 117.0 to assess IRRBB sensitivity each quarter; however, the current reporting requirement provides APRA with only a limited insight into the IRRBB profile of ADIs.

Additionally, APRA notes that, in recent years, a number of the larger standardised ADIs have implemented lending strategies that may introduce significant interest rate risk into their operations. Accordingly, APRA proposes to:

- standardise certain repricing assumptions in ARS 117.0 to enhance consistency across all ADIs; and
- require advanced and larger standardised ADIs to report to APRA the outcomes of their IRRBB calculations based on the Basel Committee's standardised framework.

### Disclosure requirements

APRA proposes to implement enhanced disclosure requirements through amendments to *Prudential Standard APS 330 Public Disclosure* (APS 330) that would require advanced ADIs to disclose:

- their IRRBB calculations based on both net interest income and economic value of equity measures under the six prescribed interest rate shock scenarios;

- their IRRBB calculations based on the Basel Committee's standardised framework;
- various model assumptions, and
- specified qualitative information about their IRRBB objectives and management approach.

## 6.2 Traded market risk and credit valuation adjustment risk

Traded market risk capital requirements apply to all ADIs that operate a trading book and any ADI with foreign exchange or commodities exposures in the banking book. The framework set out in *Prudential Standard APS 116 Capital Adequacy: Market Risk* (APS 116) includes an internal modelling methodology and a standardised approach. The Basel III market risk framework includes amendments to both approaches.

CVA capital requirements apply to all off-balance sheet contracts that are not undertaken through a qualifying central counterparty. These requirements protect against mark-to-market losses that may arise from the deterioration of a counterparty's credit quality. Basel III provides two approaches to the calculation of CVA, a basic approach and a standardised approach. It also sets a threshold for non-centrally cleared derivatives below which a simplified calculation based on the default risk charge may be used for the CVA capital requirement. The basic approach and simplified calculation for ADIs with less material exposures is similar to APRA's current approach as outlined in APS 112. The standardised approach is based on CVA sensitivities calculated by a bank's internal models and will require regulatory approval.

In March 2017, APRA wrote to ADIs advising of its intention to defer finalising implementation of the Basel III market risk framework until January 2020 at the earliest.[41] In their December 2017 announcement of the final Basel III framework, the Governors and Heads of Supervision endorsed extending the implementation date for the revised market risk framework to 1 January 2022. The deferral aligns the implementation date to those of the other Basel III reforms and provides time for the Basel Committee to address specified issues related to the framework.

In line with the Basel Committee's deferral, APRA will also defer its decision on the scope and timing of any domestic implementation of the Basel III market risk framework until it has been finalised. As a result, APRA understands that some ADIs may choose to delay decisions about changes to existing systems and processes in anticipation of these reforms. APRA will work with ADIs to ensure that there is a sufficient implementation timeline should it proceed with implementation of the Basel III market risk framework.

While the Basel III CVA framework has been finalised, it may be subject to further recalibration in line with the potential changes to the calibration of the market risk framework. It also has an internationally agreed implementation date of 1 January 2022. APRA will commence consultation on the implementation of the Basel III CVA framework

[41] APRA's letter to ADIs, *APRA's review of prudential requirements for traded market risk*, 21 March 2017, available at: http://www.apra.gov.au/adi/Publications/Documents/170321-letter-to-ADIs-FRTB.pdf.

after this calibration has been finalised, most likely at the same time that it gives further consideration to the market risk framework.

# Chapter 7 - Approach to overall calibration

As detailed in APRA's July 2017 information paper, for the Australian banking sector to have capital ratios that are considered unquestionably strong, APRA concluded that it would be necessary for minimum capital requirements to increase by around 150 basis points for IRB ADIs and 50 basis points for standardised ADIs. APRA indicated that this would correspond to a capital benchmark, assuming current RWA methodologies, of at least 10.5 per cent for the major Australian banks.

There are a number of other objectives that APRA will weigh in determining the overall and relative calibration of the components of the RWA requirement.

APRA has already stated that, given the structural concentration in housing exposures evident in the lending portfolios of most ADIs, the increase in capital requirements necessary to achieve these benchmarks would primarily be achieved through increased capital requirements for residential mortgage exposures.

In addition, in assessing the appropriateness of total ADI capital requirements under a revised capital framework, including the proposals outlined in this discussion paper, APRA is aiming to ensure that individual components of the proposed framework produce capital outcomes that are appropriate both on a stand-alone basis and relative to other components of the framework. The proposed capital requirements for residential mortgage exposures, for example, aim to ensure the difference between the average risk weight under the IRB and standardised approaches is not of a magnitude that would create unwarranted competitive distortions.

