DISCUSSION PAPER

Leverage ratio requirement for authorised deposit-taking institutions

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Executive summary

Excessive leverage in the banking system is widely acknowledged as one of the underlying causes of the global financial crisis. As part of the 2010 Basel III capital reforms, the Basel Committee on Banking Supervision (Basel Committee) developed a non-risk-based measure of leverage to complement its risk-based capital framework. This included a minimum leverage ratio requirement of 3 per cent.

Consequently, with its initial implementation of the Basel III framework, the Australian Prudential Regulation Authority (APRA) proposed in 2011 to implement the Basel Committee's leverage ratio requirement as a backstop measure to the risk-based capital framework.[1] The implementation of a leverage ratio within the prudential framework was subsequently endorsed by the Financial System Inquiry.[2] Since that time, a final leverage ratio methodology has been agreed and published by the Basel Committee.

This discussion paper outlines APRA's proposals for applying a minimum leverage ratio requirement for authorised deposit-taking institutions (ADIs). Concurrently with this proposal, APRA is consulting on broader changes to the risk-based capital framework as set out in the discussion paper *Revisions to the capital framework for authorised deposit-taking institutions*.[3]

Consistent with the Basel III framework, APRA proposes that an ADI's leverage ratio be expressed as the ratio of Tier 1 Capital to total exposures, largely based upon financial accounting measures. APRA intends to apply the leverage ratio as a minimum requirement to all ADIs, but will consider excluding small, less complex ADIs from the requirement under its proposed simplified framework as detailed in the accompanying discussion paper.

In calibrating the leverage ratio, APRA intends to apply a differential minimum leverage ratio requirement for ADIs which use the standardised approach (standardised ADIs) and those that use the internal ratings-based approach to determining capital adequacy (IRB ADIs). As IRB ADIs tend to have more complex balance sheets, with a greater proportion of off-balance sheet (OBS) exposures and a greater reliance on modelled risk estimates in their risk-based capital measures, their leverage is inherently more difficult to measure. For this reason, APRA is proposing a minimum leverage ratio of 4 per cent for IRB ADIs and 3 per cent for standardised ADIs.

[1] See APRA, *Implementing Basel III capital reforms in Australia*, 6 September 2011, available at: http://www.apra.gov.au/adi/PrudentialFramework/Pages/Basel-III-Capital-Reforms-September-2011.aspx.

[2] Recommendation 7 stated that APRA should introduce a leverage ratio that acts as a backstop to authorised deposit-taking institutions' risk-weighted capital positions: Financial System Inquiry, *Final Report*, 7 November 2014, available at: http://fsi.gov.au/publications/final-report/.

[3] This is available at: http://www.apra.gov.au/adi/PrudentialFramework/Pages/revisions-capital-framework-and-leverage-ratio-Feb-2018.aspx.

The Basel III framework incorporates a number of changes to the Basel Committee's original leverage ratio exposure measure that is currently required to be reported by IRB ADIs for monitoring and disclosure purposes. The amendments mainly relate to the calculation of derivatives and OBS exposures.

For IRB ADIs, APRA proposes to adopt most of these changes, subject to some modifications to reduce complexity. For standardised ADIs, APRA is proposing a simplified approach which uses accounting-based measures to calculate most components of the exposure measure, in order to reduce the regulatory burden on ADIs with relatively simple business models and limited OBS exposures. A summary of APRA's proposed changes is outlined in Table 1 below.

The final Basel III leverage ratio methodology, as revised in December 2017 by the Basel Committee, takes effect from 1 January 2022. However, rather than impose a requirement under two different calculations of the exposure measure, APRA is proposing a single-step implementation. Application of the minimum leverage ratio requirement would therefore be deferred until 1 July 2019, and implemented based on the revised Basel III exposure measure definition at that time. IRB ADIs would be required to continue to disclose their leverage ratios under the existing measure until these changes come into effect.

Table 1 Summary of proposed changes to the leverage ratio

	Existing APS 110 leverage ratio requirements	Revised Basel III leverage ratio requirements	Proposed APRA leverage ratio
Minimum leverage ratio requirement	Disclosure regime only.	Minimum leverage ratio requirement of 3 per cent, with higher requirements for global systemically important banks.	Minimum leverage ratio requirement of 4 per cent for IRB ADIs and 3 per cent for standardised ADIs.
Application	Applicable to IRB ADIs, at Level 2, for disclosure purposes only.	Applicable to all internationally active banks.	Applicable to IRB ADIs at Level 2 and standardised ADIs at highest level of consolidation.[4]
Calculation of exposure measure	Total exposures, incorporating both on- and off-balance sheet exposures.	Modifications to calculation of derivative exposures and changes to credit conversion factors for other OBS exposures.	Proposed simplifications for IRB ADIs to remove: • certain offsets, e.g. cash pooling and those relating to certain trades; • recognition of cash variation margin; and

[4] The application of the leverage ratio to all standardised ADIs is subject to APRA's current consultation on a simplified framework for small, less complex ADIs, as set out in the discussion paper *Revisions to the capital framework for authorised deposit-taking institutions.*

	Existing APS 110 leverage ratio requirements	Revised Basel III leverage ratio requirements	Proposed APRA leverage ratio
		Inclusion of a number of concessions permitting certain offsetting.	• recognition of certain contingent exposures. Simplified calculation for standardised ADIs.
Disclosure	IRB ADIs required to publicly disclose leverage ratios under APS 330.	Internationally active banks required to publicly disclose leverage ratios.	ADIs will be required to publicly disclose leverage ratios under a revised APS 330.[5]
Implementation	Disclosure under current exposure measure from 1 July 2015.	Minimum requirement under current exposure measure effective 1 January 2018. Revised exposure measure effective 1 January 2022.	Minimum requirement under revised exposure measure effective 1 July 2019.

Submissions are welcome on all aspects of the proposals in this discussion paper; however, key matters on which APRA is seeking comments are set out in chapter 4.

Subject to feedback on the proposals outlined in this paper, APRA anticipates releasing for consultation proposed amendments to *Prudential Standard APS 110 Capital Adequacy* later in 2018. Consultation on changes to reporting requirements will also follow.

