DISCUSSION PAPER

Increasing the loss-absorbing capacity of ADIs to support orderly resolution

8 November 2018

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Contents

Executive Summary

Financial institutions provide services that are critical to the effective functioning of an economy. No matter how resilient these institutions are, the possibility of failure – where an institution is unable to meet its obligations to beneficiaries and other creditors or carry on critical functions – cannot be entirely eliminated.[1] In the unlikely event a financial institution fails, particularly larger financial institutions, the consequences can go beyond those of a normal corporate failure, with the risk of significant disruption to the financial system.

The events of the global financial crisis demonstrated the effect that failures can have on the broader financial system and the subsequent social and economic consequences.[2] Governments in some foreign jurisdictions found themselves with no alternative to using public funds to recapitalise failing financial institutions. These actions reflected in part that failing institutions did not have sufficient residual financial resources available for authorities to achieve an orderly resolution.

The Australian Government's 2014 Financial System Inquiry (FSI) recommended that APRA implement a framework for minimum loss-absorbing and recapitalisation capacity in line with emerging international practice, sufficient to facilitate the orderly resolution of Australian authorised deposit-taking institutions (ADIs) and minimise taxpayer support (Recommendation 3).

This discussion paper outlines APRA's proposed approach for loss-absorbing capacity to support the orderly resolution of Australian ADIs. The proposed approach is intended to be simple, flexible and designed with the distinctive features of the Australian financial system in mind, recognising the role of the banking system in channelling foreign savings into the economy. The key elements of the proposed approach are:

- a new requirement for ADIs to maintain additional loss absorbency for resolution purposes. The requirement would be implemented by adjusting the amount of Total Capital that ADIs must maintain, therefore using existing capital instruments rather than introducing new forms of loss-absorbing instruments;[3]
- for domestic systemically important banks (D-SIBs), an increase in the Total Capital requirement of between four and five percentage points of risk-weighted assets (RWA), with four years to meet the new requirement.[4] It is anticipated the D-SIBs would satisfy

[1] Beneficiaries in this context refer to those creditors of a regulated entity that APRA is tasked with protecting: ADI depositors, insurance policyholders and superannuation fund members.

[2] In aggregate, the annual real GDP growth rate of OECD countries declined from 2.8 per cent in September 2007 to -4.8 per cent in March 2009.

[3] Paragraph 23 of *Prudential Standard APS 110 Capital Adequacy* allows APRA to determine higher prudential capital requirements (PCRs) for an ADI than the minimum PCRs.

[4] The calibration of the proposed requirements set out in this paper is based on APRA's current capital framework. APRA has recently consulted on possible changes to that framework, which may affect both the calculation and presentation of capital ratios. If adjustments are made to the capital framework, the quantum of the proposed requirements expressed relative to RWA outlined in this discussion paper may also need to change,

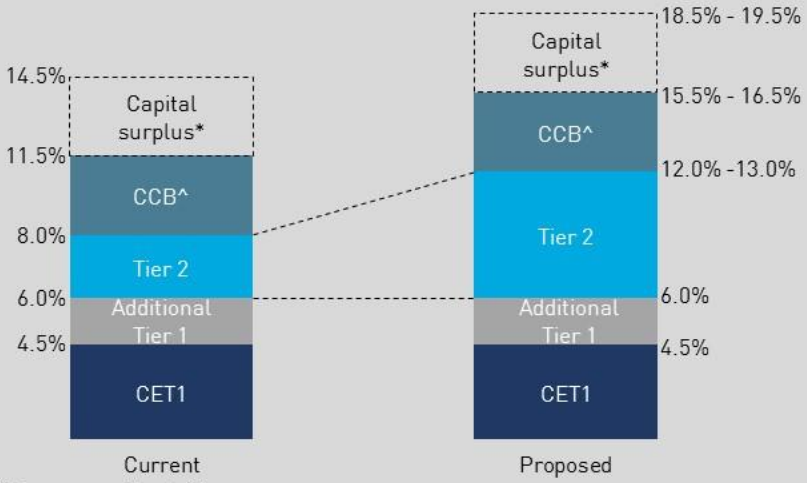
this requirement predominantly with additional Tier 2 capital, which would be expected to increase their cost of funding by an amount less than five basis points in aggregate based on current pricing. This increase is relatively minor in the context of the D-SIBs' cost of funds; and

- for other ADIs, the need for additional loss absorbency would be considered as part of resolution planning. For most other ADIs it is likely that an orderly resolution could occur without the need for additional loss absorbency. However, for a small number, due to their complexity or the nature of their functions, additional loss absorbency may be required.[5]

Effect on the four major banks

In the case of the four major banks, APRA expects that increasing Total Capital requirements would result in additional Tier 2 capital of between four and five per cent of RWA under the current capital adequacy framework. The four major banks would then be expected to maintain a capital structure consistent with that shown in Figure 1, with Total Capital ratios of around 19 per cent.

Figure 1 Proposed change to the major banks' capital structures



^Capital conservation buffer.
*Capital surplus of 3% is generally higher than the level D-SIBs may normally maintain, as they have acted in anticipation of changes to the capital adequacy framework as a result of the 'unquestionably strong' capital benchmarks. APRA expects the D-SIBs to continue to maintain a normal capital surplus in excess of regulatory capital requirements once such changes are implemented.

This discussion paper sets out APRA's proposed approach and rationale for increasing the Total Capital requirements for the D-SIBs. It also explains how this approach would be applied to other ADIs, based on the outcome of resolution planning.[6] APRA invites submissions on the proposals set out in this discussion paper.

APRA intends for the absolute amount of additional loss absorbency to remain the same as proposed in this discussion paper.

[5] ADIs would be assessed individually and should APRA determine the Total Capital requirement needs adjusting, the adjustment will be commensurate with the resolution strategy and no greater than that applied to the D-SIBs.

[6] APRA plans to consult on the resolution planning framework in 2019. APRA's Corporate Plan for 2018-2022 includes building a strong prudential framework for managing failure as a strategic initiative.

Glossary

Additional Tier 1 (AT1) capital	Capital instruments that provide loss-absorption while the ADI remains a going concern, but do not satisfy all of the criteria for inclusion in Common Equity Tier 1 capital (see *Prudential Standard APS 111 Capital Adequacy: Measurement of Capital*)
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*
Basel capital framework	The internationally agreed capital framework for banks developed by the Basel Committee on Banking Supervision
Basel Committee	Basel Committee on Banking Supervision
CCB	Capital conservation buffer (see *Prudential Standard APS 110 Capital Adequacy*)
CFR	Council of Financial Regulators
Common Equity Tier 1 (CET1) capital	The highest quality component of capital. It is subordinated to all other elements of funding, absorbs losses as and when they occur, has full flexibility of dividend payments and has no maturity date (see *Prudential Standard APS 111 Capital Adequacy: Measurement of Capital*)
D-SIB	Domestic systemically important bank
FCS	Financial Claims Scheme
FSB	Financial Stability Board
FSI	Financial System Inquiry
G-SIB	Global systemically important bank
PCR	Prudential capital requirement (see *Prudential Standard APS 110 Capital Adequacy*)
QIS	Quantitative Impact Study
RWA	Risk-weighted assets

Tier 2 capital	Capital instruments that absorb losses while the ADI is a gone-concern and can support resolution actions, but do not satisfy the criteria for inclusion as Tier 1 capital (see *Prudential Standard APS 111 Capital Adequacy: Measurement of Capital*)
TLAC	Total loss absorbing capacity

Chapter 1 - Introduction

When ADIs enter distress, failure to resolve them in an orderly fashion can result in adverse consequences for the economy. While Australia avoided the worst of the global financial crisis, other financial systems were severely impacted. Disorderly failures and government capital injections for financial institutions in other jurisdictions have resulted in significant economic and social costs.

