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Actuarial Standard 2.04
SOLVENCY STANDARD



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INTRODUCTION

The Standard

The Solvency Standard is established under the Life Insurance Act 1995 (the Act), and is an integral component of the financial reporting regime for life insurance companies implemented under that Act.

The Act establishes a two tier capital requirement on the statutory funds of the life company with each tier considering the capital requirements in a different set of circumstances. The first tier is intended to ensure the solvency of the company. The second tier is intended to secure the financial soundness of the company as a going concern. It is expected, in most circumstances, that this second tier will provide an additional buffer of capital above this minimum requirement. However it will not always transpire that an additional buffer is necessary.

This standard looks at the first tier capital requirement.

The stated purpose of the solvency standard in the Act is:

“to ensure, as far as practicable, that, at any time, the financial position of each statutory fund of a life company is such that the company will be able, out of the assets of the fund, to meet all policy and other liabilities referable to the fund at that time as they become due.”

Therefore, the purpose of the Solvency Standard is to prescribe the minimum capital requirement of a statutory fund to ensure that under a range of adverse circumstances the company would be expected to be in a position to meet (guaranteed) obligations to policy owners and other creditors.

The minimum capital requirement - the Solvency Requirement - will be disclosed in both the regulatory financial statements (in accordance with Prudential Rule 35) and the general purpose financial statements (in accordance with accounting standard AASB 1038 *Life Insurance Contracts*) of the company and will be used as an indicator of the financial position of the company.

To facilitate comparability across the industry, the standard adopts a primarily prescriptive approach to the determination of the Solvency Requirement.

Application to Friendly Societies

The Act was amended in 1999 to extend its application to friendly societies that undertake life insurance business. This standard is applicable to all life companies (registered under the Act) including friendly societies. In its application, the standard will, at times, make distinction between life companies that are friendly societies and other life companies.

Interaction with Management Capital Standard

It is noted that certain risks related to the life business of a friendly society are incurred in the management fund. Such risks are recognised and provided for in the Management Capital Standard.

Further, life companies other than friendly societies may count an amount of the net assets of the shareholders' fund in offsetting some aspects of the Solvency Requirements of the statutory funds (refer to section 9 for detail).

Therefore, the Solvency Standard, Capital Adequacy Standard and the Management Capital Standard involve a degree of interaction and should be considered together.

Application of the Solvency Standard

The Solvency Standard is made for the purposes of section 65 of the Life Insurance Act 1995.

It applies:

- a) in respect of all life insurance business of a registered life company, other than that written in a statutory fund which includes only business written overseas in one or more Approved Countries; and
- b) in respect of the life insurance business of an eligible foreign life insurance company, other than life insurance business carried on outside Australia; and
- c) at all times from 31 December 2005.

The Standard is written in the context of Australian legislation and bases of taxation. Appropriate adjustment must be made, for example to allow for different bases of taxation, where this Standard is being applied to overseas business.

PART A – PRINCIPLES

SECTION 1 The Solvency Standard

Overview

Assets and liabilities of a life company are valued and disclosed in its regulatory financial statements on realistic, going concern, market value consistent bases.

The realistic financial position of the company may be assessed by a comparison of the value of assets and the value of policy and other liabilities so determined.

However, the prudent regulation of the life insurance industry requires that the level of security offered to policy owners exceeds that implied by a realistic basis of calculation. The Solvency Standard requires that the statutory fund of a life company have available net assets in excess of the realistic value of liabilities to provide for the security of the policy owners' entitlements under a range of adverse conditions.

The Solvency Requirement is determined by considering the various risks undertaken in the statutory fund which could impact the security of the policy owners' entitlements, and requiring the provision of a prudent level of reserve against such risks.

These risks, and an assessment of the prudent provision, are considered in the context of a fund closed to new business, and which is either operating in a run-off situation or is to be transferred to another insurer. The practical ramifications of the fund in this position, including circumstances that arise when it is operating as either "just solvent" or "just insolvent" in terms of this standard, are to be considered.

It is not the intention of the standard to provide absolute security to policy owners. To attempt to do so would be prohibitive to the viability of the industry and hence not in the best interest of the policy owners. Rather, the prescribed reserves provide for a range of adverse but reasonably possible conditions.