[5] Public disclosure of the leverage ratio by all standardised ADIs is similarly subject to APRA's current consultation on a simplified framework for small, less complex ADIs, as set out in the discussion paper *Revisions to the capital framework for authorised deposit-taking institutions.*

Glossary

ADI	Authorised deposit-taking institution
APRA	Australian Prudential Regulation Authority
APS 110	*Prudential Standard APS 110 Capital Adequacy*
APS 111	*Prudential Standard APS 111 Capital Adequacy: Measurement of Capital*
APS 112	*Prudential Standard APS 112 Capital Adequacy: Standardised Approach to Credit Risk*
APS 120	*Prudential Standard APS 120 Securitisation*
APS 330	*Prudential Standard APS 330 Public Disclosure*
Basel III framework	A series of reforms 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: • *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 risk-weighted assets using the standardised approaches and a non-risk-based minimum leverage requirement; • *Minimum capital requirements for market risk*, January 2016; and • *Interest rate risk in the banking book*, April 2016.
Basel Committee	Basel Committee on Banking Supervision
Central counterparty	As defined in *Prudential Standard APS 112 Capital Adequacy: Standardised Approach to Credit Risk*.
CCF	Credit conversion factor
CVM	Cash variation margin
FSI	Financial System Inquiry
G-SIB	Global systemically important bank

Initial margin	As defined in *Prudential Standard APS 112 Capital Adequacy: Standardised Approach to Credit Risk*.
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.
Level 1	As defined in *Prudential Standard APS 001 Definitions*.
Level 2	As defined in *Prudential Standard APS 001 Definitions*.
OBS	Off-balance sheet
Standardised ADI	An ADI that uses standardised approaches to determine its capital adequacy requirements.
SFT	Securities financing transaction
Tier 1 capital	As defined in *Prudential Standard APS 111 Capital Adequacy: Measurement of Capital*.
Variation margin	As defined in *Prudential Standard APS 180 Capital Adequacy: Counterparty Credit Risk* (released in draft form on 3 August 2017 for public consultation).

Chapter 1 - Introduction

1.1 Background

Leverage—the funding of assets with debt rather than entirely with capital—is a necessary and well-understood aspect of modern banking systems. While some countries have imposed requirements on banks that limit their overall balance-sheet leverage, this has not been the case in Australia to date. The Australian Prudential Regulation Authority (APRA) has long relied on a core set of risk-based measures of capital adequacy in its prudential framework. In APRA's view, risk-sensitive measures continue to be appropriate as the primary mechanism for determining capital requirements for authorised deposit-taking institutions (ADIs). Nevertheless, it is widely recognised that risk-based measures, which in some circumstances are based on complex models, may make it harder to discern trends in overall levels of leverage in the banking system and at individual banks.

Indeed, the build-up of excessive leverage was one of the underlying features of the global financial crisis. In many cases, banks' on- and off-balance sheet leverage increased significantly, despite these institutions maintaining seemingly strong risk-based capital ratios. At the height of the crisis, banks deleveraged in a way that amplified downward pressure on asset prices, further exacerbating the feedback loop between losses, declines in bank capital and contraction in credit availability.

In response to the global financial crisis, the Basel Committee on Banking Supervision (Basel Committee) initiated a series of reforms to the capital framework.[6] Commonly known as Basel III, these reforms focused on strengthening the quality and quantity of bank capital, and also introduced a non-risk-based leverage ratio requirement to act as a 'backstop' to the risk-based capital framework. In a similar vein, the 2014 Financial System Inquiry (FSI) also recommended the implementation of a leverage ratio requirement for Australian ADIs.[7]

In January 2014, the Basel Committee released *Basel III leverage ratio framework and disclosure requirements*, which set out its proposed methodology for calculating the leverage ratio.[8] Banks were required to publicly disclose their leverage ratios based on this methodology from 1 January 2015. APRA consequently adopted leverage ratio disclosure requirements in *Prudential Standard APS 110 Capital Adequacy* (APS 110) and *Prudential Standard APS 330 Public Disclosure* (APS 330). These standards required ADIs which use the

[6] These reforms commenced with the Basel Committee's *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.

[7] FSI, *Final Report*, 7 November 2014, recommendation 7, available at: http://fsi.gov.au/publications/final-report/. This recommendation was subsequently endorsed by the Australian Government in *Improving Australia's financial system—Government response to the Financial System Inquiry*, 20 October 2015, available at: https://treasury.gov.au/publication/government-response-to-the-financial-system-inquiry/.

[8] This is available at: https://www.bis.org/publ/bcbs270.htm.

internal ratings-based approach to determining capital adequacy (IRB ADIs) to disclose their leverage ratios under this methodology from 1 July 2015.

In December 2017, the Basel Committee published *Basel III: Finalising post-crisis reforms* (the Basel III framework), which included revisions to the leverage ratio.[9] These revisions contained an amended calculation of the leverage ratio exposure measure (the revised Basel III exposure measure) to address issues related to the calculation of derivatives and off-balance sheet (OBS) items. The Basel III framework also included a higher minimum leverage ratio and buffer requirement for global systemically important banks (G-SIBs). The leverage ratio requirement calculated under the revised Basel III exposure measure is proposed to commence from 1 January 2022, with a minimum ratio requirement of 3 per cent.

1.2 The current proposals

This paper sets out APRA's proposed adoption of the leverage ratio requirement, as a complement to the risk-based capital framework. In conjunction with this paper, APRA is also releasing the discussion paper *Revisions to the capital framework for authorised deposit-taking institutions* based on the Basel III framework and meeting the objectives of unquestionably strong capital.[10] Subsequent to these papers, APRA will also be releasing a discussion paper on potential adjustments to the overall design of the capital framework to improve transparency, international comparability and flexibility.

Chapter 2 sets out APRA's proposed calibration of the leverage ratio as a minimum requirement, including a proposed higher minimum requirement for IRB ADIs relative to those that use the standardised approach to credit risk (standardised ADIs).

Chapter 3 outlines the calculation of the exposure measure. APRA intends to largely adopt the revised Basel III exposure measure for IRB ADIs, with some proposed modifications to reduce complexity. For standardised ADIs, APRA proposes to adopt a simplified approach which uses accounting-based measures that are already reported to APRA to calculate most components of the exposure measure. These simplifications are intended to reduce complexity and regulatory burden to better reflect the status of the leverage ratio requirement as a simple backstop measure.

APRA anticipates releasing a draft revised APS 110 and new reporting standard for consultation later in 2018. Rather than impose a leverage ratio requirement under two different calculations of the exposure measure, APRA is proposing a single-step implementation. Application of the minimum leverage ratio requirement would therefore be deferred until 1 July 2019, and implemented based on the revised Basel III exposure measure definition at that time. Until then, IRB ADIs will be required to continue to disclose their

[9] This is available at: https://www.bis.org/bcbs/publ/d424.htm.

