Response to Submissions

Review of capital standards for general insurers and life insurers

31 March 2011

www.apra.gov.au

Australian Prudential Regulation Authority

Preamble

APRA is reviewing its capital standards for general insurers and life insurers.

For general insurers, APRA introduced its current capital standards in 2002. Some minor modifications were made in 2006 and 2008.

The Life Insurance Actuarial Standards Board (LIASB) first introduced solvency and capital adequacy standards for life insurers in 1995. These standards were a requirement of the *Life Insurance Act 1995* (Life Act). The standards were extended to cover friendly societies in 1999 and amended in 2006 with the introduction of International Financial Reporting Standards. The Life Act was amended in 2007, transferring to APRA the responsibility for setting and administering prudential standards relating to solvency and capital adequacy.

In 2010 APRA issued a discussion paper and three technical papers outlining proposals to update the capital standards. APRA invited comment on its proposals and also invited insurers to participate in a quantitative impact study (QIS). APRA received a significant number of submissions and QIS responses.

This paper outlines APRA's response to the main issues raised in submissions and arising from assessment of the QIS responses.

APRA is inviting further comment on its proposals in light of the clarifications and amendments in this response paper.

Written submissions should be sent to InsuranceCapital@apra.gov.au by 31 July 2011 and addressed to:

Helen Rowell
General Manager, Policy Development
Australian Prudential Regulation Authority
GPO Box 9836
SYDNEY NSW 2001

Important

Submissions will be treated as public unless clearly marked as confidential and the confidential information contained in the submission is identified.

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.

Contents

Glossary **6**

Executive summary **8**

Chapter 1 – Introduction **10**

1.1 Background 10

1.2 Process and timetable 10

1.3 Structure of this paper 11

Chapter 2 – QIS results **12**

2.1 Scope of the QIS 12

2.2 General insurance 13

2.3 Life insurance 13

2.4 Friendly societies 15

Chapter 3 – Context and overarching themes **16**

3.1 Context of the review 16

3.2 Objective of the capital standards – target level of sufficiency 18

3.3 Structure of capital requirements 19

3.4 Overarching themes 22

Chapter 4 – Supervisory review and assessment **25**

4.1 Supervisory review and ICAAP 25

4.2 Supervisory adjustment to prescribed capital 27

Chapter 5 – Response to APRA's proposals: general insurers and life insurers **29**

5.1 Discount rates 29

5.2 Inadmissible assets 31

5.3 Asset risk 32

5.4 Operational risk 43

5.5 Aggregation benefit 46

5.6 Composition of capital base 48

Chapter 6 – Response to APRA's proposals: general insurers only **50**
6.1 Asset concentration risk charge 50
6.2 Insurance risk charge 53
6.3 Insurance concentration risk charge 56

Chapter 7 – Level 2 general insurance groups **64**
7.1 Introduction 64
7.2 Capital concepts 64
7.3 Inadmissible assets 64
7.4 Asset risk charge 65
7.5 Asset concentration risk charge 66
7.6 Insurance risk charge 66
7.7 Insurance concentration risk charge 66
7.8 Discount rates 68
7.9 Operational risk charge 68
7.10 Aggregation benefit 68

Chapter 8 – Response to APRA's proposals: life insurers only **69**
8.1 Capital base: termination value minimum 69
8.2 Capital base: inadmissible assets 71
8.3 Asset concentration risk: specialist reinsurers 72
8.4 Insurance risk 73
8.5 Methodology issues 78
8.6 General fund 80

Chapter 9 – Cost-benefit analysis information **82**

Attachment A **83**
1. Summary of proposals – general insurers 83
2. Summary of proposals – life insurers 90

Glossary

ADI	An authorised deposit-taking institution under the *Banking Act 1959*
APRA	Australian Prudential Regulation Authority
Appointed Actuary	The actuary appointed under the *Life Insurance Act 1995* or the *Insurance Act 1973*
BCBS	Basel Committee on Banking Supervision
BETV	Best Estimate Termination Value as defined in Chapter 8.1
Capital base	The capital that is eligible under the relevant prudential standards for meeting the Prudential Capital Requirement
DAC	Deferred acquisition costs
Friendly society	A friendly society as defined in the *Life Insurance Act 1995*[1]
General fund	The management fund for a friendly society or the shareholders' fund for other life companies
General insurer	A general insurer authorised under the *Insurance Act 1973*
GPS 114	Prudential Standard GPS 114 Capital Adequacy: Investment Risk Capital Charge
GPS 310	Prudential Standard GPS 310 Audit and Actuarial Reporting and Valuation
ICAAP	Internal Capital Adequacy Assessment Process
Insurer	A general or life insurer
Lapse	Voluntary discontinuance of a life insurance policy, whether or not a surrender value is payable
Level 1	Individual operating companies authorised to undertake activities within a single APRA-regulated industry (ADIs, general insurers, life insurers and RSE licensees)
Level 2	Consolidated groups within a single APRA-regulated industry, headed by an ADI, general insurer or authorised non-operating holding company
Level 3	Consolidated conglomerate groups with material operations across more than one APRA-regulated industry and/or in prudentially unregulated entities
Life insurer	A life company registered under the *Life Insurance Act 1995* (includes friendly societies)
Life Act	*Life Insurance Act 1995*
LMI	Lenders mortgage insurer
LPS 1.04	*Prudential Standard LPS 1.04 Valuation of Policy Liabilities*
LPS 2.04	*Prudential Standard LPS 2.04 Solvency Standard*

1 In this paper the terminology relating to friendly societies follows, in general, the conventions of the *Life Insurance Act 1995* and APRA's existing standards. For example references to statutory funds should be read as references to benefit funds, unless otherwise stated.

LPS 3.04	*Prudential Standard LPS 3.04 Capital Adequacy Standard*
MER	Maximum event retention as defined in *Prudential Standard GPS 116 Capital Adequacy: Concentration Risk Capital Charge*
ORC	Operational risk charge
PCR	Prudential Capital Requirement - the capital that an insurer would be required to hold at all times, determined as the prescribed capital amount (Pillar 1) together with any supervisory adjustment (Pillar 2)
Pillar 1	Quantitatively calculated requirements in relation to required capital, eligible capital and liability valuation
Pillar 2	The supervisory review process, which includes the supervision of the practices of insurers' risk management and capital management (ICAAP) and may include a supervisory adjustment to capital
Pillar 3	Disclosure requirements imposed by APRA
Policyholder	Includes policy owner as referred to in the *Life Insurance Act 1995*
PML	Probable Maximum Loss
Prescribed capital amount	The required Pillar 1 capital determined in accordance with quantitative rules as set out in the capital standards, before any supervisory adjustment is applied
PRP	Policy owners' retained profits as defined in section 61 of the *Life Insurance Act 1995*
QIS	The Quantitative Impact Study (completed in October 2010)
QIS2	The second Quantitative Impact Study (proposed for May to July 2011)
RFBEL	Risk Free Best Estimate Liability, determined as per the Best Estimate Liability calculated under LPS 1.04 but with the gross investment yield and liability discount rate set equal to the risk-free discount rate.
Servicing expenses	Servicing expenses as defined in *Prudential Standard LPS 7.02 General Standard*
Solvency II	European Commission initiative to reform its insurance regulatory requirements
Supervisory adjustment	An adjustment that APRA would make if the prescribed capital amount did not adequately account for all of an insurer's risks. The adjustment may increase the PCR or strengthen the composition of the insurer's capital base.
Target surplus	The targeted amount of surplus capital as determined by the board of the regulated entity or group in its ICAAP
Tier 1 capital	Comprises the highest quality capital components and is defined in *Prudential Standard GPS 112 Capital Adequacy: Measurement of Capital*
Tier 2 capital	As defined in GPS 112, includes other components of capital which, to varying degrees, fall short of the quality of Tier 1 capital
VASF	Value of the assets of a life insurance statutory fund

Executive summary

APRA is reviewing and updating its capital standards for general insurers and life insurers. The aims of the review include improving the risk sensitivity of the standards and achieving better alignment across APRA-regulated industries. APRA's proposals were set out in a discussion paper and three technical papers issued between May and September 2010. APRA also invited insurers to participate in a quantitative impact study (QIS) of the proposals in late 2010.

APRA is publishing this response paper as a further step in its review process. The paper summarises the results of the QIS and the submissions APRA received from the insurance industry and other interested parties. It also outlines the changes APRA is intending to make to its proposals in response to the QIS results and submissions.

QIS results

Although the QIS was voluntary, there was a high response rate from all sectors of the general insurance and life insurance industries (including friendly societies).

The QIS indicated that APRA's proposals would increase overall capital requirements across both industries. APRA expects some offsets to these increases as insurers revise their business and capital management strategies in light of the revised capital standards. Even allowing for these offsets, the increases in capital requirements at an industry level were significant, particularly for life insurers, and higher than APRA's intended outcome. APRA's letter to CEOs on the commencement of this review (dated 29 May 2009) indicated that APRA was not working from the position that current levels of capital are too high or too low, but rather it was timely to re-assess some of the details of the existing standards. Insurers were therefore concerned that the impact of the proposals was far greater than they had expected.

The impact of the proposals varied widely between insurers. For a small number of insurers, required capital was unchanged or reduced. Most insurers reported an increase in required capital and for some insurers the increase was significant. The range of outcomes is consistent with APRA's aim of enhancing the risk sensitivity of the capital standards.

Submissions to APRA

APRA received a large number of submissions in response to the discussion and technical papers from insurers, consultancies, industry associations and professional associations.

There was a broad level of support for APRA's objectives of improved risk sensitivity and better alignment across industries. Most life insurers welcomed the proposed changes in the structure of regulatory capital in their industry, which include the introduction of the concepts of capital base and required capital. Life insurers also supported the replacement of two capital requirements (solvency and capital adequacy) with a single measure of required capital.

There were many issues raised in submissions regarding the details of the proposals. Key overarching themes were the complexity of the proposals, the pro-cyclicality of some of the capital charges and the overall level of the proposed capital requirements.

Submissions commented that APRA's proposals would improve the risk sensitivity of the standards but at the expense of making them much more complex in some areas. Submissions suggested that additional cost and effort would be required by insurers to perform the calculations and that some of the proposals added too much complexity, for little gain in risk sensitivity. Submissions also indicated that it would be more difficult for insurer boards and management to understand the implications of the capital standards.

Some submissions argued that there were some strongly pro-cyclical aspects of the proposals. For example, it was suggested that some of the proposed asset risk charges would result in steep increases in capital requirements in adverse conditions, potentially forcing insurers to realise assets at depressed prices or raise additional capital when it would be difficult to do so.

Many submissions expressed concern that an outcome of the proposals was a level of required capital that was well in excess of APRA's intention of providing for a 99.5 per cent probability of sufficiency over a one-year period. The QIS results underlined these concerns.

A number of submissions asked APRA to provide greater clarity on how it intended to implement its proposals for the supervisory review and assessment of insurers. More information was also sought on the internal capital adequacy assessment process (ICAAP) proposals.

Revised proposals

APRA welcomes the high level of interest shown by industry and interested parties in the review, and the quality of the submissions. In December 2010 the timetable for the review was extended to allow APRA to give full and proper consideration to the submissions and the QIS. APRA has now revised a number of aspects of its proposals in response to the submissions, while other proposals have been retained. Further explanation of APRA's rationale and intent is set out in this response paper. The changes are summarised in Attachment A.

The changes to the original proposals simplify them (where appropriate), reduce some of the pro-cyclical effects and address areas where the proposals were overly conservative. The changes affect many of the components of required capital and the capital base and are expected to reduce the impact of the proposals at an industry level. Some insurers, however, will continue to see substantial increases in their capital requirements, reflecting the enhanced risk sensitivity of the standards.

The most extensive changes have been made to the asset risk charge and the operational risk charge for general and life insurers and to the insurance risk charge for life insurers.

The application of the proposals to Level 2 general insurance groups, the shareholder funds of life insurers and the management funds of friendly societies is also outlined in this paper.

Next steps

APRA intends to undertake a second QIS (QIS2), which is expected to be issued in late April 2011. Submissions on this response paper and responses to QIS2 are due at the end of July.

APRA will evaluate its revised proposals taking into account the results of QIS2 and the submissions on this paper. APRA will consider further revisions to its proposals at that time, particularly for life insurers, if such revisions will ensure an appropriate balance between its objectives of protecting policyholders and maintaining a stable, efficient and competitive insurance industry. APRA will issue a further response paper and draft prudential standards in late 2011.

Chapter 1 – Introduction

1.1 Background

APRA issued a discussion paper on 13 May 2010 outlining its proposals to update its capital standards for general insurers and life insurers.

In brief, APRA is seeking to:

- improve the risk sensitivity and appropriateness of the capital standards in general insurance and life insurance; and
- where appropriate, improve the alignment of capital standards across industries.

APRA also released three technical papers providing further detail on its proposals. The technical papers covered:

- the asset risk capital charge (12 July 2010);
- the capital base and insurance risk capital charge for life insurers (12 July 2010); and
- the insurance concentration risk capital charge for general insurers (30 September 2010).[1]

APRA received approximately 100 written submissions on its proposals from a wide range of stakeholders including general insurers, life insurers, friendly societies, consultancies, industry bodies and professional bodies.

APRA also invited insurers to participate in a quantitative impact study (QIS). The QIS responses enabled APRA to consider the impact of its proposals on the capital requirements of insurers and to refine the proposals.

As well as considering written submissions and QIS responses, APRA met with a number of insurers and other stakeholders to discuss the proposals and the feedback received in submissions.

Submissions were generally supportive of APRA's objectives in undertaking the review and the broad direction of APRA's proposals. This response paper summarises the main issues raised in submissions and APRA's response. APRA has refined its proposals in a number of areas to address some of the issues raised; in other areas, APRA has retained the proposals as outlined in the discussion paper and technical papers. This response paper also provides clarification on some aspects of the proposal, and further clarification and guidance will be developed where appropriate in subsequent stages of this review.

1.2 Process and timetable

APRA's discussion paper indicated that draft prudential standards would be released along with this response paper. Subsequently, APRA foreshadowed changes to the timetable in a letter to CEOs and Appointed Actuaries on 16 December 2010, which confirmed that APRA had decided to conduct a further round of formal consultation before releasing the draft prudential standards.[2] APRA has also decided to conduct a second QIS (QIS2) to enable it to gauge more accurately the effects of the changes to APRA's original proposals that are set out in this response paper.

When releasing QIS2, APRA will also provide a 'technical specifications' document. This document will combine the proposals made in the discussion paper, the three technical papers and the refinements discussed in this response paper.

1 The discussion paper and technical papers are available on APRA's website at www.apra.gov.au/Policy/Review-of-capital-standards-for-general-insurers-and-life-insurers-May-2010.cfm.

2 Available at www.apra.gov.au/Policy/Review-of-capital-standards-for-general-insurers-and-life-insurers-May-2010.cfm.

The key milestones in the timetable for the review are now:

29 April 2011	Release of QIS2 and technical specifications
31 July 2011	Submissions due on this response paper; QIS2 submissions due
30 October 2011	Release of second response paper and draft prudential standards for comment
31 January 2012	Submissions due on second response paper and draft prudential standards
April 2012	Release of final prudential standards
May 2012	Release of draft reporting standards for comment by 31 August 2012
October 2012	Release of reporting standards
1 January 2013	New standards effective
1 January to 31 March 2013	First reporting period under new standards

1.3 Structure of this paper

Chapter 2 provides an overview of the outcomes from the QIS and APRA's approach to using the QIS results to further refine its proposals. Chapter 3 briefly puts the review into context by discussing its overarching themes and APRA's principles underlying the review of capital standards. Chapter 4 describes APRA's approach to supervisory review and assessment, including how its approach has influenced this review.

Chapter 5 discusses APRA's response to submissions in areas that affect both general insurers and life insurers. Chapters 6 and 7 focus on APRA's response to submissions that are specific to general insurers and general insurance groups. Chapter 8 discusses submissions that are specific to life insurers. Chapter 9 requests insurers to provide cost-benefit information.

This paper also includes a high level summary of the proposals.

Chapter 2 – QIS results

2.1 Scope of the QIS

Following the release of the discussion paper and the technical papers, APRA conducted a QIS to assess the impact of its proposals. APRA released a draft QIS for consultation on 6 August 2010. Following this consultation, APRA released the final QIS on 1 September 2010, for completion by 29 October 2010.[3]

At the time of its release, APRA indicated that the QIS would be critical for assessing and refining the proposed changes to its capital standards. The results of the QIS have significantly influenced the refinement of APRA's proposals.

In total, 102 insurers participated in the QIS. APRA takes this opportunity to record its thanks to all these participants. The 35 life insurers and friendly societies that participated provided data in respect of 42 non-investment-linked statutory funds, 35 investment-linked statutory funds and 79 non-investment-linked benefit funds. Table 1 lists the number of participants per sector and their industry share. The industry share is measured as a proportion of the total industry assets for general insurance, as a proportion of total industry statutory fund assets for life insurers and total industry non-investment-linked benefit fund assets for friendly societies.[4]

Based on the number of participants and their industry share, APRA considers the sample to be highly representative of the Australian insurance industry.

Although the QIS information greatly assisted APRA in refining its proposals, many participants found parts of the QIS challenging. The QIS required participants to provide new information and to perform new calculations within a relatively short time. This was particularly the case for the asset risk module, the insurance risk module for life insurers and the insurance concentration risk module for general insurers. As a consequence, APRA observed a number of inconsistencies and errors in the submissions. Where it was possible to correct the errors, APRA adjusted the QIS submissions prior to analysing the results. In most cases, these adjustments led to a decrease in the calculated capital requirement.

2.1.1 Behavioural impacts

The QIS enabled APRA to assess the impact of its proposals by asking insurers to determine capital charges based on a past reporting date. This meant that the capital charges related to the position of insurers at that date, based on business and capital management strategies developed under the existing capital standards.

Table 1 – Industry participation

Industry	Participants	Total industry	Industry share
General insurers	67	129	89%
Life insurers (statutory funds)	77	93	97%
Friendly societies (non-investment-linked benefit funds)	79	135	67%

3 General insurers were given until 15 November 2010 to complete the insurance concentration risk capital charge calculations due to the delayed release of the corresponding technical paper.

4 For friendly societies, APRA received QIS results for one investment-linked benefit fund. APRA excluded investment-linked benefit funds from the analysis of the QIS. APRA proposes that operational risk will be borne by the management fund (see section 5.4 of this paper), which means that investment-linked benefit funds would typically hold little capital. APRA proposes to collect more information about investment-linked benefit funds in QIS2.

APRA expects that insurers are likely to review their business and capital management strategies in light of the proposed changes to the capital standards and to address any material increase in capital requirements where practical and appropriate to do so. APRA considers such behavioural changes to be a positive consequence of capital standards that are more risk-sensitive.

For example, APRA expects that the proposed insurance concentration risk charge for general insurers would encourage some general insurers to revise their catastrophe reinsurance strategy, specifically the limit of vertical reinsurance. Similarly, APRA expects that the proposed asset concentration risk charge would encourage some insurers to revise their investment management strategy.

In assessing the QIS results, APRA took into account these expected behavioural changes and the impact they may have on required capital.

APRA is only able to broadly estimate the extent to which behavioural changes by insurers may reduce the relevant capital charges. There are also likely to be some costs associated with the changes to business and capital management that would mitigate these capital impacts. These costs are, however, expected to be materially less than the increase in required capital under APRA's proposals. APRA also notes that insurers may have other reasons to keep their strategies unchanged despite the increase in required capital. In such cases, APRA considers that a higher capital charge would be warranted to better reflect that risk profile.

2.1.2 Overall results

The following sections outline APRA's conclusions from the QIS. APRA has refined its proposals in response to the QIS results and intends to assess the impact of these refinements based on the results of a second QIS to be undertaken over coming months.

2.2 General insurance

The QIS indicated that APRA's proposals to update its capital standards would, without refinement, have significantly increased required capital for the general insurance industry. The main drivers for the increase were the asset concentration risk charge and the insurance concentration risk charge. The asset risk charge was also greater than the existing investment risk charge, but this change was not as material as for asset concentration risk and insurance concentration risk. The explicit operational risk charge also increased required capital. The increases in required capital were partly offset by the new aggregation benefit.

When the likely behavioural changes are taken into account, the apparent increase in required capital is substantially reduced. As noted above, APRA expects that insurers with a large asset concentration risk charge or a large insurance concentration risk charge would act to significantly reduce the impact of these charges.

In light of the QIS results, APRA has refined its proposals in order to achieve levels of required capital more consistent with a 99.5 per cent probability of sufficiency. APRA's expectation is that the results of the second QIS based on the revised proposals for general insurance will not indicate a major change in aggregate industry required capital.

2.3 Life insurance

Analysis of the QIS results for life insurers was complicated by several factors. These included:

- the proposed changes to the capital standards represent a significant change to the structure of capital requirements for life insurers. Under the existing standards, life insurers compare solvency and capital adequacy requirements with total assets. Under the proposals, a single measure of required capital is compared with a capital base;

- under the existing standards, no resilience reserve is required for assets in excess of those required to meet the solvency or capital adequacy requirements. The proposed asset risk charge considers variations in the value of all admissible assets; and
- for the QIS, all policyholder retained profits were required to be reported as part of the adjusted policy liabilities. When adopting this treatment, required capital comprises only shareholder amounts. The existing standards allow policyholder retained profits to support the capital adequacy requirements of non-participating business provided that the support is on commercial terms.

These differences made it difficult to directly compare the existing and proposed capital requirements. APRA took these effects into consideration when drawing conclusions from the QIS results. As for general insurers, APRA has also taken into account likely behavioural changes when assessing the impact of its proposals.

APRA performed a separate analysis for investment-linked and non-investment-linked statutory funds. For the investment-linked statutory funds, the introduction of the operational risk charge was largely offset by the removal of the requirement to apply an investment-linked risk margin to the solvency minimum termination value. However, the requirement to determine an asset risk charge in respect of all admissible assets resulted in an overall increase in required capital.

Required capital also increased overall for the non-investment-linked statutory funds. The drivers of the increase varied by statutory fund, with some funds impacted by the proposed requirement to apply the termination value minimum at the proposed APRA product group level, some impacted by the proposed requirement to hold capital in respect of mortality and morbidity event stresses, and others impacted by differences between the proposed asset risk charge and the resilience reserve. All funds experienced an increase in required capital due to the introduction of the explicit operational risk charge. For some funds, surplus capital increased because the proposed capital requirements do not have equivalents for some reserves (such as the expense reserve and the new business reserve) that apply under the existing capital standards.

While the QIS indicated that, overall, the proposed capital requirements were substantially higher than under the existing standards, for some funds the proposed requirements would be lower than the existing requirements.

As noted earlier in this chapter, the QIS required participants to provide new information and to perform new calculations within a relatively short time. In response to APRA's questionnaire that accompanied the QIS, several life insurers noted that, due to time constraints, an approximate approach was taken when setting insurance risk margins. A number of insurers used the margins that were provided by APRA. These margins were set for small insurers so it is possible that the proposed insurance risk charge has been overstated.

APRA also observed wide variation in the margins applied for the morbidity event stress, with some insurers adopting margins similar to those prescribed for the Solvency II QIS, some using a much higher margin that was comparable to the prescribed pandemic minimum for the mortality event stress and others assuming nil morbidity event stress. This variation is also expected to have distorted the QIS analysis and resulted in material overstatement of the proposed insurance risk charge for some insurers.

The QIS analysis showed that the proposed insurance risk, asset risk and operational risk components were the key areas driving the higher capital requirements for most life insurers.

The range of life insurer QIS results was more varied than was the case for general insurers. The revised proposals set out in this response paper are expected to reduce the impact for life insurers. APRA will also consider further adjustments to its proposals for life insurers after analysis of the QIS2 results.

2.4 Friendly societies

As with life insurers, the friendly society industry saw an increase in overall capital requirements under the QIS proposals. Participation in the QIS was highest for investment account, risk, and funeral benefit funds.

In completing the QIS, friendly societies adopted a variety of approaches to classifying amounts between liabilities and capital charges for asset and insurance risk. In some cases these classifications, in addition to being inconsistent with reporting under the existing standards, were inconsistent with the proposals outlined in the discussion paper. Where possible, APRA took this into consideration when drawing conclusions from the QIS results.

The new asset risk charge was in excess of the current resilience reserve, increasing industry capital requirements. This was offset by a decrease in the insurance risk charge relative to the current capital adequacy liability. A significant part of this result arose because some friendly societies transferred asset-based risk reserves from the Capital Adequacy Liability (under their current D2A reporting) to the asset risk charge of the QIS. The remainder is due to the differences between the QIS proposals and the existing standards.

Besides the new asset risk charge, the other driver of the capital increase was the excess of the new asset concentration risk charge over the current inadmissible assets reserve. Behavioural changes, as discussed earlier, are likely to diminish this impact.

The new operational risk charge did not have an impact on the benefit fund capital requirements because this charge is proposed to be held in the management fund. The effect of this will be seen in QIS2.

Chapter 3 – Context and overarching themes

This chapter restates and clarifies the context of APRA's review of its insurance capital standards. A number of submissions requested that APRA clarify the principles underlying the capital review and the objective of the capital standards (i.e. the target level of sufficiency).

This chapter also addresses submissions received on APRA's proposal to align the structure of the capital framework for general insurers and life insurers.

A number of submissions raised overarching themes in relation to the proposed changes to the capital standards, including complexity, pro-cyclicality and the overall level of capital. These themes are addressed in this chapter.

3.1 Context of the review

The review of APRA's capital standards for general insurers and life insurers is being undertaken within the broader context of APRA's approach to prudential regulation and supervision. APRA's supervisory approach is forward-looking, primarily risk-based, consultative, consistent and in line with international best practice. Its framework for prudential supervision adopts an approach that is risk-based, outcomes-focussed and principles-based.[5] APRA has adopted these same principles for its review of the insurance capital standards.

3.1.1 Risk-based, outcomes-focussed and principles-based capital standards

The discussion paper indicated that, in undertaking the review of capital standards for insurers, APRA sought to 'improve the risk sensitivity and appropriateness of the capital standards in general and life insurance'.[6]

The discussion paper noted that, in order to be confident that an insurer has sufficient capital resources, APRA requires that risks be appropriately recognised and valued and that capital held is commensurate with the risks to which the insurer is exposed.

APRA aims to improve the risk sensitivity of its capital standards so that:

- an insurer's regulatory capital requirement better reflects its risk profile;
- a minimum level of protection is provided to policyholders regardless of the type of policy held and of the business model or structure of the insurer; and
- the capital to be held by each insurer changes in line with changes to the levels of risk to which it is exposed. There should not be opportunities for reducing capital unless there is a corresponding reduction in risk.