- 1.1 At any time, the value of the assets of the statutory fund of a life company must be of an amount considered sufficient to meet the obligations of the company at that date, to policy owners and creditors referable to the fund, under a range of adverse conditions. The amount of assets so required is referred to as the Solvency Requirement.**

- 1.2 The Actuary, in determining the Solvency Requirement must consider the company's obligation to policy owners in respect of:**
- a) guaranteed benefits under the policy in accordance with the policy document and the law; and**
 - b) any additional guarantees or obligations implied by the promotional material of the company.**

SECTION 2 Scenarios of Adverse Conditions

Overview

In assessing the Solvency Requirement of a statutory fund consideration is given to:

- the risks which may affect the value of the liabilities under policies; and
- the risks which may affect the value of the assets supporting those liabilities.

The Solvency Requirement broadly comprises the following components:

- the Solvency Liability;
- the Other Liabilities;
- the Expense Reserve;
- the Inadmissible Assets Reserve; and
- the Resilience Reserve.

The Solvency Liability

A calculation of the value of the guaranteed liabilities under the policies on the basis of assumptions which are more conservative (anticipate a more adverse experience) than best estimate assumptions.

The Other Liabilities

The value of the liabilities of the statutory fund to other creditors, but excluding approved subordinated debt arrangements and amended as required to satisfy the principles of this Standard. In particular, where such other liabilities relate to future cash flows that are uncertain, then their assessment is to be based on assumptions that are more conservative than best estimate, as per the Solvency Liability.

The Expense Reserve

Provision for the overrun of expenses that may occur where a statutory fund that is forced to operate as a closed fund incurs delays in implementing any significant change to the expense structure of the business. This risk is not otherwise anticipated in the Solvency Liability determination.

The Inadmissible Assets Reserve

A reserve against the risks associated with:

- assets, the value of which is dependent on the ongoing conduct of business;
- holdings in associated or subsidiary Financial Services entities; and
- concentrated asset exposures.

The Resilience Reserve

Mismatching of asset and liability exposures necessitates the provision of a reserve for adverse movements in the asset values to the extent they will not be matched by a corresponding movement in the liabilities.

When determining the impact of the various risks and adverse conditions on the financial position on the fund, it is required to assess their impact consistently on all assets and liabilities affected. This includes both beneficial and adverse combined effects.

- 2.1 The Solvency Requirement must provide for a value of the liabilities of the statutory fund in respect of obligations to policy owners and creditors, on a basis that is more conservative than best estimate and that considers scenarios of adverse experience.**
- 2.2 In adopting a basis more conservative than best estimate and the associated scenarios of adverse experience, the Actuary must consider the ability of the fund to be closed to new business and for its obligations to policy owners and creditors to be met as they fall due with a high level of confidence. The prescribed requirements set out within this Standard are designed to allow the obligations of the fund to be reliably met under circumstances where a judicial manager would most expeditiously seek for them to be secured. The Actuary should regard that as being achieved by a transfer of all of the assets and liabilities of the fund to a third party who would then be responsible for meeting the obligations as they fall due, out of the transferred assets. If the Actuary considers that the circumstances of the fund are such that the obligations under the fund are more likely to be secured by some other means, then the Actuary may need to establish additional reserves for any additional risks or costs that might be incurred under that scenario and that are not otherwise reflected in the prescribed requirements of this Standard.**
- 2.3 In determining the Solvency Requirement the Actuary must allow for the consequences of closing the statutory fund to new business and subsequently meeting the obligations of the fund in the context of the circumstances assumed under paragraph 2.2. This may include an increase in voluntary discontinuances, a loss of contribution to expenses, a loss of future tax deductions and a**

change in the value of tax assets and tax liabilities, a loss of value of business related assets and any adverse impacts under reinsurance or other contracts. This must include the potential impact on the obligations and assets in circumstances where the value of fund assets is less than the Solvency Requirement under this standard.