Taking into account these various objectives, APRA is likely to:

- apply a fixed multiplier (scalar) to total credit RWAs. Although Basel III removes the 1.06 credit RWA scalar from the IRB framework, APRA is likely to retain the concept of a scalar, albeit the actual value is yet to be determined; and
- if necessary, apply specific RWA scalars for residential mortgages and commercial property.

The appropriateness of capital requirements produced by each component of the proposed framework will be assessed, both individually and in aggregate, through the QIS process. APRA will use these data to adjust aspects of its proposals, including the nature and size of scalars, where necessary, and will consult on proposed scalars as part of its consultation on draft revised prudential standards.

To the extent that the result is an overall increase in RWAs relative to current methodologies, it will be necessary to reduce the capital ratio benchmarks from those flagged in APRA's 2017 information paper on unquestionably strong capital expectations, in order to ensure that the overall (dollar) quantum of capital increase is unaffected. For example, the final target CET1 capital ratio based on the revised RWA methodologies for the major banks may ultimately be different from the 10.5 per cent under the current methodology. However, APRA's intention is that the overall quantum of capital increase will be equivalent to that flagged in APRA's 2017 information paper.

## 7.1 Risk-weighted asset floor for IRB banks

The Basel II framework implemented in 2008 included a transitional minimum, or floor, on RWA for banks using the advanced approaches to capital. The objective of the floor was to ensure capital requirements did not fall below a certain percentage of the previous requirements under the Basel I framework. APRA has since removed the transitional floor.

The Basel III framework includes a 72.5 per cent floor on the amount of total RWA for IRB banks, relative to the amount of RWA that would be calculated using only the standardised approaches. This may be phased in, commencing at 50 per cent of standardised RWA on 1 January 2022, incrementally increasing each year to 72.5 per cent on 1 January 2027. It also provides a further discretionary cap on a bank's total RWA during the phase-in period.

APRA will include the floor in its revised capital framework. Doing so will remove the ability of IRB model outputs to vary from prescribed standardised risk weights beyond a maximum threshold. It therefore directly addresses excessive variability in RWA and enhances comparability of risk-weighted capital ratios between IRB and standardised ADIs.

In implementing the floor, APRA does not intend to adopt the Basel III phase-in arrangements, and instead expects to implement the floor in line with the other proposed changes to risk weights.

# Chapter 8 - A simpler approach for small ADIs

This chapter outlines APRA's proposals for a simplified framework that could be applied to small, less complex ADIs. APRA is seeking submissions on the feasibility of a simpler framework, its design and key eligibility criteria.

## 8.1 Background

APRA's longstanding approach has been to base the capital framework for all ADIs on the Basel Committee's internationally agreed framework. This framework has become increasingly complex following the global financial crisis. For small ADIs, the cost of these measures may outweigh the benefit to prudential safety. Proportionate and tailored requirements for small ADIs could reduce regulatory burden without compromising prudential safety and soundness. Calibration of a simpler regime would be broadly aligned to the more complex regulatory capital framework, yet would be designed to suit the size, nature, complexity and risk of small ADIs.

## 8.2 Scope of a simplified framework

The requirements being considered for simplification are operational risk, counterparty credit risk, leverage ratio and public disclosures. APRA does not propose simplifying the regulatory capital requirement for credit risk, but to apply to all standardised ADIs the same prudential requirements, including those proposed in Chapters 2 and 3 of this discussion paper. As credit risk is the most material risk exposure for these ADIs, a risk-sensitive approach is considered appropriate from both safety and competitive neutrality perspectives.

APRA is not currently considering simplifying other aspects of the ADI prudential framework, such as requirements for liquidity, risk management and governance. These requirements already allow for proportionate approaches to be applied through APRA's supervision practices. APRA is nevertheless open to industry's views on other areas that might be simplified.

A simplified framework for small ADIs would likely result in a corresponding simplification of reporting requirements for smaller ADIs. APRA will consult on this aspect in due course.

### 8.2.1 Elements of a simplified framework

Table 13 sets out the proposed simplified framework. For comparison purposes, the table includes the current APRA and Basel III frameworks. APRA seeks industry views on whether the proposals represent an operationally simpler approach. APRA will consult on specific prudential requirements across each relevant area in due course.