[10] This is available at: http://www.apra.gov.au/adi/PrudentialFramework/Pages/revisions-capital-framework-and-leverage-ratio-Feb-2018.aspx.

leverage ratios as set out currently in APS 110 and APS 330. Further information on next steps is set out in chapter 4.

1.3 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 discourage ADIs from taking on excessive leverage; however, the risk-based framework will remain the primary capital constraint on most ADIs.	**Improved:** the proposals constrain the build-up of excessive leverage in the banking sector.

OTHER CONSIDERATIONS	
Efficiency ⬇	**Marginally reduced:** as a non-risk-based requirement, the leverage ratio may influence the allocation of capital in a manner that is not reflective of the relative risk posed by different exposures. The leverage ratio requirement will tend to have a greater constraining impact on lower-risk exposures. While this may reduce efficiency, this effect is tempered by the intended operation of the leverage ratio as a backstop measure. The proposals to simplify the exposure measure are intended to reduce the regulatory burden of the proposed new measure.
Competition ⬌	**No material change:** the introduction of a leverage ratio requirement is not expected to have a material impact on competition.
Contestability ⬌	**No material change:** the introduction of a leverage ratio requirement is not expected to have a material impact on contestability.
Competitive neutrality ⬌	**No material change:** the introduction of a leverage ratio requirement is not expected to have a material impact on competitive neutrality.

Chapter 2 - Overview and the minimum requirement

2.1 Definition

The leverage ratio is broadly defined as the capital measure divided by the leverage ratio exposure measure, with this ratio expressed as a percentage.

$$\textit{Leverage ratio} = \frac{\textit{capital measure}}{\textit{exposure measure}}$$

The capital measure is an ADI's Tier 1 capital, calculated according to *Prudential Standard APS 111 Capital Adequacy: Measurement of Capital* (APS 111). The approach to calculating the exposure measure is set out in chapter 3.

ADIs will be expected to satisfy a minimum leverage ratio requirement at all times, but as is the case under the risk-based capital framework, they will only be required to report leverage ratios on a quarter-end basis.

2.2 Minimum requirement

The Basel III framework sets a minimum leverage ratio requirement of 3 per cent, with a higher minimum leverage ratio and buffer requirement applied to G-SIBs.[11] Given its intended operation as a backstop measure to the risk-based capital framework, APRA considers that a minimum leverage ratio requirement of 3 per cent for all standardised ADIs is appropriate.

For IRB ADIs, APRA considers that a higher minimum leverage ratio requirement is appropriate. APRA proposes to apply a 4 per cent minimum leverage ratio requirement, consistent with the additional complexity in these ADIs' business. In particular, IRB ADIs exhibit a materially greater proportion of OBS exposures, notably exposures to derivatives and securities financing transactions (SFTs), as well as a greater proportion of exposures subject to modelled estimates of risk. As a result, the true level of leverage is inherently less certain for IRB ADIs. The proposed minimum leverage ratio requirements for standardised and IRB ADIs also align with the 3-5 per cent range proposed by the FSI.

Consistent with APRA's existing risk-based capital adequacy requirements, APRA proposes to include in the revised APS 110 discretion for APRA to increase an individual ADI's minimum leverage ratio requirement. This would allow APRA to take targeted action should it consider that an ADI's risk profile necessitates a greater constraint on leverage.

[11] APRA is not proposing at this time to implement an equivalent buffer for domestic systemically important banks.