- 2.4** **The Solvency Requirement is, in principle, to be based on the net realisable market values of the assets and other liabilities of the statutory funds, including allowance for realisation costs and, if considered appropriate under the relevant adverse scenarios, discounting of all future cash flows.**
- 2.5** **In considering scenarios of adverse experience and adopting a basis for the Solvency Requirement, the Actuary must allow for all material risks associated with both the liabilities and the assets of the fund, including the interdependencies between these risks that the Actuary considers might apply under such adverse conditions. This is regardless of whether such risks are discussed in the rest of this Standard or not.**
- 2.6** **Where the particular combination of risks affecting a company is not explicitly considered within this Standard, the Actuary must establish additional amounts within the Solvency Requirement, beyond the amounts prescribed. The additional reserve must reflect the purpose and principles of the Standard. It must provide a level of reserving that is consistent with that applying under this Standard in respect of the risks explicitly considered under this Standard. For this purpose, the Actuary may regard the prescribed requirements set out within this Standard, when applied to a typical life company with the combination of risks explicitly considered in this Standard, as designed to provide a level of reserves which broadly meets the following requirements:**
 - a) Able to cover a combination of adverse circumstances that would be expected to arise once every 200 years;**
 - b) Allowing a general time frame of 12 months in which the circumstances arise and the actions under (c) and (d) below follow;**
 - c) The reserve required at the end of the period in (b) is able to be determined in accordance with the Solvency Requirement of this Standard, but allowing for the implementation of plausible risk reduction actions by management at, or after, that time (for example, raising premium rates, exiting risky asset positions or other arrangements as would be permitted). This includes allowance for discretions in line with paragraph 3.2. For those risks that cannot be eliminated, sufficient reserve will still be required as set out in this Standard; and**
 - d) Allowance for management corrective action during the period in (b) is considered to be limited to highly reliable actions only, with conservative response time allowances.**

- 2.7** The criteria of paragraph 2.6 are to be applied allowing for the benefit of any diversification across all risks affecting the company. For the purposes of paragraph 2.6, those risks requiring additional resilience reserves to be established under section 11.10 using the principles of paragraph 5.2.5 are considered to be adequately addressed by those additional reserves.
- 2.8** The guideline in paragraph 2.6 is intended as a guide when allowing for risks that are not explicitly dealt with under the prescribed basis in this Standard. It is not intended as an alternative basis for issues that are otherwise and adequately dealt with in the prescribed basis. For the avoidance of doubt, the Solvency Requirement must not be less than that calculated using the basis prescribed in the rest of the Standard, but may be more where there are material risks that are not explicitly dealt with under the prescribed basis.
- 2.9** In considering scenarios of adverse experience and adopting a basis for the Solvency Requirement, the use of discretions and of policy owner retained profits that are assumed by the Actuary must be appropriate, justifiable and equitable.
- 2.10** It is the principles that are paramount in determining the Solvency Requirement; methodology is incidental to the principles. However, this does not override the requirement of paragraph 2.8 that the Solvency Requirement must not be less than that calculated using the prescribed basis.

SECTION 3 The Liability Risks

Overview

The risks associated with the liabilities under policies are discussed in this section.

The risks pertaining to each element of the solvency liability include the risk of mis-estimation of the mean, the risk of deterioration of the assumed mean, the risk of adverse statistical fluctuations about the mean and the risk of unexpected changes in the underlying distribution of experience.

Available discretions in policies may mitigate the effects of some of the liability risks for the company. Discretions typically fall into one of the following categories:

- reductions in Bonuses or Discretionary Additions;

- increases to expense charges where the maximum level is linked to an inflation index;
- one-off increase to expense charges, subject to the contractual maximum; and
- increases to premium rates, either in line with insurance claims experience or at the company's discretion (including rider premiums on contemporary products).

Equally, some assets, such as reinsurance, may react in response, favourably or unfavourably, to changes in the liabilities. These effects are to be taken into account.

3.1 The Solvency Liability

- 3.1.1 The Solvency Liability must make provision for the risks pertaining to each element in respect of which an assumption is required in valuing the policy liabilities.**
- 3.1.2 The minimum assumptions to reflect these risks - the Solvency Assumptions - are prescribed (see Section 4). The Solvency Liability for a Related Product Group must not be less than the respective Best Estimate Liability.**
- 3.1.3 Where the benefits under the policy are dependent on the performance of the underlying net assets and related liabilities, the Solvency Liability must, in principle, be aligned with the net realisable market value of those assets and related liabilities.**