*Table 13 Proposals for a simplified framework*

| | Current requirement | Basel III | Proposed |
|---|---|---|---|
| **Operational risk** | APS 114<br>Calculation based on three readily available accounting items. | New methodology based on different business (risk) indicators. | Flat rate capital add-on. |
| **Counterparty Credit Risk (CCR)** | APS 112<br>Current Exposure Method (CEM) to measure CCR exposures. | The standardised approach for measuring counterparty credit risk exposures will replace the CEM. There will be new calculation and data systems, with more complex ongoing calculations to be performed. Capital requirements are expected to be materially higher than under the CEM. | No CCR capital requirement. |
| **Leverage ratio** | APRA does not currently apply a leverage ratio requirement. | Introduction of a minimum leverage ratio requirement. | No leverage ratio requirement. |
| **Disclosure** | APS 330<br>Smaller ADIs disclose a limited set of core prudential risk metrics, information on remuneration and details of regulatory capital instruments. | Revisions to the Basel Committee's disclosure framework are likely to result in an increase in the volume of disclosure requirements. | Centralised publication, by APRA, of key prudential measures on behalf of small ADIs and greater reliance on ADIs' own financial reporting for disclosures relating to remuneration and regulatory capital instruments. |
| **Credit Risk** | APS 112<br>Calculation based on specified risk weights for on- and off-balance sheet exposures. | Changes to risk weights and categorisation for some exposures. | Same framework applying to all standardised ADIs. |

## 8.3 Eligibility criteria

APRA proposes to use an objective quantitative measure to define a small ADI. Measures could include Tier 1 capital, total assets, total deposits or total liabilities. Given that these measures are highly correlated, the defined small ADI population would be relatively similar under each measure.

APRA's preference is to use total assets as a defining criteria, as it is simple and well understood. APRA invites feedback on an appropriate size threshold, in terms of dollar amount and measure.

Alongside this quantitative measure, APRA proposes to apply qualitative measures to further define a small ADI. Specifically these could include:

- ADIs with simple activities only, excluding ADIs with a trading book, material non-centrally cleared derivative exposures or provision of purchased payment facilities; and
- ADIs with domestic activities only, excluding foreign bank subsidiaries and ADIs with offshore funding.

Finally, it is intended that ADIs meeting the proposed criteria would automatically be subject to the simplified framework. However, APRA supervisors would have discretion to require a small ADI to use the more complex framework where appropriate based on the nature of its business.

# Chapter 9 - Consultation and next steps

## 9.1 Request for submissions and cost-benefit analysis information

APRA invites written submissions on the proposals set out in this discussion paper. Written submissions should be sent to ADIpolicy@apra.gov.au by 18 May 2018 and addressed to:

General Manager, Policy Development
Policy and Advice Division
Australian Prudential Regulation Authority

### Important disclosure notice—publication of submissions

All information in submissions will be made available to the public on the APRA website unless a respondent expressly requests that all or part of the submission is to remain in confidence.

Automatically generated confidentiality statements in emails do not suffice for this purpose.

Respondents who would like part of their submission to remain in confidence should provide this information marked as confidential in a separate attachment.

Submissions may be the subject of a request for access made under the *Freedom of Information Act 1982* (FOIA).

APRA will determine such requests, if any, in accordance with the provisions of the FOIA. Information in the submission about any APRA-regulated entity that is not in the public domain and that is identified as confidential will be protected by section 56 of the *Australian Prudential Regulation Authority Act 1998* and will therefore be exempt from production under the FOIA.

APRA asks that all stakeholders use this consultation opportunity to provide information on the compliance impact of the proposals, and any other substantive costs associated with the changes. Compliance costs are defined as direct costs to businesses of performing activities associated with complying with government regulation. Specifically, information is sought on any changes to compliance costs incurred by businesses as a result of APRA's proposals.

Consistent with the Government's approach, APRA will use the methodology behind the Commonwealth Regulatory Burden Measure to assess compliance costs. This tool is designed to capture the relevant costs in a structured way, including a separate assessment of upfront costs and ongoing costs. It is available at https://rbm.obpr.gov.au/.

APRA requests that respondents use this methodology to estimate costs to ensure the data supplied to APRA can be aggregated and used in an industry-wide assessment. When submitting their costs assessment to APRA, respondents should include any assumptions made and, where relevant, any limitations inherent in their assessment. Feedback should address the additional costs incurred as a result of complying with APRA's requirements, not

activities that institutions would undertake due to foreign regulatory requirements or in their ordinary course of business.

## 9.2 Consultation questions

Submissions are welcome on all aspects of the proposals in this discussion paper.

In addition, specific areas where feedback on the proposed direction would be of assistance to APRA in finalising its proposals are outlined in Table 14.