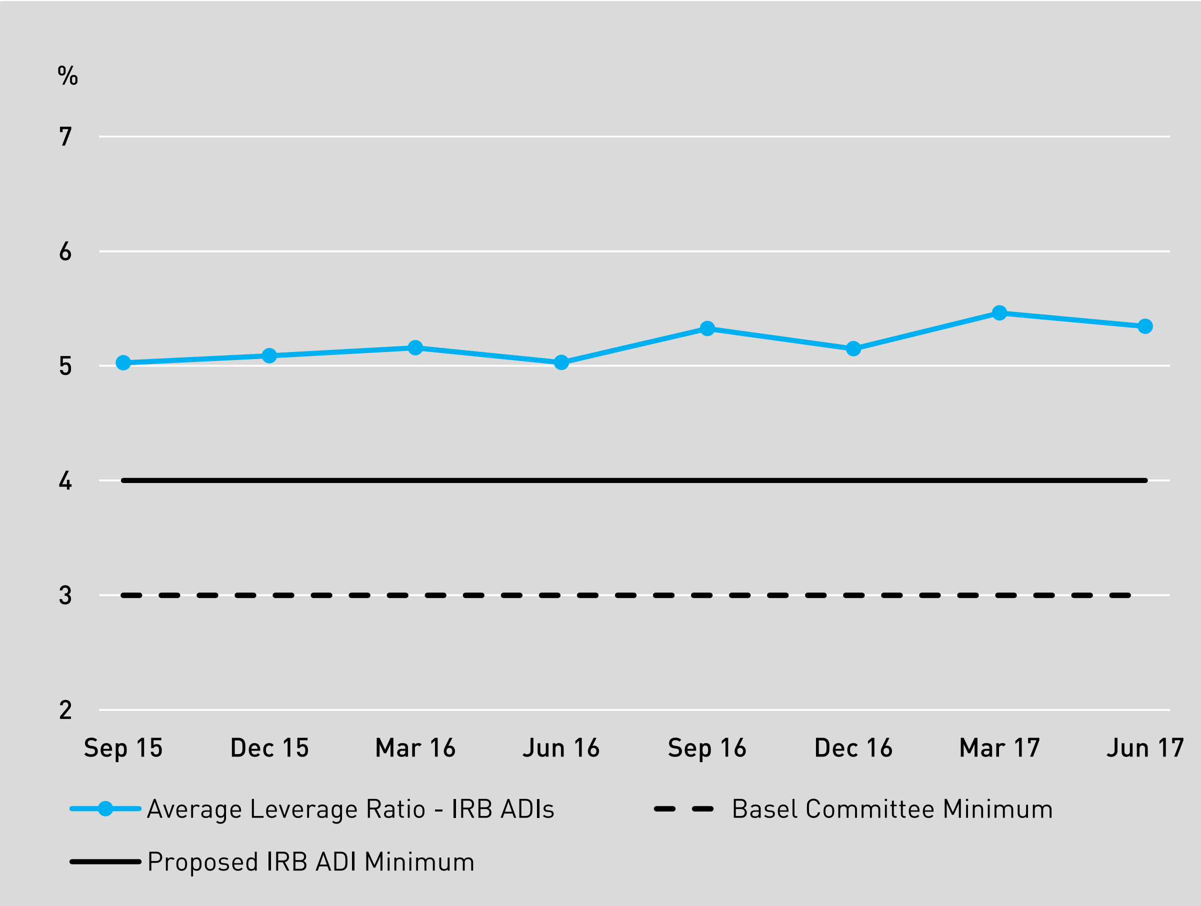
2.3 Scope of consolidation

APRA proposes that the leverage ratio requirement will be applied on a Level 2 basis only, for ADIs that are members of a Level 2 group. The minimum leverage ratio requirement would otherwise apply at Level 1. Imposition of a leverage ratio requirement at a single level is expected to reduce regulatory burden and costs relating to reporting and disclosure of the leverage ratio.

2.4 Impact analysis

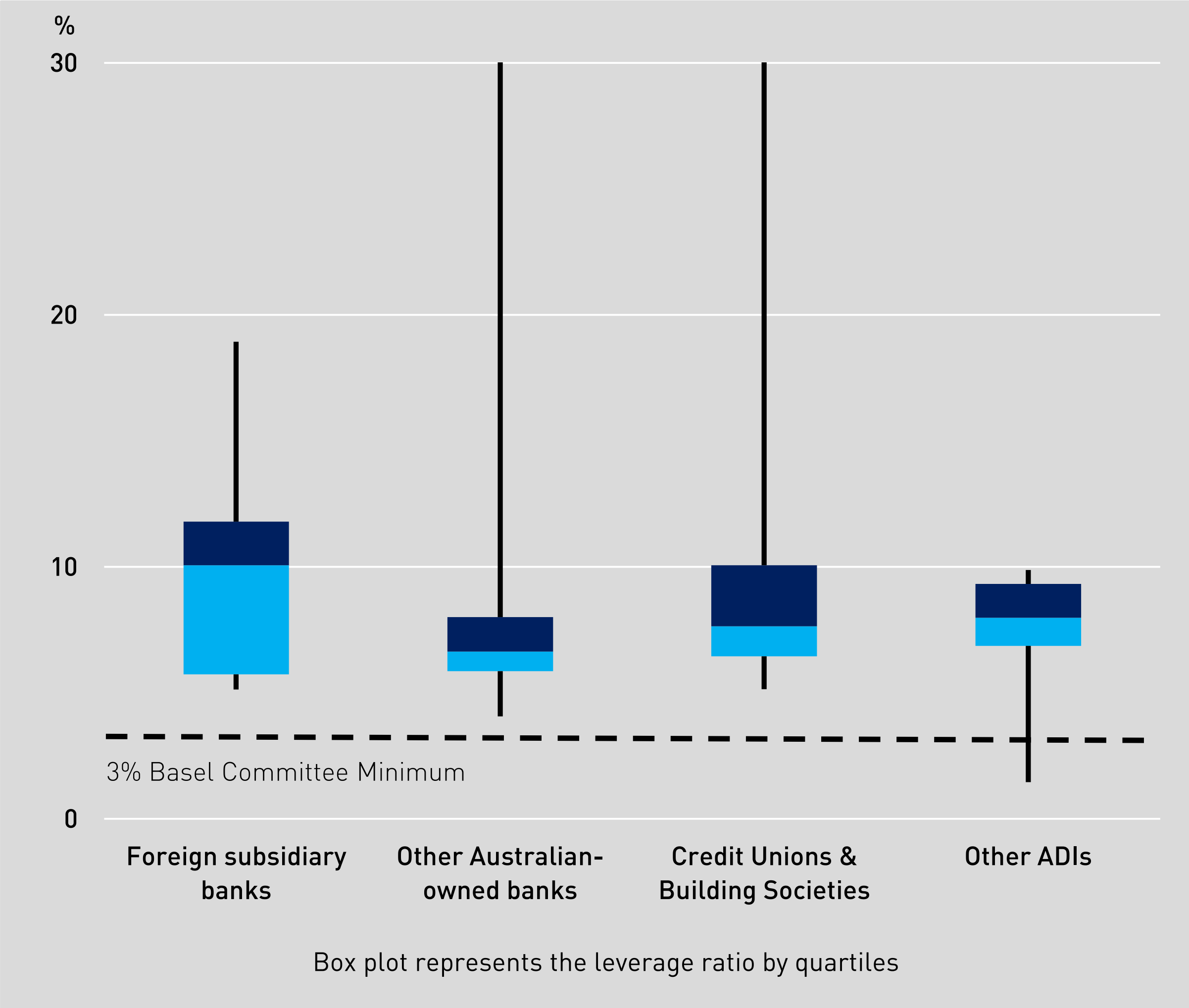
A 3 per cent minimum leverage ratio requirement for standardised ADIs and 4 per cent minimum for IRB ADIs is not, in most circumstances, expected to constitute a practical constraint for most ADIs. As detailed in Figure 1, the average leverage ratio disclosed by IRB ADIs is generally above 5 per cent.

Figure 1 Publicly disclosed leverage ratios — IRB ADIs



Although standardised ADIs are not currently subject to a leverage ratio disclosure requirement, APRA has estimated the leverage ratios for these ADIs. While the distribution of leverage ratios amongst standardised ADIs varies considerably, the overwhelming majority of these ADIs have leverage ratios significantly above the proposed 3 per cent minimum requirement. Figure 2 below illustrates the estimated leverage ratios for standardised ADIs by quartile.

Figure 2 Distribution of estimated leverage ratios — standardised ADIs (30 June 2017)



APRA's efforts to strengthen resilience in the banking sector by establishing 'unquestionably strong' capital ratios, is expected to result in an increase in ADI Common Equity Tier 1 (CET1) capital ratios over the next few years.[12] Absent any significant changes in business mix, ADI leverage ratios should also increase with the increases in CET1 capital ratios.

Lower risk exposures will naturally have a larger impact on an ADI's leverage ratio, relative to the risk-based capital measure. As a result, the leverage ratio has the potential to act as the binding capital constraint on exposures that attract a risk weight below a certain level. Given current ADI capital ratios, APRA expects that if the minimum leverage ratio requirements were calibrated in the range of 3-4 per cent, the leverage ratio would act as the binding capital constraint on only very low risk-weighted exposures.