3.2 Allowance for Discretions

- 3.2.1 In assessing the amount of the Solvency Liability the Actuary must only assume the application of discretions available under policies where the application is considered appropriate, justified and equitable:**
 - a) under the adverse conditions being assumed; and**
 - b) having regard to the principles in paragraph 1.2.**
- 3.2.2 The extent and timing of the assumed application of discretions must be consistent with normal company practice in the circumstances of the adverse scenario being considered.**
- 3.2.3 In applying the provisions of this section to friendly societies, discretions must be taken to be those discretions explicitly provided for in the existing rules of the benefit fund and not the broader discretions that may be accessed through a process of amending those rules. Any representations made in the relevant product disclosure documents must also be taken into account in determining the level of discretion to be applied.**

3.3 Other Liabilities

- 3.3.1** Where the other liabilities of the statutory fund (other than a deficit in respect of a defined benefit superannuation fund to which the entity, or an associated entity, is an employer sponsor) are determined based on estimates of future cash flows, these must be reassessed and discounted to the valuation date, on a basis consistent with the overall scenario of adverse experience being considered (per Section 2 and as reflected in the Solvency Liability).
- 3.3.2** Where the entity, or an associated entity, is an employer sponsor of a defined benefit superannuation fund and the other liabilities of the statutory fund include a deficit in respect of that fund, and the deficit has been determined using the corridor approach as defined under accounting standard AASB 119 *Employee Benefits*, the deficit is to be reduced (increased) by the amount of any Unrecognised Actuarial Gains (losses).

3.4 Expense Reserve

- 3.4.1** The Solvency Requirement must provide for a reserve against the risk of an overrun in the Acquisition Expenses of the statutory fund.

3.5 Termination Value Minimums

- 3.5.1** The Solvency Requirement must provide that:
 - a) for a Related Product Group, a minimum value is held in respect of the Solvency Liability equal to the total Minimum Termination Value for all policies in the group; and
 - b) for the statutory fund, a minimum value is held in respect of all liability risks equal to the total Current Termination Value for all policies in the fund.
- 3.5.2** It is not appropriate to assume application of discretions in respect of Current Termination Values in the processes for assessing liability risks.

3.6 Reinsurance

- 3.6.1** In order for the credit and inadmissible asset risks involved with reinsurance arrangements to be properly identified and assessed, the requirements of this Standard are to apply on a gross of reinsurance basis, with the gross liability requirements and any related reinsurance values separately quantified. That is, the solvency liability and the impact of the risks, adverse scenarios and

termination value minimums are to be assessed on a gross of reinsurance basis.

- 3.6.2** Any reinsurance arrangements are to be valued and assessed on a basis consistent with their associated gross liabilities under the scenario or test being considered. For example, if the related gross liability requirement is assessed under a termination value scenario, a similar approach is to be taken with the reinsurance.
- 3.6.3** Where a reinsurance arrangement gives rises to an asset of the fund in the context of the scenario or test applicable, the value of the arrangement is to be treated as an asset of the fund within this Standard. The credit that can be taken for that reinsurance asset is then subject to the asset inadmissibility rules of this Standard (see paragraph 5.1.6).
- 3.6.4** A corresponding treatment is to apply in the context of other similar risk mitigating arrangements and contracts, that while not legally reinsurance, have similar effects.

SECTION 4 The Prescribed Solvency Assumptions

Investment Earnings & Liability Discount Rates

- 4.1** For both policies that are Life Insurance Contracts and policies that are Life Investment Contracts, the Solvency Assumption for gross investment yield and liability discount rate will be as determined in paragraph 5.5.1 of the Valuation Standard, but subject to a maximum rate of the Mid Swap Rate.
- 4.2** Servicing Expenses
 - 4.2.1** In the case of a friendly society, the margin to be included in the Solvency Assumption for Servicing Expenses is Nil: the servicing expense risk is borne, and hence provided for, in the management fund. (Refer to the Management Capital Standard.)
 - 4.2.2** For all other companies, the Solvency Assumption for Maintenance Expenses must include a margin of 2.5% above the greater of the unit costs required to cover:
 - a) the actual maintenance cost of servicing each policy in the twelve months prior to the valuation date; and
 - b) the expected maintenance cost of servicing each policy in the twelve months subsequent to the valuation date.