During the crisis, many jurisdictions found they were not prepared to handle the failure of large and complex financial institutions that provided critical functions to the economy. Governments in many jurisdictions were required to intervene and use public funds to recapitalise failing institutions. The limited resources maintained by financial institutions to absorb losses and support the ongoing provision of critical functions has since been identified as one of the weaknesses in pre-crisis frameworks internationally.

The 2014 FSI recognised that the Australian financial system could be vulnerable to future shocks that may leave the Australian Government in a similar position to governments in those jurisdictions that had to provide taxpayer funded support to financial institutions. To reduce the potential need for government capital injections, the FSI recommended that APRA implement a framework for loss absorbing and recapitalisation capacity in line with emerging international practice, sufficient to facilitate the orderly resolution of Australian ADIs and minimise taxpayer support.[7] The Australian Government endorsed this recommendation in its response to the FSI and affirmed its support in its 2017-18 Budget Statements.[8]

APRA's mission is to establish and enforce prudential standards and practices designed to ensure that, under all reasonable circumstances, financial promises made by regulated institutions are met within a stable, efficient and competitive financial system. The implementation of an appropriate setting for additional loss absorbency for the purposes of facilitating orderly resolution is consistent with APRA's mission and role as the prudential regulator and resolution authority.

1.1 Background

1.1.1 Risk-taking in the financial system

Over the past decade, in an environment of sustained economic growth, APRA has continued to build resilience in the Australian banking system. ADIs are financially sound and well-placed to withstand future periods of stress. However, even with a resilient banking system,

[7] Financial System Inquiry, *Final Report* (November 2014) p67.

[8] Australian Government, *Improving Australia's Financial System – Government response to the Financial System Inquiry* (October 2015) p10; Australian Government, *Budget 2017-18: Guaranteeing the essentials for Australians* (May 2017) p17.

prudent risk management and active supervision, there remains the possibility that negative outcomes may eventuate and, in the extreme, result in the failure of an ADI.

An efficient, competitive and stable system should have a tolerance for failure. A financial system in which the approach to regulation entirely removes the possibility of ADI failure would be undesirable and limit the spectrum of risk-taking that is fundamental for well-functioning markets.

APRA's role is not to eliminate failure altogether, but to reduce its probability and impact. This role is set out in APRA's statutory objectives under the *Australian Prudential Regulation Authority Act 1998* and the *Banking Act 1959*, which require APRA to protect depositors and pursue financial system stability. In performing its functions, APRA will balance those objectives with the need for efficiency, competition, contestability and competitive neutrality in the financial system.

1.1.2 Managing the impact of failure

The proposals in this discussion paper are concerned with the *impact* of the failure of an ADI. While the requirement to maintain additional loss absorbency for resolution purposes would be met with familiar forms of capital, the rationale for maintaining it, to support resolution, is conceptually distinct from otherwise maintaining capital for resilience purposes.

This is one of a number of initiatives undertaken by the Australian Government and APRA to manage the impact of the failure of an ADI. Currently, APRA undertakes various forms of crisis planning, including prepositioning the Financial Claims Scheme (FCS) and requiring ADIs to prepare recovery plans. APRA's capacity to execute effective resolution actions was also enhanced with the introduction of the *Financial Sector Legislation Amendment (Crisis Resolution Powers and Other Measures) Act 2018*.

The proposals in this discussion paper will further enhance the framework for failure management. These proposals will be complemented by APRA's forthcoming prudential framework on recovery and resolution.

1.1.3 Pursuing orderly resolutions

Given a financial system in which ADIs take risk must have a tolerance for failure, it follows that there are forms of failure that are acceptable from a prudential perspective.

One prudentially acceptable form of 'failure' is where an ADI exits the industry through an acquisition by, or merger with, another ADI, guided by APRA's supervisory oversight. Similarly, some foreign bank branches have exited by ceasing to offer services in the Australian market which, due to their often limited offering, has not had a significant impact on the financial system. These types of exits reflect commercial decisions and are an ordinary component of an efficient and competitive financial system.

However, sometimes an ADI can fail in circumstances where it is not possible to arrange an exit in the way described above. These cases may result in either:

- disorderly failure; or
- orderly resolution.

Disorderly failures are inconsistent with APRA's objectives, as they are highly disruptive to depositors and have an adverse impact on financial system stability. Australia has not experienced a disorderly ADI failure in recent history, though the failure of HIH Insurance Limited (HIH) in 2001 provides an example of the adverse consequences of a disorderly failure of an APRA-regulated institution.[9] In that instance, policyholders were severely affected and essential insurance services to the broader community became unavailable for a period of time.

Conversely, orderly resolution of an ADI would occur when a problem is identified and escalated early enough to allow APRA and other financial regulators to manage and respond in a manner that protects the interests of depositors, stabilises the ADI's critical functions and promotes financial stability. Achieving an orderly resolution does not necessarily mean a crisis is averted, rather the manner in which an ADI's failure is managed would result in better outcomes given the circumstances.

1.2 Planning for orderly resolutions

APRA will need to work with ADIs on an ongoing basis to ensure adequate resolution plans are developed and maintained. These plans outline how APRA would use its powers to manage the orderly failure of ADIs and identify steps that can be taken to remove barriers to achieving effective resolution outcomes.

1.2.1 The likelihood of achieving an orderly resolution

To the extent that resolution plans and the resolution strategies they encompass are robust, they are more likely to help facilitate orderly resolution. The design of a given resolution strategy will depend on:

- the statutory powers available to APRA as the resolution authority;
- the effectiveness of resolution planning to make strategies operational, taking into account the size, nature and complexity of the ADI; and
- the availability of financial resources to facilitate the implementation of resolution strategies.

APRA's statutory powers were recently strengthened by the passage of the *Financial Sector Legislation Amendment (Crisis Resolution Powers and Other Measures) Act 2018*.

The effectiveness of resolution planning will be a focus for APRA over the coming years. APRA is in the process of developing a formalised framework for resolution planning and will consult further on this in 2019.

The proposals in this discussion paper focus on the third component above – the availability of financial resources to support orderly resolution.