[12] APRA, *Strengthening banking system resilience – establishing unquestionably strong capital ratios*, 19 July 2017, available at: http://www.apra.gov.au/adi/Documents/Unquestionably%20Strong%20Information%20Paper.pdf.

Chapter 3 - Exposure measure

3.1 Overview

Under APS 110, an ADI's leverage ratio exposure measure is calculated as the sum of:

- on-balance sheet exposures;
- exposures to non-market-related OBS items;
- derivative exposures; and
- SFT exposures.

In calculating the exposure measure, APRA proposes to continue, for the most part, with the approach currently set out in APS 110. The key exceptions proposed are the adoption of a simplified approach for standardised ADIs and, for IRB ADIs, proposals to remove certain elements of the existing methodology or, in some cases, not adopt specific aspects of the 2017 revised Basel III exposure measure.

Consistent with the existing approach, APRA's proposed exposure measure would generally reflect the gross accounting value of exposures. Unless explicitly specified, ADIs would not be able to take account of physical or financial collateral, guarantees or other credit risk mitigation techniques to reduce the exposure measure, nor would ADIs be able to net assets and liabilities.[13]

Items that are fully deducted from CET1 capital or Additional Tier 1 (AT1) capital do not contribute to leverage, and may continue to be excluded from the exposure measure. This includes, for example:

- for non-consolidated entities, the amount of any investment in the capital of that entity that is totally or partially deducted from the ADI's CET1 or AT1 capital in accordance with the corresponding deduction approach in APS 111;
- for IRB ADIs, any shortfall in the stock of eligible provisions relative to expected loss amounts deducted from CET1 capital in accordance with *Prudential Standard APS 113 Capital Adequacy: Internal Ratings-based Approach to Credit Risk*; and
- prudent valuation adjustments for exposures to less liquid positions, other than those related to liabilities, that are deducted from CET1 capital under APS 111.

Liability items may not be deducted from the exposure measure. This would include gains and losses on fair value liabilities, or accounting value adjustments on derivative liabilities due to changes in an ADI's own credit risk.

[13] Credit risk mitigation refers to an eligible credit risk mitigation technique as set out in *Prudential Standard APS 112 Capital Adequacy: Standardised Approach to Credit Risk* (APS 112).

Under the revised Basel III exposure measure, securitisation exposures may be excluded from the exposure measure where such exposures meet the criteria for capital relief and are therefore excluded from risk-weighted assets. Accordingly, APRA proposes to allow an originating ADI to exclude all securitisation exposures which meet the operational requirements for regulatory capital relief, as set out in *Prudential Standard APS 120 Securitisation* (APS 120), from the leverage ratio exposure measure.

3.2 Proposed changes for IRB ADIs

APRA intends to adopt a leverage ratio exposure measure for IRB ADIs that is largely aligned with the Basel III leverage ratio framework. However, as the revised Basel III exposure measure is relatively complex in a number of respects that may not be necessary to capture the leverage inherent in the business of most IRB ADIs, APRA is considering a number of options for simplification, which are highlighted in the discussion below. While these proposals have the benefit of simplifying the leverage ratio exposure measure they necessarily involve some trade-off by reducing international comparability. APRA seeks industry feedback regarding the impact of these proposals, particularly the benefits of simplicity relative to international comparability.

3.2.1 On-balance sheet exposures

All on-balance sheet assets are included in the exposure measure. Balance sheet assets include on-balance sheet derivatives collateral and collateral for SFTs. The exceptions to this are derivative and SFT assets separately included as part of the derivative and SFT categories of the exposure measure; these would be excluded from the on-balance sheet exposures component.

Non-derivative assets are included in the exposure measure at their gross accounting values, less any associated provisions which have been deducted from Tier 1 capital. The treatment of on-balance sheet exposures in the calculation of the exposure measure should reflect the treatment of unsettled transactions under an ADI's accounting framework, and whether cash pooling arrangements are in place.

Treatment of unsettled transactions

APRA is proposing to clarify that, regardless of the accounting approach adopted by an ADI, regular-way purchases and sales of financial assets, where they exist, should be included in the exposure measure from the time an ADI enters into the transaction.

Unsettled purchases or sales of financial assets where the contractual terms require delivery of assets within a timeframe specified by regulation or marketplace convention, may be accounted for on either the trade date or on the settlement date. Where an ADI applies trade-date accounting, the ADI would need to reverse out any offsetting between cash receivables for unsettled sales and cash payables for unsettled purchases of financial assets that may be recognised on-balance sheet under the ADI's applicable accounting framework.[14]

[14] Exposures to which settlement date accounting practices are applied are discussed under section 3.2.2.

The revised Basel III exposure measure provides that cash receivables and payables under a trade-date accounting approach may be offset against one another where certain conditions are met (see paragraph 30 of the revised Basel III leverage ratio framework). In the interests of reducing complexity, APRA considers that this option could be excluded from the exposure measure methodology.

Cash pooling

As a general rule, on-balance sheet netting is not permitted in calculating the exposure measure. However, the revised Basel III exposure measure provides an exception in respect of cash pooling arrangements (see paragraph 31 of the revised Basel III leverage ratio framework). Cash pooling in this context refers to treasury products that are based on arrangements whereby an ADI combines the credit and/or debit balances of several individual customer accounts (for example, members of a corporate group) into a single account balance for the purposes of cash and/or liquidity management.

APRA considers that the cash pooling treatment constitutes a component of the leverage ratio that does not provide significant prudential benefit, so APRA is proposing to exclude this treatment from its proposed methodology.

3.2.2 Exposures to non-market-related OBS items

Non-market-related OBS items include commitments (whether or not unconditionally cancellable), direct credit substitutes, acceptances and letters of credit. Items treated as derivative exposures by an ADI's accounting framework are to be excluded from these exposures and measured as derivatives for exposure measure purposes.

The exposure measure amount of non-market-related OBS items is calculated by applying specified credit conversion factors (CCFs) to the commitment amount. APRA proposes applying the CCFs under APS 112, thereby aligning the calculation of non-market-related OBS exposures with the risk-based capital framework and reducing regulatory burden on ADIs, which are already required to apply such CCFs in calculating credit risk-weighted assets.