*Table 14 Consultation questions*

| | | |
|---|---|---|
| **Chapter 1 - Introduction** | 1.1 | Are there any other potential impacts on the industry or community that should be considered in balancing APRA's objectives? |
| | 1.2 | What are the advantages of aligning the proposed changes with the Basel Committee's implementation date of January 2022? |
| **Chapter 2 - Credit risk: residential mortgage lending** | 2.1 | How should sound underwriting be embedded in the capital framework? |
| | 2.2 | Is there a preferred approach between the options to determine higher risk weights detailed in section 2.3.1? |
| | 2.3 | What level of capital requirement reduction for LMI should be recognised for residential mortgage exposures? |
| | 2.4 | How should exposures to individuals with a large investment portfolio be treated under the standardised approach to credit risk? |
| | 2.5 | Are there alternatives to the proposed changes to the IRB risk-weight functions for residential mortgage exposures that would similarly address APRA's concerns about higher risk lending? |
| **Chapter 3 - Credit risk: other standardised exposures** | 3.1 | Should CCFs be aligned between standardised and IRB ADIs? |
| **Chapter 4 - Credit risk: other IRB exposures** | 4.1 | Are there additional conditions that APRA should consider for unsecured non-retail exposures to be eligible for a lower LGD estimate under the foundation IRB approach? |
| | 4.2 | Should APRA allow IRB banks to use an IRB risk-weight function for commercial property exposures or continue with the supervisory slotting approach (assuming overall capital requirements would be comparable)? |
| | 4.3 | What would be the impact of removing the SME retail and qualifying revolving retail asset classes from the IRB approach? |
| **Chapter 5 - Operational risk** | 5.1 | Should the loss component be omitted from the operational risk capital calculation? |

| | | |
|---|---|---|
| **Chapter 6 - Interest rate risk and market risk** | 6.1 | Would standardising assumptions for the non-interest bearing deposits portfolio and the basis and optionality risk calculations significantly reduce the benefit of having an internal model approach for IRRBB? |
| **Chapter 7 - Approach to overall calibration** | 7.1 | Are there alternative approaches to ensure an appropriate overall calibration of capital requirements? |
| | 7.2 | Are there any definitional issues that APRA should consider in the implementation of the RWA floor for IRB banks? |
| **Chapter 8 - A simpler approach for small ADIs** | 8.1 | What is an appropriate size measure and threshold to determine which ADIs may apply the simplified framework? |
| | 8.2 | Are there other prudential requirements that could be simplified for smaller ADIs without compromising prudential safety and soundness? |
| | 8.3 | Does the proposal for a simplified framework raise any competition concerns? |

## 9.3 Quantitative impact study

To assess the impact of the proposals in this discussion paper, particularly for assessing the implications for meeting APRA's unquestionably strong objectives, APRA is undertaking a QIS.

APRA has notified a sample of ADIs, including a range of different-sized entities, to request participation in this exercise on a 'best endeavours' basis. Other ADIs may also elect to contribute data to the exercise by contacting their responsible supervisor.

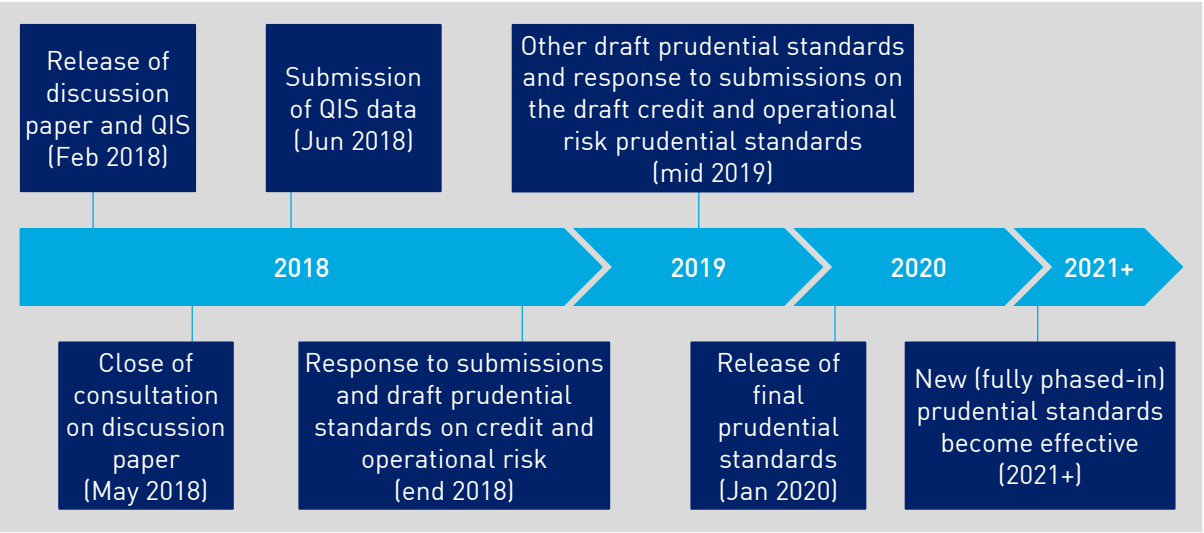
APRA will use the data to calibrate and adjust the proposals detailed in this discussion paper. Individual data submitted by ADIs will remain confidential. Future discussion papers on Basel III may refer to aggregate QIS results.