[9] HIH was one of the main providers of builders' warranty insurance. In that event, thousands of builders were no longer covered and construction activity was halted until replacement cover could be arranged. Government intervention was necessary to minimise disruption to the real economy.

1.2.2 Sources of financial resources in resolution

There are three sources of financial resources that may be available to facilitate an orderly resolution:

- the ADI's own resources;
- private funds; and
- public funds.

Although ADIs are expected to maintain credible recovery plans, in a severe stress event there may be limited or no ability for an ADI to raise new funds to restore its financial position in private markets.

The global financial crisis showed that the disorderly failure of financial institutions can be avoided through government recapitalisation using public funds. Government recapitalisation can therefore be an important tool in supporting resolution where needed. However, achieving orderly resolutions in this fashion transfers a financial burden onto taxpayers which ought to rest with shareholders and other capital providers of the ADI.

Given the likely unavailability of private funds and the objective of reducing the need for public funds to support a failing ADI, APRA proposes to require ADIs to maintain additional loss absorbency which would be available to the resolution authority to facilitate an orderly resolution.

1.3 International approaches

In developing the proposals in this discussion paper, APRA has looked closely at international developments. The frameworks implemented in other jurisdictions have helped inform APRA's view of the characteristics that are most suitable to Australia.

International developments have often been guided by the principles outlined in the Financial Stability Board's (FSB) total loss absorbing capacity (TLAC) standard. This standard was designed so that failing global systemically important banks (G-SIBs) have sufficient loss-absorbing and recapitalisation capacity to support an orderly resolution.[10] Some jurisdictions have implemented frameworks consistent with the FSB TLAC standard that go beyond G-SIBs in scope, applying to D-SIBs and other large banks.

Member States of the European Union have implemented the Minimum Requirement for own funds and Eligible Liabilities (MREL), which applies to all banks, proportionate with the preferred resolution strategy.[11] In January 2018, the Hong Kong Monetary Authority (HKMA) released a consultation paper on *Rules on Loss-Absorbing Capacity Requirements for Authorized Institutions*, which indicated requirements will be prescribed to support the use of

[10] There are no G-SIBs headquartered in Australia.

[11] European Commission, *Bank recovery and resolution – Directive (BRRD), 2014/59/EU*, 2014.

resolution options involving bail-in and transfers.[12] Banks designated as D-SIBs by the Office of the Superintendent of Financial Institutions (OSFI) in Canada will be required to maintain loss-absorbing capacity to support recapitalisation.[13]

While the objectives of APRA's proposals are broadly aligned with other relevant jurisdictions, APRA has developed an approach that is conceptually different to other frameworks, which takes account of the particular characteristics of the Australian financial system.

1.4 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, promoting financial system stability in Australia. APRA considers that these proposals will contribute to improving financial safety and promoting financial system stability.

PRIMARY OBJECTIVES	
Financial safety ↑	**Financial system stability** ↑
Improved: the proposals increase loss-absorbing capacity to support resolution and increases the protection for depositors.	**Materially improved:** greater financial resources to support orderly resolution, particularly for larger ADIs, promotes financial system stability.

OTHER CONSIDERATIONS	
Efficiency ↓	**Marginally reduced:** the proposals may cause the cost of funding for a limited number of ADIs to increase.
Competition ↑	**Marginally improved:** requiring larger ADIs to maintain additional loss absorbency may help mitigate potential funding advantages that flow to larger ADIs.
Contestability ↔	**No material change:** the proposals do not affect the ability of new entrants to enter the banking industry.
Competitive Neutrality ↔	**No change:** the proposals have no impact on competitive neutrality.

[12] Hong Kong Monetary Authority, *Rules on Loss Absorbing Capacity Requirements for Authorized Institutions*, (Consultation paper, January 2018).

[13] Office of the Superintendent of Financial Institutions (OSFI), *Superintendent formally designates Canadian D-SIBs and sets minimum loss absorbing capacity requirements* (August 2018).

Chapter 2 – Design features

The proposed approach uses the capital adequacy framework, adjusting ADI's Total Capital requirements to increase the loss-absorbing capacity to a level that will facilitate orderly resolution.

2.1 Using the capital adequacy framework

To achieve APRA's objectives, it is necessary to develop an approach whereby orderly resolution outcomes can be facilitated using an ADI's own financial resources. APRA proposes the prepositioning of capital for the purposes of resolution, utilising the capital adequacy framework.

A framework to ensure that there is additional loss-absorbing capacity available to support orderly resolution outcomes would ideally be understood and familiar to all market participants. While a range of different approaches have been implemented internationally, APRA's proposed approach relies on established features of the regulatory framework.[14]

Using the capital adequacy framework is relatively simple, provides greater certainty than other methods and does not require the creation of new instruments. Regulatory capital absorbs losses and can be used to support resolution actions — the existing framework includes instruments with gone-concern features that are designed for use in resolution.

The quantum of financial resources required for this purpose could be determined using either risk-sensitive or non-risk-based methods. APRA's prudential framework primarily uses risk-sensitive measures to determine capital adequacy requirements. APRA proposes that risk-sensitive measures are used for determining additional loss absorbency as well.

APRA's proposed approach to increasing loss absorbency does not include a non-risk-based leverage ratio measure. Incorporating such a measure would add complexity to the capital adequacy framework without necessarily providing additional prudential benefits.

2.1.1 Adjusting the Total Capital requirement

APRA proposes that where it is determined that additional loss absorbency would need to be maintained, this obligation would be imposed using the provisions within paragraph 23 of *Prudential Standard APS 110 Capital Adequacy* to adjust the Total Capital prudential capital requirement (PCR) of individual ADIs. Adjusting the Total Capital PCR would provide flexibility for ADIs to meet the requirement via the issuance of any instrument that qualifies for inclusion in Total Capital.

[14] Other jurisdictions have developed frameworks that include, for example, the creation of additional types of contractual instruments or a statutory bail-in power. The *Financial Sector Legislation Amendment (Crisis Resolution Powers and Other Measures) Act 2018* did not contain, and APRA does not have, a statutory power to write-off or convert the interests of other creditors, including depositors of a failing ADI, whether in, or leading up to, resolution (often referred to as a bail-in power).

2.1.2 Qualifying instruments

APRA considers that existing regulatory capital instruments – Common Equity Tier 1 (CET1), Additional Tier 1 (AT1) and Tier 2 capital instruments – are most appropriate to meet an ADI's resolution needs. Regulatory capital has proven to be effective in absorbing losses in ordinary times in Australia and has been effective in absorbing losses in resolution in other jurisdictions.

APRA does not propose any changes to the definitions of capital or the criteria that must be met for instruments to qualify as regulatory capital. The criteria for inclusion as CET1 capital, AT1 capital and Tier 2 capital are set out in *Prudential Standard APS 111 Capital Adequacy: Measurement of Capital* (APS 111). No additional types of instruments are proposed to be eligible to meet the Total Capital requirement.