Further, improvement in risk sensitivity facilitates:

- levelling the regulatory playing field between individual insurers and across industries by better aligning required capital with risk;
- better alignment with internal models for risk-based capital;
- better information on risks that insurers undertake; and
- increased understanding of risk by boards and management of insurers and by APRA.

APRA recognises the need to balance the benefits of greater risk sensitivity with the desirability of maintaining clarity and avoiding undue complexity. This is addressed later in this chapter.

5 For a more general and complete explanation of these principles as they apply to prudential supervision please see the APRA Supervision Blueprint available at www.apra.gov.au/AboutAPRA/upload/APRA-Supervision-Blueprint-FINAL-08Jan2010.pdf

6 Refer to page 13 of the discussion paper.

APRA seeks principles-based and outcomes-focussed prudential standards, emphasising the achievement of sound prudential outcomes in setting regulatory requirements and expectations, without necessarily seeking to specify or prescribe the exact manner in which those outcomes must be achieved. However, there are areas where some degree of prescription is required, particularly in regard to setting capital standards.

The proposed insurance capital standards focus on ensuring that an insurer has sufficient capital resources, commensurate with the risks to which the insurer is exposed. While APRA considers that there are advantages in setting general and unambiguous rules for determining the prescribed capital amount, there are areas where it is not possible to set general requirements that are appropriate for the whole industry. In these areas, APRA will rely on the insurer in the first instance to determine the appropriate capital requirement within the principles-based guidelines set by APRA, using the judgement of the insurer's Appointed Actuary where appropriate.

APRA's proposal to formalise a Pillar 2 supervisory adjustment to required capital also reflects APRA's principles-based, outcomes-focussed approach. The Pillar 1 capital requirements, as a set of prescribed rules, cannot fully address all of the risks and circumstances that each insurer faces. The Pillar 1 capital requirements would also not necessarily account for the manner in which insurers are managed and in particular the quality of an insurer's risk management. The Pillar 2 supervisory adjustment will enable APRA to specify appropriate adjustments to an insurer's required capital where these aspects are not adequately captured in the prescribed capital amount.

The prudential capital requirement (PCR) is a 'minimum' requirement. APRA expects insurers to hold capital above this requirement to ensure that policyholders are protected in all reasonable circumstances. This principle underlies APRA's proposed requirement for an insurer to have an adequate internal capital adequacy assessment process (ICAAP), which places responsibility for holding sufficient capital with the insurer's board and management.

3.1.2 Alignment across industries

APRA is seeking, where appropriate, to improve the alignment of the capital standards across industries.[7]

As the financial system has developed, groups with entities operating in more than one industry have become more common. It is important that similar risks are treated in a similar way, regardless of the nature of the entity undertaking the risk.

There are clearly benefits in aligning the capital standards where possible. These benefits include not only levelling the regulatory playing field between industries, as already noted, but also:

- easier comparison and understanding of regulated entities operating in different industries for stakeholders and observers (including boards, policyholders, analysts and investors);
- simplified risk management for groups whose activities extend across two or more APRA-regulated industries; and
- more effective supervision by APRA of companies or groups whose activities extend across two or more APRA-regulated industries.

Although APRA sees alignment as a useful goal, it also recognises that different industries offer different products with different business models and different risks. These risks may require specific capital treatments because each industry has its own features in terms of structure, regulation (by APRA and other agencies) and the risks to which it is exposed. The different industries are also subject to their own accounting standards.

It is particularly important to take into account the differences in regulatory and accounting frameworks when comparing the capital treatment of risks and products across industries. These constrain the extent of alignment that is able to be achieved in practice and also make direct comparison of capital outcomes quite complex.

7 Refer to page 13 of the discussion paper.

3.1.3 Influence of international developments

APRA noted in the discussion paper that the review of its insurance capital standards is taking into account industry and other developments, including international regulatory developments, since the existing standards were set.

Improved harmonisation and comparability with regulatory regimes in other jurisdictions has benefits for companies that operate overseas, companies that are subsidiaries or branches of foreign companies and for local insurers competing with foreign-owned insurers. Accordingly, APRA has reviewed the standards and guidance developed by the International Association of Insurance Supervisors (IAIS), the development of Solvency II in Europe, insurance regulation developments in other jurisdictions and the Basel Committee for Banking Supervision (BCBS) developments (in particular Basel III proposals for quality of capital).

The IAIS standards establish high-level principles for the regulatory capital framework for insurers. APRA's insurance capital standards have adopted, and will continue to adopt, those principles. Due to the diversity of international insurance markets and regulatory frameworks, however, there is no single international reference point for detailed insurance capital standards such as is provided by the BCBS capital framework for banking.

APRA will therefore continue to monitor relevant international developments, with a view to maintaining broad consistency with the direction of these developments. APRA will incorporate, to the extent appropriate, any aspects of these developments that it regards as desirable whilst ensuring that APRA's capital framework remains appropriate to the Australian insurance industry.

3.2 Objective of the capital standards – target level of sufficiency

APRA must strike a balance between protecting the interests of policyholders, protecting financial system stability in Australia and allowing the continued development of a viable, competitive and innovative insurance industry. APRA aims to achieve this balance by targeting a very low (but not zero) failure rate for the institutions it supervises.

APRA proposed in the discussion paper that the level of required capital for both general and life insurers would be set such that an insurer would have sufficient capital to absorb unexpected shocks or losses that may arise over a one-year period, with a 99.5 per cent level of probability. The insurer would continue to be able to meet its obligations to policyholders at the end of that period. The discussion paper noted, however, that all risk assessments at this level are approximate and in some cases subjective, such that the ultimate details of the capital standards are a matter of judgement for APRA.[8] Neither APRA nor the industry expects that human judgement and analysis gives full confidence that any particular capital standard generates a result as precise as 99.5 per cent sufficiency. What is clear, however, is that a numeric standard at this level aspires for a robust but not totally failure-proof industry. Neither APRA nor industry is able to guarantee a zero-failure regime, and trying to achieve such a regime would likely stifle insurance risk-taking in support of economic activity in Australia.

8 Refer to page 21 of the discussion paper.

Comments received

In general, the submissions supported the need for a principle that articulated the 'outcome' objective of APRA's proposed capital standards as a foundation to guide actuaries and insurers in those areas requiring their judgement. A number of submissions requested further clarity in this area. Some submissions also expressed concern that elements of the proposals were not clear as to whether a wind-up or going-concern scenario was contemplated, thereby making it difficult to interpret and apply the required probability of sufficiency. It was also indicated that the required level at which the insurer's obligations to policyholders at the end of the one-year period should be determined was not sufficiently clear.

APRA's response

APRA's views on capital quality are set out in *Prudential Standard GPS 112 Capital Adequacy: Measurement of Capital*. They were also described in the 'capital base and insurance risk charge' technical paper for life insurers. The components of the capital base must fully satisfy all of the following essential characteristics (with some exceptions for components of Tier 2 capital):

- provide a permanent and unrestricted commitment of funds;
- be freely available to absorb losses;
- not impose any unavoidable servicing charge against earnings; and
- rank behind the claims of policyholders and creditors in the event of winding-up.

The claims of policyholders and creditors in the event of winding-up are explicitly considered in determining the capital base. APRA considers that the claims of life insurance policyholders in the event of winding-up would be at least equal to the termination values of their policies. Accordingly, APRA has proposed applying a termination value minimum in determining policyholder liabilities for life insurers.

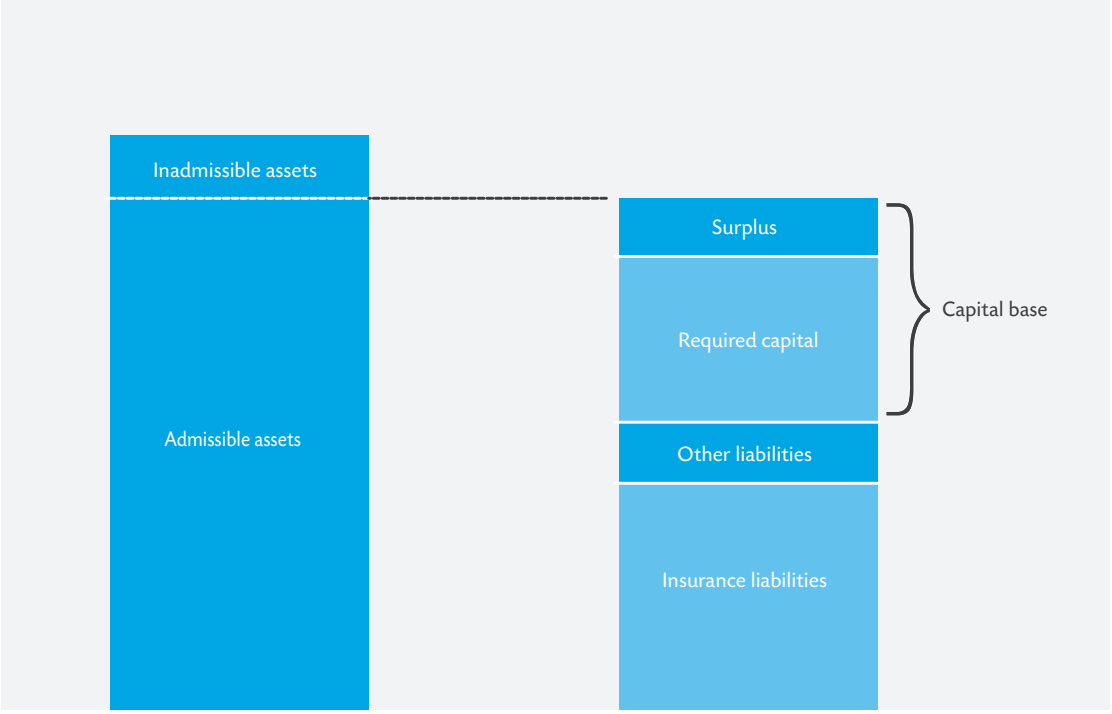
APRA intends that if an insurer were to start the year with a capital base equal to the PCR and losses occur at the 99.5 per cent confidence level then the assets remaining would be sufficient to provide for the central estimate of the liabilities at the end of the year.

APRA is proposing this as a general principle to enable it to set the level of required capital in its updated capital standards. Considerable judgement is required in applying this principle. Further, Chapter 4 explains APRA's supervisory approach and, in particular, explains that it would intervene at an early stage if an insurer's capital shows any signs of falling below its PCR. APRA does not intend that an insurer would ever reach a level of capital only sufficient to provide for the central estimate of the liabilities.

3.3 Structure of capital requirements

The discussion paper proposed a common framework for required capital and eligible capital across general insurers and life insurers. For life insurers, APRA proposed replacing the two existing requirements for solvency and capital adequacy with a single measure of required capital that would be compared with a defined capital base. This is illustrated in Figure 1.

Figure 1 – Proposed structure of capital

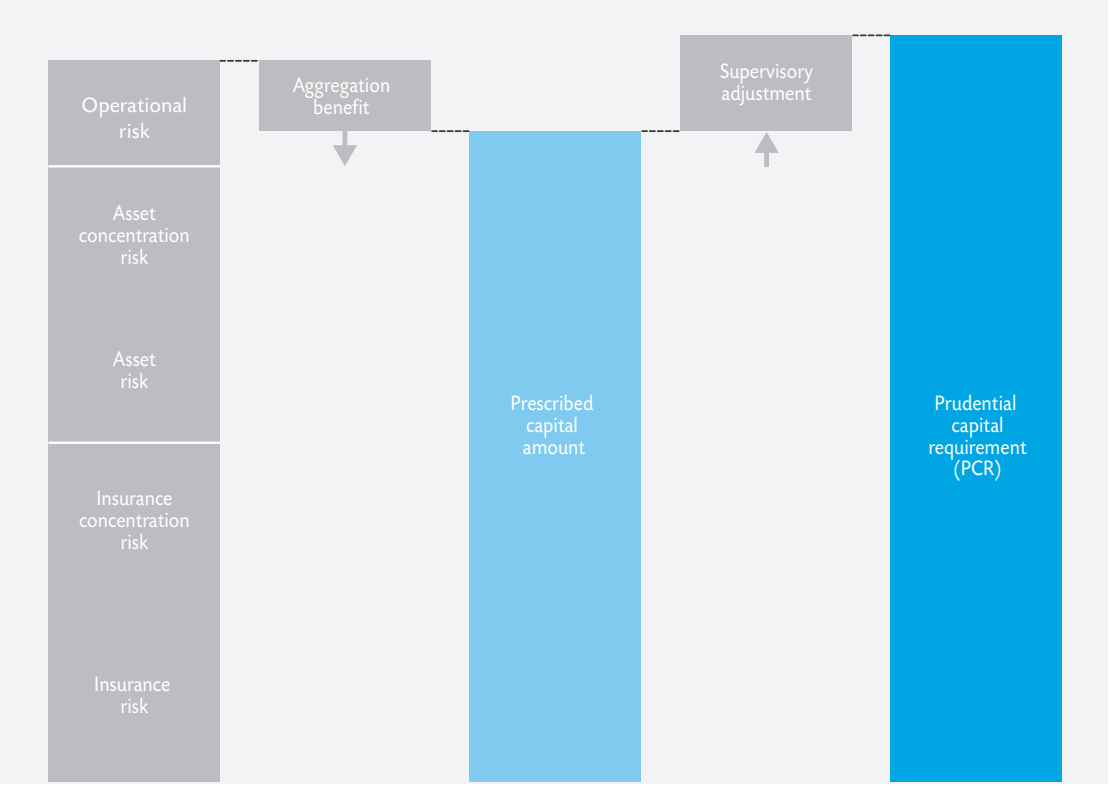


The discussion paper also proposed that required capital, for both general insurers and life insurers, would consist of a prescribed capital amount and a supervisory adjustment. The prescribed capital amount would be calculated by a set of quantitative rules and would comprise capital charges to cover asset risk, asset concentration risk, insurance risk, insurance concentration risk and operational risk, with an aggregation benefit. If APRA were of the view that the prescribed capital amount did not adequately account for all of an insurer's risks, it would apply a supervisory adjustment. As shown in Figure 2, total required capital for an insurer (the prudential capital requirement (PCR)) is the prescribed capital amount together with any supervisory adjustment.

The discussion paper used Figure 1 to introduce APRA's proposed structure for capital requirements.[9] Section 3.3 of the life insurance technical paper discussed the more complex case of participating life insurance business. APRA proposed that policyholder retained profits (PRP) would be treated as a liability for capital purposes, as intended in APRA's existing capital standards, and is therefore not part of the 'surplus' illustrated in Figure 1. APRA considers that PRP belongs to the participating policyholders and therefore cannot be included in surplus. APRA recognises that PRP is a buffer to protect participating policyholders and that it adds to the strength of a life insurer.

9 Refer to page 18 of the discussion paper.

Figure 2 – Proposed structure of required capital



Comments received

Submissions supported the proposed change to a common cross-industry capital framework that is more risk-sensitive and provides greater simplicity and transparency for all stakeholders. The replacement of the dual capital reporting requirement for life insurers with a single measure of required capital was also welcomed.

With respect to the concepts of eligible capital (referred to as the 'capital base') and required capital for life insurers, some submissions raised concerns as to how the measures were defined and the consequent potential for industry observers to misinterpret the capital strength of life insurers. Specific issues raised in relation to the determination of eligible capital and required capital are addressed in later chapters of this response paper.

Insurers generally acknowledged the need for explicit provision in the capital standards for a supervisory adjustment in addition to the prescribed capital amount. However, many submissions sought further information regarding how APRA would implement such adjustments in practice.

APRA's response

In light of the broad support indicated in submissions, APRA confirms that it will be moving to a common structure for its capital standards across the two insurance industries, which is also the structure for the banking industry. APRA will continue to work with industry to ensure that the framework, and reporting under the framework, is interpreted correctly. The supervisory adjustment and its implementation are addressed in Chapter 4.

3.4 Overarching themes

3.4.1 Complexity

The discussion paper noted that APRA recognises the need to balance the benefits of greater risk sensitivity of its capital standards with the desirability of maintaining simplicity and clarity.[10] APRA also noted that a consequence of moving to a more risk-sensitive framework is that the overall level of complexity of the framework would increase.

Comments received

One of the main themes in the submissions received from both general insurers and life insurers was the perceived additional complexity of aspects of the proposed capital framework. At the same time, it was acknowledged that some increase in complexity was inevitable given APRA's objective (which was generally supported) of making the capital standards more risk-sensitive.

General insurers (and in particular smaller general insurers) indicated that the proposed asset risk capital calculations are substantially more complex than the existing framework and that this increase in complexity is not warranted. They suggested that this was particularly the case for insurers that have conservative investments.

The proposed insurance concentration risk charge for general insurers was also considered to be overly complex.

Similarly, a number of submissions suggested that aspects of the proposals for life insurers were overly complex. Examples were the application of the best estimate termination value (BETV) minimum and the inclusion of too many 'second order' risks and product categories that will not materially have an impact on the overall outcomes. For smaller and simpler life insurers and friendly societies in particular, the additional complexity was argued to outweigh the benefits of enhanced risk sensitivity.

Submissions commented that the inclusion of a new operational risk charge made the framework as a whole more complex, even though the formula for this charge is straightforward. Finally, submissions indicated that the use of correlations, including the introduction of the aggregation benefit, added an additional layer of complexity.

Submissions indicated that, as a consequence of these added complexities, the proposed framework would be less transparent and would require more actuarial involvement, increasing the administrative burden and costs. Submissions also noted that the complexity of the proposals would increase the difficulties of decision-making and capital forecasting.

APRA's response

APRA acknowledges that a consequence of moving to a more risk-sensitive framework is that the overall level of complexity of the framework will increase. In refining its proposals, APRA has where possible sought greater simplicity and endeavoured to address the comments on complexity made in submissions.

APRA has made a number of amendments to the asset risk charge to simplify its calculation while still maintaining its risk sensitivity. For general insurers, APRA has simplified the formula for the proposed insurance concentration risk charge. Further, many insurers would not need to calculate all components of this risk charge (the horizontal requirement, vertical requirement, and non-property risk charge).

For life insurers, the separate morbidity event stress and the requirement to stress termination values at the reporting date have been removed.

Risk diversification is inherent to insurance. Industry practitioners are expected to be intimately familiar with the concept and the related concept of correlation. APRA therefore considers it appropriate to have correlation matrices in the proposed capital framework.

10 Refer to page 13 of the discussion paper.

Some increase in the complexity of the method for determining the insurance concentration risk charge for general insurers is warranted to address identified gaps in the existing framework. This includes the change to the determination of the vertical capital requirement and the inclusion of the horizontal capital requirement for property exposures.

APRA considers that the amended proposals presented in this response paper go a considerable way towards achieving the right balance between ensuring that the proposed capital standards are not unduly complex whilst enhancing their risk sensitivity. More specific information on the revised proposals is provided in the relevant sections in this response paper.

3.4.2 Pro-cyclicality

In reviewing its capital framework APRA recognises pro-cyclicality (i.e. the magnifying effect of the framework that can sometimes occur in adverse conditions, making the conditions worse) where it is appropriate to do so. It is not possible, however, to develop a capital framework that is fully counter-cyclical. When capital is reduced by adverse conditions, prudential capital does not reduce in lock step. So it is inevitable that capital standards have some element of pro-cyclicality.

Nevertheless, APRA has consciously sought to reduce this effect where it is prudent to do so.

Comments received

Several submissions identified areas where they viewed APRA's proposed framework to be pro-cyclical. For example, the multiplicative stresses for real interest rates, inflation and volatilities were considered to be particularly pro-cyclical as the impact of the shock depends on the current level of the relevant assets. Other pro-cyclical elements were also identified.

APRA's response

APRA agrees that some of its proposals have potentially pro-cyclical features. APRA has addressed the pro-cyclical features that have been identified , to the extent possible and appropriate. Specifically, the real interest rates shock has been capped, the inflation risk shock is now additive instead of multiplicative, the volatility shocks on interest rates and currencies have been removed and the volatility shock on equity is now additive instead of multiplicative. By reducing the credit spread factors for lower quality assets, the impact of rating downgrades has been reduced.

Specific information on the revised proposals is provided in the relevant sections in this response paper.

3.4.3 Overall level of capital

APRA noted in the discussion paper that, in commencing its review of the capital standards, its starting position was not that the current capital requirements for the general and life insurance industries were, overall, either too low or too high. It was also indicated that it would not finalise the proposals without assessing carefully their likely effect on capital at an individual insurer level and in aggregate, drawing on the QIS results.

The discussion paper also noted that it was inevitable that the implementation of more risk-sensitive capital requirements would lead to most insurers having different capital requirements from those under the existing capital standards.

APRA also noted that, for general insurers, a component of the inflation risk that relates to premiums liabilities was already allowed for in the insurance liability risk margins. APRA sought industry comment on two proposed solutions to this issue.

Comments received

A common concern expressed by industry, both in submissions and in public comment, was that under the proposed capital framework the level of capital across the industry and for individual insurers would increase materially. Very few insurers appeared to require less capital. A number of submissions asserted that excessive 'layers of conservatism' in APRA's proposals, including the need to hold target surplus above the PCR, took the probability of sufficiency beyond the target level of 99.5 per cent.

A few submissions pointed to the need to ensure that the insurance business was not over-capitalised and noted that the impact of increased capital on prices might exacerbate underinsurance and potentially stifle innovation.

Finally, some submissions commented that there was no empirical evidence to suggest that the current industry capital framework has gaps or that the level of industry capital is inadequate.

APRA's response

As was noted in Chapter 2, the QIS indicated that APRA's proposals would lead to an increase in required capital for insurers. For some insurers this increase was quite substantial. For a small number of insurers required capital was unchanged or reduced. Some of the apparent increase in required capital was due to the way in which industry completed the first QIS, and is not expected to flow through to actual increases in required capital.

It is nonetheless the case that the aggregate increases in capital indicated by the QIS responses are higher than APRA's intended outcome. This is the main driver for the second consultation and QIS2.

APRA has modified its proposals in response to a number of the issues raised in submissions. APRA has also addressed the areas identified in the discussion paper as still needing to be resolved, such as the double-counting of inflation risk for general insurers.

APRA anticipates that, with the implementation of the revised capital standards, many insurers will review their business and capital management practices in response to the proposed changes to the capital requirements. APRA considers this to be a natural and desirable outcome of revising its capital standards to make them more risk-sensitive.

As noted in the discussion paper, introducing a more risk-sensitive capital framework will inevitably affect some insurers more than others. This is an intended outcome. APRA's proposed reforms will increase required capital for life insurers and general insurers with higher risk relative to insurers with lower risk. This result will help support a safer, but at the same time, more efficient and competitive industry.

APRA considers that the changes to the proposals as set out in this response paper will considerably mitigate the impact on required capital for many insurers, and for the general insurance and life insurance industries as a whole. This is particularly the case when expected behavioural changes are considered. APRA is undertaking a second QIS to enable a more accurate assessment of the impact of its revised proposals. APRA expects, particularly for its proposals for life insurers, that further adjustments to its proposals will be necessary.

APRA recognises that some insurers may be significantly affected by the implementation of more risk-sensitive capital standards. APRA will consider transition arrangements for these insurers on a case-by-case basis.

Chapter 4 – Supervisory review and assessment

The discussion paper outlined APRA's proposed approach to supervisory review and assessment. APRA proposed to adopt a three pillar approach to the capital adequacy framework for general insurers and life insurers, consistent with the approach adopted for authorised deposit-taking institutions (ADIs) and to some extent already in place for general insurers. The three pillars are mutually reinforcing and consist of Pillar 1 (quantitative calculations for required capital), Pillar 2 (the supervisory review process) and Pillar 3 (disclosure requirements).

The discussion paper outlined the principles underlying APRA's Pillar 2 supervisory review process and the approach to determining the Pillar 2 supervisory adjustment to prescribed capital. The discussion paper also proposed introducing a requirement for an insurer to develop and maintain an internal capital adequacy assessment process (ICAAP), which would include the determination of its target capital policy.

APRA received positive feedback on the proposal to introduce the three pillar approach to the capital adequacy framework. Several submissions, however, made specific comments on aspects of each of the three pillars and how they would be implemented in practice.

4.1 Supervisory review and ICAAP

APRA proposed to formalise the supervisory review process, including the following four principles for review of capital adequacy:

1. Each insurer would have a process for assessing its overall capital adequacy and a strategy for maintaining its capital levels.
2. APRA would review and evaluate each insurer's internal capital adequacy assessment and strategy, as well as its ability to monitor and comply with regulatory capital requirements. APRA would take supervisory action if it were not satisfied with the result of this process.
3. Each insurer would operate above its required capital amount and APRA would have the ability to adjust required capital where there are prudential reasons to do so.
4. APRA would intervene at an early stage if an insurer's capital showed any signs of falling below the required capital amount and would require remedial action if capital were not maintained or restored.