## 9.4 Next steps and implementation

Figure 2 outlines the implementation timeline for the revised ADI capital framework. Subsequent to the receipt of data from the QIS, APRA expects to release draft revised prudential standards on the standardised and IRB approaches to credit risk and operational risk later in 2018.

By mid-2019, APRA expects to release other draft prudential standards and a response to submissions on the draft credit and operational risk prudential standards. APRA will also consult on proposed changes to reporting standards to align with the prudential framework.

*Figure 2 Implementation timeline*




In finalising the revised ADI capital framework, APRA will have regard to the Basel III implementation timetable. However, as indicated in APRA's information paper on establishing unquestionably strong capital requirements, it is likely that the revised prudential requirements would commence from 1 January 2021.

# Attachment A - Standardised credit proposals

The tables in this Attachment provide a summary of key risk weights and CCFs under the current APS 112, the Basel III standardised approach to credit risk and those proposed by APRA.

APRA's proposed risk weights and CCFs are indicative only and may be subject to change depending upon the results of the QIS. In addition, the tables do not include all of the discretions that may be exercised by APRA under the standardised approach. APRA will undertake a full consultation on the revised APS 112 later this year.

The Basel Committee measures in *Basel III: Finalising post-crisis reforms* should be consulted for more detail on exposure definitions. Exposures types not included in the tables below (e.g. cash, past due items) are unchanged from current levels.

## Residential property exposures

*Table 15 Owner-occupied principal and interest*

| LVR % | APS 112 RW %[42] | | Basel III RW %[43] | | Proposed RW % | |
|---|---|---|---|---|---|---|
| | Std | Non-std | Std | Non-std | Std | Non-std |
| 0-50 | 35 | 35 | 20 | RWcp[44] | 20 | 100 |
| 50.01-60 | 35 | 35 | 25 | RWcp | 25 | 100 |
| 60.01-80 | 35 | 50 | 30 | RWcp | 30 | 100 |
| 80.01-90 | 35 | 75 | 40 | RWcp | 40 | 100 |
| 90.01-100 | 50 | 75 | 50 | RWcp | 50 | 100 |
| >100.01 | 75 | 100 | 70 | RWcp | 70 | 100 |

[42] These risk weights assume at least 40 per cent of the mortgage is insured by an acceptable LMI.

[43] Under Basel III, these risk weights are for exposures where repayment is not materially dependent on cash flows from the secured property.

[44] Risk weight of the counterparty. For exposures to individuals, the risk weight under the Basel III reforms is 75 per cent.

*Table 16 Other exposures: investment, interest-only, SME secured by residential property*

| LVR % | APS 112 RW %[45] | | Basel III RW %[46] | | Proposed RW % | |
|---|---|---|---|---|---|---|
| | Std | Non-std | Std | Non-std | Std | Non-std |
| 0-50 | 35 | 35 | 30 | 150 | 30 | 100 |
| 50.01-60 | 35 | 35 | 35 | 150 | 35 | 100 |
| 60.01-80 | 35 | 50 | 45 | 150 | 45 | 100 |
| 80.01-90 | 35 | 75 | 60 | 150 | 60 | 100 |
| 90.01-100 | 50 | 75 | 75 | 150 | 75 | 100 |
| >100.01 | 75 | 100 | 105 | 150 | 85 | 100 |

## Commercial property exposures

*Table 17 Repayment is not materially dependent on cash flows generated by the property*

| Category | APS 112 RW % | Basel III RW % | Proposed RW % |
|---|---|---|---|
| LVR ⩽ 60% | 100 | Min (60, RWcp) | Min (60, RWcp) |
| LVR > 60% | 100 | RWcp | RWcp |
| Non-standard | 100 | RWcp | RWcp |

[45] These risk weights assume that at least 40 per cent of the mortgage is insured by an acceptable LMI.

[46] Under Basel III, these risk weights are for exposures where repayment is materially dependent on cash flows from the secured property.

*Table 18 Repayment is materially dependent on cash flows generated by the property*

| Category | APS 112 RW % | Basel III RW (% | Proposed RW % |
|---|---|---|---|
| LVR ⩽ 60% | 100 | 70 | 70 |
| 60% < LVR ⩽ 80% | 100 | 90 | 90 |
| LVR > 80% | 100 | 110 | 110 |
| Non-standard | N/A | 150 | 150 |

*Table 19 Land acquisition, development and construction exposures*

| Category | APS 112 RW % | Basel III RW % | Proposed RW % |
|---|---|---|---|
| Residential property - significant presales or substantial equity at risk | 100 | 100 | 100 |
| Other | 100 | 150 | 150 |