APRA anticipates that ADIs required to maintain a higher Total Capital ratio would issue additional capital. It is likely that ADIs would primarily issue Tier 2 capital instruments to meet a higher requirement, as Tier 2 capital instruments are generally the most cost-efficient form of capital eligible for inclusion in Total Capital.

Tier 2 capital instruments are designed to convert to ordinary shares or be written off at the point of non-viability, which means they will be available to absorb losses and can be used to facilitate resolution actions. Tier 2 capital instruments have been a feature of ADI capital structures in various forms since being introduced as part of the 1988 Basel Accord. These instruments have been used as part of resolution actions in other jurisdictions, supporting orderly outcomes.

It is also important that holders of instruments which are intended to be converted or written off in resolution understand the distinctive risks of these investments. In the context of AT1 instruments, APRA has noted that it is inadvisable for investors to view such instruments as higher-yielding fixed-interest investments, without understanding the loss-absorbing role they play in a resolution.[15] In the case of the Australian ADIs' Tier 2 capital instruments, these are mostly issued to institutional investors, who are likely to understand the risks involved.

2.1.3 Conformity with adjusted requirement

Under these proposals, APRA would notify ADIs of any change to the Total Capital requirement to account for resolution needs on an individual basis. ADIs would be required to transition to meet the new requirement after the notification of the change.

In the first instance, D-SIBs would be notified four years in advance of the date from which the adjusted Total Capital requirement must be met. Other ADIs that are required to maintain additional loss absorbency may be given a shorter timeframe to meet an adjustment if (i) the size of the adjustment is smaller, and (ii) APRA expects the ADI can achieve the necessary changes in less than four years.

[15] Wayne Byres, '*Finding success in failure*', speech to the Actuaries Institute Banking Conference 'Banking on Capital', (30 August 2016).

2.2 Scope of application

The application of the framework will reflect the outcomes of resolution planning for an ADI and the extent to which available resolution strategies require additional loss absorbency. Building resolution capability is one of APRA's strategic priorities.[16] As APRA strengthens the resolution framework, it will work with relevant ADIs and the Council of Financial Regulators (CFR) to develop credible resolution plans.[17] As APRA progresses with resolution planning it may prioritise adjusting requirements for certain ADIs. Consequently, changes to the Total Capital requirement may occur for certain ADIs ahead of others.

2.2.1 D-SIBs will be required to maintain additional loss absorbency

In 2013, APRA determined that the four major banks would be designated as D-SIBs. This designation was informed by an assessment of systemic importance, which used four key indicators: size, interconnectedness, substitutability and complexity.[18] As D-SIBs provide a range of critical functions, disorderly failure of a D-SIB would have a significant impact on the financial system and broader economy. The most credible approach to resolution is likely to involve stabilisation of the whole bank through an initial recapitalisation to safeguard critical functions.

Under the proposals in this discussion paper, to support resolution, each D-SIB would be required to maintain additional loss absorbency of between four and five percentage points of RWA. It is anticipated that each D-SIB's Total Capital requirement would be adjusted by the same amount.

2.2.2 Other ADIs will be individually assessed

For other ADIs that are not D-SIBs, the outcome of resolution planning would inform the appropriate amount of additional loss absorbency required to achieve orderly resolution. This assessment would occur on an institution-by-institution basis.

The assessment would focus on the provision of critical functions, the separability of those functions and preferred resolution strategies. Further details on APRA's broader resolution planning framework will be released in due course, commencing with a consultation in 2019.

Where APRA determines that one of these ADIs requires additional loss-absorbing resources, the ADI's Total Capital requirement would be adjusted. This adjustment would be no more than the adjustment applied to the D-SIBs.[19]

[16] APRA, *APRA Corporate Plan 2018-2022* (August 2018).

[17] The CFR membership comprises the Reserve Bank of Australia (RBA) as chair; APRA; the Australian Securities and Investments Commission (ASIC); and the Treasury.

[18] APRA, *Domestic systemically important banks in Australia* (Information Paper, December 2013) available at: https://www.apra.gov.au/media-centre/media-releases/apra-releases-framework-domestic-systemically-important-banks-australia.

[19] ADIs that are not D-SIBs may still have a higher Total Capital requirement reflecting factors other than resolution needs, such as adjustments for supervisory purposes.

APRA expects most other ADIs will not be required to maintain additional loss absorbency. ADIs that can be resolved without the need for additional financial resources will not be required to meet a higher Total Capital requirement. However, it is anticipated that a small number of non-D-SIB ADIs may require additional loss absorbency to facilitate resolution, due to their complexity or the nature of their functions.

Chapter 3 – Calibration

To support an orderly resolution, there should be sufficient financial resources available to absorb the losses of the failing ADI and to allow for the effective implementation of the resolution strategy. For the D-SIBs, this is likely to involve stabilisation of the whole bank through an initial recapitalisation. APRA has used a number of considerations to guide the calibration of the additional loss absorbency requirement that D-SIBs must maintain, including:

- observing past failures of systemic banks internationally to inform the financial resources needed to support an orderly resolution of a distressed systemic bank;
- using frameworks implemented by other jurisdictions as a benchmark to inform the calibration of a minimum amount of loss-absorbing resources needed for a D-SIB; and
- estimating the level of loss-absorbing capacity the D-SIBs' international peers are expected to maintain as an indication of the level of loss-absorbing capacity that may be needed to support market confidence.[20]

In setting such a requirement, the right balance must be struck between ensuring sufficient loss-absorbing capacity is available and limiting the potential for unnecessary costs that may impede the efficiency of the financial system.

The estimates in this discussion paper use APRA's existing capital adequacy framework. The capital adequacy framework may be subject to changes as outlined in APRA's discussion paper *Improving the transparency, comparability and flexibility of the ADI capital framework*, released in August 2018.[21] If adjustments to the framework are made, APRA intends for the absolute amount of additional loss-absorbing capacity to remain the same as that calculated under APRA's current framework.