- 4.2.3** The Solvency Assumption for Investment Management Expenses must be based on an asset profile which under the adverse circumstances of the Solvency Liability would be expected to yield a return equal to the Solvency Assumption for gross investment yield referred to in paragraph 4.1. The Solvency Assumption must also include a margin of 2.5% above this base requirement. However, if the life company has contractually agreed to pay a higher Investment Management Expense regardless of the asset profile adopted, then this higher expense must be assumed.
- 4.2.4** The risk margin for Servicing Expenses must not be applied to any component of those expenses which is contractually agreed for the life of the policy, for example, renewal commission.
- 4.2.5** When determining Servicing Expenses for each policy, the allocation of the total expenses of the company must be undertaken in accordance with the principles established in section 13 of the Valuation Standard.
- 4.2.6** In particular, where a service agreement or other contractual arrangement exists, the Actuary must assess the adequacy of the expenses thereunder in reflecting the long term, sustainable costs (both quantum and allocation) of operating the business and adjust the Solvency Assumption accordingly. (Refer to paragraph 13.9.1 of the Valuation Standard).
- 4.2.7** Where the entity, or associated entity, is the employer sponsor of a defined benefit superannuation fund, and a surplus exists in the fund which is being utilised to reduce contributions to the fund, consideration needs to be given, when determining the expected servicing costs, to the extent to which that contribution reduction would continue in the context of the scenario being considered.

Inflation Rate

- 4.3** The Solvency Assumption for inflation must be that rate of inflation implied by the difference, at the valuation date, between the yield on National Government Guaranteed Securities and the real yield on an equivalent indexed bond (for a term consistent with that of the liability cash flows). This assumption is to be applied to all future cash flows that are subject to inflation, including Maintenance Expenses (as applicable).

4.4 Taxation

- 4.4.1 Allowance for tax on investment earnings must be made in accordance with Best Estimate Assumptions, but based on an asset profile which under the adverse circumstances of the Solvency Liability would be expected to yield a return equal to the Solvency Assumption for gross investment yield referred to in paragraph 4.1 above.**
- 4.4.2 The allowance for tax on other than investment items must be made in accordance with Best Estimate Assumptions.**

4.5 Insurance Claims

- 4.5.1 The Solvency Assumptions for probabilities of death, disablement and other contingent events on which the payment of insurance claims are to be based, are shown in Attachment 1.**
- 4.5.2 Appropriate assumptions must be applied, on a basis considered consistent with the assumptions in Attachment 1, in respect of claims which have been incurred but not reported (IBNRs) and claims which have been reported but not admitted (RBNAs).**
- 4.5.3 Margins for Specialised Risks**
The Actuary is to make appropriate specific allowance for material specialised risks.

4.6 Voluntary Discontinuances

- 4.6.1 The Solvency Assumption for the rate of voluntary discontinuances (including partial surrender) for a Related Product Group must reflect an adverse change in experience of 25% of the Best Estimate Assumption.**
- 4.6.2 The Solvency Assumption for rates of premium dormancy and conversion of policies to paid up status must reflect an adverse change in experience of 25% of the Best Estimate Assumption.**

4.7 Options Provided To Policy Owners

- 4.7.1 The Solvency Assumption in relation to experience after the exercise of an option must allow for appropriate risk margins applied to Best Estimate Assumptions.**
- 4.7.2 The Solvency Assumption for the take up rate of the option must reflect an adverse change of 10% of the Best Estimate Assumption.**

Education Bond Business

- 4.8 If the rate of take up of scholarships under Education Bond Business affects total scholarship payments, then the Solvency Assumption for the rate of take up of scholarships must reflect an adverse change of 10% of the Best Estimate Assumption.**
- 4.9 Investment-Linked Policies**
- 4.9.1 A risk margin must be included to reflect the additional risks that may be borne by the company in conducting investment-linked business. Subject to paragraph 4.9.5, the prescribed margin is 0.25%.**
- 4.9.2 The prescribed margin must be applied to the Solvency Liability as determined immediately prior to the inclusion of this margin.**
- 4.9.3 The prescribed margin must also be applied to the Minimum Termination Value as determined immediately prior to the inclusion of this margin.**
- 4.9.4 The prescribed margin must not be applied to the Current Termination Value in paragraph 6.1(e).**
- 4.9.5 In the case of a friendly society, the prescribed margin for investment-linked business is Nil: the risk is borne, and hence provided for, in the management fund. (Refer to the Management Capital Standard.)**

SECTION 5 Asset Risks

Overview

The risks associated with the assets supporting the liabilities are discussed below.