Comments received

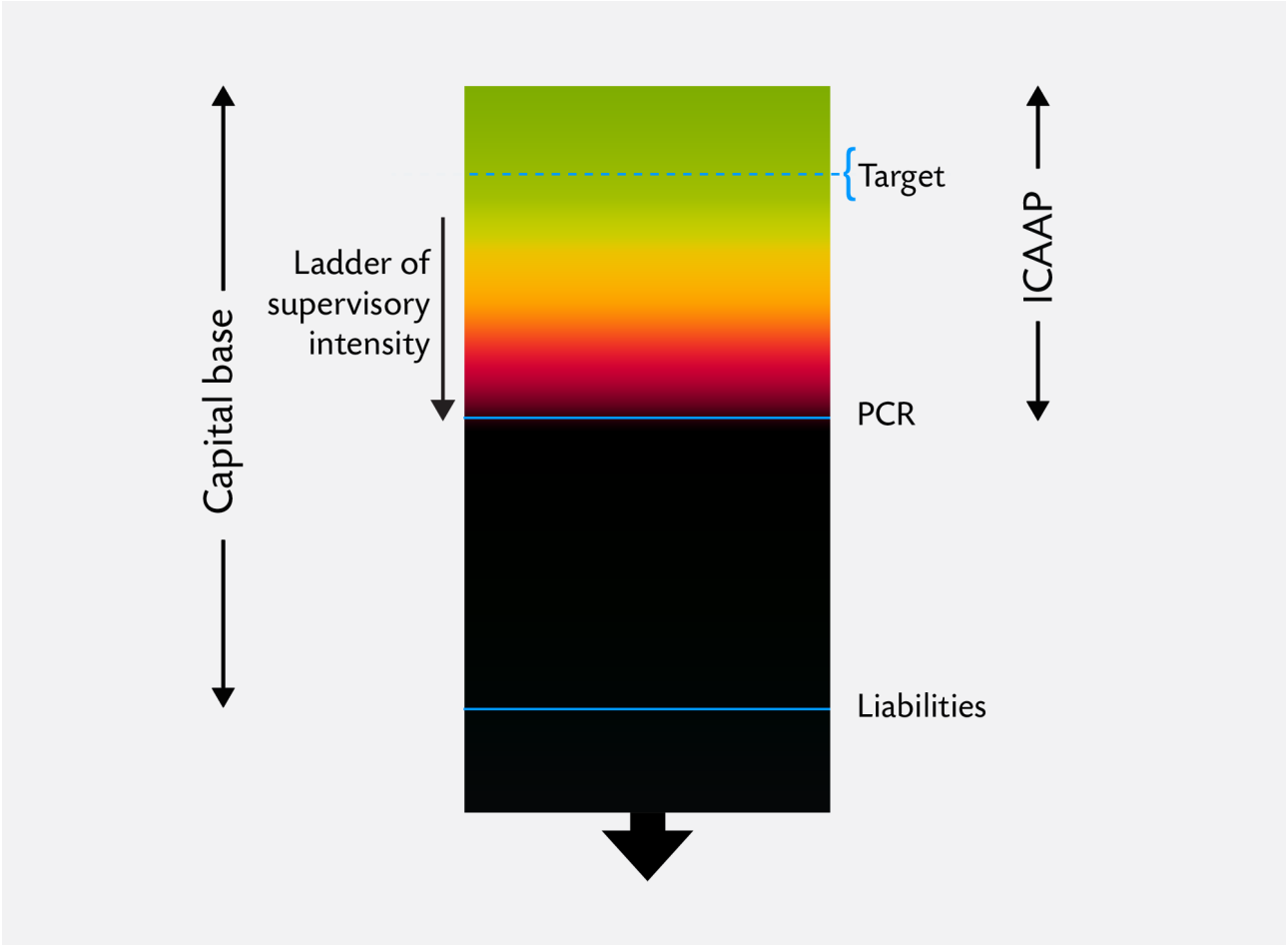
There was general support for the formalisation of the ICAAP.

Submissions raised concerns that APRA was requiring an insurer to set more than one target capital level and that the insurer must meet the target capital level at all times or face serious supervisory intervention. Submissions also sought clarity on how the ICAAP would operate and interact with other important documents such as the business plan, capital management plans and the financial condition report (FCR). Finally, some submissions sought clarification as to how the ICAAP would apply for conglomerate groups.

APRA's response

Figure 3 below provides a graphical representation of the key concepts of PCR, ICAAP, target capital position and APRA's supervisory intervention process.

Figure 3 – Supervisory process



Prudential capital requirement (PCR)

The PCR represents the total required capital that an insurer must hold at all times and comprises the prescribed (Pillar 1) capital amount together with any Pillar 2 supervisory adjustment. The supervisory adjustment is discussed in Section 4.2 below.

ICAAP and target capital position

As outlined in the discussion paper, APRA already expects insurers to have in place a process to assess their capital needs and manage their capital levels. The proposed ICAAP builds on and more explicitly articulates those requirements. As the name suggests, the ICAAP would go beyond the need to meet regulatory capital requirements and APRA would expect it to include a comprehensive assessment by the insurer of its risk profile and the capital needed to support the risks undertaken. The ICAAP would address all aspects of the insurer's capital adequacy framework, including board and management oversight, comprehensive assessment of risks, development of target capital policy, and monitoring, reporting and review.

The ICAAP would need to include the insurer's assessment of capital needs as well as capital projections relative to target levels. The insurer's capital targets would be set to reflect the board's risk appetite. APRA would not prescribe an insurer's approach to setting target capital; it could be a range or a single target level. The insurer would be expected to manage its capital according to its ICAAP and target capital policy.

The ICAAP would also include an adequate process for monitoring actual capital levels relative to internal capital targets and regulatory capital levels. This process would need to include the actions that would be taken when actual capital levels diverge from target levels. This may include raising capital, reducing or ceasing dividends or lowering the capital requirement through de-risking strategies. APRA expects that the action plan would also include processes for communicating and engaging with APRA.

APRA will provide additional guidance on ICAAP requirements as part of the implementation of the revised capital standards.

Supervisory intervention

As indicated above, APRA expects an insurer to establish a target capital policy as part of its ICAAP. It is expected that, at times, the actual capital of an insurer may be below target levels. This is acceptable as long as the situation is addressed by its ICAAP and managed accordingly.

The intensity of APRA's supervisory attention will increase as the insurer's capital level approaches the PCR. The PCR is the regulatory minimum and any breach of the PCR can be expected to generate immediate supervisory attention. An insurer that breaches PCR will therefore need to take immediate steps to address this breach if it is to avoid explicit intervention by APRA.

4.2 Supervisory adjustment to prescribed capital

The discussion paper briefly outlined APRA's supervisory review process and proposed that APRA may apply a Pillar 2 or supervisory adjustment to the prescribed capital amount. This adjustment may increase the total required capital amount and/or strengthen the composition of the insurer's capital base. The discussion paper indicated that the application of a supervisory adjustment was just one of the tools available to APRA in supervising an insurer's capital adequacy.

4.2.1 Determination of the supervisory adjustment

Comments received

Submissions generally endorsed the concept of the proposed supervisory adjustment, but raised concerns about the process for making such adjustments.

Submissions commented on the subjectivity and potential lack of transparency in the process. Submissions also requested that APRA describe in detail the process for determining the circumstances in which a supervisory adjustment would be required and how the amount of the adjustment would be determined.

Some submissions expressed concern that the supervisory adjustment would be imposed by APRA without adequate consultation with the insurer on its appropriateness, size and implementation timeframe or on whether other management actions might offer more effective resolution. A number of submissions sought clarification on the review process for a decision by APRA to impose a supervisory adjustment. A number of submissions also argued that there should be provision for the supervisory adjustment to be negative (i.e. reducing required capital) as well as positive.

Submissions also sought clarification on aspects of the practical application of a supervisory adjustment.

APRA's response

The determination of any supervisory adjustment would be part of APRA's normal supervisory review processes. APRA's existing capital standards for general insurers already provide for a supervisory adjustment and APRA has adjusted the capital requirement of a small number of general insurers.

Robust internal processes also exist within APRA for the implementation of supervisory adjustments for ADIs, including peer-group benchmarking and review at APRA senior management level. APRA published an information paper in December 2007 describing these processes.[11] For general insurers and life insurers, APRA proposes to model the setting of supervisory adjustments on the existing approach for ADIs.

A supervisory adjustment could be applied in a variety of circumstances. Examples include newly licensed insurers, exposure of an insurer to material new risks or business strategies, insurers with a rapidly changing business mix, and insurers with material governance or risk management weaknesses, including a weak ICAAP or stress-testing processes or failing to comply with prudential standards.

The supervisory adjustment, by its nature, cannot be negative. APRA has set the prescribed capital amount as a minimum requirement. The supervisory adjustment is to address risks not covered in the prescribed capital amount. This is also consistent with APRA's approach for ADIs, where the supervisory adjustment cannot be negative.

APRA will provide supplementary guidance material to assist insurers to understand the nature of the supervisory adjustment, the circumstances in which it may be applied and the process underpinning it.

4.2.2 Disclosure of supervisory adjustment

The discussion paper proposed that insurers would not be permitted to disclose any supervisory adjustment.

Comments received

Some submissions supported APRA's position on non-disclosure of supervisory adjustments. Other submissions proposed that an insurer have discretion as to whether or not it disclosed any supervisory adjustment. Some submissions supported mandatory disclosure of total required capital and any supervisory adjustment. Many submissions sought clarity on whether non-disclosure of any supervisory adjustment would meet the requirements of other agencies such as the Australian Securities and Investments Commission (ASIC) and the Australian Stock Exchange. Finally, some submissions suggested that the supervisory adjustment be added back to the prescribed capital amount and not separately disclosed.

APRA's response

APRA confirms its proposal that insurers would not be permitted to disclose any supervisory adjustment that may apply. It is APRA's view that disclosure of the supervisory adjustment could have unintended or adverse consequences. For one thing, external observers may over-react to such an adjustment. For another, disclosing the supervisory adjustment could inhibit APRA's role as a prudential supervisor, in that it would have to consider the market reaction or over-reaction to its actions. The proposed approach to disclosure is consistent with the approach that has operated effectively in the ADI industry for a number of years and has been accepted by ASIC and the Australian Stock Exchange.

11 Available at www.apra.gov.au/ADI/upload/APRA_IP_PillarII_122007_v3.pdf.

Chapter 5 – Response to APRA's proposals: general insurers and life insurers

This chapter addresses submissions on APRA's proposals that were relevant to both general insurers and life insurers.

5.1 Discount rates

The capital standards for both general insurers and life insurers require the discounting of future cash flows using risk-free rates. In the discussion paper, APRA proposed aligning the requirements for risk-free discount rates for general insurers and life insurers.

This section responds to comments APRA received on the discount rate. In particular it deals with comments received on the choice of Commonwealth Government Securities (CGS) as the basis for the risk-free discount rate, the liquidity premium and the implications of the choice of the risk-free discount rate on the probability of sufficiency.

5.1.1 Use of Commonwealth Government Securities

The discussion paper proposed that the risk-free discount rate would be set based on CGS.[12] It explained that APRA regarded the zero-coupon spot yield curve of CGS as the best proxy for risk-free rates.

The discussion paper did not specifically consider the issue of extrapolating the yield curve beyond the maximum available duration for CGS. The QIS instructions acknowledged this issue and specified a simple method for extrapolating the yield curve for the purposes of the QIS.

Comments received

The general insurance industry was generally comfortable with APRA's proposals in relation to using CGS as the basis for risk-free discount rates. The life insurance industry, however, indicated a preference to maintain the flexibility underlying the definition of discount rates used in *Australian Accounting Standard AASB 1038 Life Insurance*. Many life insurers set discount rates with reference to the mid-swap rate but the choice of discount rate varies across the industry. Many submissions argued that:

- swap rates provide a more robust measure of the risk-free rate (providing an adjustment is made for credit risk);
- swaps are available for much longer durations than CGS; and
- hedging instruments are normally designed to reference swap rates rather than CGS yields.

Submissions commented on the issue of extrapolating the CGS yield curve for insurance liabilities of duration longer than the maximum available for CGS. In particular, they considered that the method specified for the QIS had a number of shortcomings.

Some submissions argued that the use of a risk-free discount rate implies 100 per cent probability of sufficiency and is therefore inconsistent with 99.5 per cent probability of sufficiency required for the PCR.

APRA's response

APRA proposes to retain the approach for discount rates as set out in the discussion paper.

APRA's view is that the approach for setting the discount rates used for determining the capital base and PCR should be the same for both life insurers and general insurers. APRA also remains of the view that the zero-coupon spot yield curve for CGS provides the best proxy for risk-free rates.

12 Refer to page 48 of the discussion paper for full details.

APRA does not agree with the suggestion that the use of a risk-free discount rate implies 100 per cent probability of sufficiency and that this is therefore inconsistent with the 99.5 per cent probability of sufficiency required for the PCR. The risk-free rate used to determine the present value of future cashflows is only one element of the overall capital framework for determining the PCR. Allowance also needs to be made for other elements of uncertainty and how these are addressed in the capital framework when assessing the overall target level of sufficiency.

APRA will address some of the practical implementation issues raised in submissions. In particular, APRA proposes to allow insurers to determine the risk-free rate for durations beyond the maximum available duration of CGS by reference to other instruments (e.g. swap rates), providing appropriate adjustments are made for credit and liquidity risk. APRA will provide further guidance on this at a later stage.

5.1.2 Liquidity premium

The discussion paper commented that, for liabilities that are illiquid, it may be appropriate to add an allowance to the risk-free rates. This was on the basis that, if liquidity was not required, then it would be possible to match liabilities with more illiquid securities (implying a higher discount rate).

APRA indicated that it may consider allowing a liquidity adjustment for discounting lifetime annuities with no provision for voluntary termination, provided that APRA can arrive at a robust method for quantification of the liquidity premium.

Comments received

Submissions from the life insurance industry strongly supported the use of a liquidity premium adjustment to the risk-free rate for the purpose of discounting illiquid liabilities. They noted that the liquidity premium should reflect prevailing conditions in asset markets in order to allow matching of assets and liabilities. They considered that a liquidity premium was particularly important for annuities as the availability of a liquidity premium can have a significant impact on the capital requirements, and hence the pricing of these products.

There were few practical suggestions as to how the liquidity premium should be determined.

Several submissions argued that the liquidity premium should be extended beyond lifetime annuities to a wider range of products with no provision for voluntary termination. In particular, it was suggested that APRA's minimum surrender value basis for annuities and fixed term/rate products allows insurers sufficient scope to reduce surrender values if the liquidity premium increases (i.e. the minimum surrender value will always be less than the adjusted liability).

APRA's response

APRA is continuing to consider potential methods for determining a liquidity premium. A satisfactory method must have reasonable assurance of giving appropriate results in both normal and stressed conditions. The amount of insurer/actuary discretion involved in determining the liquidity premium should be small, so that all insurers use approximately the same liquidity premium at the same point in time. APRA's consideration of a possible methodology will draw on assistance from industry and have regard to international developments.

For QIS2, APRA proposes to specify a fixed liquidity premium of 30 basis points (bps) for all durations. This is only intended to be used for the purpose of QIS2.

APRA proposes that the liquidity premium (if adopted) may be used for immediate life annuities, term certain annuities and fixed term/rate products, providing the contract allows the surrender value (if any) to be reduced to the APRA minimum.[13] The liquidity premium would also be able to be used for funeral bonds, as a condition of these products is that they cannot be surrendered.

APRA does not consider liabilities for any other products to be sufficiently certain in timing and amount of cash flows to justify the use of a liquidity premium.

5.2 Inadmissible assets

APRA outlined in the discussion paper its intent to ensure a consistent and prudent approach to the treatment of investments in subsidiaries, joint ventures and associates for both general insurers and life insurers.

There is currently a difference in capital treatment between the general insurance and life insurance prudential standards for investments in these entities.

APRA proposed to require that the regulatory capital held in subsidiaries, joint ventures and associates be considered inadmissible for capital purposes. APRA also proposed to treat any excess above net tangible assets as inadmissible for capital purposes, for all subsidiaries and associates and for joint ventures.[14] These proposals aimed to avoid double-counting of regulatory capital and to align the treatment for life insurers and general insurers.

Comments received

Submissions from general insurers expressed concern that the proposal was not justified where its subsidiary was a general insurance company. Submissions argued that the general insurance company is an essential component that provides significant value to the parent's core business of providing insurance. As such, the parent should be allowed to include the total net tangible assets of the subsidiary in the capital base.

Some submissions from life insurers disagreed with the proposal to treat goodwill as inadmissible for controlled entities that are not financial services entities. These insurers argued that the value of these entities was not dependent on the operations of the insurer.

Submissions sought further clarification from APRA regarding the implementation of this proposal. It appeared that there was confusion over the amount of investment that would be deducted and the application of the proposal to intermediate holding companies.

Some submissions also queried the extent to which APRA would align the treatment within the insurance industry with Basel III proposals.

APRA's response

APRA considers that it is appropriate to ensure that the capital base of an insurer is readily realisable and that there is no double-counting of regulatory capital when determining the capital base of an insurer. In some cases, the amount represented by investments in subsidiaries, joint ventures and associates may not be readily available, due to, for example:

- a need for the entity to meet its own prudential capital requirements in the jurisdiction in which it operates;
- the value of the entity being dependent on its relationship with the insurer;

13 'Fixed term/rate' products are those that provide guaranteed investment returns at a disclosed rate for a specific period. Refer to *Prudential Standard LPS 7.02 General Standard.*

14 'Net tangible assets' refers to total assets less total liabilities and any intangible assets. These amounts are based on the entity's statutory accounts. For investments in insurers, this amount would be after any APRA liability valuation (including tax) adjustments.

- the entity's board not approving a capital transfer; or
- legal restrictions (e.g. dividend-paying capacity of retained earnings).

APRA proposes to apply the principles outlined in the discussion paper to the treatment of subsidiaries, joint ventures and associates. This includes deducting both:

- the value of the investment above net tangible assets of the subsidiary, joint venture or associate; and
- any regulatory capital requirement.

APRA is proposing to allow exemptions for investments of insurers where the investment is operationally independent and represents a genuine arm's-length investment (e.g. an investment in a property trust). Investments in entities that are subject to prudential capital requirements, or that are operationally dependent or undertake insurance-related business, including brokers, agents, servicing or management companies, would not be eligible for exemption.

APRA proposes that the amount of regulatory capital to be deducted be the PCR where the entity is regulated by APRA. Where the entity is not regulated by APRA but subject to minimum capital requirements (e.g. a health insurance institution or an overseas regulated subsidiary), the relevant minimum capital requirement would be deducted.

In the event that the investment is not wholly owned, including joint ventures and associates, only the portion of the PCR (or other regulatory capital amount) that is equivalent to the percentage ownership of the entity would be deducted from the insurer's capital base.

Where an insurer invests in a non-operating holding company (NOHC) that in turn owns regulated entities, that insurer would be required to look through the NOHC to determine the required deduction from capital base.

For clarity, the following example shows how the calculation would work in practice:

Insurer A invests $100 million in Insurer B as an unlisted equity investment, and as a result owns 70 per cent of Insurer B. Insurer A values Insurer B's net tangible assets at $90 million and given it owns 70 per cent of Insurer B, Insurer A's investment constitutes $63 million of net tangible assets and $37 million of goodwill. The PCR of Insurer B is $40 million.

Insurer A records in its accounts an asset of $100 million, the value of its investment in Insurer B. Insurer A's goodwill in Insurer B, $37 million, is deducted from Insurer A's capital base as it is intangible. A further $28 million (70 per cent of $40 million) is deducted from Insurer A's capital base to reflect the deduction of the relevant proportion of Insurer B's PCR. The remaining $35 million (i.e. $100 million less $37 million less $28 million) is then subject to the appropriate asset risk charge.

5.3 Asset risk

APRA proposed in the discussion paper to replace the existing general insurance investment risk charge (defined in *Prudential Standard GPS 114 Capital Adequacy: Investment Risk Capital Charge* (GPS 114)) and the existing life insurance resilience reserve (defined in *Prudential Standard LPS 2.04 Solvency Standard* (LPS 2.04) and *Prudential Standard LPS 3.04 Capital Adequacy Standard* (LPS 3.04)) with an asset risk charge. The charge would be determined by subjecting the balance sheet to a series of stress-tests according to parameters specified by APRA.

The asset risk technical paper outlined further details in relation to the approach for determining the asset risk charge. Each type of asset risk would be evaluated separately in eight risk modules:

- real interest rates;
- expected inflation;
- currency (exchange rates);
- volatility;
- equity assets;
- property assets;

- credit spreads (for interest-bearing assets);
- default risk (for non-interest-bearing assets subject to the risk of counterparty default, including reinsurance recoverables).

The capital charges for each of the modules would be aggregated using a correlation matrix. This method of aggregation recognises that the probability of all eight stresses occurring simultaneously is very remote.

5.3.1 Increased complexity for general insurers

The existing general insurance investment risk charge (GPS 114) requires insurers to apply specified factors to each of the assets on their balance sheet and add up the results. The proposed asset risk charge is more complex but is likely to be more risk-sensitive.

Comments received

Most submissions from the general insurance industry commented on the increased complexity and reduced transparency of the asset risk charge proposals when compared with the existing investment risk charge. Insurers were concerned about the likely cost of compliance, in particular the need for more advice from investment managers and the Appointed Actuary. Some insurers thought that the asset risk proposals would necessitate the increased involvement of the Appointed Actuary in quarterly and annual APRA return preparation, business planning and in considering the impact of investment and other strategic asset decisions. There was some concern that the calculations would be difficult to explain to boards and external stakeholders.

APRA's response

APRA considers asset risk to be an issue of similar importance for both life insurers and general insurers. APRA still proposes to align the capital standards for asset risk for general insurers and life insurers.

As noted in the discussion paper, the existing factor-based charge for general insurers is inadequate in a number of respects:

- there is no allowance for mismatch between the duration of assets and liabilities;
- inflation and currency mismatch risks are not considered;
- the allowance for credit risk does not consider the outstanding term of the assets;
- there is no explicit allowance for the diversification benefits of holding a mixture of assets from different asset classes; and
- the current investment capital factors are fixed and therefore have stronger pro-cyclical effects than variable factors.[15]

It is important for boards and management to have an understanding of these issues, as they are integral to insurance business. Life insurers (including small friendly societies) have applied approaches similar to the asset risk charge for the purpose of determining resilience reserves for many years.

APRA notes that the Appointed Actuary does not necessarily need to be involved in quarterly reporting. APRA allows the use of reasonable estimates when preparing information that will not be audited.

APRA is proposing a number of simplifications to its proposals, which are discussed later in this chapter. APRA considers that these revised proposals achieve an appropriate balance between enhancing risk sensitivity and reducing the complexity of the original proposals.

5.3.2 Application to surplus assets

APRA proposed that the asset risk charge would consider variations in the value of all admissible assets.

15 Refer to page 28 of the discussion paper.

This maintains the current approach for general insurers but would be a change for life insurers. This proposal would mean that an insurer (or statutory fund) with surplus capital invested in riskier assets would have a higher asset risk charge than an otherwise identical insurer that has its surplus capital invested more conservatively.

Comments received

A number of submissions from the life insurance industry opposed this proposal as it is a significant change in practice. The existing resilience reserve for life insurers does not take into account assets in excess of the solvency or capital adequacy requirements.

Submissions from the life insurance industry argued that the proposal is not consistent with APRA's intention of setting the PCR at a level that provides a 99.5 per cent probability of sufficiency. They also suggested that this proposal would mean that holding companies would retain less surplus within their insurance subsidiaries.

APRA's response

APRA has decided not to change its proposal that the asset risk charge would consider variations in the value of all admissible assets.

Surplus assets over and above the PCR are important to overall policyholder security. These surplus assets could be invested in risk-free assets, in which case all of the risks to policyholder security would already be captured within the PCR and no additional capital charge would be required. On the other hand, where surplus assets are invested in risky assets, some additional risk has been introduced by the inherent investment risk in the surplus assets. This additional risk can have a significant impact on the likelihood of a breach of PCR and the ultimate security of policyholders. This risk will manifest itself, in particular, when the company is under severe financial stress – that is, just when surplus assets are needed most. APRA considers it appropriate that this additional risk is captured in the PCR. This ensures that the amount of surplus assets then determined is measured largely free of any inherent risk in those surplus assets, irrespective of how they are invested.

The proposal is also consistent with the existing capital standards for general insurers and ADIs and the approach adopted for Solvency II.

Finally, APRA expects that insurers will take into account the asset risk charge on surplus assets when setting their target capital level above the PCR.

5.3.3 Real interest rates and expected inflation modules

The methodology specified in the asset risk technical paper required insurers to split the nominal risk-free interest rates into a real component and an expected inflation component. These components were stressed separately in the real interest rates and expected inflation modules. The stresses to the real interest and expected inflation rates were found by multiplying the prevailing rates by specified factors. The stresses varied depending on the duration of the asset and liability cash flows.

Comments received

Many submissions commented on the complexity of these modules. Complexity was of particular concern to general insurers as the existing capital standards do not require them to apply interest rate stresses to either their assets or liabilities.

There were concerns from both life and general insurers regarding the pro-cyclicality of the upward stresses. Because the proposed stresses are multiplicative, they become larger as prevailing interest rates or inflation expectations increase.

Some general insurers thought the need to derive an expected CPI inflation assumption was an unnecessary complication as this assumption is not used in the valuation of their insurance liabilities and inflation risk is already captured as part of the insurance liability risk margins.

APRA's response

APRA proposes several changes to the modules to address these issues. The revised stresses would be:

- independent of duration;
- generally smaller than those originally proposed for shorter durations;
- capped in basis point terms (real interest rates) or specified as a fixed basis point movement (expected inflation);
- less pro-cyclical for upward rate movements;
- not dependent on the prevailing expected inflation rate (i.e. insurers would not need to derive an expected CPI inflation rate in order to apply these stresses).

The revised stresses would be:

	Real interest rates	Expected inflation
+	0.3 x nominal risk-free rate	125 bps
-	0.25 x nominal risk-free rate	100 bps

The maximum movement in real interest rates would be 200 bps. The nominal risk-free rates (real plus expected inflation) would be as described in the section on discount rates (i.e. CGS extrapolated where appropriate), but exclude any liquidity premium.

Nominal risk-free rates cannot fall below zero in either scenario, but real interest rates or expected inflation could become negative.

Example

Assume the prevailing nominal risk-free rate is 5.5 per cent.

For the real interest rates module, the proposed variations are +1.65 (i.e. 0.3 x 5.5) per cent and -1.375 (i.e. -0.25 x 5.5) per cent. The stressed nominal risk-free rates would be 7.15 per cent and 4.125 per cent respectively.

For the expected inflation module, the proposed variations are +1.25 and -1.00 percentage points. These are applied to the nominal risk-free rate (which is the real interest rate plus expected inflation).[16] The stressed nominal risk-free rates would be 6.75 per cent and 4.5 per cent. The stresses of +1.25 and -1.00 percentage points would also need to be applied to any explicit inflation assumptions.

5.3.4 Expected inflation module for general insurers

In Chapter 6 of the asset risk technical paper, APRA agreed that, for general insurers, a component of the inflation risk that relates to liabilities may already be allowed for in the insurance liability risk margins. The discussion paper also outlined some options for addressing this potential for double-counting of inflation risk in both the insurance risk charge and the asset risk charge.

For the QIS, APRA proposed two alternative solutions to this problem:

- set the result for the expected inflation module to zero if CPI inflation risks have already been considered in determining the insurance liability risk margins; or
- retain the expected inflation module in the asset risk charge and reduce the insurance risk charge factors.

Comments received

A majority of submissions from the general insurance industry preferred that inflation risk be allowed for in the risk margins and insurance risk charge rather than as part of the asset risk charge. Submissions noted that general insurance contracts, where they have significant exposure to inflation risk, are typically exposed to specific inflation risks such as medical and legal cost inflation. Submissions indicated that it is not possible to eliminate these types of inflation risk through asset/liability matching. Submissions argued that inflation risk should not therefore be considered in the calculation of the asset risk charge.