3.1 Past failures of systemic banks

The failure of systemic banks in other jurisdictions can provide an indication of the potential quantum of financial resources that are needed to support the orderly resolution of a distressed systemic bank. In finalising the calibration of the TLAC standard, the FSB drew on 13 recent cases where banks failed or received official support.[22] The losses in the FSB

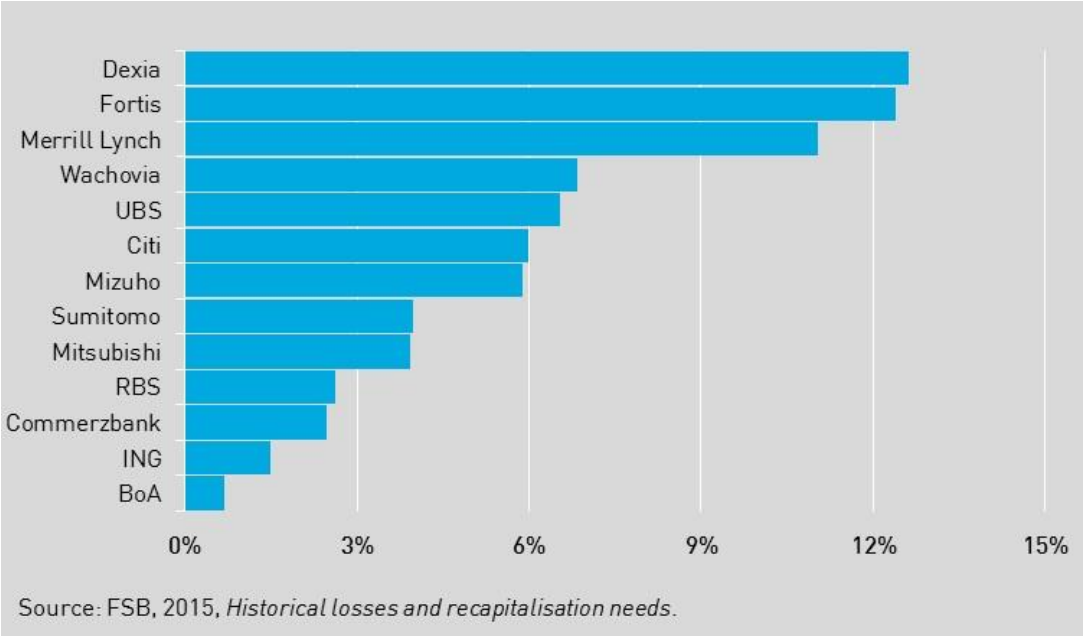
[20] These three analyses are informed by the FSI recommendation that: (i) the level of financial resources should be sufficient to support orderly resolution; (ii) the approach should align with international standards and should not generally seek to move outside international frameworks; and (iii) the D-SIBs compete internationally for funding, aligning loss-absorbing capacity with peers should help maintain market confidence.

[21] APRA, *Improving the transparency, comparability and flexibility of the ADI capital framework* (Discussion Paper, August 2018), available at: https://www.apra.gov.au/improving-transparency-comparability-and-flexibility-adi-capital-framework.

[22] A conservative approach was followed when quantifying the losses and recapitalisation needs of past bank failures, which the FSB indicated likely resulted in underestimations rather than overestimations.

analysis, presented in Figure 2, amounted to between 2 and 7 per cent of RWA in most cases and up to 12.6 per cent in the worst case.

Figure 2 Systemic bank failures – losses as a percentage of RWA



Source: FSB, 2015, *Historical losses and recapitalisation needs*.

The FSB analysis provides an indication of some of the most severe outcomes from systemic bank failures over recent decades. Notwithstanding the failures of the past occurring under particular conditions, the examples provide an indication of the potential financial needs in resolution for a distressed systemic bank.

The starting capital levels of the D-SIBs indicate that on average they could withstand losses equivalent to the median of the FSB cases without breaching minimum regulatory capital requirements.[23] The D-SIBs, on average, could notionally endure the impact of the third quartile losses, despite being close to breaching minimum requirements. However, it is questionable if an ADI in this capital position would be able to maintain market confidence.[24] Under the maximum loss in the sample, the D-SIBs' capital ratios would, on average, be considerably below minimum requirements.[25]

The hypothetical effects on the Total Capital ratios for the D-SIBs of the loss events used in the FSB analysis are presented in Figure 3. Total Capital ratios are shown after losses occur

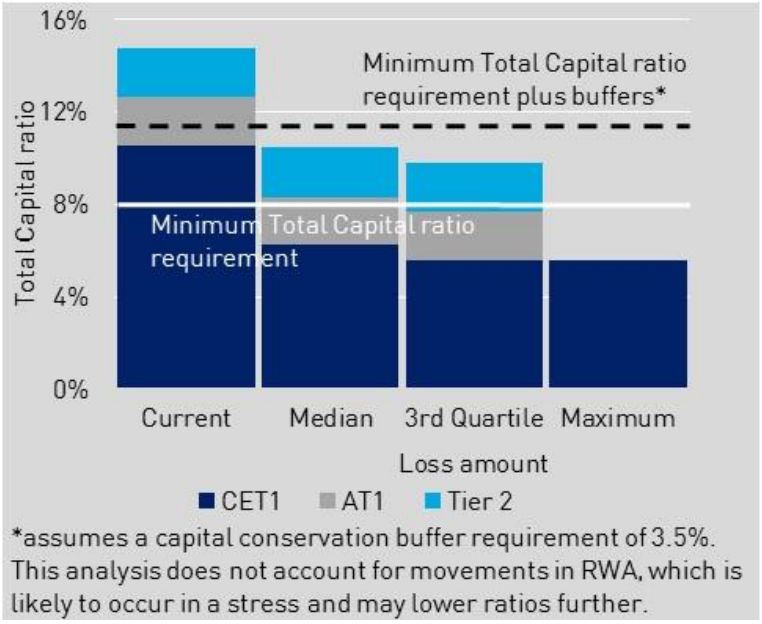
[23] These analyses do not account for movements in RWA, which are likely to occur in a stress and may lower ratios further than estimated.

[24] For example, the CET1 capital ratio would likely be in the lower part of the capital buffer range. Capital distribution constraints apply when an ADI's CET1 capital ratio is below the capital buffer ranges outlined in Attachment B to *Prudential Standard APS 110 Capital Adequacy*.

[25] In this case, APRA estimates indicate that up to an additional six percentage points of Total Capital may be necessary to absorb losses and recapitalise, such that minimum capital requirements and the capital conservation buffer (CCB) are satisfied.

and non-equity capital instruments are converted, using APRA's generally more conservative capital adequacy framework.

Figure 3 Hypothetical losses from past systemic bank resolutions



There are characteristics of the Australian financial system, including APRA's capital adequacy framework, the institutional setting and the legal framework, that should limit the magnitude of losses and make the likelihood of an event occurring in which losses are equivalent to the worst case in the FSB analysis lower as:

- APRA's capital adequacy framework requires ADIs to maintain higher amounts of capital for the same risk, relative to banks included in the FSB analysis;
- Australia's institutional setting – with APRA as the combined supervision and resolution authority, and the regulatory architecture with a coordinated CFR – is supportive of timely and effective intervention at distressed ADIs; and
- Australia's enhanced resolution framework provides authorities with more effective powers to intervene at a distressed ADI than other jurisdictions may have had in past bank failures.[26]

3.2 Relative to the international standard

These proposals, the FSB TLAC standard and loss-absorbing and recapitalisation frameworks in other jurisdictions broadly aim to fulfil the same objective — to help support orderly resolution. Given the similar objectives, in developing the proposals APRA has considered the design of other frameworks and the suitability of applying certain features to the Australian approach.

[26] The Australian framework for managing failure has been strengthened by a number of measures introduced since the global financial crisis, including substantial enhancements to APRA's crisis resolution powers.

The minimum requirements of other frameworks and the methodologies used to inform these can guide the calibration for the Australian approach.