Adverse Market Movements

To the extent that the value of liabilities is not directly linked to the value of the underlying assets, an adverse movement in the value of the assets effectively reduces the level of reserves supporting the liabilities. It is prudent that a company recognise this risk and hold sufficient reserves such that the obligations to policy owners and creditors would still be able to be met following an adverse market movement.

The risk of adverse market movements is one of many potentially offsetting risks. It is presumed that, for the asset and liability profile of a typical life insurer, a Resilience Reserve set at the level of sufficiency

described in section 5.2 will, with additional reserves determined independently in respect of other risks, produce an overall Solvency Requirement at the level of sufficiency described in paragraph 2.6.

Asset Liquidation

Certain assets are disclosed in the regulatory financial statements at a value which may be dependent on the ongoing operation of the business. On the cessation of business, the value of those assets would likely be less. A reserve is required against that part of the value of such assets which would not be realisable in the adverse circumstance of a wind-down or transfer of business.

Holdings in Associated and Subsidiary Financial Services Entities

Associated and subsidiary Financial Services entities may be exposed to essentially the same environmental and systemic risks as the life insurer. The value of such an entity in excess of its net tangible assets cannot therefore be relied upon to meet the capital requirements of the life insurance company under adverse circumstances. Furthermore, the value taken for such a holding is not to double count any legislated capital requirement of the entity itself.

Asset Concentration

Diversification is an important principle of prudent investment. To the extent the asset exposure of a statutory fund is excessively concentrated in a particular asset, or with a particular obligor, a reserve is required against the part of the value of that exposure considered by the Actuary to be excessive.

Credit Risks

In general, it is considered that the combined effect of adopting the net market value of the assets and the reserves for asset concentration would address the average costs of default and marketability/liquidity risks.

Where a fund has significant exposure to non-sovereign credit risks the Actuary is to provide an appropriate reserve allowance for such credit risks, along with any other asset risks.

Liquidity Risks

The Actuary's general responsibility in assessing and advising management on the financial operations of the company would include consideration of liquidity risks.

Overall Asset Risks

Notwithstanding the prescribed limits of this Standard, the Actuary must have regard to the particular circumstances of the company. If in the opinion of the Actuary the overall portfolio of assets of the statutory fund has too little diversification, is too illiquid or has too

great an exposure to one obligor of low credit standing, the Actuary must increase the reserves appropriately.

Furthermore, the asset and other liability values disclosed in the regulatory financial statements may not be equal to the net market values of those assets and other liabilities, allowing for realisation costs. A reserve for the difference between the reported and net realisable market values of the assets and other liabilities is to be included. However, no reserve is needed in respect of those assets backing liabilities which are directly linked to the net value of the assets and other liabilities as reported in the regulatory financial statements and where the liabilities would correspondingly change if the reported net values were changed.

Note:

It is not the intention of these reserves to limit the investment practices of life companies. Rather it is to ensure that the risks associated with particular investment strategies are appropriately assessed and provided for.

5.1 Reserve for Inadmissible Assets

5.1.1 The Solvency Requirement must provide a reserve - the Inadmissible Assets Reserve - in respect of:

- a) an asset which has a value that is dependent upon the continuation of the business;**
- b) holdings in an associated or subsidiary entity which is a Financial Services entity;**
- c) non-realisable (in the context of the solvency tests) intangible assets;**
- d) the risks arising from asset concentration;**
- e) reinsurance assets which may not be fully recoverable in the context of the solvency tests; and**
- f) alignment necessary to ensure assets and other liabilities are based on net market value .**

5.1.2 Assets Used for the Conduct of Business

The Inadmissible Assets Reserve must provide for the risk that, in the context of the run-off of the business of a statutory fund closed to new business, the value of the asset differs from the value disclosed in the regulatory financial statements.

5.1.3 Holdings in Associated and Subsidiary Entities which are Financial Services Entities

Where the associated or subsidiary entity is a Financial Services entity the Actuary must establish a reserve to the extent that the value of the entity exceeds its net tangible assets.

Furthermore, where the associated or subsidiary entity is subject to prudential regulation which requires the maintenance of minimum capital, (e.g. a financial institution or a health insurance institution), the Actuary must establish a further reserve to the extent that the net tangible assets of the entity are required to meet that capital requirement and are not, therefore, available to support the life insurance company.