16 Refer to Section 3.2 of the asset risk technical paper.

APRA's response

APRA has considered the arguments in these submissions but remains of the view that there are significant advantages in retaining the expected inflation module. An unexpected increase in claims inflation can be a significant risk for general insurers. If the expected inflation module is retained, insurers will need to explicitly recognise inflation risk and consider it when setting their investment policy. It may be possible for an insurer to reduce its capital requirements by adjusting its investment policy to better match the inflation risk in its liabilities. In contrast, the allowances for inflation risk in risk margins are implicit, are typically not separately quantified and are therefore less likely to receive appropriate focus by insurers' boards and management.

Accordingly, APRA has decided to retain the expected inflation module for general insurers. To avoid double-counting of inflation risk, APRA proposes to reduce the insurance risk charges for longer-tail classes of business for both direct and inwards reinsurance by one percentage point for outstanding claims liabilities and by 1.5 percentage points for premiums liabilities.[17] These percentages are based on the capital impact if the inflation risk module was instead removed from the asset risk charge.

5.3.5 Currency module

The proposed currency stress is an increase or decrease of 25 per cent in the value of the Australian dollar (AUD) against foreign currencies. All foreign currencies are assumed to move in the same direction against the AUD. Gains in the capital base arising from movements in one foreign currency cannot be used as an offset to losses from movements in other foreign currencies.

Comments received

Some submissions commented on the absence of any offsets between foreign currencies to which an insurer has a net asset exposure and foreign currencies to which an insurer has a net liability exposure.

Submissions also pointed out that the capital charge for the currency module could be minimised by holding all capital in AUD. This was not necessarily the most logical outcome for an insurer with insurance liabilities denominated in foreign currency.

APRA's response

APRA is not proposing to make any changes to the currency module.

It is difficult to allow for currency risks associated with multiple currency exposures without over-complicating the design of the capital charges. In practice, foreign currencies can move in different directions against the AUD and against each other. In order to simplify the charge, offsets have not been allowed. To compensate for this simplification, the adverse movement in exchange rates has been set at a relatively modest level of 25 per cent.

APRA agrees that it is not necessarily appropriate for insurers to hold all capital in AUD in order to minimise the asset risk charge. APRA expects insurers to manage their currency exposures having regard to their own assessment of currency and other risks.

5.3.6 Volatility module

The proposed volatility module measured the impact on the capital base of changes in the volatility parameters used for valuing financial options and some other derivative assets. These stresses would also affect the value of any financial options and guarantees that are included in life insurance liabilities. Upward and downward stresses would be applied to the volatilities for interest rates, equities and currency.

17 These classes are mortgage, CTP motor vehicle, public and product liability, professional indemnity and employers liability.

Comments received

Many submissions commented on the complexity of the volatility module and queried the benefits of its inclusion given its relatively modest contribution to overall required capital.

Some submissions expressed concerns about the pro-cyclical nature of the volatility stress. Under the original proposals the volatility stress was applied multiplicatively. This meant that if prevailing volatility was already high, stressed volatility became excessively high and was assumed to remain excessively high indefinitely.

Some submissions argued that the duration dependency of volatility should be recognised.

APRA's response

The QIS results indicated that volatility is not a significant risk for the majority of insurers and represented quite a small component of the asset risk charge.

APRA has therefore decided to remove the volatility module. However, volatility can still be a significant risk in some circumstances. APRA proposes to include an upward stress applied to equity volatility within the equity module. Other types of volatility (e.g. interest rate and currency volatility) will not be stressed. APRA expects insurers and Appointed Actuaries to consider any material volatility risks in their ICAAP and financial condition report (FCR).

5.3.7 Equity module

The asset risk technical paper proposed that the fall in equity values would be determined by applying a 2.5 percentage point increase to the ASX 200 dividend yield.

Comments received

Some insurers were not sure how to apply this stress to international equities. Some submissions proposed that different stresses be applied to Australian and international equities.

APRA's response

APRA does not propose any changes to the stress for equities.

APRA clarifies that the same percentage fall in value will apply to all equities, both Australian and international. Having separate stresses for international equities would add unnecessary complexity.

In light of its proposal to remove the volatility module from the asset risk charge, APRA now proposes to include an upward volatility stress in the equity module. If the increase in volatility would result in an increase in asset values (or a reduction in liabilities), this can be offset against any falls in equity values resulting from the increase in dividend yield.

APRA accepts that the original proposed stress for equity volatility was overly pro-cyclical and is revising its proposal for the upward equity volatility stress. The revised proposal is an addition to volatility of 15 per cent for all durations. APRA considers that it would add unnecessary complexity to the stress if it were made duration dependant.

5.3.8 Property module

The proposed property stress is a 2.75 percentage point addition to rental yields. Few submissions commented on this module and APRA is not proposing to make any changes to it.

5.3.9 Credit spreads module

This module applies to interest-bearing assets, including cash deposits and floating-rate assets. The proposed stresses would be applied by increasing the yields on these assets by specified amounts. The stresses vary according to the counterparty grade of the asset. Larger stresses apply for structured or securitised assets. The proposed stresses allow for the risk of default or migration of the asset to a lower credit rating over the following 12 months, as well as the risk of an increase in credit spread for the particular counterparty grade.

Credit spread stresses are a new feature of the capital requirements for general insurers. Life insurers are required to apply both default and credit spread stresses under the existing capital standards.

Comments received

A number of submissions commented on the size of the proposed credit spread stresses. Life insurers noted that the stresses were much higher than those required in LPS 3.04. Some submissions commented that the stresses were too harsh for state government bonds, for high-quality structured assets such as mortgage-backed securities and for longer duration, lower quality assets. The stresses were also felt to be overly pro-cyclical, as there could be substantial increases in capital charges for assets that are downgraded during a market-wide downturn.

APRA's response

APRA is proposing substantial revisions to its original proposals for the credit spreads module. The revised proposals are more complex than the original proposals but also more risk-sensitive. There are separate default and credit spread stresses, and separate stress factors for primary securitisations and re-securitised assets.

The revised stress factors are in Table 1.

Table 1 – Revised stress factors

Counterparty grade	S&P rating	Default (%)	Bonds# spread (%)	Structured/ securitised spread (%)	Re-securitised spread (%)
1 (government)	AAA	0.0	0.0	0.0	0.0
1 (other)	AAA	0.2	0.6	1.0	2.0
2	AA	0.6	0.8	1.6	2.8
3	A	1.2	1.2	2.4	3.6
4	BBB	3.0	1.6	3.0	4.5
5	BB	6.0	2.0	3.5	5.5
6	B	11.0	2.5	4.0	6.5
7	CCC	17.0	3.0	4.5	7.5

and other non-securitised assets.

These factors would be applied as follows:

1. Adjust the value of the assets by increasing the yield on the asset by the spread factor applicable to the asset. The spread factors vary by counterparty grade and the type of asset. Higher factors apply to re-securitised assets while lower factors apply to bonds and other non-securitised assets.
2. Multiply the adjusted value of the asset from step 1 by (1 – default factor).

The spread factor allows for the risk of an increase in credit spreads for the particular counterparty grade and the risk of downgrading of the particular asset over the following 12 months. The default factor allows for the risk of default of the particular asset over the following 12 months. The default factor implicitly allows for some recovery to be made following default.

For cash deposits and other at-call floating rate assets, only the default factor needs to be applied. The original proposal, which required a minimum term of 12 months to be assumed for these assets, has been removed.

The revised spread factors for low-quality assets are much lower than in the original proposals (although for short-duration assets this is offset by the introduction of the default factor). The reduction in the spread factors makes the proposals less pro-cyclical. Less additional capital will be required if assets are downgraded during severe market stresses.

Securitised assets

APRA is now proposing to distinguish between primary securitisations and re-securitisations. The latter category is significantly riskier and will have higher capital charges. A re-securitisation exposure is defined to be a securitisation exposure in which the risk associated with an underlying pool of exposures is tranched and at least one of the underlying exposures is a securitisation exposure. In addition, an exposure to one or more re-securitisation exposures is a re-securitisation exposure.

This definition of a re-securitisation exposure captures collateralised debt obligations (CDOs) of asset-backed securities (ABS) including, for example, a CDO backed by residential mortgage-backed securities (RMBS). Moreover, it also captures a securitisation exposure where the pool contains many individual mortgage loans and a single RMBS. In other words, even if only one of the underlying exposures is a securitisation exposure, any tranched position (e.g. senior/subordinated ABS) exposed to that pool is considered a re-securitisation exposure.

Government and semi-government bonds

The government category applies to bonds guaranteed by the Commonwealth Government and foreign government bonds that are both AAA rated and denominated in the domestic currency of the issuer.

Australian state and territory government bonds will be rated up one grade. This means there will be no charge in the credit spreads module for state and territory government bonds that are AAA rated. AA rated state and territory government bonds will be treated as grade 1 (other).

Default risk in the credit spreads module

APRA has kept the allowance for default risk on interest-bearing assets in the credit spreads module. The default risk module (refer to Section 5.3.10) is only intended to apply to a limited range of assets that are mostly related to the business operations of the insurer (e.g. reinsurance assets, unpaid premiums and unsecured related-party loans).

Counterparty grades

For the QIS, some insurers were not sure how to determine the counterparty grade for assets in situations where the asset had a different credit rating from the issuer of the asset. APRA's intention is that the counterparty grade should be determined using ratings for the particular asset. Issuer ratings should not be used.

Example

For a zero-coupon corporate bond with a fair value of $100, a duration of 10 years, a yield to maturity of 7 per cent and a counterparty grade of 4, the fall in value in the credit spreads module is:

1. Allowing for increased yield, asset value = $100 x $(1 + 7\%)^{10} / (1 + 7\% + 1.6\%)^{10}$ = $86.21.
2. Also allowing for default, asset value = $86.21 x (1 – 3%) = $83.62.

The total fall in value is $100 - $83.62 = $16.38.

5.3.10 Default risk module

This module applies to reinsurance assets, non-reinsurance recoveries, over-the-counter (OTC) derivatives, unpaid premiums and any other credit exposures that are not considered in the credit spreads module. For life insurers, APRA proposed that the values of reinsurance assets used in this module would be at 99.5 per cent sufficiency (with regard to insurance risks). For general insurers, reinsurance assets and other recoveries would be at the level of sufficiency required for the insurance liabilities in *Prudential Standard GPS 310 Audit and Actuarial Reporting and Valuation* (GPS 310). OTC derivatives would need to be assessed at 99.5 per cent sufficiency, after allowing for other stresses in the asset risk capital calculations.

Comments received

A number of submissions commented on the complexity of this module, in particular the need to determine the stressed value of life reinsurance assets and OTC derivatives.

The QIS showed that the capital required for default risk was relatively small for life insurers.

APRA's response

APRA has revised its proposals for the default risk module in order to simplify the calculations.[18]

The default factors would be applied to:

- general insurance reinsurance assets and non-reinsurance recoveries;
- unstressed life reinsurance assets;[19] and
- the fair value of OTC derivatives.

The default factors applying to general insurance recoveries, life reinsurance assets, over the counter derivatives and any other credit exposures not considered elsewhere in the default risk module or the credit spreads module are as follows:

Counterparty grade	Default factor (%)
1 (government)	0
1 (other)	2
2	2
3	4
4	6
5	8
6	12
7	20

The government category is as defined for the credit spreads module. For example, it includes recoveries from the Commonwealth Government.

Other aspects of the default risk module are unchanged from the original proposals. This includes the treatment of unpaid premiums, unclosed business, unrated counterparties, recoveries from non-APRA-authorised reinsurers and certain types of unsecured loans.

APRA will expect insurers and Appointed Actuaries to assess their potential post-stress default risk exposures to reinsurers and other counterparties in their ICAAP and FCR. APRA may consider requesting data on these potential exposures at some point in the future.

18 Insurers may still need to determine the stressed value of life reinsurance assets if an asset concentration risk charge would apply.

19 Determined as the difference between gross and net adjusted liabilities.

5.3.11 Aggregation of capital charges

Comments received

Some submissions commented on the complexity of the proposed aggregation method. There were also some questions regarding the consistency between the correlations proposed for different pairs of stresses.

APRA's response

APRA agrees that the method appears complex but views this level of complexity as being appropriate in order to enhance the risk sensitivity of the asset risk charge. However, the complexity should not increase the workload for insurers. In the QIS, the aggregation calculations were fully automated within the QIS workbook.

The concepts underlying the design of the correlation matrix are fairly simple and APRA expects insurers to understand these concepts. The probability of all stresses occurring simultaneously is very remote. It is not appropriate to simply add the capital required for each risk module in order to determine overall capital requirements. The use of a correlation matrix explicitly recognises the benefits of diversification across the different types of risk.

APRA has retained the proposed method for combining the capital charges for the asset risk modules. However, some of the factors in the correlation matrix have been changed with the aim of improving its internal consistency. It is also slightly simpler with the removal of volatility factors. The correlation factors that have been changed are:

- real interest rates and currency;
- expected inflation and currency;
- property and credit spreads; and
- volatility factors are no longer required.

The revised correlation matrix is in Table 2.

Table 2 – Revised correlation matrix

	RIR	INF	CUR	EQY	PROP	CSP
Direction	**down**	**down**	**down**			
RIR	1	0.2	0.2	0.2	0.2	0.2
INF	0.2	1	0.2	0.4	0.4	0.2
CUR	0.2	0.2	1	0.6	0.2	0.4
EQY	0.2	0.4	0.6	1	0.4	0.8
PROP	0.2	0.4	0.2	0.4	1	0.4
CSP	0.2	0.2	0.4	0.8	0.4	1

5.3.12 Variable annuities

The asset risk technical paper included a section setting out special requirements for determining the capital requirements for variable annuities.

Comments received

Some submissions suggested that special requirements for variable annuities were unnecessary - the same capital charges could be applied to variable annuities as for other products.

Some insurers queried whether a stochastic modelling approach was mandatory for measuring the capital requirements of variable annuities and whether APRA assumed that dynamic hedging must be used to manage the risks for these products.

There were also questions raised regarding the application of E (the effectiveness factor) and the potential double-counting of the capital required for operational risks.[20]

APRA's response

APRA confirms its view that the standard asset risk and insurance risk charges would not adequately cater for the special features of variable annuities. APRA expects more sophisticated modelling to be performed. This modelling could be undertaken using stochastic techniques or scenario-based techniques, as long as the techniques are adequate for assessing the risks inherent in the relevant variable annuities. Actuaries will need to make their own assessment as to the level of sophistication of modelling techniques that is necessary. APRA notes that dynamic hedging is not the only form of hedging suitable for the purpose of managing risks.

APRA also confirms that the formula used for determining the capital requirement and the parameters for E (the effectiveness factor) will remain as originally proposed. The factor E applies to all hedging techniques, not just dynamic hedging.

The E factor is limited to a maximum of 0.7 because:

- models tend to overestimate the benefits of hedge programs, including operational risk aspects;
- there are unknown risks in the hedge program; and
- there is uncertainty that the hedge market will be available after an extreme event i.e. institutions may be attempting to acquire hedges of the same type and may have difficulty finding sufficient counterparties.

Taken to the extreme, it could be argued that if the hedges were 100 per cent effective, the resulting asset risk charge would be nil. This would clearly be an unacceptable result given the long-term nature of the guarantees and the uncertainty over the availability of appropriate hedge instruments in the future.

APRA acknowledges that the E factor is a blunt tool, and its usefulness may be reviewed as experience develops. APRA also acknowledges that the E factor potentially double-counts the operational risk charge. However, APRA considers the operational risk charge formula of 0.25 per cent of net liability to be potentially too low for this type of business. As a result, although double-counting exists it is not considered to be material. This issue may also be reviewed as experience develops.

5.3.13 Disaggregation of assets

A method for disaggregating certain types of assets was described on page 22 of the asset risk technical paper to recognise that some assets have cash flows that can be matched to certain types of liabilities. For example, the rental received from a property with a long-term fixed lease to a high-quality tenant can be matched to the payments required under annuity contracts. Recognition of this effect can reduce the capital charges for the real interest rates and expected inflation modules.

20 Refer to page 26 of the asset risk technical paper.

APRA's proposal was complex as it required assets to be split into two components – the present value of the income stream generated by the asset, and a residual value. The stress applied to the residual value had to be determined so that the total of the stresses applied to the separate sub-assets, after allowing for diversification benefits between the sub-assets, was not less than the stress that would apply to the whole asset before disaggregation. For this purpose, real interest rates and expected inflation would both be assumed to increase.

Comments received

The proposed method required correlations to be used in disaggregating assets. Submissions noted this method was particularly complex, being both difficult to understand and implement.

APRA's response

As explained in Section 5.3.2, APRA has maintained its proposal to apply the asset risk charge to the total assets of a statutory fund. This means that disaggregation of assets is likely to have less impact on the total capital charge for the fund compared with the existing capital standards. Nonetheless the proposals outlined in the discussion paper gave some capital benefit to disaggregation. APRA intends to use QIS2 to further investigate this issue before finalising its position.

5.4 Operational risk

The discussion paper proposed to introduce an explicit capital charge for operational risk (ORC). The discussion paper did not include a specific proposal for the charge but the QIS proposed simple formulae as a starting point for consideration.

The QIS formulae included a base component to reflect the scale of an insurer's operations plus a change component to recognise significant increases or decreases in that scale. The formulae also differentiated between non-investment-linked and investment-linked business for life insurers.

Table 3 – Proposed ORC formulae – QIS

	General insurers	Life insurers / friendly societies	
		Non-investment-linked business	Investment-linked business
ORC	3% × max{GP + |△|, L + |△|}	max { 3% x (GP + |△|), 0.25% x (L + |△|) }	0.25% x (L + |△|)
GP	Total annual written premiums (gross of reinsurance)	Total annual earned premiums (gross of reinsurance)	Not applicable
L	Central estimate of insurance liabilities (gross of reinsurance)	Adjusted policy liabilities (gross of reinsurance)	Adjusted policy liabilities (gross of reinsurance)
|△|	The absolute value of the annual change in the relevant quantity (from previous year to current year) for changes that exceed +/- 10%		

The formulae proposed in the QIS used indicators of size or scale as proxies for operational risk exposure. The discussion paper acknowledged that operational risk capital modelling for insurers is still in its early stages and noted that APRA was open to ideas from the industry as to how the proposed formulae could be made more risk-sensitive.

Comments received

Submissions expressed concern that the proposed formulae were not sufficiently sensitive to operational risks. Submissions noted that, for example, the formulae did not take into account the quality of management and internal risk controls or key operational risk factors such as systems capability, number of employees and experience of employees.

Some submissions commented that the components in the QIS formulae would reflect changes in business volumes, premium rates, outstanding claims liabilities and discount rates rather than changes in operational risk. In particular, the ORC for participating and investment-linked life insurance business would be affected by movements in asset values.

For general insurers, the proposed ORC would be higher following increases in premium rates that would not necessarily indicate increased operational risk.

Some submissions suggested that the threshold for application of the change component was too low (at 10 per cent). They also argued that it double-counted operational risk by applying to the whole amount of any increase in premiums or liabilities and not just the amount over the threshold.

General insurance submissions argued that under APRA's proposals the ORC would change dramatically following a catastrophe, despite there being only marginal change in operational risk.

Some submissions suggested that insurers that belonged to a group headed by an ADI should be allowed to determine their ORC from the output of their advanced accredited operational risk model if one existed.

Reinsurers submitted that the proposed formulae overstated their operational risk in comparison to direct insurers, as reinsurers did not deal with a large customer base.

Some submissions suggested that operational risk would be better assessed in Pillar 2 only, rather than using a relatively simplistic formula within Pillar 1.

APRA's response

Operational risk is a key risk for insurers and APRA continues to believe it is important to address this risk explicitly within Pillar 1. APRA recognises that the proposed formulae are a simplified indicator of an insurer's exposure to operational risk.

Given the relative immaturity of operational risk modelling for insurers, limited indicators exist from which to estimate the level of operational risk for an insurer. APRA therefore proposes a simple operational risk measure that uses an insurer's size as a proxy for operational risk.

APRA intends that the formulaic approach would set a base level for the operational risk charge. To the extent that an insurer has a higher operational risk profile or inadequate approach to operational risk management, APRA could potentially increase an insurer's PCR by applying a supervisory adjustment. APRA proposes to review insurers' ICAAP assessments of operational risk with a view to developing a more risk-sensitive ORC over time.

Although operational risk has been a key metric in APRA's capital framework for ADIs for several years, operational risk modelling is still a relatively new concept for life and general insurers. APRA continues to hold the view that insurers would not be allowed to use internal models to determine the ORC unless APRA has given approval for an internal model to be used for determining the insurer's required capital as a whole.

Proposed modifications to the ORC formulae

APRA accepts many of the specific concerns raised with the formulae proposed in the QIS. A number of suggestions were made to improve the robustness of the formulae and to refine or extend the parameters applied to allow for the characteristics of different industry sectors as well as the nature of the products within those sectors.

For QIS2 APRA has modified the formulae as per the following table.

Table 4 – Modified ORC formulae

ORC	$\alpha \times (\max\{GP, NL\} + \lvert\triangle\rvert)$		
	General insurers	**Life insurers / friendly societies**[#]	
		Risk business	**Non-risk business**
α	2% for inwards reinsurance business 3% for other business	2% for inwards reinsurance business of specialist life reinsurers 3% for other business	0.15% for inwards reinsurance of specialist life reinsurers 0.25% for other business
GP	Total annual written premiums (gross of reinsurance)	Premium income (gross of reinsurance)	Not applicable (i.e. GP is set to zero)
NL	Central estimate of insurance liabilities (net of reinsurance)	Adjusted policy liabilities (net of reinsurance)	
$\lvert\triangle\rvert$	The absolute value of the change in the gross written premium for the latest 12 months in excess of +/-20% of the gross written premium for the preceding 12 months	The absolute value of the change in the gross premium income for the latest 12 months in excess of +/-20% of the gross premium revenue for the preceding 12 months	The sum of: • the gross premium revenue for the latest 12 months in excess, if any, of 20% of gross adjusted policy liabilities at the start of the 12 months • the gross claim payments for the latest 12 months in excess, if any, of 20% of gross adjusted policy liabilities at the start of the 12 months[*]

Note: For this purpose only, 'risk business' refers to APRA product groups L4-L7 (individual and group lump sum risk and disability income insurances of life insurers). Friendly society benefit funds that provide defined benefits payable on death or disability would also be considered 'risk business'. 'Non-risk business' refers to all other business such as investment-linked, annuities (including life annuities), investment products and most traditional business. Friendly society funeral funds where the benefit is a return of premiums with credited interest would be 'non-risk' business.

* For example, for investment-linked liabilities a change component would apply where gross inflows exceed 20 per cent of the account balances at the start of the year and/or where gross outflows exceed 20 per cent of the account balances at the start of the year, even if net inflows were less than 20 per cent.

The key features of the modified formulae are:

- the formulae retain the two core components of the original formulae, namely a size/scale measure and a measure of change in size/scale;
- for life insurance, rather than distinguishing investment-linked from non-investment-linked business, the boundaries have been redrawn to distinguish risk and non-risk business, as defined in the footnote to the table;
- the formulae are a function of net rather than gross insurance liabilities. This is in recognition of the extreme volatility that can occur in gross insurance liabilities for general insurers (e.g. for small specialist insurers immediately following the occurrence of a large claim, and for small to medium property insurers or reinsurers immediately following a catastrophe);
- the ORC remains a function of premiums gross of reinsurance, thereby recognising that even portfolios that are heavily reinsured and/or receive reinsurer support (through pricing advice, claims management and underwriting as well as audits) may not have their operational risk materially dissipated. Indeed, they may be exposed to additional operational risks (e.g. flawed reinsurance structures, mismatches in coverage, wordings disputes, inaccurate representation to insurers, etc). Reinsurance premiums are reasonably predictable so having a charge as a function of premiums gross of reinsurance should not lead to undue volatility;
- a reduced ORC for reinsurance business in recognition that operational risk for reinsurance is lower per dollar of premium than for direct insurance business given it involves fewer individual policies, fewer claims-processing activities and lower sales and marketing risk;
- the change item for insurance liabilities has been deleted to reduce the volatility in capital charge arising from changes in insurance liabilities. There are many changes in insurance liabilities that do not result in additional operational risk – they include general claims volatility and changes in market assumptions such as discount rates, changes in asset values for non-risk life products;
- the change factor on premiums has been taken out of the maximum formula and added on separately. This means that growth is taken into account even when insurance liabilities dominate; and
- the threshold for the change factor has been increased from 10 per cent to 20 per cent. This makes some allowance for premium rate increases in gross premiums that do not represent an increased operational risk, and the impact of foreign currency fluctuations. At the same time, the change factor has been altered to only add on the amount in excess of the specified threshold. This eliminates the 'cliff effect' of the QIS formula at the specified threshold.

The calculation would be performed at the insurer level for general insurers (separated for direct and reinsurance business) with the ORC being the sum of the two components. For life insurers, the calculation would be performed separately for risk business and non-risk business for each statutory fund, with the ORC being the sum of the two components. For friendly societies, the calculation would be performed separately for all investment-linked benefit funds (combined) and all non-investment-linked benefit funds (combined) and the ORC would be held in the management fund.

5.5 Aggregation benefit

In the discussion paper, APRA proposed to introduce an explicit allowance for diversification between asset and insurance risks in the calculation of an insurer's required capital.

The asset and insurance risk charges would each be calculated at a 99.5 per cent probability of sufficiency. To maintain this level of sufficiency in aggregate, while recognising that asset and insurance risks are not perfectly correlated, the capital charges would be combined using a formula that yields a total capital charge that is less than the sum of the asset and insurance risk charges.

The proposed formula is:

$$\text{Aggregation benefit} = A+I - \sqrt{A^2 + I^2 + 2\rho\, AI}$$

where A = the asset risk charge

I = the insurance and insurance concentration risk charges[21]

ρ = the specified correlation factor (0.5 for the QIS)

For life insurers, the aggregation benefit would be calculated separately for each statutory fund. In the discussion paper, APRA stated that the correlation factor would be between zero and one and would likely be in the range 0.2 to 0.5. It was noted that further investigation was required and, in particular, that APRA would consider two questions in determining the ultimate level and application of the aggregation benefit:

- Does the extra risk sensitivity of the combined capital charge warrant the extra complexity of introducing the aggregation benefit?
- If yes, what is the right value for the correlation factor?

Comments received

A number of submissions raised the issue that the aggregation benefit introduces another layer of complexity in the calculation of the prescribed capital amount. They suggested that the additional complexity could make it more difficult to understand and explain capital movements.

As an alternative, it was suggested that APRA could allow for diversification between asset and insurance risks by reducing the factors that are used to calculate the asset risk and insurance risk charges (as in the existing capital standards).