## Corporate exposures

*Table 20 Corporate exposures, excluding specialised lending*

| Credit rating grade | APS 112 RW % | Basel III RW % | Proposed RW % |
|---|---|---|---|
| AAA to AA- | 20 | 20 | 20 |
| A+ to A- | 50 | 50 | 50 |
| BBB+ to BBB- | 100 | 75 | 75 |
| BB+ to BB- | 100 | 100 | 100 |
| Below BB- | 150 | 150 | 150 |
| Unrated - corporate SME | 100 | 85 | 85 |
| Unrated - retail SME | 100 | 75 | 85 |
| Unrated - other | 100 | 100 | 100 |

*Table 21 Specialised lending*

| Category | APS 112 RW % | Basel III RW % | Proposed RW % |
|---|---|---|---|
| Object finance | 100 | 100 | 100 |
| Commodities finance | 100 | 100 | 100 |
| Project finance (pre-operational) | 100 | 130 | 130 |
| Project finance (operational phase - high quality) | 100 | 80 | 80 |
| Project finance (operational phase - other) | 100 | 100 | 100 |

## Retail exposures

*Table 22 Retail exposures (other than residential mortgages)*

| Category | APS 112 RW % | Basel III RW % | Proposed RW % |
|---|---|---|---|
| Regulatory retail-transactors | 100 | 45 | Credit cards: 100<br>Other retail: 125 |
| Regulatory retail - other | 100 | 75 | Credit cards: 100<br>Other retail: 125 |
| Other retail | 100 | 100 | Credit cards: 100<br>Other retail: 125 |

## Bank exposures

*Table 23 Exposures to international banking agencies and multilateral regional development banks*

| Credit rating grade | APS 112 RW % | Basel III RW % | Proposed RW % |
|---|---|---|---|
| AAA to AA- | 20 | 20 | 20 |
| A+ to A- | 50 | 30 | 30 |
| BBB+ to BBB- | 50 | 50 | 50 |
| BB+ to B- | 100 | 100 | 100 |
| Below B- | 150 | 150 | 150 |
| Unrated | 50 | 50 | 50 |

*Table 24 Exposures (other than equity) to ADIs and overseas banks, being exposures with an original maturity of three months or less*

| Category | APS 112 RW % | Basel III RW % | Proposed RW % |
|---|---|---|---|
| AAA to AA- | 20 | 20 | 20 |
| A+ to A- | 20 | 20 | 20 |
| BBB+ to BBB- | 20 | 20 | 20 |
| BB+ to B- | 50 | 50 | 50 |
| Below B- | 150 | 150 | 150 |

*Table 25 Exposures to unrated ADIs and overseas banks, being exposures with an original maturity of three months or less*

| Category | APS 112 RE % | Basel III RW % | Proposed RW % |
|---|---|---|---|
| Grade A | 20 | 20 | 20 |
| Grade B | 20 | 50 | 50 |
| Grade C | 20 | 150 | 150 |

*Table 26 Exposures (other than equity) to ADIs and overseas banks with an original maturity of more than three months*

| Credit rating grade | APS 112 RW% RW | Basel III RW % | Proposed RW % |
|---|---|---|---|
| AAA to AA- | 20 | 20 | 20 |
| A+ to A- | 50 | 30 | 30 |
| BBB+ to BBB- | 50 | 50 | 50 |
| BB+ to B- | 100 | 100 | 100 |
| Below B- | 150 | 150 | 150 |

*Table 27 Exposures to unrated ADIs and overseas banks with an original maturity of more than three months*

| Category | APS 112 RW % | Basel III RW % | Proposed RW % |
|---|---|---|---|
| Grade A | 50 | 40 | 40 |
| Grade 'A+' | 50 | 30 | 40 |
| Grade B | 50 | 75 | 75 |
| Grade C | 50 | 150 | 150 |

*Table 28 Rated covered bond exposures*

| Credit rating grade | APS 112 RW % | Basel III RW % | Proposed RW % |
|---|---|---|---|
| AAA to AA- | N/A | 10 | 10 |
| A+ to A- | N/A | 20 | 20 |
| BBB+ to BBB- | N/A | 20 | 20 |
| BB+ to B- | N/A | 50 | 50 |
| Below B- | N/A | 100 | 100 |

*Table 29 Unrated covered bond exposures*

| Issuing bank RW % | APS 112 RW % | Basel III RW % | Proposed RW % |
|---|---|---|---|
| **20** | N/A | 10 | 10 |
| **30** | N/A | 15 | 15 |
| **40** | N/A | 20 | 20 |
| **50** | N/A | 25 | 25 |
| **75** | N/A | 35 | 35 |
| **100** | N/A | 50 | 50 |
| **150** | N/A | 100 | 100 |