Consistent with the revised Basel III exposure measure, APRA is proposing that specific and general provisions for non-market-related OBS items that have been deducted from the categories of Tier 1 capital would also be deducted for exposure measure purposes. However, the resulting total credit equivalent amount for OBS exposures must not be less than zero.

In line with the revised Basel III exposure measure, APRA is proposing to incorporate clarification as to how ADIs which apply settlement date accounting should treat OBS exposures. Specifically, unsettled financial asset purchases would form part of the ADI's non-market-related OBS exposures in calculating the exposure measure and would receive a 100 per cent CCF.

The revised Basel III exposure measure permits ADIs applying settlement date accounting to offset the exposure amount associated with unsettled financial asset purchases (i.e. the commitment to pay) and cash to be received for unsettled sales (see paragraph 9 of the Annex to the revised Basel III leverage ratio framework). APRA is of the view that this provision may create unnecessary complexity and is considering not adopting this aspect of the Basel III leverage ratio framework.

3.2.3 Derivative exposures

For IRB ADIs, derivative exposures are measured as the sum of the replacement cost and the potential future exposure which is then scaled by an alpha factor. The revised Basel III exposure measure provides for these components to be calculated using a modified version of the standardised approach for measuring counterparty credit risk exposures. APRA proposes to adopt this modified version for the purpose of calculating derivative exposures for the leverage ratio exposure measure.

Collateral and cash variation margin

The treatment of collateral under the revised Basel III exposure measure is consistent with APRA's existing leverage ratio methodology. As a result, APRA is not proposing material changes except where highlighted.

Collateral *received* for derivative transactions may not be netted against derivative exposures, regardless of whether netting is permitted for accounting or risk-based capital measurement purposes. This is because an ADI can use the collateral to increase its leverage. Similarly, an ADI would be required to gross up the measure of its derivative exposures in the calculation of its exposure measure by the amount of any collateral *provided* covering a derivative transaction, where the provision of that collateral has reduced the value of the ADI's balance sheet assets under its accounting framework.

Subject to a number of conditions, the cash portion of variation margin exchanged between counterparties may be treated as a form of pre-settlement payment, thereby reducing the value of derivative exposures included in the exposure measure (see paragraph 13 of Attachment D to APS 110 and paragraph 39 of the revised Basel III leverage ratio framework).

Subject to satisfying certain conditions for the recognition of cash variation margin (CVM), the cash portion of variation margin *received* may be used to reduce the replacement cost of a derivative exposure for the purpose of calculating the exposure measure. Similarly, where CVM has been recognised as an asset under an ADI's accounting framework, the ADI posting the CVM may exclude the receivable from its exposure measure and, instead, include the CVM *provided* in its calculation of the replacement cost (see paragraph 14 of Attachment D to APS 110 and paragraph 40 of the revised Basel III leverage ratio framework). This treatment adds considerable complexity to the exposure measure calculation and may not provide material prudential benefit. APRA is therefore considering removing recognition of CVM as a form of pre-settlement payment from the calculation of the exposure measure.

Provision of clearing services

Under APRA's existing leverage ratio methodology in APS 110, an ADI which offers clearing services to clients may be required to include additional exposures within its calculation of the exposure measure in instances where the ADI, as a clearing member:[15]

- would be obligated to reimburse a client for any losses suffered due to changes in the value of its transactions in the event that a central counterparty defaults; or
- guarantees the performance of the client's derivative trade exposures to the central counterparty.

In either of these circumstances, an ADI would need to include the resulting trade exposure and any exposures flowing from guarantees as part of its derivative exposures in calculating its exposure measure.

However, given the default of a central counterparty is a relatively remote event and ADI guarantees of client trades are currently minimal, APRA is considering excluding these additional exposures from the exposure measure to simplify the leverage ratio calculation. In this case, APRA would monitor the extent of ADIs' exposures via client guarantees.

Written credit derivatives

Written credit derivatives refers to a broad range of credit derivatives by which ADIs provide credit protection, and is not limited to credit default swaps and total return swaps. The effective notional amount of written credit derivatives is included in the exposure measure. The counterparty credit risk is captured in a similar fashion to derivative contracts generally.

APRA is of the view that it is reasonable to allow, on a conditional basis, purchased credit derivatives to reduce an ADI's written credit derivative exposure to a reference name. However, APRA considers that for the purpose of calculating the exposure measure, credit protection should be limited to single name credit derivatives only. On this basis, APRA is proposing to remove from APS 110 the current treatment of pooled credit protection as an eligible offset for written credit derivatives in the leverage ratio exposure measure.

3.2.4 SFT exposures

SFTs include repurchase agreements, reverse repurchase agreements, securities lending and borrowing, and margin lending transactions. Such transactions can represent a significant source of leverage for ADIs. The approach to measurement of SFTs under the Basel III framework is consistent with APRA's existing exposure measure. However, to remove some complexity from the methodology, APRA is considering omitting a number of elements from the approach to measuring SFT exposures, as detailed below.

Gross SFT assets

Gross SFT assets exclude any securities received by the ADI under an SFT which are recognised as an asset on the ADI's balance sheet. The revised exposure measure allows for cash payables and cash receivables in SFTs with the same counterparty to be measured on a

[15] A clearing member is defined in APS 112.

net basis provided certain criteria are satisfied. This includes that transactions have the same explicit final settlement date and the ADI has a legally enforceable right to set-off (see paragraph 22(a)(ii) of Attachment D to APS 110 and paragraph 51(i) of the revised Basel III leverage ratio framework).

In the interests of reducing complexity in the calculation of the exposure measure, APRA is considering excluding the provisions allowing netting of cash payables and cash receivables in SFTs from the leverage ratio.

ADI acting as agent

Where an ADI acts as an agent in a SFT, the approach to calculating the exposure measure differs based upon whether the ADI also provides an indemnity or guarantee to parties involved in the SFT (see paragraphs 26-28 of Attachment D to APS 110 and paragraphs 53-56 of the revised Basel III leverage ratio framework). Given Australian ADIs do not typically act as agents in SFTs in a manner that results in material exposure, APRA is considering removing these provisions from the exposure measure in order to reduce complexity in the methodology. In this case, APRA would monitor the extent of ADIs' agency activities in respect of SFTs and would revisit this approach should a material increase in these activities be observed.