Some submissions supported inclusion of the ORC within the calculation of the aggregation benefit. They took the view that operational risk is not perfectly correlated with asset and insurance risks in either times of stress or in times where market conditions are strong. In regard to asset concentration, a suggestion was made that these risks should be included in the aggregation benefit calculation with the correlation factor set to zero.[22]

There was some concern that the proposed aggregation benefit formula would unfairly benefit a life insurer that writes both risk business and complex investment guarantees. In other words, it was suggested that a life insurer that had mostly asset risk and little insurance risk, or vice versa, would be 'disadvantaged' relative to an insurer that had both.

APRA's response

APRA intends to include the aggregation benefit in the capital framework as originally proposed.

APRA considers that the aggregation benefit significantly improves the risk sensitivity of the PCR and that the benefits of a more risk-sensitive approach outweigh the additional complexity.

The QIS results demonstrated that the aggregation benefit varies significantly between insurers. Some life insurers and general insurers have very little asset risk. Some life insurers have very little insurance risk. It is not possible to calibrate the capital charges so that they are appropriate for all insurers without including an explicit aggregation benefit.

While acknowledging that the argument for including other risks in the aggregation benefit has some merit, APRA still proposes to exclude the asset concentration and operational risk charges from the aggregation benefit but to include the insurance concentration risk charge with the insurance risk charge.

21 The inclusion of insurance concentration risk within the calculation of the aggregation benefit for general insurance was proposed in the insurance concentration risk capital charge technical paper.

22 Insurance concentration risk was included with insurance risk.

The QIS instructions asked general insurers to include insurance concentration risk with insurance risk when calculating the aggregation benefit (notwithstanding that the discussion paper proposed excluding it). As specified in the formula above, APRA confirms that it proposes to include the insurance concentration risk charge in the aggregation benefit. This aligns the treatment of general insurers and life insurers.

APRA is not including the ORC within the aggregation benefit, consistent with the approach adopted for ADIs. This recognises that correlation with other risks becomes stronger in times of extreme stress. APRA is also maintaining its proposal to exclude the asset concentration risk charge from the aggregation benefit formula. The charge for asset concentration risk is designed to strongly discourage asset concentration and, as such, is different in nature from the other risks. APRA does not consider that it is appropriate to allow an aggregation benefit for this risk.

5.5.1 Correlation factor

No comments were received specifically on what the appropriate level of the correlation factor might be, although the conclusion could be drawn from comments made on other aspects of the formula that there was a sense that the level of correlation between asset and insurance risks is more likely to be low rather than high, even in extreme circumstances.

There is a lack of quantitative research to support any particular correlation factor. Ultimately, the correlation factor must be a subjective judgement based on consideration of the types of scenarios where asset and insurance shocks might follow from each other.

On balance, APRA considers that the correlation between asset and insurance shocks is relatively weak for life insurance and most lines of general insurance business and, therefore, a correlation factor lower than 0.5 may be appropriate.

For lenders mortgage insurers (LMIs), there is a closer relationship between insurance risks and risks to the broader economy. A higher correlation factor is more appropriate for this line of business.

For the purposes of QIS2, APRA has chosen a correlation factor of 0.3 for all insurers except for LMIs, where the factor would remain at 0.5.

5.6 Composition of capital base

The discussion paper included as a fundamental reform the concept of a capital base for life insurers, and proposed to apply to life insurers the same requirements for the composition of the capital base as apply for general insurers.

The paper noted that APRA's practice is to closely follow the Basel Committee for Banking Supervision (BCBS) approach as it applies to ADIs, and to maintain consistency of capital definitions for ADIs and general insurers. It was proposed that this would also extend to life insurers. The paper also noted that APRA does not intend to finalise its position on the classification of capital instruments until international developments are clearer and APRA has consulted with industry.

Comments received

Respondents generally acknowledged the principle of harmonisation. They did note, however, that APRA should be mindful that insurers are not banks: the need for capital and the timing of when that capital is required are different between these industries. The tightening of quality of capital standards envisaged for ADIs should therefore only be extended to insurance where this is appropriate. Respondents suggested that harmonisation with international insurance regimes, in particular Solvency II, should also be incorporated in the development of the proposals. This would ensure that a level playing field is maintained and would assist insurers in accessing overseas capital markets.

Finally, respondents noted that when further developing the quality of capital proposals, APRA should be mindful of how the principles should be applied for groups at Levels 2 and 3.

APRA's response

APRA's view is that all regulated entities should adhere to high standards for the composition of the capital base. A capital buffer of high quality is in the interests of the policyholders of insurers as much as it is in the interests of the depositors of ADIs. Submissions did not provide persuasive arguments as to why the standards applied to insurers in this area should be less stringent than the standards applied to ADIs.

Following the December 2010 agreement of a new global banking regulatory framework by the BCBS, of which APRA is a member, APRA is currently developing revised capital standards for ADIs. These include requirements that will strengthen the quality of the components eligible for inclusion in an ADI's capital base. It also includes an increase in the amount of an ADI's capital base that must comprise the highest quality capital components.

APRA intends to broadly align this aspect of the capital standards for general insurers and life insurers with the new ADI standards. These changes would include changes to the features required to be met for capital instruments to be regarded as eligible for inclusion in the capital base. They will also include requirements for the PCR to be met by a materially higher percentage of Tier 1 capital than the current 50 per cent requirement for general insurers, such that the predominant component of capital base is ordinary equity. APRA notes that the majority of Australian insurers relies heavily on ordinary equity for their prudential capital requirements. These companies are unlikely to be affected by any tightening in the requirements for quality of capital.

APRA expects to finalise the revised ADI and insurance capital standards well ahead of the 1 January 2013 implementation date.

Chapter 6 – Response to APRA's proposals: general insurers only

This chapter addresses those proposals in APRA's discussion paper that are relevant only to general insurers and provides APRA's response to submissions on these matters. The areas covered are:

- asset concentration risk;
- insurance risk; and
- insurance concentration risk.

Other components of the prescribed capital amount relevant to general insurers, including asset risk, operational risk, discount rates and aggregation benefit, were addressed in Chapter 5.

6.1 Asset concentration risk charge

APRA proposed to modify the asset concentration risk charge to more appropriately address the risks arising from large exposures to a single asset, counterparty or group of related counterparties.

For non-reinsurance exposures, a basic limit of 25 per cent of capital base was proposed for exposures to a single asset, counterparty or group of related counterparties, including non-APRA-regulated related entities. Assets in excess of the proposed limits would attract a 100 per cent risk charge. For exposures to some entities, higher limits were proposed:

- 50 per cent of capital base for exposures to unrelated APRA-regulated ADIs and insurers;
- 100 per cent of capital base for exposures to related parties that are APRA-regulated; and
- no limit for exposures to governments with counterparty grade 1 or 2.

APRA proposed a minimum limit of $20 million for exposures to APRA-regulated entities. This limit effectively provides a higher threshold for smaller general insurers than if the percentage of capital base limits were applied. The higher dollar-based amount recognises the benefits to smaller insurers from strategic partnerships with strong counterparties.

For reinsurance exposures, APRA proposed maintaining the existing asset concentration thresholds. That is, no limit for reinsurance exposures with counterparty grade 1, 2 or 3; 50 per cent limit for reinsurance exposures with a counterparty grade 4 and 25 per cent limit for reinsurance exposures with a counterparty grade 5 and below.

6.1.1 Exposures to related and unrelated APRA-regulated entities

Comments received

Submissions expressed concern about the proposed thresholds for exposures to APRA-regulated entities, in particular the application of this limit to exposures to the four major Australian banks. Submissions argued that the limit of 50 per cent of capital base for all exposures to an APRA-regulated ADI was too low and did not consider the different types of exposures that a general insurer might have to these entities (transaction accounts, term deposits, letters of credit, shares, etc) or the seasonal timing of these exposures (premium receipt, realisation of bond portfolio, transfer of funds just prior to settlement of large claims). Submissions considered that the limits would require exposures to be maintained at a level well below the proposed limits to cover these variations without incurring an asset concentration risk charge. Submissions indicated that the limits would effectively require insurers to invest in more risky assets in order to comply with the limits, especially for those insurers whose current investments or investment policy mandates exposures to be mainly bank investments. Submissions queried the proposed treatment of letters of credits issued by APRA-regulated ADIs to support reinsurance recoveries and this is discussed further in the next section.

Some submissions did not see the need to have any limits at all on exposures to APRA-regulated ADIs given the implied security attached to such investments, particularly APRA's regulatory capital framework.

It was argued that allowing higher limits (100 per cent of capital base) for APRA-regulated related parties unfairly discriminated against insurers that were not related to an ADI and hence were subject to limits of only 50 per cent of capital base for exposures to an APRA-regulated ADI.

Insurers that are part of a Level 2 or Level 3 group argued the relative merits of investing the bulk of its assets with its parent, given that the parent is APRA-regulated and therefore presumably very secure.

Some submissions appeared to misinterpret the intended application of the dollar minimum thresholds for exposures to APRA-regulated entities.

APRA's response

APRA accepts some of the concerns raised by insurers regarding the practical application of the limits for exposures to APRA-regulated entities. Accordingly, APRA is now refining the proposed limits to accommodate operating exposures by insurance companies to banks and other APRA-regulated entities. These limits are less stringent than the equivalent limits applicable to the ADI industry but APRA is persuaded that these higher limits are an appropriate balance between safety and efficiency for the general insurance industry. APRA does not accept the argument that there should be no limits on exposures to APRA-regulated entities.

APRA intends to introduce the asset concentration limits to discourage excessive and avoidable concentrations of exposure to a single counterparty or group of related counterparties. APRA recognises that, while a variety of options exist for investment in long-term assets, only limited options exist for investing in the short-term money market. For this reason, APRA proposes to revise the concentration limits for exposures to unrelated APRA-regulated entities to 100 per cent of capital base, subject to a maximum of 50 per cent of capital base being exposed to long-term assets (assets that are perpetual or have a residual maturity of greater than one year).

APRA's revised proposal for general insurers means the following combinations of exposures would not attract an asset concentration risk charge:

- an exposure to only short-term assets of an unrelated APRA-regulated entity of up to 100 per cent of capital base;
- an exposure to only long-term assets of an unrelated APRA-regulated entity of up to 50 per cent of capital base; or
- an exposure to long-term assets of an unrelated APRA-regulated entity representing 50 per cent of capital base and short-term assets to that same APRA-regulated entity representing 50 per cent of capital base.

The following combinations would attract an asset concentration risk charge:

- an exposure to only short-term assets of an unrelated APRA-regulated entity greater than 100 per cent of capital base;
- an exposure to only long-term assets of an unrelated APRA-regulated entity greater than 50 per cent of capital base; or
- the aggregate of short-term and long-term assets of an unrelated APRA-regulated entity greater than 100 per cent of capital base.

Exposures to a single counterparty or group of counterparties that exceed the entire capital base of the general insurer are not prudent and APRA proposes to maintain the 100 per cent limit for exposures to related entities that are APRA-regulated.

To cater for general insurers with a relatively small capital base, APRA proposes to implement the dollar minimum thresholds for exposures to APRA-regulated entities. This means that a general insurer with a capital base of less than $20 million would have $20 million as its asset concentration limit for exposures to APRA-regulated entities, rather than the lower amount of 100 per cent of capital base. The limit for exposures to APRA-regulated entities would be 100 per cent of the capital base when the general insurer has a capital base greater than $20 million.

6.1.2 Reinsurance exposures

Comments received

As outlined above, some submissions queried the proposed treatment of letters of credit issued by APRA-regulated ADIs to support reinsurance recoveries from non-APRA-authorised reinsurers after the second balance date. Insurers argued that this amount could vary significantly over time and could create an unintended asset concentration risk charge when combined with other ADI exposures.

APRA's response

Reinsurance recovery assets were excluded from the proposed changes to asset concentration limits due to the difficulty in designing rules for reinsurance exposures that would not lead to unintended consequences.

The existing capital standards for reinsurance recoveries due from non-APRA-authorised reinsurers encourage insurers to secure (via collateral, guarantees or letters of credit) these recoveries post the second balance date of the occurrence of claim.[23] APRA notes that securing these recoveries represents a transfer of counterparty exposure from the reinsurer either to the entity holding the collateral (e.g. a trust) or to the entity providing a letter of credit or guarantee (e.g. an ADI). When one of these mechanisms is used, considering such exposures as part of the concentration limits for the trust or ADI may have a significant impact on a general insurer's ability to invest in that same entity at times when they have a high level of reinsurance recoveries. Given the potential size of such secured reinsurance recoveries, APRA considers that there is merit in continuing to treat such exposures under the more generous asset concentration limits for reinsurance recoveries.

There are, however, instances where a general insurer may choose to secure a lower-rated reinsurance asset (grade 4 or below) in order to avoid an asset concentration risk charge for the originating reinsurer. In such cases, it would be more beneficial for the general insurer to consider such recoveries under the limits applying for the entity providing the guarantee or letter of credit or entity holding the collateral.

In recognition of both of the above scenarios, APRA proposes for the purposes of determining the asset concentration risk charge to allow general insurers to choose to treat letters of credit and guarantees provided by ADIs or collateral within a trust as either a reinsurance exposure to the originating reinsurer, or as an exposure to the entity providing the guarantee or letter of credit or entity holding collateral. Once a general insurer chooses the desired approach for a particular exposure, it must then apply this approach for the period for which that particular reinsurance recovery remains an asset of the general insurer. For clarity, this treatment only applies for the asset concentration risk charge, and not the asset risk charge.

6.1.3 Corporate captive insurers

Comments received

Some submissions argued that where the general insurer is only licensed to write the risks of its parent, the captive insurer should be exempt from any asset concentration limits. The ability to invest funds back into the parent was cited as a primary reason for the decision to set up a captive insurer.

APRA's response

APRA's primary goal as a prudential supervisor of general insurers is to protect the interests of policyholders. Where the policyholder is a large corporate entity and the captive insurer exists simply to write non-compulsory cover for the parent and to provide access to reinsurance markets, it might be appropriate for APRA to take an alternate regulatory approach. This, however, would not be appropriate for a captive insurer with an APRA-regulated parent; such a parent could receive a reduction in its required capital as a result of the cover from the captive.

23 Refer to paragraph 5 of Attachment A of GPS 114.

APRA therefore proposes to allow a corporate captive insurer whose parent is not APRA-regulated to request an exemption from the asset concentration limits if:

- the captive insurer is only licensed to write the risks of the parent and/or its subsidiaries and no third parties are involved; and
- the captive insurer is not writing compulsory insurances such as workers compensation insurance or professional indemnity or public liability insurance to a group of practitioners that require such cover in order to practice.

6.1.4 Basis for determining concentration limits and the resulting risk charge

Comments received

Some submissions suggested that the asset concentration risk charge would be easier for insurers to manage if it were expressed as a function of investible assets rather than capital base. They submitted that reductions in capital base (for example, following a catastrophe) might lead to breaches of asset concentration limits at times when capital was needed most, given the asset concentration thresholds are tied to overall capital base.

Submissions also suggested that assets in excess of the limits be treated as an inadmissible asset rather than being part of the prescribed capital amount. Submissions argued that if assets that exceed the asset concentration limits are subject to a risk charge (rather than being treated as inadmissible), general insurers would be required to hold a buffer above this risk charge, which is excessive given such assets have already been 100 per cent risk-weighted.

APRA's response

APRA recognises that limits expressed as a percentage of investible assets may be easier for insurers to manage; however, this approach would lead to thresholds with no direct link to the underlying capital base. As it is the capital base that the imposition of asset concentration limits is intended to protect, APRA considers it appropriate to express those limits as a function of the capital base. APRA therefore proposes to continue to express asset concentration limits for general insurers as a function of the general insurer's capital base.

Deducting asset concentration exposures from the capital base rather than the proposed approach is a feasible option. However, the intent of the asset concentration proposals is to discourage investments exceeding the stated thresholds. It is APRA's expectation that asset concentration risk charges would only apply in limited circumstances. Given the likely small impact on required capital, APRA is of the view that it is simpler to maintain the existing approach to asset concentration – i.e. via a risk charge rather than via inadmissible assets.

6.2 Insurance risk charge

APRA proposed a number of changes related to insurance risk. These proposals were to:

- change the insurance risk charge factors for travel insurance and mortgage insurance and simplify and align the risk charges for inwards reinsurance classes of business;
- require the Appointed Actuary to select the appropriate risk category for 'other' classes of business; and
- revise *Prudential Standard GPS 310 Audit and Actuarial Reporting and Valuation* (GPS 310) to ensure that risk margins would be assessed based on uncertainty in the gross liabilities.

In addition, APRA requested further information from industry in the QIS on the level of diversification benefit assumed in insurers' risk margins and indicated that, depending upon its findings, APRA might consider placing limits on the level of diversification benefit allowed.

6.2.1 Insurance risk charge factors

Comments received

Some submissions supported the changes to the insurance risk charge factors, including requiring the Appointed Actuary to select the appropriate risk category for 'other' classes of business. Other submissions argued that travel was not as volatile as other classes in the medium risk category and that, given its short-tail nature, it was more appropriately considered in the low risk category. One submission requested that APRA undertake a full review of all of the insurance risk charges.

Some submissions supported the simplification of the capital factors for inwards reinsurance, while others pointed out that householders and Fire & ISR are now in different insurance risk charge categories, even though single reinsurance contracts often cover both classes.

Finally, APRA received feedback that the current insurance risk charge factors include an implicit allowance for operational risk and the inclusion of an explicit ORC should be accompanied by a lowering of the current factors.

APRA's response

APRA considered the calibration of the insurance risk charges in the context of all the proposed changes and the target of a 99.5 per cent probability of sufficiency. APRA's intent is to ensure that the target is achieved for each risk, and for total required capital. It is also important to ensure that there is an appropriate balance between the various components of the capital requirements. This necessarily involves some judgement and pragmatism. APRA considers that an appropriate balance has been struck with the revised proposals.

As outlined in the discussion paper, APRA is satisfied with the structure of the insurance risk charge. APRA accepts that general insurers writing inwards reinsurance business would need to make amendments to the way in which the risk charge is calculated. The benefits of the simplification and alignment of the direct inwards reinsurance risk charges outweigh the initial costs of implementing these adjustments.

As noted in Chapter 5, APRA received feedback from general insurers regarding the inclusion of the expected inflation module in the asset risk charge. APRA has considered the arguments put forward in these submissions and has proposed retaining the expected inflation module in the asset risk charge. To avoid double-counting of inflation risk, APRA proposes to reduce the insurance risk charges for longer-tail classes of business for both direct and inwards reinsurance; i.e. APRA proposes to reduce the insurance risk charge factors for the highest grouping of APRA classes of business by one percentage point for outstanding claims liabilities and by 1.5 percentage points for premiums liabilities.[24] These percentages are based on the capital impact if the inflation risk module were instead removed from the asset risk charge.

6.2.2 Gross risk margins

Comments received

Submissions generally agreed that understanding the volatility of gross liabilities was a worthwhile objective. They expressed concern, however, as to whether requiring the calculation of a gross risk margin at a 75 per cent probability of sufficiency was the best way of achieving this objective. They asserted that:

- deriving a gross risk margin would add additional regulatory burden to insurers for no obvious gain;
- holding gross and reinsurance risk margins may overstate the direct insurer's liabilities on the balance sheet and may also result in higher default risk charges;

24 These classes are mortgage, CTP motor vehicle, public and product liability, professional indemnity and employers' liability.

- those seeking collateralisation of reinsurance recovery assets may have difficulty obtaining agreement from international reinsurers on the need to collateralise the risk margin component of the required reinsurance recovery asset;
- there was potential to misunderstand the implied risk margin on reinsurance recoveries, given that the difference between the gross and net risk margins at 75 per cent probability of sufficiency does not in general equal the reinsurance recovery asset at the 75 per cent probability of sufficiency; and
- it is difficult to calculate gross risk margins at a 75 per cent probability of sufficiency for insurers with non-proportional reinsurance arrangements and for small insurers where data are sparse.

APRA's response

APRA's main reasons for proposing the calculation of gross insurance liability risk margins at the 75 per cent probability of sufficiency were:

- to make sure that insurers are adequately considering their exposure to gross uncertainty; and
- to rectify current inconsistencies in approach across the industry in the capital calculation and in the statement of the financial position.

Requiring calculation of a gross risk margin would place greater emphasis on the importance of understanding a general insurer's gross exposures. APRA is concerned that insurers are not currently devoting enough attention to understanding their gross exposures – in particular, the risk of exceeding the level of reinsurance cover purchased.

While greater consideration of gross uncertainty might be achieved through the requirement to determine a gross risk margin at the 75 per cent probability of sufficiency, APRA accepts that the gross risk margin at the 75 per cent probability of sufficiency is only a single measure of gross uncertainty. Such a measure does not consider the consequences beyond the 75 per cent probability of sufficiency level and can lead to some counterintuitive outcomes depending on the characteristics of the portfolio being considered.

Arguably, an understanding of a general insurer's sensitivity to losses across the distribution of possible outcomes or, at a minimum, providing some measure of the skewness of the distribution might be more valuable information for a general insurer's board or senior management.

APRA notes that for the majority of insurers, the proposal would result in no impact to the net insurance liabilities or the insurance risk charge.

Having considered all of these factors, along with industry feedback, APRA has concluded that gross uncertainty would be better addressed via the inclusion of a principles-based requirement in GPS 310, rather than as part of the calculation of the prudential capital requirement.

APRA therefore proposes to modify GPS 310 to require the Appointed Actuary, as part of the risk margins analysis, to comment specifically on gross uncertainty in the insurance liabilities. Such commentary would depend on the circumstances of the general insurer. It might include commentary on gross uncertainty at the 75 per cent probability of sufficiency level, if considered appropriate, or it might consider other analysis of gross uncertainty such as measures of skewness or potential gross-loss scenarios. General insurers may continue to use their current approach for the calculation of gross insurance liabilities for the statement of financial position.

6.2.3 Diversification benefit in risk margins

Comments received

Submissions universally argued against placing any limit on diversification benefits assumed for risk margin calculations in the outstanding claims liabilities and premiums liabilities valuations. They argued that the imposition of a limit would introduce unnecessary conservatism into both reserving and capital calculations. They also noted that limiting diversification in the risk margin was contrary to the general intent of the remainder of APRA's proposals, where allowance for diversification has been introduced via both the proposed asset risk charge and the aggregation benefit.

Submissions also supported the allowance for diversification between the outstanding claims and premiums liabilities on the basis of the differing nature of the risks. For example, major risks that are included in the premiums liability valuation (e.g. catastrophe risk) are not equally present in the outstanding claims liabilities.

APRA's response

The current principles-based prudential framework does not prescribe a method for calculating diversification benefits in the insurance liability calculation. Nor does the framework place limits on the application of the diversification benefit.

In the determination of insurance risk margins, most general insurers assume some credit for risk diversification between the various components of their insurance liabilities. Insurers typically assume some level of diversification benefit between classes of business, and many insurers also assume some diversification between outstanding claims liabilities and premiums liabilities.

APRA intends to ensure that the calculation of risk margins and, in particular, the assumptions underlying the level of diversification benefit assumed, are appropriate and broadly consistent across the industry. Lower levels of assumed correlations between classes of business (and hence higher levels of diversification benefit) can present an overly optimistic view of the financial position of a general insurer. There remain, however, legitimate reasons for differing levels of diversification benefit allowances within the risk margins, depending on the size, geographic spread and nature of business written by a particular insurer.

For this reason, APRA is proposing to continue the existing practice for risk margin setting and will not be placing any limits on the overall level of diversification benefit allowed in the risk margins. APRA proposes, however, to continue to monitor the level of diversification benefit allowed in the risk margins through the collection of both stand-alone and diversified risk margins for each APRA class of business in the APRA annual returns. APRA would expect these risk margins, along with supporting rationale, to be documented in the Appointed Actuary's insurance liability valuation report.

6.3 Insurance concentration risk charge

APRA issued a technical paper in September 2010 outlining its proposals for the insurance concentration risk charge (ICRC) for general insurers.

The existing approach to insurance concentration risk focuses on the need for insurers to have sufficient vertical reinsurance cover to survive one extremely large event due to accumulations of exposures. The existing approach does not sufficiently address the impact on capital and reinsurance program design from the occurrence of more than one substantial loss event in a given time period. The current requirements are also not clear on the limit of vertical reinsurance cover required for a geographically diversified insurer. For non-property risks, a variety of approaches are being used to determine the ICRC.[25]

In the technical paper, APRA proposed an approach that combines both a vertical requirement and a horizontal requirement for determining the ICRC. The vertical requirement (VR) is very similar to the existing Maximum Event Retention (MER)[26], except that it targets an event with size equal to the 1 in 200 year whole of portfolio loss.

25 Refer to pages 13 to 15 of the insurance concentration technical paper for further details on exposures to be included in property calculations and details of non-property risks.

26 The maximum event retention (MER) is the largest loss to which an insurer will be exposed due to a concentration of risk exposures (such that the probability of a loss exceeding that amount is within a specified probability) after netting out any potential reinsurance assets.

The horizontal requirement considers the expected net loss from the occurrence of several smaller-sized events in a given year on a whole of portfolio basis. The horizontal requirement would be reduced by the amount of double-counting between premiums liability provisions and the ICRC. Insurers would need to determine their whole of portfolio ICRC after separately considering their exposure to property and non-property accumulations of risk. For non-property accumulations, the horizontal requirement would be set to zero. APRA proposed in the technical paper that the horizontal requirement would include the costs of reinstating the appropriate layers of any catastrophe program. In addition, APRA proposed to maintain the requirement for a general insurer to allow for one full reinstatement of its catastrophe program in the vertical requirement.

For non-property insurers, some modifications from the approach outlined above were proposed for the determination of the ICRC. For LMIs, APRA proposed to implement two changes to the calculation of the ICRC. These changes were: deducting net premiums liabilities from the ICRC (after inclusion of expected claims in the probable maximum loss (PML)) and removing the claims-handling expense component of the charge.

APRA proposed that the ICRC would be gross of tax. In an extreme loss scenario, APRA considers it appropriate to assume that this would lead to a deferred tax asset (rather than reduction in profits) and these tax assets are generally deducted from capital.

6.3.1 Underlying principles

Comments received

Broad although not uniform support was received from industry regarding the proposed change to a whole of portfolio requirement for determining the level of vertical reinsurance cover required to protect against catastrophes. Broad support was also received for the need to consider both the vertical and horizontal aspects of concentrations of insurance risk. Submissions were critical of the material impact on required capital of the technical paper proposals and the additional complexity introduced into the calculations. There were also some concerns about the subjectivity of some of the assumptions required in the calculations. The sections below outline more details of the specific feedback that APRA received.