3.2.1 Minimum requirements of loss-absorbing capacity frameworks

The FSB TLAC standard will apply from 2022, requiring G-SIBs to maintain minimum TLAC that exceeds 18 per cent of RWA (excluding regulatory capital buffers).[27]

In other jurisdictions, a range of similar methodologies are used to inform indicative minimum requirements:

- in Europe, the Single Resolution Board (SRB) uses a default formula to inform the MREL amount for an institution where bail-in is the preferred or variant resolution strategy.[28] The formula is made up of: (i) a loss-absorbing amount, equivalent to minimum capital requirements including capital buffers; (ii) a recapitalisation amount, equivalent to the minimum capital requirements including capital buffers; and (iii) an amount to support market confidence;
- Canadian authorities have indicated that D-SIBs will be required to maintain TLAC ratios that exceed 21.5 per cent of RWA including capital buffers;[29] and
- the HKMA's draft LAC rules indicated that those institutions where the preferred resolution strategy involves the use of bail-in will have a minimum requirement equal to twice the minimum capital requirements plus buffers.[30]

The indicative minimum requirements for systemic banks set by authorities in a sample of other jurisdictions with loss-absorbing capacity frameworks are shown in Figure 4 alongside the minimum requirement for the FSB TLAC standard.

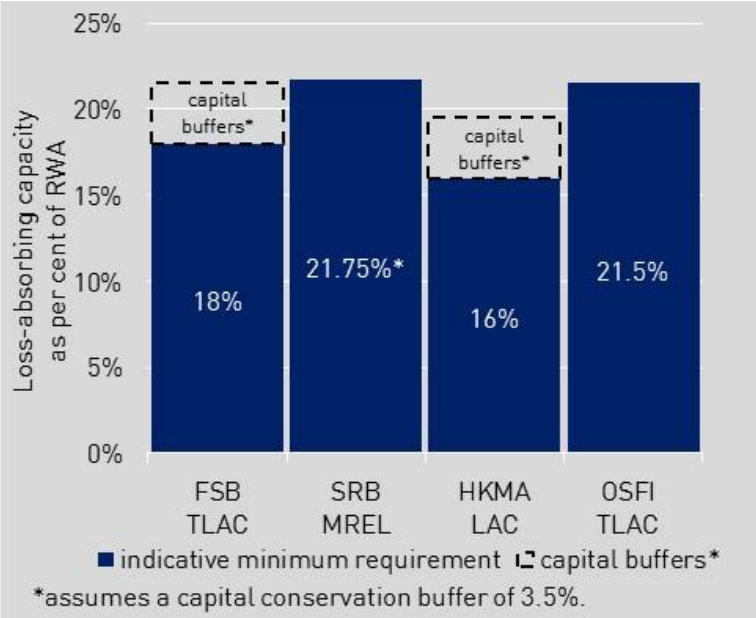
[27] Interim minimum requirements of 16% of RWA and 6% of the leverage ratio will apply from 1 January 2019. G-SIBs headquartered in emerging market economies will not have to meet the minimum requirements until 2028. Some G-SIBs may receive concessions for the minimum amount of subordinated instruments of up to 3.5 per cent of RWA, where resolution authorities deem *ex-ante* funding to be sufficient or a bail-in tool allows losses to be absorbed by liabilities that rank *pari-passu* with excluded liabilities, without facing legal challenges.

[28] SRB, *Minimum Requirement for Own Funds and Eligible Liabilities (MREL): SRB Policy for 2017 and Next* Steps (December 2017).

[29] OSFI, *Superintendent formally designates Canadian D-SIBs and sets minimum loss absorbing capacity requirements* (August 2018).

[30] HKMA, *Financial Institutions (Resolution) (Loss-absorbing Capacity Requirements – Banking Sector) Rules*, Draft AI LAC Rules issued for industry consultation (July 2018).

Figure 4 Indicative minimum requirements of loss-absorbing capacity frameworks



3.2.2 Considerations for setting minimum requirements

In July 2015, APRA released its *International capital comparison study* (2015 Study), which identified those areas of the capital adequacy framework that exceed the internationally agreed minima contained within the Basel framework.[31] As a result of the differences in the definition of capital and determination of RWA, capital ratios for Australian D-SIBs are materially higher when measured on an internationally harmonised basis than when measured using the capital adequacy framework applied by APRA.

Estimates from the 2015 Study suggested that the CET1 capital ratios of the D-SIBs were, on average, around 300 basis points higher when measured on an internationally harmonised basis. The 2015 Study was updated for APRA's 2018 discussion paper *Improving the transparency, comparability and flexibility of the ADI capital framework* and CET1 ratios were around 485 basis points higher on an internationally harmonised basis. Other measures of risk-based capital, including the Total Capital ratio, also differ by a similar magnitude.

On an internationally harmonised basis, the CET1 capital ratios of the D-SIBs are on average materially higher than G-SIBs, for which the FSB TLAC standard was designed. Therefore, applying a calibration in line with the FSB TLAC minimum or other equivalent framework would not result in a comparable requirement, due to differences in the application of capital adequacy frameworks between APRA and other jurisdictions.

A calibration less than the FSB TLAC minimum is likely to be sufficient to support orderly resolution outcomes.[32] Using the international frameworks as a benchmark to derive a

[31] APRA, *International capital comparison study* (Information Paper, July 2015), available at: https://www.apra.gov.au/information-papers-released-apra.

[32] The FSB TLAC minimum of 18% excluding regulatory buffers, measured using APRA's capital adequacy framework, equates to around 30% on an internationally harmonised basis.

requirement of a similar magnitude would result in a calibration, including additional capital to satisfy the capital conservation buffer (CCB), of around 15.5 per cent of RWA under the capital adequacy framework applied by APRA.

Currently, an Australian D-SIB's minimum Total Capital requirement is 8 per cent of RWA and to satisfy the CCB, an additional 3.5 per cent of CET1 is required – based on the existing capital adequacy framework. As such D-SIBs must at a minimum maintain Total Capital equivalent to 11.5 per cent of RWA to satisfy both minimum requirements and the CCB. APRA estimates suggest requiring the D-SIBs to maintain additional loss absorbency of at least four percentage points of RWA would result in a requirement broadly aligned with other loss-absorbing capacity frameworks.

3.3 Compared to international peers

The D-SIBs access the same foreign markets for wholesale funding as other internationally active banks. Maintaining a level of loss absorbency broadly equivalent to the amount other internationally active banks maintain should support investor confidence in the D-SIBs, particularly in periods of distress, and reduce the risk of interruption to the flow of funding to the Australian financial system.[33]

3.3.1 Peer group determination and available data

APRA has compiled a list of 55 banks, consisting of banks from the alternative peer list used in the 2015 Study, for which data are available. A full list of the banks included in the peer group is available in Attachment B.