3.3 Simplified approach for standardised ADIs

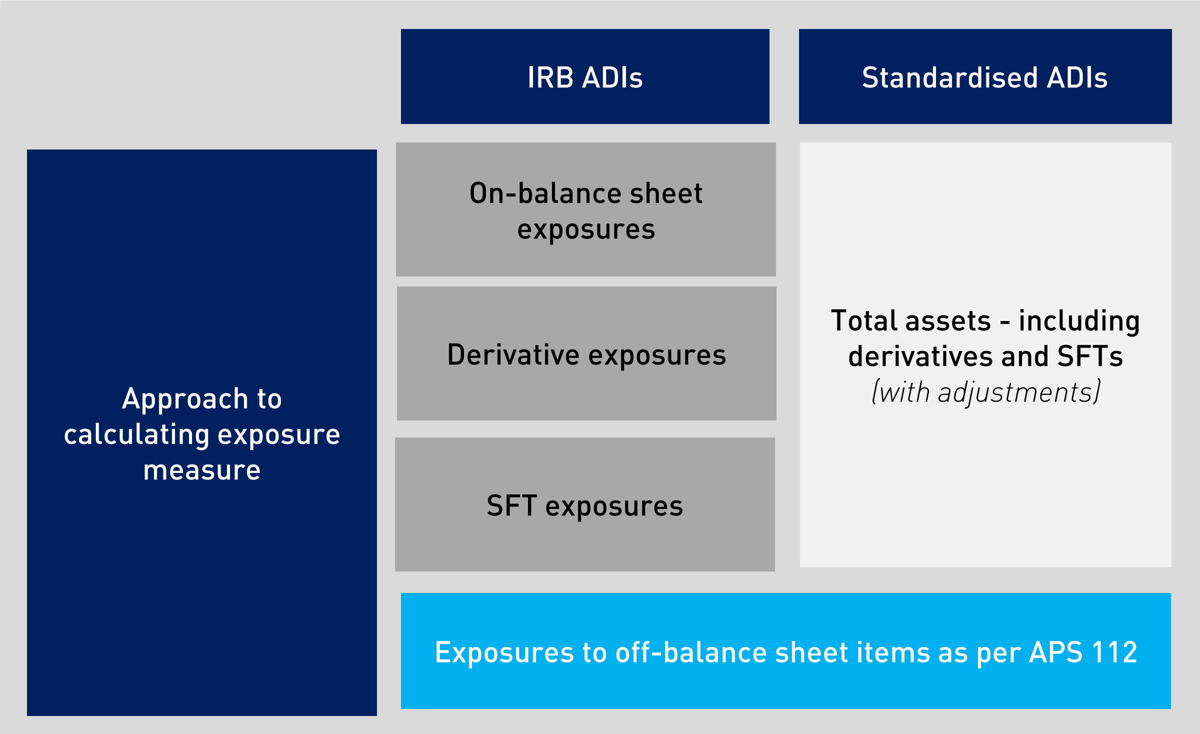
In developing its approach to implementing a leverage ratio requirement, APRA has considered the additional compliance burden that would be imposed on less complex ADIs and weighed this against the benefits to financial safety and system stability. APRA considers that financial safety and system stability would not be compromised under a leverage ratio requirement which was based on a simplified exposure measure for standardised ADIs.

While APRA has considered a number of potential options for simplification, excluding the Basel III calculations for derivatives and SFTs from the exposure measure appears to be the most appropriate. On this basis, for their on-balance sheet exposures, standardised ADIs would be required to include total assets (including any derivative and SFT exposures) calculated in accordance with Australian Accounting Standards, subject to a number of adjustments. These adjustments would include any items deducted from regulatory capital, securitisations that satisfy the capital relief requirements of APS 120, specific and general provisions, and any assets held in a fiduciary capacity.

For non-market related OBS items, an identical treatment is proposed for IRB ADIs and standardised ADIs as set out in section 3.2.2 above. Given the application of CCFs to these exposures is required for a standardised ADI to calculate its credit risk-weighted assets under the risk-based capital framework, calculation of this component for the leverage ratio imposes no additional compliance burden on standardised ADIs.

The difference in proposed approaches for IRB ADIs and standardised ADIs is depicted in Figure 3.

Figure 3 Proposed approaches to calculating the exposure measure



An example illustrating how standardised ADIs would be required to calculate the exposure measure under APRA's proposed framework, including required adjustments, is provided in Figure 4.

Figure 4 Example exposure measure calculation for standardised ADIs

Example calculation:

Total assets calculated in accordance with Australian Accounting Standards (including derivatives and SFTs)

less:
- *items deducted from CET1 & AT1 capital*
- *capital relief securitisations*
- *specific and general provisions*
- *any assets held in a fiduciary capacity*

plus:
- *credit equivalent amount of non-market-related OBS exposures (as captured on Reporting Form ARF 112.2 Standardised Credit Risk – Off-balance sheet exposures)*

= Leverage ratio exposure measure

Chapter 4 - Consultation and next steps

4.1 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 27 April 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.

4.2 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 2.

Table 2 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?
Chapter 2 - Overview and minimum requirement	2.1	Is a minimum leverage ratio requirement of 3 per cent for standardised ADIs appropriate? What is the impact of this level on capital, risk exposures and business strategy?
	2.2	Should APRA apply a higher minimum leverage ratio requirement to IRB ADIs? What would be the impact of applying a 4 per cent minimum requirement?
Chapter 3 - Exposure measure	3.1	Does offsetting between cash receivables and payables under a trade-date accounting approach have a material impact on the leverage ratio? What would be the impact of removing this provision?
	3.2	Would omitting the cash pooling treatment provided in the revised Basel III leverage ratio framework have a material impact on the leverage ratio?
	3.3	Does the offsetting of commitments to pay for unsettled purchases and cash to be received for unsettled sales under a settlement-date accounting approach have a material impact on the leverage ratio? What would be the impact of removing this provision?
	3.4	What would be the impact on the leverage ratio of not recognising CVM in calculating the replacement cost of derivative exposures?
	3.5	Would omitting the provisions relating to client clearing services in derivative exposures have a material impact on the leverage ratio or clearing activity?
	3.6	For written credit derivatives, would limiting the application of purchased credit derivatives to single-name derivatives have a material impact on the leverage ratio or on derivatives activity?
	3.7	What would be the impact of not permitting netting of cash payables and cash receivables in SFTs with the same counterparty?
	3.8	What would be the impact of not requiring ADIs acting as agent in SFTs to include certain exposures in the exposure measure?
	3.9	Should APRA adopt a simplified exposure measure calculation for standardised ADIs? Are there other approaches that would promote simplicity without jeopardising financial safety objectives to limit leverage?