Submissions also argued that aggregate cover should be allowed to be considered in the determination of the vertical requirement.

APRA's response

APRA's view is that the existing capital standard is insufficient and that the underlying principles of the proposed approach for determining the ICRC remain appropriate. The proposal to use the whole of portfolio approach and include a horizontal requirement ensures that due consideration is given to the potential for losses to a general insurer from all perils where it underwrites risk in multiple regions or experiences a series of smaller-sized, but nonetheless material, events over a period of time. The whole of portfolio approach is also consistent with the other components of required capital, targeting a probability of sufficiency of 99.5 per cent over a one-year period.

APRA confirms that insurers cannot take into consideration any aggregate stop-loss reinsurance in the determination of the vertical requirement. APRA recognised that triggering of aggregate cover partway through a treaty year provides temporary relief to an insurer against the costs of further events. However, once the treaty year expires the vertical requirement (assuming aggregate cover was allowed) would return to previous levels. This kind of instability in the ICRC is not desirable and for this reason aggregate cover may be allowed for in determining the horizontal requirement.

The proposed risk charge introduces both additional complexity into the calculation and subjectivity around some of the assumptions. APRA proposes to make some modifications to the proposals to address these concerns and these are outlined below. These changes also reduce the capital impact of the proposed changes to the ICRC. APRA considers that the increased complexity is more than compensated for by the strengthening of the proposed new arrangements.

6.3.2 Total ICRC

Comments received

APRA received feedback that the proposals double-counted the expected retained losses from the first event in a given period as this was captured in both the vertical requirement and the horizontal requirement. APRA also received feedback that combining property and non-property vertical requirements may be overly conservative as it presumes two extreme events would occur in the same one-year period.

There was also some concern around the loss of transparency of the charge due to the use of the square root of sum of squares approach to determine the overall ICRC.[27]

It was suggested that the proposals would encourage purchase of more aggregate cover. Some submissions commented that aggregate cover, which would have a significant impact on reducing the ICRC, might not be available at a reasonable price.

APRA's response

The horizontal and vertical requirements represent different potential scenarios, as the horizontal requirement assesses the capital impact of a series of smaller-sized events, whereas the vertical requirement assesses the capital impact of a very large event. APRA accepts, however, that the proposed ICRC is complex and that there is some potential for the first event to be allowed for twice.

APRA also accepts that the requirement to combine the non-property and property vertical requirements could be, in some circumstances, an overstatement of the risk to the general insurer.

APRA proposes to deal with these issues by refining the ICRC formula. In addition, APRA proposes to require all insurers to explicitly address the adequacy of the reinsurance purchased and capital available for extremely severe events, compared to a series of smaller-sized events, in its Reinsurance Management Strategy (REMS) and in its ICAAP. APRA may apply a supervisory adjustment if it is of the view that the general insurer's assessment for capital purposes or its reinsurance program inadequately addresses these risks.

The revised ICRC formula is:

$ICRC = Maximum (VR_{prop}, VR_{non\text{-}prop}, ICRC_{LMI}, H3, H4)$

where:

VR_{prop} = whole of portfolio vertical requirement for property risks, including the cost of one full reinstatement of cover used to reduce an insurer's exposure to concentration of risks. At the start of the treaty period, the reinstatement cover must be contractually agreed.

$VR_{non\text{-}prop}$ = whole of portfolio vertical requirement for non-property risks, assessed on a class-by-class basis. It should include, where applicable, the cost of one full reinstatement of cover used to reduce an insurer's exposure to concentration of risks. At the start of the treaty period, the reinstatement cover must be contractually agreed.

$ICRC_{LMI}$ = ICRC for LMIs (discussed further in Section 6.3.9)

H3 = whole of portfolio net retained loss and cost of reinstatements for three 1 in 10 year loss events, less C

H4 = whole of portfolio net retained loss and cost of reinstatements for four 1 in 6 year loss events, less C

C = annualised portion of premiums liabilities relating to events that lead to a substantial number of claims

27 Refer to pages 11 and 12 of the ICRC technical paper.

As a result of this proposed change, a general insurer would not need to calculate each component of the ICRC when it is clear that it would not be the largest component.

6.3.3 Horizontal requirement for property insurers

Comments received

APRA received a number of submissions relating to the impact of the proposed horizontal requirement. Insurers estimated the capital requirement as doubling or even tripling the current ICRC, depending on the retention of their reinsurance program, any aggregate reinsurance in place and the level of catastrophe allowance in the premiums liabilities.

Some submissions noted that models available in the market typically focus on extreme events and do not model perils such as bushfire, hail and rain that occur more frequently. It was argued that the lack of models to determine the impact of these smaller events would lead to significant subjectivity and potentially varying results for similar insurers. Submissions also suggested that the specified scenarios were excessively conservative.

Submissions also raised concerns that the determination of the parameter C, the deduction for the double-counting between premiums liability provisions and ICRC would be highly subjective. Information provided in the QIS suggested that there were varying interpretations of the determination of this deduction.

APRA's response

As outlined in the technical paper, it is APRA's view that introducing a horizontal component to the ICRC would address a gap in the current prudential framework. There is currently no consideration of the impact on the capital position and reinsurance program design of a general insurer due to a series of severe events with a lower return period. APRA considers the introduction of such a requirement to be a prudent measure.

APRA recognises the limitations of the current catastrophe models available in the market. APRA expects that industry would be able to develop suitable approaches to estimating the expected claims cost for the horizontal requirement. APRA notes that information exists to assess the lower return period events, given the possibility of using actual claims experience for severe events to guide such assumption selections.

APRA notes that if an independence assumption is made, the horizontal scenarios may potentially have a much higher probability of sufficiency than 99.5 per cent. It is inappropriate, however, to assume that events at a lower return period are uncorrelated. The recent series of events in Australia supports the position that an independence assumption at low probability levels is unlikely to hold. Taking this correlation into account, it is APRA's view that the two scenarios are both set at the target probability of sufficiency.

APRA agrees that the determination of C is open to varying interpretations. APRA proposes to modify the definition of C to ensure greater consistency of approach while still ensuring the circumstances and reserving practices of individual insurers are considered. APRA proposes to require that the calculation of C be undertaken by the Appointed Actuary and be expressed in terms of the annualised allowance for catastrophe claims in the premiums liability provision.[28] The allowance would only consider events that lead to a substantial number of claims and would exclude any provisions for attritional losses from weather-related events with few reported claims. When determining the relevant events, the Appointed Actuary will need to consider items such as the retention on the catastrophe reinsurance program and catastrophe sizes that contribute to any aggregate reinsurance program, and may also refer to catastrophes as declared by the Insurance Council of Australia. APRA plans to collect and review the approaches and levels adopted for determining C as part of its ongoing supervisory review process.

28 Insurers that are exempted from having an Appointed Actuary would need to agree with APRA the approach they propose to adopt for determining C.

6.3.4 Catastrophe reinsurance reinstatements

Comments received

The horizontal requirement allows insurers to assume that the cost of reinstatement of reinsurance cover required under the two scenarios would be equal to the original cost. Submissions noted that this is an optimistic assumption as, after the occurrence of a series of severe events, additional reinstatements of cover are likely to be more expensive and, in some cases, might not be available.

Submissions generally supported APRA's proposal to continue to require the consideration of a reinstatement of the full catastrophe program when determining the vertical requirement. It was noted that a general insurer did not necessarily need to have one prepaid reinstatement at all times, as it may choose to bear the reinsurance availability and/or pricing risk until the renewal of the catastrophe program.

Submissions requested that APRA consider allowing inwards reinsurance reinstatements which the general insurer would receive from cedants to reduce the net impact of the ICRC.

APRA's response

The assumption in the horizontal scenario that reinstatements are available and at original cost may, at times, be optimistic. It is difficult to allow for this issue without overcomplicating the capital standards. APRA believes that including the cost of reinstatements in the horizontal requirement is an appropriate reflection of the overall risk and proposes, at this time, that it be determined at original cost. Recent natural catastrophes may provide APRA with data to review this assumption and APRA will consider whether the cost of reinstatements would have to be altered when it issues draft prudential standards later in 2011.

APRA notes that the current vertical requirement does not require a general insurer to contractually put in place a full reinstatement of reinsurance cover, but only to provide for the cost of that reinstatement. Unless such a reinstatement is either prepaid or contractually agreed, it remains uncertain whether such reinstatement cover would be available after a sufficiently large event at the cost estimated by the insurer, if at all.

To address this issue, APRA proposes that a general insurer must have in place at the start of the reinsurance treaty period a contractually agreed reinstatement of the entire catastrophe program that is included in determining the vertical requirement. After the occurrence of a large event, the general insurer must estimate the cost of further reinstatements of cover and include this in the vertical requirement. APRA does not require second and subsequent reinstatements to be contractually agreed. APRA expects the placement of second and subsequent reinstatements, including capital implications, to be considered in the general insurer's REMS and ICAAP.

APRA accepts that inwards reinsurance reinstatements from cedants that are subject to contractually agreed netting arrangements would reduce the ICRC. This approach is already in place for the calculation of the MER for Level 2 insurance groups and APRA proposes to implement the same approach for Level 1 insurers.

6.3.5 Non-property insurers

Comments received

The proposals for non-property insurers were generally supported by industry. Several submissions requested that APRA provide more guidance on what a realistic maximum event scenario might be for individual classes of business.

However, submissions disagreed with APRA's proposals to disallow netting of the insurance risk charge when calculating the ICRC for insurers with stop-loss reinsurance cover. Not allowing deductions for insurance risk charges in some situations was thought to be overly conservative.

APRA's response

APRA is sympathetic to insurer requests for more guidance on the maximum event scenarios that might be considered for non-property classes. APRA is concerned, however, that providing examples of maximum event scenarios may lead to these scenarios being the only scenarios considered for the ICRC. APRA considers it important that insurers consider their own particular circumstances and risks when determining the likely range of maximum event scenarios that might impact on them. APRA will consider issuing limited guidance on this issue with the draft prudential standards but will expect general insurers to rigorously take into account their own circumstances when assessing their maximum event scenario.

APRA maintains its position, as stated in the technical paper on the ICRC, that the insurance risk charges on outstanding claims and premiums liabilities cannot be netted off against the retention on any aggregate stop-loss reinsurance arrangements. As outlined in the technical paper, the insurance risk charges and the ICRC are designed to address very different risks.

6.3.6 Tax

Comments received

Submissions argued that the occurrence of an insurance concentration type event may not necessarily result in a loss of all profit and therefore establishment of a deferred tax asset. Depending on the business of the general insurer, the event could instead result in a reduction of that year's tax provision.

APRA's response

APRA appreciates that in some specific circumstances the occurrence of an insurance concentration type event may not completely erode the general insurer's profit; this, however, is not guaranteed, especially during a severe shock such as one with a 0.5 per cent probability of occurrence. It is also inconsistent with other areas of the proposed prudential framework to make this type of adjustment. APRA therefore proposes to retain the current requirement that the ICRC be determined gross of tax.

6.3.7 Governing law requirements

Comments received

It was suggested that APRA's proposals for governing law requirements may have a significant impact on reinsurance purchased from overseas parents or where an Australian insurer participates in global placement with overseas partners, as it may be difficult to write such protections into these contracts.[29]

APRA's response

APRA introduced governing law requirements for reinsurance recoveries in 2006, where all reinsurance recoveries that do not meet this test are deducted from a general insurer's capital base. APRA is unaware of significant issues that arose from this change. APRA therefore proposes to maintain the requirement relating to governing law in the ICRC.

6.3.8 Lenders mortgage insurers

In the technical paper on the ICRC, APRA proposed to maintain the current principles for the determination of the ICRC for LMIs. APRA proposed to introduce two changes to the capital requirement for lenders mortgage insurance, implementing two proposals that had been postponed from the previous consultation on the capital requirement. These were:

- the ability to deduct net premiums liabilities from the PML where these represent claims due to an economic downturn; and

29 Refer to paragraph 31 of *Prudential Standard GPS 230 Reinsurance Management.*

- the removal of the explicit claims-handling expense.

APRA proposed to place a floor on the ICRC so that it is not less than 10 per cent of PML. The implementation of the changes would require the lenders mortgage insurance ICRC model to be recalibrated.

Comments received

These proposals received strong support when originally proposed in 2008 and continued to receive support in the feedback on the technical paper.

Some LMIs raised a concern about how APRA would undertake the recalibration and whether there was sufficient information available to undertake this work. Submissions also queried whether the model would also need to be recalibrated to represent a 1 in 200 year scenario, rather than the current 1 in 250 year scenario.

APRA's response

APRA proposes to implement the two changes to the ICRC for LMIs. APRA also proposes that the risk charge be no less than 10 per cent of the PML.

APRA proposes to adjust the LMI model to ensure that the ICRC targets a 99.5 per cent probability of sufficiency. This can be achieved by adjusting the probability-of-default factors and/or the loss-given-default factors. For pragmatic reasons, APRA has recalibrated the ICRC by adjusting the probability-of-default factors only. When adjusting these factors, APRA has also considered empirical evidence regarding relativities between loan-to-valuation ratios and between standard and non-standard loan types.

Table 5 shows the proposed probability-of-default factors.

Table 5 – Proposed probability-of-default factors

Loan-to-valuation ratio (%)	Standard loans Probability of default (%)		Non-standard loans Probability of default (%)	
	Current	Proposed	Current	Proposed
Greater than 100	14.0	14.0	21.0	31.5
95.01 – 100	8.0	8.2	12.0	18.5
90.01 – 95	5.0	5.1	7.0	11.5
85.01 – 90	3.2	3.2	4.8	7.2
80.01 – 85	1.6	2.0	2.4	4.5
70.01 – 80	1.2	1.9	1.8	4.3
60.01 – 70	0.8	0.9	1.2	2.0
Less than 60.01	0.6	0.6	0.9	1.4

The proposed ICRC formula for LMIs is:

$ICRC_{LMI}$ = PML - ALR - NPL (ED), subject to a minimum of 10 per cent of PML

where:

PML = the probable maximum loss and is derived based on the sum insured, loan-to-valuation ratio, type of loan and age of the underlying loan over the prescribed three-year duration

ALR = allowable reinsurance, the lesser of 60 per cent of PML and available reinsurance. Available reinsurance is the value of all contractually agreed reinsurance available to the LMI during the prescribed three-year downturn

NPL (ED) = the value (at a 75 per cent level of sufficiency) of net premiums liabilities at the valuation date that represents potential losses due to an economic downturn

The deduction for NPL is proposed to only be a portion of the total premiums liabilities that represents losses due to a severe economic downturn. APRA proposes to require that the Appointed Actuary value this amount in the annual insurance liability valuation. APRA will collect and review the approaches and levels adopted for determining this deduction as part of its ongoing supervisory review process.

Chapter 7 – Level 2 general insurance groups

7.1 Introduction

The discussion paper outlined the proposals for Level 1 insurers and indicated that APRA would provide proposals for Level 2 insurance groups (Level 2 groups) at a later date. A Level 2 group is a corporate group that contains one or more APRA-authorised general insurers.[30]

The proposals outlined below draw on the preceding chapters of this response paper in relation to both the original and revised proposals. This chapter should be read in conjunction with the revised proposals outlined in Chapters 5 and 6.

APRA has received some initial feedback from Level 2 groups during the consultation period and has incorporated this feedback in the proposals outlined below, where appropriate. APRA welcomes submissions from Level 2 groups on these proposals, including feedback on practical implementation issues.

7.2 Capital concepts

For Level 2 groups, APRA proposes to implement the key capital concepts and required capital changes outlined in the discussion paper and in this response paper. This includes the determination of the capital base, quality of capital, prescribed capital amount, supervisory adjustment, prudential capital requirement and ICAAP. A number of these proposals already exist for Level 2 groups, including the principles for determining of the capital base and quality of capital. APRA also has provisions for the application of a supervisory adjustment for a Level 2 group. The current Level 2 group prudential standards allow Level 2 groups to use group documents, such as group business plans and reinsurance strategies. APRA proposes to allow Level 2 groups to have a group-wide ICAAP, as long as that considers and deals with each insurer within the Level 2 group.

7.3 Inadmissible assets

For Level 1 insurers, APRA is proposing to change the treatment of investments in subsidiaries, joint ventures and associates. APRA proposes to adopt this treatment for Level 2 groups for joint ventures and associates only. This is because a Level 2 group is considered as one economic entity and investments in subsidiaries are often consolidated into the Level 2 group. This means the subsidiary's assets and liabilities are viewed on a 'look-through' basis and contribute to the prescribed capital amount for the Level 2 group. As a result, the subsidiary's goodwill is deducted from capital and the regulatory capital is not double-counted. For any subsidiaries that, due to requirements in the Level 2 prudential standards, are not consolidated, APRA proposes to maintain the current treatment, where the total investment (as well as any capital deficiency in that entity) is treated as an inadmissible asset.

APRA proposes that a Level 2 group's investments in joint ventures and associates be aligned to the treatment proposed in Chapter 5. That is, the Level 2 group would deduct from capital the value of the investment in the joint venture or associate above net tangible assets and also deduct any regulatory capital requirement.

APRA proposes that the amount of regulatory capital to be deducted would be the PCR where the entity is regulated by APRA. Where the entity is not regulated by APRA but subject to minimum capital requirements (e.g. a health insurance company or an overseas regulated subsidiary), the relevant minimum capital requirement would be deducted from the capital base of the Level 2 group.

For joint ventures and associates, only the portion of the PCR (or other regulatory capital amount) that is equivalent to the percentage ownership of the entity would be deducted from the capital base of the Level 2 group.

30 Refer to paragraphs 6 to 12 of *Prudential Standard GPS 001 Definition* for further details on the definition of a Level 2 group.

7.4 Asset risk charge

APRA proposes to implement the principles of the asset risk charge for Level 2 groups, including the modifications outlined in Chapter 5. Further detail on four of the modules of the asset risk charge is outlined below, to clarify the application for Level 2 groups. More comprehensive discussion of the asset risk charge modules and stresses can be found in the asset risk technical paper and Chapter 5 of this response paper.

7.4.1 Real interest rates and expected inflation modules

As for Level 1 insurers, a real interest rate and inflation shock would need to be derived separately for assets and liabilities denominated in each currency to which the Level 2 group is exposed. The combined charge is then determined by converting each foreign currency shock into AUD and summing these together. Along with other facets of the revised capital framework, APRA proposes to use materiality provisions in these modules: exposures in foreign currencies that would not have a material impact on the capital requirement can be converted to AUD and then treated in the module as though they are AUD exposures.

7.4.2 Currency module

This module measures the impact of changes in foreign currency exchange rates. The stress applies to all assets and liabilities not denominated in AUD. The Level 2 group can make all consolidation adjustments for intra-group arrangements before applying this stress. All foreign currencies are assumed to move in the same direction against the AUD. As outlined in Chapter 5, offsets have not been allowed.

7.4.3 Equity module

This module would be applied to all listed equity assets, hedge funds and unlisted equity assets where a 'look-through' approach has not been used. APRA proposes to use an increase in the ASX 200 dividend yield for all listed equities. The increase in the dividend yield is converted into an equivalent fall in prices, which is then applied to both Australian and foreign listed equities. The use of a different shock for each foreign jurisdiction would be unduly complex and would not be expected to result in a materially different outcome. Historical evidence has shown that in periods of severe stress, stock exchange movements tend to be highly correlated. For hedge funds and unlisted equities, a 45 per cent fall in value is applied.

7.4.4 Default risk module

This module would be applied to reinsurance assets, non-reinsurance recoveries, over-the-counter derivatives, unpaid premiums and other credit exposures not in the credit spreads module. APRA proposes that the treatment of recoveries from non-APRA-authorised reinsurers outlined in the asset risk technical paper would apply to reinsurance recoveries of all Level 1 insurers. This treatment would not apply for reinsurance recoveries for international business, where all reinsurance recoveries are treated as though they are from APRA-authorised reinsurers. This is consistent with the current treatment of reinsurance recoveries for Level 2 groups.

7.4.5 Other components

The asset risk technical paper and Chapter 5 outline the approach to the property module and credit spreads module, as well as the aggregation process and methodologies for complex assets, asset concentrations, tax, fair value adjustments and materiality. The approach to remove the double-counting of inflation risk is also outlined in Chapters 5 and 6. APRA proposes to implement these modules, approaches and methodologies for Level 2 groups, with the exception of the treatment of tax consolidation. The technical paper proposed that, at Level 1, a general insurer that is part of a tax consolidation group may not recognise tax benefits whose value is contingent on them being used by other entities within the tax consolidation group. APRA proposes that a Level 2 group can rely on tax benefits of other entities within the Level 2 group but cannot recognise tax benefits whose value is contingent on them being used by other entities that are within the tax consolidation group but outside the Level 2 group.

7.5 Asset concentration risk charge

APRA proposes to implement the asset concentration risk charge, as outlined in Chapter 6, for Level 2 groups.

For non-reinsurance exposures, a basic limit of 25 per cent of capital base applies with the following higher limits:

- 100 per cent of capital base for exposures to related APRA-regulated entities;
- 100 per cent of capital base for exposures to unrelated APRA-regulated entities, subject to a maximum of 50 per cent of capital base for exposures to long-term assets; and
- no limit for exposures to governments with counterparty grade 1 or 2.

Assets in excess of the proposed limits attract a 100 per cent risk charge.

For reinsurance exposures, APRA proposed maintaining the existing asset concentration thresholds for Level 1 insurers. That is, no limit applies for reinsurance exposures with counterparty grades 1, 2 or 3; a 50 per cent limit applies for reinsurance exposures with counterparty grade 4; and a 25 per cent limit applies for reinsurance exposures with counterparty grade 5 and below.

When calculating the asset concentration risk charge, the Level 2 group would convert any foreign-denominated investments into AUD and compare this to the AUD capital base of the Level 2 group.

7.6 Insurance risk charge

APRA proposes to implement the revised proposals in relation to insurance risk outlined in Chapter 6 for Level 2 groups. These are:

- changes to the insurance risk charge factors for travel insurance and mortgage insurance, and simplification and alignment of the risk charges for inwards reinsurance classes of business;
- requiring the Group Actuary to select the of appropriate risk category for 'other' classes of business;
- revisions to *Prudential Standard GPS 311 Audit and Actuarial Reporting and Valuation: Level 2 Insurance Groups* (GPS 311) to ensure the Group Actuary comments on gross uncertainty in the liability valuation; and
- revisions to GPS 311 to ensure the Group Actuary recommends stand-alone risk margins by APRA class of business and Level 2 groups to disclose these risk margins in half-yearly and annual reporting to APRA.

7.7 Insurance concentration risk charge

APRA proposes to implement the principles of the ICRC outlined in Chapter 6 for Level 2 groups. There are, however, some modifications proposed in applying the approach for Level 2 groups.

7.7.1 Principles

APRA considers that the whole of portfolio approach applied at Level 1 should also, in principle, be applied at Level 2. This ensures that the ICRC for the Level 2 group targets a probability of sufficiency of 99.5 per cent over a one-year period. In implementing this principle for Level 2 groups, however, APRA also needs to consider the prudential aim of supervising Level 2 insurance groups, the reinsurance arrangements and structures and the practical outcome of its application to Level 2 groups.

There are a number of approaches that could be adopted for implementing the whole of portfolio principle of the ICRC for Level 2 groups. These include application at a legal insurance entity level, application based on the structure of the reinsurance arrangements, application at a regional level and application to the consolidated group as a whole. APRA proposes to apply the whole of portfolio approach for the vertical and horizontal requirements at a regional level for Level 2 groups. Each region would contain the exposures for relevant entities of the Level 2 group after consolidation of any intra-group reinsurance arrangements. The appropriate regions for this purpose would be proposed by the Level 2 group and agreed with APRA. APRA proposes, however, that one region must be Australia and that Australian exposures cannot be broken up into smaller sub-sets.

7.7.2 Level 2 group formula

APRA proposes the following ICRC formula for Level 2 groups:

$ICRC_{L2}$ = Maximum (VR_{prop}, $VR_{non\text{-}prop}$, $ICRC_{LMI}$, H3, H4)

where:

VR_{prop} = Maximum ($VR_{prop - region\ 1}$, ... , $VR_{prop - region\ n}$)

where $VR_{prop - region\ n}$ is the whole of portfolio vertical requirement for property risks in region n, including the cost of one full reinstatement of cover used to reduce an insurer's exposure to concentration of risks. At the start of the treaty period, the reinstatement cover must be contractually agreed

$VR_{non\text{-}prop}$ = Maximum ($VR_{non\text{-}prop - region\ 1}$, ... , $VR_{non\text{-}prop - region\ n}$)

where $VR_{non\text{-}prop - region\ n}$ is the whole of portfolio vertical requirement for non-property risks in region n, assessed on a class-by-class basis. It should include, where applicable, the cost of one full reinstatement of cover used to reduce an insurer's exposure to concentration of risks. At the start of the treaty period, the reinstatement cover must be contractually agreed.

$ICRC_{LMI}$ = Maximum ($ICRC_{LMI - region\ 1}$, ... , $ICRC_{LMI - region\ n}$)

where $ICRC_{LMI - region\ n}$ is the ICRC for lenders mortgage insurance business written in region n

H3 = Maximum ($H3_{region\ 1}$, ... , $H3_{region\ n}$)

where $H3_{region\ n}$ is the whole of portfolio net retained loss and cost of reinstatements for three 1 in 10 year loss events in region n, less $C_{region\ n}$

H4 = Maximum ($H4_{region\ 1}$, ... , $H4_{region\ n}$)

where $H4_{region\ n}$ is the whole of portfolio net retained loss and cost of reinstatements for four 1 in 6 year loss events in region n, less $C_{region\ n}$

$C_{region\ n}$ = annualised portion of premiums liabilities relating to events in region n that lead to a substantial number of claims

7.7.3 Other components

APRA proposes that the tax treatment of the ICRC for Level 2 groups would be the same as outlined in the technical paper and in Chapter 6 for Level 1 insurers i.e. it would be determined gross of tax. APRA does not consider it prudent to assume that the Level 2 group would still be making a taxable profit after an insurance concentration risk event.

Consistent with the governing law requirements for on-balance sheet reinsurance recoveries, the changes to governing law requirements outlined in the technical paper and Chapter 6 will only apply to the Level 1 insurers within the Level 2 group.

7.8 Discount rates

APRA proposes to apply the revised approach to discount rates as outlined in Chapter 5 for Level 2 groups. As outlined in the discussion paper, for foreign-denominated liabilities, risk-free rates should be determined with reference to yields from national government bonds in the same currency as the liabilities. The risk-free rates may be determined with reference to other instruments if it can be demonstrated that there is insufficient supply of highly rated national government bonds in the relevant currency. If other instruments are used as a reference point, adjustments would need to be made for both credit risk and liquidity. Justification for any deviation from the use of yields on national government bonds would need to be documented by the Appointed Actuary in the insurance liability valuation report.