5.1.4 Non-Realisable Intangible Assets

The Solvency Requirement must provide a reserve equal to the value of any intangible assets held that are related to the business of the statutory fund itself and are not independently realisable, for example deferred acquisition costs assets.

5.1.5 Asset Concentration Risks

The Solvency Requirement must provide a reserve against the adverse impact of a concentration of funds in a particular asset, with a particular obligor or with related parties.

5.1.6 Allowance for Reinsurance

To the extent that a reinsurance arrangement represents an asset of the statutory fund under the scenario of adverse experience being considered, then it is to be treated as such and is to be subject to the asset inadmissibility and resilience reserve rules of the Standard. In applying the asset concentration limits of the Standard:

- a) All exposures to a reinsurer or reinsurance group are to be considered a single counterparty exposure (within the practical context of the application of the limits concerned); and
- b) Where arrangements with a reinsurer involve both liability and asset components, these may be taken as a single net exposure to the extent they are subject to a legally enforceable right of offset.

5.1.7 Alignment to Net Market Value

The Inadmissible Assets Reserve must, in principle, include the net difference between the value disclosed in the regulatory financial statements and the net realisable market value of all assets and

financial liabilities (other than policy liabilities) of the statutory fund.

5.2 Resilience Reserve

- 5.2.1 The Actuary must assess the resilience of the statutory fund and provide for an appropriate reserve - the Resilience Reserve.**
- 5.2.2 Resilience is assessed as the ability of the statutory fund to sustain shocks to the economic environment in which it operates and which are likely to result in an adverse movement in the value of the assets relative to the value of the liabilities.**
- 5.2.3 In determining the value of the liabilities in the post shock environment the Actuary must only assume the application of discretions available under policies where the application is considered appropriate, justified and equitable:**
 - a) under the adverse conditions being assumed; and**
 - b) having regard to the principles in paragraph 1.2.**
- 5.2.4 It is considered appropriate, for this purpose, for the Actuary to assume the full application of discretions available in respect of the Termination Value under the policies.**
- 5.2.5 The Resilience Reserve as determined under the prescribed rules of Section 11 is based on the impact of market changes on the position of a statutory fund with a simple asset and liability profile. Where the fund is materially exposed to changes in investment market conditions that are not captured by the application of the prescribed rules, a corresponding additional provision must be made by the Actuary. The additional reserve must reflect the purpose and principles of the Standard. It must provide a level of reserving that is consistent with that applying under this Standard in respect of the changes in investment market conditions explicitly considered under this Standard. For this purpose, the Actuary may regard the prescribed requirements set out within this Standard, when applied to the asset and liability profile of a typical life office, as designed to provide a level of reserves which broadly meets the following requirements:**
 - a) Able to cover adverse changes in investment market conditions that would be expected to arise once every 20 years;**
 - b) Allowing a general time frame of 12 months in which the circumstances arise and the actions under (c) and (d) below follow;**
 - c) The reserve required at the end of the period in (b) is able to be determined assuming that a matched asset and liability profile is achieved and that the Solvency Requirement of this Standard is otherwise satisfied at, or after, that time. This includes making allowance for discretions in line with paragraph 3.2; and**

- d) Allowance for management corrective action to achieve a matched asset and liability profile during the period in (b) is considered to be limited to highly reliable actions only, with conservative response time allowances.

5.3 Asset Exposure

5.3.1 The Actuary in assessing the asset risks:

- a) must take account of the effective exposure of the fund to various asset classes, regardless of the physical asset holdings of the fund; and
- b) must consider exposure to counterparty risks including, but not limited to, futures and options, swaps, hedges, warrants, forward rate and repurchase agreements; and
- c) must take account of the underlying exposure of the fund to assets by adopting a “look through” approach in respect of each unlisted or controlled investment entity that represents more than 1% in value of the statutory fund. For this purpose, an investment entity is an entity whose assets are solely investments, where the sole purpose of the entity is investment activities and where the investor investing in that entity has security directly linked to those assets; and
- d) must, where investments covered by (c) are geared, treat the debt as if it were a liability of the life insurance company, with appropriate allowance made for the sensitivity of the underlying assets and liabilities to market movements; and
- e) may adopt the ‘look through’ approach as set out in paragraphs (c) and (d) above where the investment is in a listed unit trust. Alternatively, the Actuary is required to treat the holding as a single investment in the equity investment class as defined in the General Standard; and
- f) must assess the characteristics of the remaining admissible component of an investment where, following application of Section 10 of this Solvency Standard, only part of the investment is admissible, by looking through to the underlying assets and liabilities where necessary and applying the Resilience Reserve requirements of Section 11 accordingly.