## Other exposures

*Table 30 Other exposures*

| Category | APS 112 RW % | Basel III RW % | Proposed RW % |
|---|---|---|---|
| Subordinated debt (to commercial non-financial entities) | 100 | 150 | To be determined |
| Capital instruments other than equities | Deducted | 150 | Deducted |
| Equity exposures that are not deducted and are:<br>—listed on a recognised exchange | 300 | 250 | 250 |
| —not listed on a recognised exchange - non-speculative | 400 | 250 | 250 |
| —not listed on a recognised exchange - speculative | 400 | 400 | 400 |
| Margin lending against listed instruments on recognised exchanges that is not deducted from capital | 20 | N/A | To be determined |

## Credit conversion factors

*Table 31 Non-market related off-balance sheet transactions*

| Category | APS 112 CCF % | Basel III CCF % | Proposed CCF % |
|---|---|---|---|
| Direct credit substitutes | 100 | 100 | 100 |
| Performance-related contingencies | 50 | 50 | 50 |

| Category | APS 112 CCF % | Basel III CCF % | Proposed CCF % |
|---|---|---|---|
| Trade-related contingencies | 20 | 20 | 20 |
| Lending or posting of securities as collateral | 100 | 100 | 100 |
| Assets sold with recourse | 100 | 100 | 100 |
| Forward asset purchases | 100 | 100 | 100 |
| Partly paid shares and securities | 100 | 100 | 100 |
| Placement of forward deposits | 100 | 100 | 100 |
| Note issuance and underwriting facilities | 50 | 50 | 50 |
| Other commitments —with certain drawdown | 100 | 100 | 100 |
| —unconditionally cancellable at any time without notice | 0 | 10 | 20 |
| —otherwise to a credit card, bank or sovereign counterparty | 20 (<1 year) 50 (>1 year) | 40 | 50 |
| —otherwise to other counterparties | 20 (<1 year) 50 (>1 year) | 40 | 100 |
| Irrevocable standby commitments under industry support arrangements | 0 | 0 | 0 |

# Attachment B - IRB credit proposals

The table below provides a summary of the correlation factors used within each IRB risk-weight function under the current APS 113 and the Basel III IRB approach to credit risk. APRA's proposals are indicative only and may be subject to change depending upon the results of the QIS. APRA will undertake a full consultation on the revised APS 113 later next year.

*Table 32 Correlation factor range for each asset class*

| Asset class | APS 113 (%) | Basel III (%) | APRA proposal (%) |
|---|---|---|---|
| **Corporate** | 12 to 24 | 12 to 24 | 12 to 24 |
| **Financial institution**[47] | 15 to 30 [48] | 15 to 30 | 15 to 30 |
| **SME Corporate** | 12 to 24 minus an amount between 0 and 4 | 12 to 24 minus an amount between 0 and 4 | 12 to 24 minus an amount between 0 and 4 |
| **Commercial property** | Supervisory slotting approach | N/A | Development: 28 to 35<br>Other: 23 to 30 |
| **Residential mortgages** | 15 [49] | 15 | Owner-occupied P&I: 15 to 22<br>Other: 20 to 27 [50] |
| **Qualifying revolving retail** | 4 | 4 | Remove asset class – move to other retail |
| **Other retail** | 3 to 16 | 3 to 16 | 3 to 16 |
| **SME Retail** | Residential property secured: 15<br>Other: 3 to 16 | Residential property secured: 15<br>Other: 3 to 16 | Remove asset class – move to relevant non-retail correlation |

[47] Excluding regulated financial institutions with assets less than $100b.

[48] A 1.25 multiplier is applied to the correlation factor for financial institutions compared to other corporate exposures.

[49] APRA raised the correlation factor above 15 per cent from 1 July 2016 consistent with the FSI recommendation. Refer to APRA's release *APRA increases capital adequacy requirements for residential mortgage exposures under the internal ratings-based approach*, 20 July 2015, available at: http://www.apra.gov.au/mediareleases/pages/15_19.aspx.

[50] As discussed in Chapter 7, an additional RWA scalar is likely to be applied to the residential mortgage portfolio.

Basel III has introduced a wider range of minimum values for the parameters estimated by ADIs in the IRB risk-weight function. Table 33 sets out these floors, along with indicative APRA proposals.

*Table 33 Input floors*

| Estimate | Asset class | Basel III (%) | APRA proposal (%) |
|---|---|---|---|
| **Probability of default** | **Qualifying revolving retail - revolvers** | 0.1 | N/A |
| | **Other** | 0.05 | 0.05 |
| **Loss given default** | **Corporate** | Financial – 0<br>Receivables – 10<br>Commercial or residential property – 10<br>Other physical – 15<br>Unsecured – 25 | Financial – 0<br>Receivables – 10<br>Commercial or residential property – 10<br>Other physical – 15<br>Unsecured – 25 |
| | **Mortgages** | 5 | 10 |
| | **Qualifying revolving retail** | 50 | N/A |
| | **Other retail** | Financial – 0<br>Receivables – 10<br>Commercial or residential property – 10<br>Other physical – 15<br>Unsecured – 30 | Financial – 0<br>Receivables – 10<br>Commercial or residential property – 10<br>Other physical – 15<br>Unsecured – 30 |
| **Exposure at default** | **All** | Sum of on-balance sheet and 50 per cent of off-balance sheet exposure using applicable CCF in standardised approach | Sum of on-balance sheet and 50 per cent of off-balance sheet exposure using applicable CCF in standardised approach |