7.9 Operational risk charge

APRA proposes to implement an explicit ORC formulae for Level 2 groups. The proposed formulae are the same as set out for general insurers in Table 4 (modified ORC formulae) in Section 5.4.

APRA proposes that the calculation of this risk charge would be performed after consolidation of intra-group exposures. This approach to performing the calculation is consistent with the treatment of intra-group exposures in the other components of the capital framework for Level 2 groups.

7.10 Aggregation benefit

The discussion paper described the approach to the proposed aggregation benefit, with the introduction of an explicit allowance for diversification between asset and insurance risk in calculating required capital. The aggregation benefit is discussed further in Chapter 5 of this paper. APRA proposes to implement an aggregation benefit for Level 2 groups and proposes to use the same correlation factor as for Level 1 insurers. However, where there is lenders mortgage insurance as part of the group, the correlation factor will need to be the weighted average of the LMI and non-LMI correlation factors, weighted by the size of the insurance risk charges for these respective parts of the Level 2 group.

Chapter 8 – Response to APRA's proposals: life insurers only

This chapter addresses those proposals in APRA's discussion paper that were relevant only to life insurers and friendly societies and provides APRA's response to submissions on these matters.

8.1 Capital base: termination value minimum

The discussion paper proposed that, for the purpose of determining the capital base, the policy liabilities for non-participating contracts that are not entitled to discretionary additions to their benefit would be adjusted to be the risk-free best estimate liability (RFBEL), subject to a minimum of the best estimate termination value (BETV).[31]

The technical paper proposed that:

- the BETV would be defined as the amount payable by the insurer in the event of voluntary termination by the policyholder. For risk business, this would include the present value of claims in course of payment, reserves for reported but not admitted claims and incurred but not reported claims and reserves for unexpired risks or refunds of premium. Where relevant, items would be discounted at the risk-free discount rates using best estimate assumptions;
- the BETV would be determined assuming that the insurer does not exercise any rights to reduce termination payments to the minimum levels permitted by the contract or *Prudential Standard LPS 4.02 Minimum Surrender Values and Paid-up Values*;
- the insurer would not be permitted to allow for any tax relief that may arise due to an assumed termination of the policy and payment of the difference between the BETV and the policy liability;
- the BETV would be determined net of reinsurance;
- the BETV minimum would be applied to specified product groups within each statutory fund;
- the RFBEL would be determined using the risk-free discount rate as defined in the discussion paper; and
- the excess of BETV over policy liability would be deducted from the capital base. This deduction would largely comprise the deferred acquisition costs (DAC). APRA proposed to treat the DAC in the same way as other intangible assets that are deducted from the capital base of ADIs and general insurers.

8.1.1 Appropriateness of BETV minimum

Comments received

While most submissions provided comment and recommendations on the proposed definition of the BETV minimum, a small number argued that the rule had no place in a risk-sensitive standard. Arguments centred around its consistency with a risk-sensitive capital standard, its consistency with the 99.5 per cent probability of sufficiency, the value of the excess of BETV over the RFBEL even in stressed circumstances, and lack of 'reward' for those insurers with greater persistency and better risk management practices.

Reinsurers generally felt that the application of the BETV minimum was particularly conservative with respect to treaty business. Treaty provisions usually do not permit cedant life insurers to terminate in-force business nor withhold reinsurance premiums.

A number of submissions suggested that the excess of BETV over RFBEL should be applied as an addition to the required capital rather than as a reduction to the capital base.

31 The discussion paper used the term CTV (current termination value) but, subsequently, APRA decided that it was necessary to clarify this terminology. As a result, the term BETV as defined in the technical papers will be used instead of CTV.

APRA's response

APRA has reviewed its position and proposes that the BETV minimum will apply as originally outlined in the technical paper, subject to some modifications described in the following sections.

APRA notes that the application of the BETV minimum is not intended to be an extreme lapse scenario. Rather, it is an estimate of the minimum potential policy liabilities of a statutory fund should insolvency and wind-up actually occur. APRA is unlikely to allow an insurer to continue operating if it were unable to pay the termination values of its policies.

This approach to liabilities is consistent with the way the capital base is defined for ADIs and general insurers. For capital to be included in the capital base, it must be paid up and rank behind the claims of policyholders and other creditors in the event of a wind-up. It follows that the excess of BETV over RFBEL for life insurers fails to meet these requirements.

While the argument of reinsurers may be technically valid, APRA does not believe it is appropriate to differentiate between direct insurers and reinsurers as this could permit regulatory arbitrage.

Under the proposal, the capital base may differ considerably from the capital reported on the insurer's balance sheet under the relevant accounting standards. ADIs and general insurers may also have a capital base that differs from the net assets shown on the balance sheet. This arises from the difference between the shareholder-oriented, continuing firm approach adopted for accounting standards, and the creditor-oriented, potentially failing-firm approach adopted for prudential standards.

As a result of the proposals, it will not be possible to use Tier 2 capital (e.g. subordinated debt) to fund DAC. This maintains APRA's existing position regarding the use of subordinated debt to fund DAC as set out in Circular E.1.

8.1.2 Product groupings for BETV minimum

Comments received

A number of submissions commented on the proposed product groupings to be used for the purpose of applying the BETV minimum. No submissions supported the additional product groups proposed. Rather, submissions recommended that the number of product groups for capital measurement purposes be reduced.

A common theme was that policyholders would not likely behave so differently in a wind-up or stressed situation as in the manner suggested by the product groups in the discussion paper. For example, APRA's proposals assume that when a pandemic occurs, all stepped premium risk business will terminate whilst lapse rates on level premium risk business will reduce. It was also commented that APRA's product groups were originally developed solely to support reporting to APRA and that sometimes a contract spans more than one product group.

Recommended solutions included grouping at the statutory fund level (while still distinguishing between participating and non-participating business) or retaining the related product groups (RPGs) that are used in the existing standards.

APRA's response

In APRA's original proposals, group and individual risk business were required to be split, with a further subdivision between stepped and level premium business. The QIS results showed that this level of separation would have a material impact on the capital requirements of some statutory funds.

In the light of these results and after consideration of the arguments from submissions, APRA has decided to modify its proposals by broadening the product groups to which the BETV minimum applies.

APRA has decided that, for the purpose of determining the capital base and required capital, the business of a statutory fund can be treated as a single product group subject to:

- participating products and non-participating products with discretionary entitlement to share in investment experience must be treated as a separate group or groups, reflecting the way these products are managed in practice. Further, any ring-fencing of investment earnings or policy owners' retained profits in respect of particular groups of policy owners should be recognised; and
- if the policy pays benefits in the form of an income stream (e.g. annuities and disability claims in the course of payment), the BETV cannot be less than the RFBEL. The actual termination value (if any) is disregarded if it is less than RFBEL.

8.1.3 Allowance for tax relief

Comments received

Several submissions argued that the tax benefits that may arise following the payment of termination values should be eligible for inclusion in the capital base. They suggested that APRA's proposals contained an asymmetric treatment of tax benefits and liabilities. For example, profitable annuity business would have tax included in its RFBEL and therefore also in its adjusted liability. Tax benefits for risk business with BETV greater than policy liability, however, would not be recognised in the adjusted liabilities. If the insurer had to be wound-up there would in practice be an offset between these tax benefits and liabilities.

APRA's response

APRA's position is that deferred tax assets in excess of deferred tax liabilities should be generally treated as inadmissible. APRA permits limited recognition of tax benefits subject to meeting certain conditions. These conditions were explained in Chapter 5.4 of the asset risk technical paper and are repeated here:

- tax benefits can be recognised but only to the extent that tax legislation allows them to be absorbed by the existing deferred tax liabilities or offset against liabilities to policy owners;
- an insurer that is part of a tax consolidation group may not recognise tax benefits whose value is contingent on them being used by other entities within the tax consolidation group; and
- a life insurer may assume that tax benefits in one fund can be offset against deferred tax liabilities in another statutory fund or the general fund, subject to the offset only being used once in both funds.

APRA proposes to collect data in the QIS2 to assess the extent to which tax benefits may arise following the payment of termination values. The information will assist APRA in determining an appropriate treatment.

In the following section on inadmissible assets there is further clarification of the proposed treatment of deferred tax assets and liabilities.

8.2 Capital base: inadmissible assets

The discussion paper and technical paper proposed to exclude the following assets from the capital base:

- goodwill and other intangible assets;
- deferred tax assets (DTA) net of deferred tax liabilities (DTL);
- defined benefit superannuation fund surpluses; and

- for all subsidiaries, associates and joint ventures, any excess of value over net tangible assets (NTA) plus any required prudential capital.[32]

Where the policyholders bear the investment risk, these assets could be treated as admissible, but only to the extent that their value had been recognised within the adjusted liability. Other specified conditions also have to be met.

The aims of these proposals were to ensure that the capital base is not overstated and to more closely align the requirements for general insurers and life insurers.

Comments received

There was some confusion regarding APRA's intentions where policyholders bear the investment risk. Some insurers appear to have misinterpreted the proposals when completing the QIS and treated DTA as inadmissible for investment-linked business, even though their unit prices could be reduced to offset any loss of DTA. For participating business, it was not clear to some insurers whether 100 per cent, 80 per cent or none of the assets listed above would be admissible.

Some insurers recommended that APRA should specify principles regarding the admissibility of tax assets. They considered the blanket exclusion of DTA in excess of DTL to be too harsh.

Some insurers proposed that tax benefits that could be realised by the other members of a tax consolidation group should be allowed to be recognised by an insurer if there was an appropriate tax-sharing agreement in place.

APRA's response

APRA confirms that, in principle, DTA in excess of DTL is an inadmissible asset. However, under APRA's proposals for investment-linked business, DTA in excess of DTL would be an admissible asset if the unit prices can be reduced in response to an inability of the insurer to realise the DTA. The same principles would apply to other assets that would otherwise be considered inadmissible.

The assets backing participating business would be considered admissible (even if they would be inadmissible if backing non-participating business). However, in the default module of the asset risk charge, a 100 per cent default charge would be applied to assets that would otherwise be inadmissible (see page 18 of the asset risk technical paper). The default charge would reflect the extent to which the participating liabilities could be reduced in response to the loss of these assets.

Tax benefits that can only be realised by other entities in a tax consolidation group would continue to be regarded as inadmissible assets. The Level 1 regulatory framework considers each regulated entity in isolation. It is not appropriate from a prudential perspective to consider whether tax benefits might be realisable in stressed circumstances across a group of related entities.

8.3 Asset concentration risk: specialist reinsurers

APRA's proposals for specialist life reinsurers were:

- introduction of a 50 per cent asset concentration limit on the retrocession exposures (of inwards reinsurance) to APRA-approved overseas parent entities; and
- a requirement that the term 'specialist reinsurer' (and hence the availability of higher limits for retrocession exposures) would refer only to those statutory funds of registered life companies whose policy liabilities consist exclusively of inwards reinsurance from third parties. Direct business sold by the reinsurer will need to be written in a separate statutory fund.

Currently, there are no concentration limits for the reinsurance or retrocessions of an Australian-registered specialist reinsurer to its overseas parent. For any other insurer, their reinsurance assets with an overseas reinsurer have a concentration limit of five per cent of the value of assets of a statutory fund (VASF).

32 The capital treatment of investments in subsidiaries, associates and joint ventures is addressed in Chapter 5.

Comments received

Life reinsurers argued that the ability to retrocede is crucial to providing the Australian market with sufficient capacity that can only be met from overseas sources and that the proposed limit could inappropriately limit their ability to retrocede.

Submissions queried why any limit was necessary because APRA must approve retrocessionaires as appropriate under the existing standards. An alternative proposal was that APRA could more effectively achieve its aims by applying a set of default risk charges for retrocessions that depend on the level of retrocession, the credit rating of the parent and the strength of the regulatory framework the parent operates under. This would amount to a refinement of the existing arrangement where APRA decides whether the parent is an appropriate retrocessionaire.

Submissions argued that a level playing field could be achieved without segregating inwards reinsurance and direct business in separate statutory funds. Instead, the asset concentration limit could be determined by, for example, using a sliding scale that reflected the proportions of each type of business within a combined statutory fund.

Another point raised in submissions was that having separate statutory funds would impose additional costs on those reinsurers that sell direct business.

APRA's response

APRA confirms its original proposals.

Reinsurance assets with non-APRA-regulated reinsurers should be subject to concentration limits so as to discourage excessive concentrations of credit risk. Life insurers that reinsure or retrocede business with a non-APRA-regulated related party within their group of companies expose their policyholders to additional credit risk. The existing 100 per cent limit for specialist reinsurers does not adequately limit such exposures.

APRA proposes to retain a reasonably high concentration limit (50 per cent) for retrocessions of inwards reinsurance by specialist reinsurers to their APRA-approved overseas parents. APRA is of the view that a simple 50 per cent limit is more appropriate than a more complex formula that produces a variable limit. APRA's proposal to recognise collateral and third-party guarantees should ensure that the 50 per cent limit does not unduly restrict the activities of specialist reinsurers.

The proposal to segregate the inwards reinsurance of specialist reinsurers from direct business was based on the principle that all life insurers writing direct business should be subject to the same prudential rules with respect to that business. APRA remains of the view that the most practical method of achieving this principle is through redefining specialist reinsurers to be the statutory funds of registered life companies whose policy liabilities consist exclusively of inwards reinsurance from third parties. A sliding-scale method of setting the concentration limits for a fund containing both direct business and inwards reinsurance would not fully satisfy the principle. If the fund only contained a small proportion of direct business, its exposure to an overseas reinsurer could approach 50 per cent.

There will be some transitional costs for specialist reinsurers as currently defined, should they decide to establish a separate statutory fund for direct business.

8.4 Insurance risk

In the insurance risk technical paper, APRA proposed that the insurance risk charge would be the amount of capital required to cover the risks (net of reinsurance) of mortality, morbidity, voluntary discontinuance and servicing expenses being worse than expected. Among other things, APRA wished to ensure that life insurers would be able to withstand a severe event - in particular, a severe influenza pandemic.

The method of applying the insurance risk charges would be similar to that under LPS 3.04 but with the following main differences:

- the range of stress margins would be expanded to allow for short-term (event and random) stresses as well as long-term (future) stresses;
- some of the insurance risk stress margins would be specified by APRA (expense, lapse and longevity) rather than determined by the Appointed Actuary;
- the minimum mortality margin for extreme events would be an APRA-specified mortality pandemic scenario;
- there would be an explicit requirement to consider the timing of cash flows to ensure that short-term losses cannot be assumed to be recovered by profits in the longer-term (equivalent to applying a termination value minimum at all times);
- the individual stress margins would be at 99.5 per cent sufficiency, with diversification between risks recognised using a prescribed correlation matrix; and
- there would be additional restrictions regarding the assumptions that the Appointed Actuary can make about future repricing of premium rates and fees, including the minimum period that must elapse before repricing could take effect and the size of the assumed increase.

8.4.1 Margins chosen by the actuary

Comments received

Some submissions called for more guidance to be provided by APRA on choosing margins for the mortality and morbidity stresses.

APRA's response

APRA notes that in the QIS submissions there was quite a wide variation in the margins chosen. There were also varying approaches to allowing for diversification between different types of morbidity risks and between group and individual contracts.

APRA does not propose to provide more guidance on methods for choosing the margins. APRA's view is that actuaries should choose appropriate margins for mortality and morbidity. Managing these risks is a core part of life insurance business and actuaries should have an intimate understanding of them. Mortality and morbidity risks can vary to a significant degree between insurers, depending on the characteristics of each risk portfolio.

APRA expects the industry to develop its own guidelines for choosing margins during the period before the new standards become effective. A similar process occurred in the general insurance industry when APRA introduced the requirement for risk margins to be included in general insurance liabilities.

In most cases only net of reinsurance margins will be required. Gross of reinsurance margins will only need to be determined if the statutory fund would exceed the asset concentration limits.

8.4.2 Event stresses

In the insurance risk technical paper, APRA proposed that there would be separate mortality and morbidity event stresses.

Comments received

There was little disagreement with APRA's proposition that extreme events need to be considered in the capital standards. APRA specified a minimum event stress for mortality but gave the actuary discretion to choose an appropriate morbidity event. In the QIS, there was a wide disparity in the morbidity event stresses. Some actuaries chose a zero morbidity event stress and some used a margin equivalent in impact to the prescribed pandemic minimum for the mortality event stress.

APRA's response

Significant insurance risk events occur infrequently for life insurers operating in Australia. For example, flu pandemics have occurred in the past roughly once every 30 to 40 years. Other events (e.g. terrorist attacks, natural catastrophes or other contagious diseases) causing large amounts of life insurance claims occur even less frequently in Australia. The risk of two major but unrelated events occurring within a 12-month period is extremely low.

APRA has therefore revised its proposals. Separate mortality and morbidity event stresses have been replaced with a revised requirement for a single event stress. Statutory funds will be required to hold capital for the single worst event with 0.5 per cent probability of occurrence over 12 months. The single event stress would be subject to a minimum of an APRA-specified pandemic scenario that would impact both mortality and short-term disablement rates.

8.4.3 Minimum event stress

APRA proposed that the minimum mortality event stress would be a pandemic scenario with an increase in mortality of one per 1000 lives insured over the following year. This proposal assumed that a pandemic would start immediately and last for 12 months.

Comments received

There was little disagreement with the specified minimum stress, although it was pointed out that the choice of an appropriate stress is very subjective.

APRA's response

APRA agrees that the choice of event stress is fairly subjective but some minimum must be chosen for prudential purposes. It is for this reason that APRA has specified a minimum stress to be used across the life insurance industry.

APRA has reconsidered its proposal that the pandemic would be assumed to start immediately and last for 12 months. This is a conservative interpretation of 99.5 per cent sufficiency. It would be more likely that a pandemic could commence at some time in any given 12-month period and then continue for 12 months. APRA has therefore decided to change the pandemic scenario to a 0.5 per mille increase in mortality for two years. Insurers will not be permitted to assume they could reprice their business as a response to this scenario.[33]

With the removal of the separate morbidity event stress, it is appropriate to allow for the impact of a pandemic on morbidity as well as mortality. APRA proposes to extend the minimum event stress scenario to include the following impacts on morbidity:

- 20 per cent of lives insured will become totally disabled at some point during the two year period (i.e. 10 per cent in each year);
- 10 per cent of lives insured will remain disabled at the end of 14 days (i.e. half those who become disabled);
- five per cent of lives insured will remain disabled after 30 days;
- no lives insured will remain disabled after 60 days;
- if disability continues beyond the policy waiting period, one month's benefit will be paid.

8.4.4 Expense and lapse stresses

Comments received

Some submissions argued that actuaries should be able to determine their own margins for the expense and lapse stresses, instead of using margins specified by APRA.

33 Refer to Section 8.4.8 of this paper for a more general discussion of repricing.

APRA's response

APRA agrees that actuaries will have insight into the potential variability of their company's own lapse rates. The margins on lapse rates would be expected to vary with the size and other characteristics of the insured portfolio. APRA has therefore decided that it is more appropriate for actuaries to set their own margins for lapse rates.

Expense risk has a different nature from other insurance risks in that insurers have greater control over expenses and there may be a tendency to underestimate the potential variability of expenses. In order to achieve a consistent measure of 99.5 per cent sufficiency, APRA believes it is appropriate to specify the margins for servicing expenses.

8.4.5 Stressed termination values

Comments received

Some submissions noted that the requirement to stress termination values at the reporting date was inconsistent with the assumption that unexpected shocks and losses would occur over a 12-month period.

APRA's response

APRA agrees with these submissions and therefore proposes to remove the requirement to apply a stressed termination value minimum at the reporting date. The existing proposals already implicitly require that stressed termination values need to be met at the end of the 12-month period following the reporting date (this is an outcome of the short-term losses test).

Removing the stressed termination value minimum at the reporting date would allow losses arising from the capital stresses to emerge over the 12-month period instead of them happening immediately at the reporting date. Any profits arising elsewhere in the product group (as defined for the termination value minimum) could be offset against increases to termination values arising during this period.

As well as potentially reducing the capital requirements, this change will also simplify the capital calculations.

8.4.6 Short-term losses

The technical paper proposed that in determining the stressed liability, insurers would consider the timing of cash flows to ensure that short-term losses cannot be assumed to be recovered by profits in the longer-term. The QIS Q&A document clarified this requirement by explaining that the product group should be assumed to terminate at the point in time that maximises the stressed liability.

Comments received

Some submissions recommended that the insurance risk charge be determined using the 'three peaks' model proposed by the Institute of Actuaries of Australia Risk Business Capital Taskforce. In this model, the required capital for insurance risk would be determined from the worst of three scenarios:

- ongoing adverse experience;
- sudden extreme event lasting one year;
- total termination of the fund.

APRA's response

APRA does not believe the 'three peaks' model deals adequately with accumulations of risk. This model does not allow for the possibility that ongoing adverse experience may manifest at the same time as a pandemic. Nor does it require insurers to be able to pay termination values following the occurrence of an extreme event or other adverse experience.

APRA expects the impact of its proposal to be considerably reduced by spreading the pandemic stress over two years, allowing repricing to be assumed from as little as one year after the reporting date (see Section 8.4.8 below), and by combining group and individual risk business. The original proposal will therefore remain unchanged (except for replacing the stressed termination value minimum at the reporting date with a minimum 12-month period before stressed termination values must be applied). This is consistent with APRA's view that termination values represent a minimum liability that insurers need to be able to meet after unexpected shocks or losses have arisen.

8.4.7 Correlations

The technical paper specified a correlation matrix that would be used for determining diversification benefits between the different types of insurance risk.

Comments received

There was little comment on the correlation factors.

APRA's response

Although there was little comment on them, APRA reconsidered the correlation factors, when reviewing the insurance risk charge as a whole. APRA proposes to reduce the correlation between future stress mortality and future stress morbidity to 0.25. The original proposal was for a correlation of 0.5. APRA now believes this was overly conservative.

8.4.8 Repricing

Comments received

APRA received many submissions concerning the proposed three-year minimum period before repricing could be assumed in response to the insurance risk stresses. The three-year minimum was felt to be overly conservative in such stressed circumstances, particularly for group business. Many insurers actively reprice large group schemes at the end of each premium rate guarantee period. It was noted that it was unclear what 'restoring the product to its previous profitability' meant.

APRA's response

APRA has revised its proposals and now intends to allow repricing to be assumed at a minimum of 12 months from the reporting date. Repricing would not be allowed to be assumed as a response to the random and event stresses.

The 12-month period allows for adverse experience to develop. It can be assumed that a decision to reprice may be made at the end of 12 months. An additional delay to implement repricing must be assumed if the repricing could not be made effective immediately after 12 months, either because of contractual guarantees or for logistical reasons.

Insurers will need to decide for themselves what level of repricing might be able to be achieved in stressed circumstances. The maximum extent of repricing that can be assumed is such that the increase in the value of premiums received after the effective date of re-pricing equals the increase in the value of claims and expenses incurred after the date of re-pricing (this is re-pricing to the same level of profitability before the stresses were applied).

8.4.9 Calculation method

Comments received

Many submissions commented on the complexity of the calculations required for the insurance risk charge.

APRA's response

The calculations for the insurance risk charge are more complex than those for the existing solvency and capital adequacy standards. Several of the revisions to the proposals discussed above will simplify the calculations.

In particular, there will be no need for a separate calculation of stressed termination values at the reporting date and the separate diversification factor for termination values. The calculations will in many cases only need to be done on a net of reinsurance basis. Gross of reinsurance calculations will only required if the concentration limits for reinsurance assets might be breached.

In summary, the revised calculation method is:

- quantify the impact of each of the individual insurance stresses on the net of reinsurance liabilities (Section 7.1 of the technical paper);
- determine a diversification factor and adjusted margins for the stressed liabilities (Sections 7.2 to 7.4 of the technical paper);
- determine the stressed liability as described in Sections 7.5 and 7.6 of the technical paper, but with allowance for termination of the product group[34] at the point in time that maximises the stressed liability. This point in time must be at least 12 months from the reporting date;
- the insurance risk charge is derived by aggregating across the product groups the excess, if any, of the stressed liability over the adjusted liability. The 'prudent liability' is no longer required.

8.5 Methodology issues

This section considers two methodology issues:

- **Tax benefits** – how to allow for the limits for recognition of tax benefits arising in the stressed scenarios for insurance and asset risk; and
- **Management discretions**[35] - how to allow for the limits to management discretions for participating business (e.g. bonus rate reductions) in the stressed scenarios.

In the technical papers and QIS instructions, APRA proposed that:

- tax benefits could be allowed for in each stressed scenario, and then an extra capital charge added after aggregation. Alternatively, each scenario could be determined on a gross of shareholder tax basis (but net of policy owner tax), with a tax offset deducted from the PCR after aggregation. APRA did not suggest a method for determining the tax offset; and
- management actions (discretions) for participating business should be allowed for within each scenario, and then an extra capital charge must be added after aggregation if discretions are exhausted. A specific method for determining the extra capital charge was not mandated; however, an example was given in Appendix C of the asset risk technical paper of a gross/net method, whereby capital charges are determined with and without allowance for management actions. The value of actions taken in aggregate is compared with the value of available actions (pre-stress) and any excess is added to the PCR.

Comments received

A strong majority of submissions were in favour of fully allowing for tax benefits and management actions within each scenario, with an adjustment made after aggregation of the capital charges if either the tax offsets or management actions (in aggregate) had exceeded their limits.

For the QIS, most insurers used the suggested gross/net method for participating business. However, a number of comments were made about the complexity of this method; it was also pointed out that it has some technical shortcomings. In particular, the value of available discretions is determined using a different interest rate from that used in determining the value of discretions exercised. There can also be a discontinuity in the capital charge if a change in asset mix causes the real interest rate and expected inflation stresses to switch from rising to falling yields.

Some submissions argued that a combined diversified scenario would be a better way to test whether management discretions would become exhausted. In this scenario all asset and insurance stresses would be applied simultaneously. Each stress would be reduced to allow for diversification benefits.

34 The product groupings are the same as those used for determining the adjusted liabilities for the capital base calculation.

35 Also applies to non-participating business with discretionary entitlements to share in investment experience.

Other issues raised included:

- the modular approach can be particularly complex due to the need to recalculate the value of embedded options for each individual stress scenario;
- the allowance for embedded options in the capital calculations was questioned as they represent an allowance for adverse experience which may occur after the expiry of the 12-month horizon; and
- the methodology does not permit adequate disclosure of the ability of policy owner funds to absorb the specified stresses, or the surplus policy owner funds remaining after the specified stresses have been applied.