To facilitate the comparison, APRA has used observations that provide the most accurate representation of the level of loss-absorbing capacity international peer banks are expected to maintain once frameworks are fully implemented. Where available, the target ratio banks have disclosed and expect to maintain after the implementation of rules on loss-absorbing capacity has been used. Where targets are not available, APRA has based the ratios banks are expected to maintain on minimum requirements, with an adequate surplus estimated. For some observations, where banks currently exceed future minimum requirements, the latest ratio is used to inform the post-implementation level banks are expected to maintain.[34]

3.3.2 Comparing loss-absorbing capacity

The loss-absorbing capacity peer banks are expected to maintain is presented in Figure 5 alongside the D-SIB average Total Capital ratio on an internationally harmonised basis as at 30 June 2018.[35] The peer group median is 27 per cent of RWA, with a range from 13 to over 40 per cent.

[33] The FSI noted that the D-SIBs compete with other internationally active banks for funding and that aligning with these international peer banks would help support investor confidence, Financial System Inquiry, *Final Report* (November 2014).

[34] Current Total Capital ratios are used for banks that are not expected to be required to meet new requirements.

[35] Including a small adjustment to account for anticipated increases in CET1 capital ratios to greater than 10.5%.

The wide distribution of observations reflects the varying approaches that banks and authorities have taken to support orderly resolution. Certain banks in the peer group are not expected to be required to meet additional loss-absorbing capacity minimums. Most peer banks are expected to maintain ratios that will exceed the FSB TLAC minimum. Banks towards the top of the range are expected to have high minimum requirements or have a large portion of liabilities that qualify as eligible instruments.

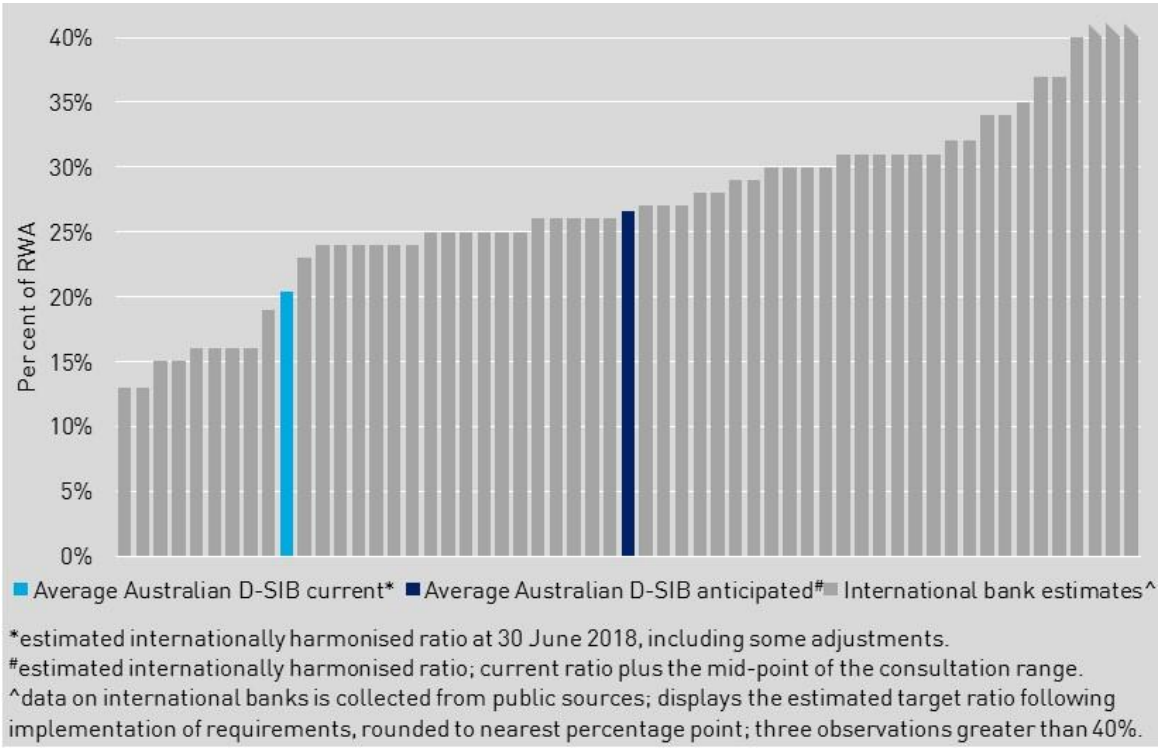
The current average Total Capital ratio of the D-SIBs is 20 per cent, which is below the median that international peers are expected to maintain by around seven percentage points on an internationally harmonised basis, which equates to around five percentage points under the capital adequacy framework applied by APRA.

3.4 Determining additional loss absorbency for D-SIBs

As a consequence of the results of these three analyses, APRA has concluded that requiring the D-SIBs to maintain additional loss absorbency of between four and five percentage points of Total Capital for resolution purposes would be an appropriate baseline setting to support orderly resolution outcomes. APRA will finalise the calibration of additional loss absorbency for the D-SIBs following the outcome of this consultation.

If the D-SIBs were to maintain an additional four to five percentage points of Total Capital they would have ratios in line with their international peers. This calibration takes account of the D-SIBs' international peers being expected to maintain ratios that exceed the FSB TLAC minimum and the D-SIBs maintaining ratios that would exceed the FSB TLAC minimum with adequate capital surpluses. The anticipated future loss-absorbing capacity of the D-SIBs, on average, is shown in Figure 5 alongside the ratios peer banks are expected to maintain, as outlined in section 3.3.

Figure 5 Anticipated D-SIB Total Capital and international peers' loss-absorbing capacity



A hypothetical outcome from resolution action

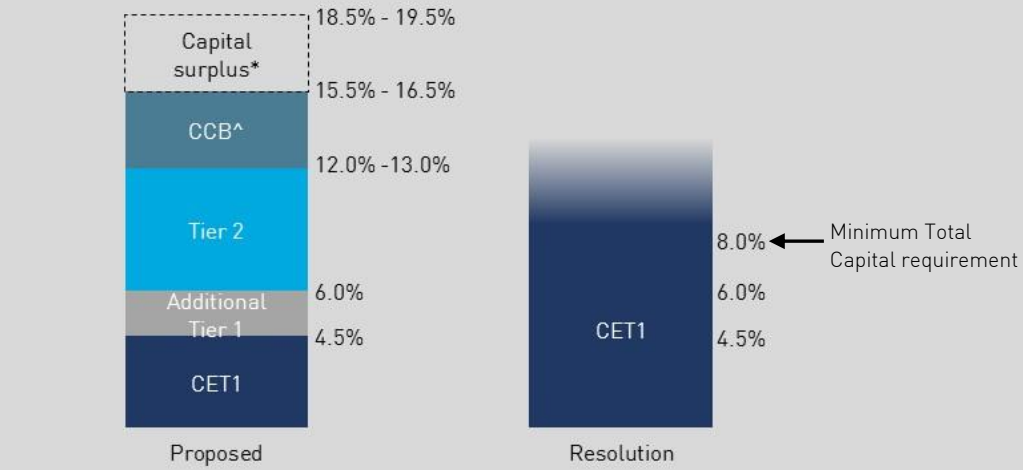
In a stress event, an ADI would breach its CCB before its other regulatory capital requirements. The CCB must be met with CET1 capital, which can only be counted if it is not used to meet Tier 1 and Total Capital requirements. In the first instance, this would lead to constraints on distributions.