# Attachment C - Policy options and estimated comparative net benefits

The overriding objective of the proposed changes is to achieve a strong financial sector regulatory framework. A key element is APRA's goal of ensuring that ADIs have unquestionably strong capital ratios. Achieving this objective entails keeping pace with developments in the international regulatory framework and ensuring that the framework is appropriate for Australian conditions.

Within this context, APRA considers that retaining current capital adequacy requirements is not a realistic option. The three options APRA has considered are set out in Table 34 below. Also set out is APRA's preliminary analysis of the costs and benefits of each option.

Any information provided in response to the request for cost-benefit information in Chapter 9 will be used to quantify the change in regulatory burden using the Commonwealth Regulatory Burden Measure and inform APRA's determination of the net benefits of the proposals.

*Table 34 Regulatory options for meeting APRA's unquestionably strong objective*

| | |
|---|---|
| **Option 1: Increase minimum CET1 capital ratios** | Increase the minimum CET1 capital ratio for each ADI under APRA's current capital adequacy framework. |
| **Option 2: Implement Basel III reforms** | Modify the current capital adequacy framework through implementing the Basel III reforms relating to credit risk, operational risk, market risk, credit valuation risk and interest rate risk in the banking book. |
| **Option 3: Implement Basel III reforms, adjusted for Australian conditions** | Modify the current capital adequacy framework through implementing the Basel III reforms, adjusted to accommodate Australia-specific factors. |

Under option 1, APRA would raise the minimum CET1 capital ratio requirement applying to an ADI under the current capital adequacy framework to meet the unquestionably strong objective. This could be done through amendments to the minimum ratios set out in *Prudential Standard APS 110 Capital Adequacy* (APS 110) or by increasing an ADI's prudential capital requirements (PCRs) using the existing power under APS 110. No other changes would be made to the framework. Adopting this option would involve some implementation costs as ADIs would need to amend internal processes and revise their individual management buffers to reflect the new minima.

Adopting this option would not, however, satisfy other objectives. It would not incorporate the Basel III reforms or more appropriately align capital with risk. For example, higher-risk residential mortgage lending would continue to be subject to the same capital requirements as lower risk lending and no action would be taken to address concentration and other risks in the Australian housing market. This option would not improve transparency or

international comparability, as capital increases made by adjusting ADIs' PCRs would remain confidential and hence not publicly disclosed.

Under option 2, APRA would amend the current capital framework to implement the Basel Committee's Basel III reforms relating to credit risk, operational risk, market risk, CVA risk and IRRBB, applying these revisions to all ADIs as relevant (i.e. whether they are standardised or IRB ADIs). This option would achieve the objective of implementing the revised international framework relating to RWA, which would meet Australia's G20 commitments, facilitate ADIs' continued ability to participate in international markets and improve international comparability. However, it would not be completely comparable as APRA has adopted a more conservative approach to the Basel III definition of capital.

The Basel III framework introduces new approaches to classifying exposures (e.g. according to whether repayment of property exposures materially depends on cash flows from the secured property) and sets different risk weights or capital requirements (e.g. replacing internal modelling with supervisory estimates under the IRB approach to credit risk and the advanced approach to operational risk). Implementing such changes necessitates significant changes to systems and processes and would entail material regulatory costs.

However, it is not clear that this option would increase capital requirements to meet APRA's goal of unquestionably strong capital ratios. APRA's initial assessment, for example, is that most residential mortgage exposures (the largest asset class for Australian ADIs) under the standardised approach would be subject to risk weights that are lower than those applying under the current prudential framework. Further, under the Basel Committee's proposed treatment of residential mortgage exposures under the standardised approach to credit risk, lending to individuals with a small portfolio of investment properties would attract the same risk weights as loans to owner-occupiers and thus fail to further APRA's objective of targeting concentration and other risks in the residential housing market.

Under option 3, APRA would implement the Basel III reforms to the various risk frameworks, adjusted as appropriate for Australian conditions. Under this approach, APRA's capital objective would be met through amendments to the capital adequacy framework that would also seek to allocate capital according to risk, comply with international developments and address concentration and other risks in residential housing lending.

As with option 2, there will be still be material implementation costs. However, option 3 is most likely to provide the greatest benefit. The proposed measures are intended to strengthen the resilience of ADIs and the financial system to adverse events, which can have devastating and long-lasting effects on the economy and society.


APRA