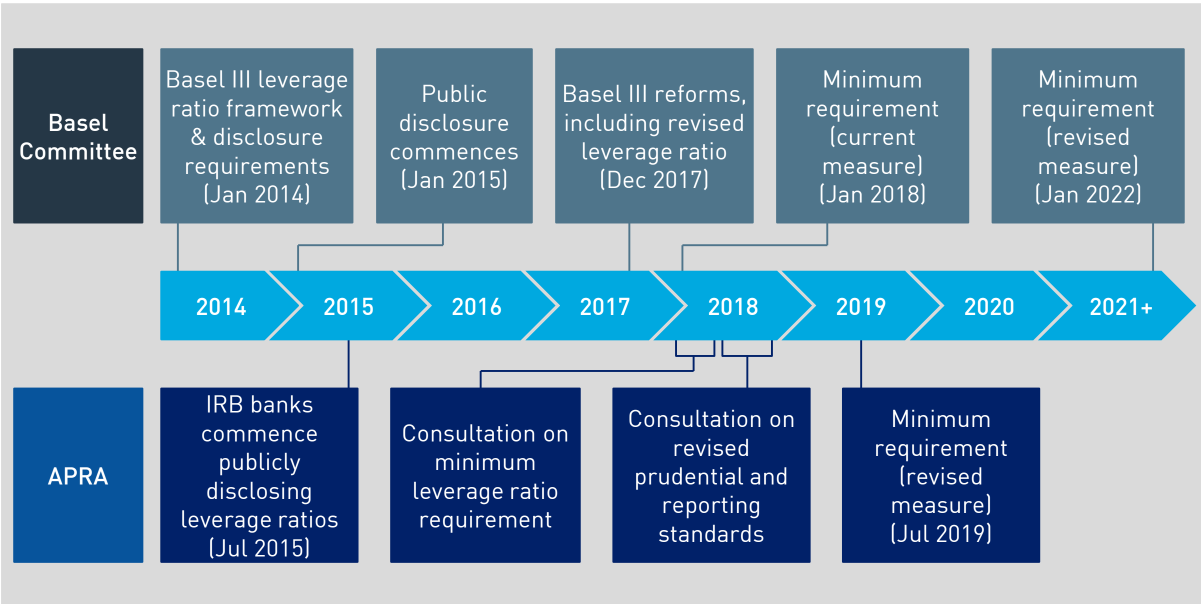
4.3 Next steps and implementation

Submissions in response to the proposals outlined in this discussion paper close on 27 April 2018. To give effect to its proposed leverage ratio requirements, APRA intends to revise APS 110 and introduce a new reporting standard. A draft version of APS 110 and the associated reporting requirements are intended to be released for public consultation later in 2018, following APRA's consideration of responses to this discussion paper.

It is APRA's intention that the leverage ratio requirement and proposed changes to the calculation of the leverage ratio will commence from 1 July 2019. Until then, IRB ADIs are expected to continue to calculate and disclose their leverage ratios under the existing framework. APRA's proposed timeline for implementation, is set out in Figure 5 below.

APRA will also make consequential changes to APS 330 to require ADIs to publicly disclosures their leverage ratios. As considerable changes to disclosure requirements are expected to result from the adoption of the Basel III framework more broadly, APRA intends to publicly consult on revised leverage ratio disclosure requirements as part of a broad package of amendments to APS 330.

Figure 5 Implementation of the leverage ratio



Attachment A—Policy options and estimated comparative net benefits

The leverage ratio is one element of the Basel III framework developed in response to the global financial crisis. Implementation of a leverage ratio requirement as a component of the Basel III framework complements the changes to the risk-based framework, and also meets Australia's G20 commitments. In this context, retaining the status quo—which would mean that ADIs were not subject to a minimum leverage ratio requirement—is not considered a realistic option, particularly in light of the Australian Government's endorsement of the adoption of a leverage ratio in response to the 2014 FSI recommendation.

APRA has therefore considered two policy options in implementing a minimum leverage ratio requirement. These options are set out in Table 3 below. Also set out is APRA's preliminary analysis of the costs and benefits of each option.

The analysis of costs associated with each option focuses on compliance costs, that is, the direct administrative, substantive (business) and financial costs incurred by ADIs in complying with government regulation. Indirect costs for ADIs and other stakeholders arising as a consequence of regulation (or not applying regulation) are also considered.

Any information provided in response to APRA's request for cost-benefit analysis information in chapter 4 will be used to quantify the change in regulatory burden using the Commonwealth Regulatory Burden Measure and inform APRA's determinations of the net benefits of the proposals.

Table 3 Regulatory options for adopting a leverage ratio requirement

Option 1: Adopt the Basel Committee's leverage ratio	Adopt a leverage ratio requirement under which all ADIs are required to calculate their leverage ratios in line with the Basel III framework.
Option 2: Adopt a modified leverage ratio	Adopt a leverage ratio which balances broad alignment with the Basel III framework with modifications to: • reduce the burden of calculating the exposure measure for ADIs with comparatively simple business models; and • remove unnecessary complexity, simplify and streamline the exposure measure calculation requirements for IRB ADIs.

Option 1 would result in APRA implementing the Basel Committee's leverage ratio framework, which would address the risk of a build-up of leverage by ADIs in Australia. However, this option provides no proportionality in terms of the approach to less complex ADIs, thereby increasing the regulatory burden on those ADIs by subjecting them to a calculation of the exposure measure which is more complex than may be justified based on their business models and risk profile.

Option 2 involves APRA imposing a leverage ratio requirement but adopting a simpler approach for standardised ADIs, by allowing them to use accounting-based measures in calculating most components of the exposure measure. Option 2 also considers the potential removal of some components of the exposure measure calculation for IRB ADIs in order to reduce complexity.

Option 2 offers the benefit of allowing APRA's adoption of the leverage ratio requirement to remain largely aligned with international standards (in so far as it applies to large, internationally active ADIs), while also reducing complexity and regulatory burden for standardised ADIs. Option 2 provides a mechanism to implement a minimum requirement which acts as a backstop to the risk-based capital framework in constraining the degree of leverage within individual ADIs and the banking system in a proportionate and relatively non-complex manner.

APRA considers that Option 2 offers the greatest net benefit.

APRA