APRA requires that AT1 capital instruments, classified as liabilities under Australian Accounting Standards, must include a provision for the conversion into ordinary shares or write off when the CET1 capital ratio falls to, or below 5.125 per cent.[36] In addition, AT1 and Tier 2 capital instruments must contain a provision, on the occurrence of a non-viability trigger event, to immediately convert to ordinary shares or be written off.[37]

The approximate capital levels the D-SIBs would be expected to maintain following an increase to Total Capital requirements, and a potential outcome following the use of the additional loss absorbency in resolution, are presented in Figure 6. Ultimately, the outcome would depend on the extent of losses.

If the stress event involved losses consistent with the largest of the FSB study (see Figure 2), AT1 and Tier 2 capital instruments would be converted to ordinary shares or written off. After losses have been considered, the remaining capital position would be wholly comprised of CET1 capital. This conversion mechanism is designed to allow for the ADI to be stabilised in resolution and provide scope to continue to operate, and particularly to continue to provide critical functions.

Figure 6 Illustrative example - capital maintained and uses in resolution



^CCB stands for capital conservation buffer.
*Capital surplus of 3% is generally higher than the level D-SIBs may normally maintain, as they have acted in anticipation of changes to the capital adequacy framework as a result of the 'unquestionably strong' capital benchmarks. APRA expects the D-SIBs to continue to maintain a normal capital surplus in excess of regulatory capital requirements once such changes are implemented.

[36] Attachment F to *Prudential Standard APS 111 Measurement of Capital*.

[37] Attachment J to *Prudential Standard APS 111 Measurement of Capital*.

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 8 February 2019 and addressed to:

General Manager
Resolution & Enforcement
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.

Request for cost-benefit analysis information

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 Regulatory Burden Measurement tool 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

To assist interested stakeholders in providing feedback on the proposals outlined in this discussion paper, APRA offers the following considerations to guide, but not limit, responses:

Question 1	What are the advantages and disadvantages of using the capital adequacy framework to increase the loss-absorbing capacity of ADIs by adjusting Total Capital requirements to help facilitate resolution?
Question 2	Is an increase of four to five percentage points of additional loss absorbency an appropriate calibration for the increase in D-SIBs' Total Capital requirements, such that the amount of loss-absorbing capacity is sufficient to facilitate orderly resolution? If not, what are the reasons for the increase not being appropriate?
Question 3	Is four years an appropriate transition timeframe for ADIs to meet increased Total Capital requirements?
Question 4	Are there any constraints on the capacity for ADIs to meet and maintain additional loss absorbency requirements – giving consideration to the market capacity for capital instruments?
Question 5	APRA anticipates that increasing the loss-absorbing capacity of the D-SIBs by four to five percentage points would result in additional funding costs not greater than five basis points of the total funding base. How might an increase in funding costs impact lending, the broader financial system and the economy?
Question 6	What are the estimated compliance costs for ADIs that would be required to meet increased Total Capital requirements?

4.3 Next steps

Depending on the outcome of this discussion paper, APRA expects to notify D-SIBs of increases to their Total Capital requirements in 2019. It is anticipated that other ADIs, assessed as requiring additional loss absorbency to support resolution, would be notified of changes to requirements from 2019 onwards. ADIs would have four years in the first instance to meet the adjusted requirements. On this timeline, D-SIBs would be expected to maintain regulatory capital that exceeds the adjusted requirement by 2023.

Attachment A – Impact assessment

The proposals in this discussion paper aim to ensure there will be sufficient financial resources available to support the orderly resolution of ADIs. APRA's capital adequacy framework is currently applied in a manner that supports resilience and reduces the probability of failure. The existing application of the framework provides limited certainty that there would be sufficient loss absorbency available to support orderly outcomes in resolution.

Implementing the proposals would improve resolvability by reducing the likelihood that the financial resources available at the point of resolution would be insufficient to achieve an orderly outcome. A higher quantum of loss-absorbing capacity would provide additional protection to depositors and help promote financial stability in a crisis.

The proposals reduce the potential need for government support to a failing ADI and help mitigate potential funding advantages that flow to larger ADIs, which may improve competitive dynamics in the industry.

The amount of loss absorbency available would be determined with respect to the expected needs for the resolution strategy, which should ensure an efficient allocation of financial resources. Modifying the Total Capital requirement of ADIs on an individual basis instils a proportional approach and does not place unnecessary requirements on the industry in an undiscerning manner.

In developing the proposals, APRA has considered the expected costs for certain ADIs and the industry in aggregate from increasing the level of loss-absorbing capacity that is maintained. APRA's preliminary assessment suggests individual ADIs and the industry will have the capacity to implement the changes necessary to comply with the proposals without resulting in unnecessary cost for ADIs or the broader financial system.

Preliminary estimates suggest the total funding cost impact from increasing the D-SIBs' Total Capital requirements would not be greater than five basis points in aggregate based on current spreads. Assuming the D-SIBs meet the increased requirement by increasing the issuance of Tier 2 capital instruments and reducing the issuance of senior unsecured debt, the impact is estimated by observing the relative pricing of the different instruments. The spread difference between senior unsecured debt and Tier 2 capital instruments issued by D-SIBs is around 90 to 140 basis points.

On balance, APRA assesses that the benefits associated with making ADIs more resolvable outweigh the costs associated with compliance changes, increased funding costs and any flow on economic impacts from the proposals.

Attachment B – Peer group of international banks

ABN AMRO	Mitsubishi UFG Financial
Bank of America	Mizuho Bank
Bank of Montreal	Morgan Stanley
Bank of Nova Scotia	Nationwide Building Society
Bank of NY Mellon	Nomura Holdings
Barclays	Nordea
BayernLB	Oversea-Chinese Banking Corporation
BBVA	PNC Financial Services Group
BNP Paribas	Rabobank
Canadian Imperial Bank of Commerce	Royal Bank of Canada
Capital One	Royal Bank of Scotland
Citigroup	Santander
Commerzbank	Shinhan Bank
Crédit Agricole	Skandinavis Enskilda Banken
Credit Suisse	Société Générale
Danske Bank	Standard Chartered
DBS Bank	State Street
Deutsche Bank	Sumitomo Mitsui Financial Group
Goldman Sachs	Swedbank
Group BPCE	Toronto-Dominion Bank
Handelsbanken	U.S. Bancorp
HSBC Holdings	UBS Group
ING Bank	UniCredit
J.P. Morgan	United Overseas Bank
KB Kookmin Bank	Wells Fargo
KBC Group	Woori Bank
Lloyds Bank	

APRA