APRA's response

APRA proposes that tax benefits and management discretions be recognised within each stressed scenario. Tax benefits would not be limited within the scenario. Utilisation of management discretions would be limited to the amounts available in each scenario. This proposal would ensure that all insurers use a consistent methodology for determining the capital required for each stressed scenario. It also provides results for each scenario that are realistic and meaningful.

APRA agrees with those submissions recommending that the limits to tax benefits and management discretions could be tested using a combined diversified scenario, whereby all stresses are applied simultaneously. Each of the stresses would be mitigated through application of a diversification factor. This is a simpler method for testing whether additional capital would be required when all stresses are combined. APRA does not propose to specify that this method must be used. The actuary may choose to use another method, such as the gross/net method given in Appendix C of the asset risk technical paper, if they believe another method would be more appropriate.

The diversification factor for the combined scenario could be determined as the ratio of the PCR (before applying the test for limits) to the sum of the capital charges for the individual scenarios. This is likely to give reasonable results for statutory funds whose business is all non-participating.

For statutory funds containing participating business, the actuary may need to consider other methods for choosing the combined diversified scenario. APRA has not prescribed a specific method because a single method may not give the most appropriate result in all circumstances.

Difficulties in determining an appropriate combined scenario may arise because:

- the proportion of participating business losses allocated to shareholders jumps from 20 per cent (typically) to 100 per cent once management discretions become exhausted;
- the real interest rate and expected inflation stresses can be in opposite directions for participating business and non-participating business. The direction that is adverse for the statutory fund as a whole may switch when the interest and inflation stresses are combined with the other asset and insurance risks; or
- some statutory funds contain more than one participating sub-fund. These sub-funds may have differing levels of available discretions and different levels of exposure to the various asset and insurance risks.

The actuary will need to explain the method they have used in the FCR.

APRA confirms that embedded options must be allowed for. The liability after applying the stresses should be the mean of the distribution of potential liability outcomes, allowing for further variations in experience after the 12-month horizon. Any asymmetries in the distribution of potential outcomes must be reflected in the liability. The actuary may consider materiality when deciding whether to allow for embedded options in the individual scenarios. Making appropriate allowance for embedded options will be more important in the combined scenario (or alternative method).

APRA agrees with those submissions that indicated that surplus policy owner funds (in excess of those required to meet guaranteed benefits) are an important measure of financial strength for participating business. However, the focus of APRA's capital standards is on the amount of shareholder capital supporting insurers and the ability of that capital to absorb stresses. Insurers are free to make additional disclosures if they wish concerning the stress-absorbing properties of participating policy owners' funds.

8.6 General fund

The 'general fund' is a term used to refer to either the management fund of a friendly society or the shareholders' fund of other life companies.

The discussion paper stated that a similar capital framework, with a capital base and a PCR, would apply to both the general fund and the statutory funds of life insurers. However, APRA did not provide any detailed proposals for determining the capital base and PCR of general funds.

8.6.1 APRA's proposals

Capital base and PCR

APRA proposes that the capital base and PCR for general funds be determined in the same way as for statutory funds.

For friendly societies, the capital charge for operational risk would be determined in the same way as for other life insurers (refer to Section 5.4 of this paper) but would be included in the PCR of the general fund. The change component, $|\triangle|$, for the operational risk charge would not be determined for each benefit fund separately.[36] Instead, all investment-linked benefit funds would be combined and all non-investment-linked funds would be combined.

The insurance risk charge for the general fund would include a servicing expense reserve for friendly societies, determined as:

- three times the deficiency (if any) expected to arise over the twelve months subsequent to the valuation date, with no adjustment for tax relief, between expected management fees in that period and expected servicing expenses; plus
- any additional deficiency that would arise if expected servicing expenses increased by 10 per cent.

Expected servicing expenses are to be determined for this purpose as the expected servicing expenses in the twelve months subsequent to the valuation date.

The proposed servicing expense reserve is slightly different from the servicing expense reserve required under *Prudential Standard LPS 6.03 Management Capital Standard*. The changes are intended to make the reserve more consistent with the expense stress used in determining the insurance risk charge for statutory funds.

$10m minimum

Prudential Standards No 3 (PS3) requires life insurers to hold a Minimum Capital Amount (MCA) in their general fund. The MCA is zero for friendly societies and $10 million for other life companies.

APRA proposes to replace PS3. In its place a $10 million minimum PCR would apply to the general fund of all life companies. Existing friendly societies would be able to apply to APRA for an exemption from this requirement.

36 The operational risk charge is discussed in Section 5.4 of this paper.

Offsets

Under LPS 2.04 the $10 million MCA can be used to offset the expense reserve required for statutory funds. Under LPS 3.04 the $10 million MCA can be used to offset the new business reserve required for statutory funds. Where an offset is used, the solvency or capital adequacy requirement for a statutory fund is reduced but the Management Capital Requirement for the General Fund must be increased by the same amount. This can result in a reduction in overall capital requirements for the insurer if the Management Capital Requirement (before adding the offset) is less than the Minimum Capital Amount.

APRA proposes that offsets would continue to be allowed. The PCR of a statutory fund could be reduced, providing the PCR of the general fund was increased by the same amount. The maximum offset allowed would be the amount required to increase the PCR of the general fund to the $10 million minimum.

Quality of capital

Following the December 2010 agreement of a new international banking regulation framework by the BCBS, APRA is currently developing revised capital standards for ADIs.[37] For life insurers and general insurers, APRA intends to broadly align its standards for the quality of eligible capital instruments with those that will apply to ADIs. These standards would be applied at company level.

For life insurers, the standards would also be applied at statutory fund level where debt instruments (e.g. subordinated debt) are identified with a particular statutory fund. The existing Circular E.1 would be replaced. Some instruments used by ADIs and general insurers may not be appropriate for life insurers due to the special requirements of statutory funds. APRA expects to finalise these proposals well ahead of the 1 January 2013 implementation date of the capital standards.

37 Refer to section 5.6 of this paper.

Chapter 9 – Cost-benefit analysis information

To improve the quality of regulation, the Australian Government requires all proposals to undergo a Regulatory Impact Analysis to establish whether it is likely that there will be business compliance costs associated with the proposals. The discussion paper invited interested parties to provide information to assist APRA perform a cost-benefit analysis.

Some submissions commented on the cost of certain aspects of APRA's proposals; however limited quantitative information on compliance costs was provided. As indicated in Section 3.4.1, APRA has sought to strike a balance between enhancing the risk sensitivity of its proposed capital standards and their complexity, thus avoiding unnecessary compliance costs.

As part of the on-going consultation process, APRA requests respondents to provide an assessment of the impact of its revised proposals and, specifically, any marginal compliance costs that APRA-regulated entities are likely to face. APRA will also be undertaking an impact study of its proposals.

Respondents are requested to use the Business Cost Calculator (BCC) to estimate costs to ensure that the data supplied to APRA can be aggregated and used in an industry-wide assessment. APRA would appreciate being provided with the input parameters to the BCC as well as the final result. The BCC can be accessed at: www.finance.gov.au/obpr/bcc/index.html.

Attachment A

1. Summary of proposals – general insurers

General insurers	Original proposals	Revised proposals
Capital base	• For insurers with investments in other APRA-regulated entities, the value of this investment would be reduced by the regulatory capital requirements of the subsidiary, associate or joint venture for the purposes of inclusion in the insurer's capital base. • Potentially, there would be changes to the requirements for Tier 2 capital.	• Regulatory capital and value in excess of net tangible assets will only need to be deducted from the capital base for subsidiaries (etc) that are subject to prudential capital requirements, or that are operationally dependent or undertake insurance-related business, including brokers, agents, servicing or management companies.
Prescribed capital amount	• The existing Minimum Capital Requirement (MCR) would be replaced by the Prudential Capital Requirement (PCR). The part of the PCR that is calculated by insurers and must be publicly disclosed would be called the prescribed capital amount.	• No change.
Supervisory adjustment	• APRA could increase an insurer's total required capital if it believed the prescribed capital amount did not adequately account for all of an insurer's risks. This adjustment would not be permitted to be publicly disclosed.	• No change.
Prudential capital requirement (PCR)	• The PCR would be the total of the prescribed capital amount and any supervisory adjustment. • An insurer would be required to have a capital base that exceeds the PCR at all times.	• No change.
Components of the prescribed capital amount	• The prescribed capital amount would comprise separate charges for insurance risk, insurance concentration risk, asset risk, asset concentration risk and operational risk. An aggregation benefit would be deducted.	• No change.

General insurers	Original proposals	Revised proposals
Insurance liabilities	• APRA's requirements for the valuation of insurance liabilities are described in GPS 310. The insurance liabilities comprise outstanding claims liabilities and premiums liabilities. • The current methodology for risk margins would be retained. APRA proposed to: – clarify that risk margins must be held on both reinsurance and non-reinsurance recoveries; and – consider constraining the level of diversification that can be assumed.	• Insurers will not need to adjust their approach to setting gross insurance liabilities although the Appointed Actuary will be required to provide comment on the gross uncertainty in the insurance liabilities. • Limits on the overall level of diversification benefit allowed in risk margins will not be applied although general insurers will be required to report stand-alone risk margins in APRA returns.
Insurance risk charge	• The insurance risk charge is described in GPS 115. It would continue to be calculated by applying APRA-specified factors to the outstanding claims liabilities and premiums liabilities. • Minor changes would be made to the outstanding claims liability and premiums liability risk capital factors. The classes affected would be travel, mortgage insurance and 'other'. • Changes were proposed to the insurance risk charge groupings for inwards reinsurance business. The separate charges for facultative versus treaty business would be removed, and the groupings by class would be aligned with groupings for the direct classes.	• Insurance risk charges have been reduced for longer tail classes of business to offset the double-counting of inflation risk in the asset risk charge.

General insurers	Original proposals	Revised proposals
Insurance concentration risk charge	• The insurance concentration risk charge is described in GPS 116. It is the Maximum Event Retention (MER) plus the cost of one reinstatement of the relevant reinsurance cover. • The technical paper released in September 2010 details APRA's proposals for the insurance concentration risk charge. The key proposals were: – alignment with the target 99.5 per cent probability of sufficiency that applies for the overall capital framework; – separate consideration of the limit of vertical cover required (vertical requirement) and the amount of capital/reinsurance required for exposures to multiple events (horizontal requirement); – the calculation of the vertical requirement is to be assessed on a whole of portfolio basis; – consideration for the purpose of the horizontal requirement of the capital impact of multiple losses within a one-year period; and – allowance for diversification, both within the vertical and horizontal requirements and with other elements of the capital framework.	• The proposed formula for calculating the insurance concentration risk charge has been amended. • The definition of 'C' in the formula has been modified to provide greater clarity and a more consistent approach across the industry. • A general insurer must have in place at the start of the reinsurance treaty period a contractually agreed reinstatement of the entire catastrophe program that is included in determining the vertical requirement. Second and subsequent reinstatements of reinsurance cover are not required to be contractually agreed but provision for the cost of the next reinstatement must still be included in the insurance concentration risk charge. • The formula and probability-of-default factors for calculating the insurance concentration risk charge for an LMI has been revised.

General insurers	Original proposals	Revised proposals
Asset risk charge	• The investment risk capital charge (which would be renamed the asset risk charge) is described in GPS 114. • APRA proposed to improve the risk sensitivity of the asset risk charge by requiring the insurer to apply a series of stress tests to the balance sheet. • The stress tests would include changes to a range of factors affecting the assets and, in some cases, the liabilities. • The capital charge required for asset risk would be determined as the change in capital base from specified adverse movements in a range of eight asset risk modules including: – real interest rates; – expected inflation; – currency; – volatility; – equity; – property; – credit spreads; and – default. • The capital required for each module would be combined using a correlation matrix prescribed by APRA. Correlations adopted between each pair of risk modules would be set at conservative levels allowing for the relative likelihood of two scenarios occurring at the same time.	• The stresses for the real interest rates and expected inflation modules have been simplified by removing the term-dependent structure of the stresses. The stresses have been made less pro-cyclical by capping the real interest rate stresses at 200 bps and specifying the expected inflation stresses as additive adjustments to best-estimate inflation rather than multiplicative adjustments. • The upward equity volatility stress has been moved to the equity module. It has been made less pro-cyclical by specifying it as an additive rather than a multiplicative adjustment. The other volatility stresses have been removed. • Revisions have been made to the credit spreads module to make it more risk-sensitive and less pro-cyclical including: – the structured asset category has been split between securitised and re-securitised assets with higher stress factors for the latter category; – no charge will apply to AAA rated state government bonds; and – separate default and spread factors have been introduced. • Revisions have been made to the correlation matrix factors in the aggregation of the asset risk charges.

General insurers	Original proposals	Revised proposals
Asset concentration risk charge	• The investment concentration risk capital charge (which would be renamed the asset concentration risk charge) is described in GPS 114. • The asset concentration thresholds would be strengthened. • Special treatment would be allowable for exposures to: – highly rated governments; – reinsurance recoveries; – APRA-authorised entities; and – related parties.	• The asset concentration limits have been increased for short-term exposures (less than 12 months) to unrelated APRA-regulated entities. • General insurers can choose to treat letters of credit and guarantees provided by entities or collateral within an entity either as a reinsurance exposure to the originating reinsurer, or as an exposure to the entity providing the guarantee or letter of credit or entity holding collateral. • A general insurer that is licensed only to write the risks of its parent and meets certain criteria may apply for an exemption from the asset concentration limits.
Operational risk charge	• There would be an explicit charge for operational risk. • A 'change' item would apply to gross written premiums and gross insurance liabilities. The change threshold would be 10%. If the increase or decrease exceeds 10% the whole of the increase or decrease would incur a capital charge. • The same formula would apply to both direct insurers and reinsurers. • Operational risk profile and management would be a consideration in determining any supervisory adjustment.	• The operational risk charge formula has been modified. • Separate factors are applied for direct business and reinsurance business. • The formula is applied to gross written premiums and net insurance liabilities rather than gross written premiums and gross insurance liabilities. • The 'change' item will only apply to gross written premiums, not to liabilities. The change threshold has been increased from 10% to 20% and only that part of the increase or decrease in excess of the threshold will incur a capital charge.
Aggregation benefit	• The aggregation of the insurance risk charge and the asset risk charge would include explicit allowance for diversification between risks. • The correlation factor between asset and insurance risk for QIS1 would be 0.5. • The operational risk charge, asset concentration risk charge and insurance concentration risk charge would be added unadjusted to the other charges.	• Asset risk and the combined sum of insurance risk and insurance concentration risk will be included in the aggregation formula. • The correlation factor to be used for QIS2 will be 0.5 for LMIs and 0.3 for all other general insurers.

General insurers	Original proposals	Revised proposals
ICAAP	• Insurers would be required to develop and maintain an internal capital adequacy assessment process (ICAAP). • The five main features of an ICAAP would be: – board and management oversight; – sound capital assessment; – comprehensive assessment of risks; – monitoring and reporting; and – internal control review.	• No change.
General Insurance Groups	• Most of the proposals for Level 1 general insurers would flow through to Level 2 general insurance groups. • Further details for Level 2 general insurance groups would be set out in the discussion paper that accompanies the draft standards and would be subject to consultation at that stage.	• The proposals for Level 1 general insurers will be implemented for Level 2 insurance groups with some modifications: Asset risk charge • real interest rate and expected inflation shocks will need to be calculated for each foreign currency unless the exposure is considered immaterial, in which case it can be converted to AUD; • for the currency module, the group can make all consolidation adjustments for intra-group arrangements before applying the stresses for currency shocks; • the shock applied to equities is to be based on the ASX 200 dividend yield regardless of foreign jurisdiction; and • the Level 2 group can rely on tax benefits of other entities within the Level 2 group but cannot recognise tax benefits whose value is contingent on them being used by other entities that are within the tax consolidation group but outside of the Level 2 group.

General insurers	Original proposals	Revised proposals
General Insurance Groups		Asset concentration risk charge • foreign denominated investments should be converted to AUD and compared to the AUD capital base. Insurance concentration risk charge • a modified formula will be implemented for the calculation of the insurance concentration risk charge; and • the calculation of the vertical requirement and horizontal requirement is to be completed at a regional level with the appropriate regions to be agreed between the Level 2 group and APRA. Operational risk charge • the calculation of the capital charge is to be performed after consolidation of intra-group exposures. Aggregation benefit • where an LMI is contained in the Level 2 group, the correlation factor will be the average of the LMI and non-LMI correlation factors, weighted by the size of the insurance risk charges. • The Level 1 capital base proposals for the treatment of investments in joint ventures and associates will be implemented for Level 2 insurance groups.

2. Summary of proposals – life insurers

Life insurers	Original proposals	Revised proposals
Replacement of solvency and capital adequacy requirements	• The solvency and capital adequacy requirements for statutory funds would be replaced by a single measure called the Prudential Capital Requirement (PCR). The PCR would be compared with the capital base of each statutory fund.	• No change.
Capital base	• The capital base would include shareholders' net assets and approved subordinated debt (and seed capital in the case of friendly societies). • Deductions would be made for inadmissible assets. • Adjustments would be made to policy and other liabilities for the purpose of determining the capital base. The adjusted policy liability for non-participating business without discretionary benefits would be the greater of the Risk Free Best Estimate Liability and the Best Estimate Termination Value. The adjusted liability would be determined separately for each APRA product group. • There would be possible changes to the requirements for subordinated debt.	• The Best Estimate Termination Value minimum will not be applied separately for each APRA product group. All business in a statutory fund, except for participating and discretionary investment business, can be treated as a single group.
Inadmissible assets	• Inadmissible assets are assets that would not qualify for inclusion in the capital base. • The capital charge for asset concentration risks would be included in the PCR and not in the inadmissible assets. • For subsidiaries, associates and joint ventures the regulatory capital requirements and any excess of the value of the entity over net tangible assets would be inadmissible. • Other inadmissible assets would be defined by APRA similarly to the existing solvency standard.	• Regulatory capital and value in excess of net tangible assets will only need to be deducted from the capital base for subsidiaries (etc) that are subject to prudential capital requirements, or that are operationally dependent or undertake insurance-related business, including brokers, agents, servicing or management companies.

Life insurers	Original proposals	Revised proposals
Prescribed capital amount	• The prescribed capital amount would be calculated by the Appointed Actuary and would be required to be publicly disclosed.	• No change.
Supervisory adjustment	• APRA could increase an insurer's total required capital if it believed the prescribed capital amount did not adequately account for all of an insurer's risks. This adjustment would not be permitted to be publicly disclosed.	• No change.
Prudential capital requirement (PCR)	• The PCR would be the total of the prescribed capital amount and any supervisory adjustment. • An insurer would be required to have a capital base that exceeds the PCR at all times.	• No change.
Components of the prescribed capital amount	• The prescribed capital amount would comprise separate charges for insurance risk, asset risk, asset concentration risk and operational risk. An aggregation benefit would be deducted.	• No change.

Life insurers	Original proposals	Revised proposals
Insurance risk charge	• The insurance risk charge would be the amount of capital required to cover the risks that mortality, morbidity, voluntary discontinuance and servicing expenses are worse than best estimate. • The insurance risks considered would include extreme events (e.g. a pandemic). There would be separate event stresses for mortality and morbidity. The minimum mortality event stress would be a flu pandemic scenario, with a one per thousand increase in mortality for 12 months. • Some margins would be determined by APRA including: lapses, servicing expenses, longevity and minimum mortality event stresses. Others would be determined by the Appointed Actuary. • The insurance risk charge would be the difference between the prudent liability and the adjusted liability. The prudent liability would be the greater of the stressed liability and the stressed termination value. • The Appointed Actuary would be allowed to assume exercise of discretions to mitigate the effects of insurance risks as in LPS 2.04 and LPS 3.04. However, APRA would specify limits to the discretions that can be assumed for future repricing. • Repricing in response to the stresses would not be allowed to be assumed within 3 years of the reporting date. • The capital required for the insurance risk stresses would be aggregated using a correlation matrix specified by APRA.	• The separate mortality and morbidity event stresses have been replaced with a single event stress. The minimum event stress will remain a flu pandemic scenario, but with a 0.5 per thousand increase in mortality for two years plus a specified increase in short duration morbidity. • The lapse stress will be determined by the Appointed Actuary. The margins for servicing expenses, longevity and the minimum event stress will be determined by APRA. • The requirement to apply a stressed termination value minimum at the reporting date has been removed. Stressed termination values will only need to be met 12 months after the reporting date. • The minimum point at which repricing can be assumed is 12 months from the reporting date, instead of three years. • The correlation between the future mortality and future morbidity stresses has been reduced from 0.5 to 0.25.

Life insurers	Original proposals	Revised proposals
Asset risk charge	• The range of asset risks considered in the asset risk charge would include those in LPS 2.04 and LPS 3.04 as well as inflation and market volatility (affecting the value of derivative-type investments and any financial options and guarantees embedded in the liabilities). • The stress tests used for the asset risk charge would include changes to a range of factors affecting the assets and, in some cases, the liabilities. • Hypothecation of specific assets to specific liabilities would be allowed. • The capital charge required for asset risk would be determined as the change in capital base from specified adverse movements in a range of eight asset risk modules including: – real interest rates; – expected inflation; – currency; – volatility; – equity; – property; – credit spreads; and – default. • The capital required for each module would be combined using a correlation matrix prescribed by APRA. Correlations adopted between each pair of risk modules would be set at conservative levels allowing for the relative likelihood of two scenarios occurring at the same time.	• The stresses for the real interest rates and expected inflation modules have been simplified by removing the term-dependent structure of the stresses. The stresses have been made less pro-cyclical by capping the real interest rate stresses at 200 bps and specifying the expected inflation stresses as additive adjustments to best-estimate inflation rather than multiplicative adjustments. • The upward equity volatility stress has been moved to the equity module. It has been made less pro-cyclical by specifying it as an additive rather than a multiplicative adjustment. The other volatility stresses have been removed. • Revisions have been made to the credit spreads module to make it more risk-sensitive and less pro-cyclical: – the structured asset category has been split between primary securitisations and re-securitisations with higher stress factors for the latter category; – separate default and spread factors have been introduced; – no charge will apply to AAA rated state government bonds. • The default module has been simplified with revised default factors to be applied to unstressed reinsurance assets and the fair value of OTC derivatives. • Revisions have been made to the correlation matrix factors used in the aggregation of the asset risk charges.

Life insurers	Original proposals	Revised proposals
Asset concentration risk capital charge	• The asset concentration risk charge would be calculated in a similar way to the asset concentration risk reserve required under LPS 2.04 and LPS 3.04. • The special treatment of mortgages would be removed. • Collateralisation and other forms of security would be able to be allowed for. • Exposures of a specialist reinsurer to its overseas parent would no longer be unlimited; rather they would be subject to a limit of 50 per cent of VASF. • The relief provided to specialist reinsurers with regard to exposures to offshore parents would not be available to statutory funds that include directly written business.	• No change.
Operational risk charge	• There would be an explicit charge for operational risk, to apply to all types of life insurance business. • Different formulae would apply to investment-linked and non-investment-linked business. • A 'change' item would apply to premiums and liabilities. The change threshold would be 10%. If the increase or decrease exceeds 10% the whole of the increase or decrease will incur a capital charge. • The same formula applies to both direct insurers and reinsurers. • The existing investment-linked margins in LPS 2.04 and LPS 3.04 would be removed. • Operational risk profile and management would be a consideration in determining any supervisory adjustment.	• Separate formulae apply to risk and non-risk business. The distinction between investment-linked and non-investment-linked business has been removed. • The 'change' item will only apply to premiums and claims, not to liabilities. The change threshold has been increased from 10% to 20% and only that part of the increase or decrease in excess of the threshold will incur a capital charge. • Lower factors will apply to specialist reinsurers.
Aggregation benefit	• The aggregation of the insurance risk charge and the asset risk capital charge would include explicit allowance for diversification between risks. • The correlation factor between asset and insurance risk for QIS1 would be 0.5. • The operational risk charge and asset concentration risk charge would be added unadjusted to the other charges.	• The correlation factor between asset and insurance risk for QIS2 is 0.3.

Life insurers	Original proposals	Revised proposals
New business reserve	• The new business reserve (required under LPS 3.04) would be removed. However, APRA would expect insurers to consider the capital requirements of future new business in their ICAAP.	• No change.
Expense reserve	• The expense reserve (required under LPS 2.04) would be removed.	• No change.
Risk-free discount rates	• Principles would be set for determining risk-free discount rates used for determining the prescribed capital amount. • The risk-free rates used for valuing Australian liabilities would be the yields on Commonwealth Government Securities. • For foreign liabilities government bond yields may be adjusted in some circumstances. • A liquidity premium would possibly be allowed for some annuity contracts.	• The zero-coupon spot yield curve for Commonwealth Government Securities (CGS) has been retained as the proxy for risk-free discount rates. • Actuaries will be allowed to extrapolate risk-free rates beyond the maximum available duration of CGS by reference to other instruments providing they make appropriate adjustments for credit and liquidity risk. • APRA is considering potential methods for determining a liquidity premium. If a liquidity premium is included in the capital standards, it may be used for annuities, fixed term/rate products and funeral bonds.*
ICAAP	• Insurers would be required to develop and maintain an internal capital adequacy assessment process (ICAAP). • The five main features of an ICAAP would be: – board and management oversight; – sound capital assessment; – comprehensive assessment of risks; – monitoring and reporting; and – internal control review.	• No change.

* Fixed term/rate products and funeral bonds are defined in *Prudential Standard LPS 7.02 General Standard.*

Life insurers	Original proposals	Revised proposals
Methodology	• Insurers would need to recognise the limits to the exercise of management discretions and realisation of tax benefits.	• The methods for recognising the limits to management discretions and realisable tax benefits have been revised.
General Fund	• A similar structure for capital requirements and capital that apply to statutory funds would apply to the general fund.	• The capital base and PCR for the general fund is to be determined in the same manner as for statutory funds. • For friendly societies, the capital charges for operational risk and servicing expense risk are held in the general (management) fund. • The minimum PCR for the general fund will be $10 million. Existing friendly societies may be granted an exemption from this requirement. Any excess of the minimum PCR over the calculated PCR (before applying the minimum) can be used as an offset to statutory fund PCRs.

Telephone
1300 13 10 60

Email
info@apra.gov.au

Website
www.apra.gov.au

Mail
GPO Box 9836
in all capital cities
(except Hobart and Darwin)

GLI_RS_RCSGILI_032011_ex