- 5.3.2** As indicated in paragraph 5.2.5, the Resilience Reserve calculation assumes largely generic asset structures. Where the Actuary can demonstrate that an asset can be disaggregated into two or more identifiable sub-assets, the Actuary may treat the sub-assets separately and hence categorise them into different asset sectors according to their substance for the purpose of applying the Resilience Reserve requirements in Section 11, provided that it is demonstrated to APRA's satisfaction that:
- a) The substance of the sub-assets warrants their proposed asset sector categorisation;
 - b) The entire cash flows of the overall asset are fully reflected by the aggregated sub-assets;
 - c) The resilience parameters adopted appropriately reflect the substance of the sub-assets;
 - d) Where the sub-asset is equivalent in nature to an interest bearing security it is appropriately credit risk rated;
 - e) The resilience shocks applied to the sub-assets do not give a result in aggregate less than the prescribed shock for the overall asset under a scenario where all yields rise;
 - f) The diversification factor is not reduced (i.e. the diversification factor is to be calculated assuming that the asset is not disaggregated);
 - g) The requirements of paragraphs 5.2.5 and 5.3.1 continue to be satisfied; and
 - h) The overall asset continues to be treated as a single counterparty exposure for the purposes of Section 10.

PART B – METHODOLOGIES

SECTION 6 Determination of the Solvency Requirement

- 6.1 The Solvency Requirement for a statutory fund is to be calculated as follows:

(a) CALCULATE SOLVENCY LIABILITY

Subject to paragraph 6.2, for each policy in force, determine the Solvency Liability and aggregate this across all policies in the Related Product Group.

(b) CALCULATE MINIMUM TERMINATION VALUE

Subject to paragraph 6.3, for each policy in force, determine the Minimum Termination Value and aggregate this across all policies in the Related Product Group.

(c) MINIMUM OF MINIMUM TERMINATION VALUE

Determine the greater of the amount in (a) and the amount in (b) and aggregate across the statutory fund.

(d) ADD EXPENSE RESERVE

Increase the amount determined in (c) by the Expense Reserve for the statutory fund.

(e) MINIMUM OF CURRENT TERMINATION VALUE

For the statutory fund, determine the greater of the amount in (d) and the total of the Current Termination Value for all policies.

(f) ADD OTHER LIABILITIES

Increase the amount determined in (e) by the Other Liabilities of the statutory fund.

(g) ADD RESERVE FOR INADMISSIBLE ASSETS

Increase the amount determined in (f) by the reserve for Inadmissible Assets for the statutory fund.

(h) ADD RESILIENCE RESERVE
Based on the Admissible Assets of the statutory fund, increase the amount determined in (g) by the Resilience Reserve for the statutory fund.

(i) TRANSITIONAL ADJUSTMENT
For the statutory fund determine the amount of any transitional adjustment required to the Solvency Requirement and deduct it from the amount determined in (h).

- 6.2 Where the Actuary is satisfied that the total Solvency Liability for a Related Product Group will be less than the total Minimum Termination Value, no calculation in part (a) of paragraph 6.1 is required.
- 6.3 Where the Actuary is satisfied that the total Minimum Termination Value for a Related Product Group will be less than the total Solvency Liability, no calculation in part (b) of paragraph 6.1 is required.
- 6.4 Although reinsurance arrangements or other similar risk mitigation arrangements (per paragraph 3.6.4) that represent an asset of the fund under the scenario or test being considered are to be assessed as an asset under this Standard (per paragraph 3.6), to the extent the value of such an arrangement under this Standard differs from its value reflected in the financial statements of the fund, the difference is to be included as an offset or addition as appropriate within paragraphs 6.1(a), (b), (c) and (e) above. The inclusion of part or all of such a reinsurance asset within these calculation steps above does not negate its consideration for inadmissibility reserving (per paragraph 10.5).
- 6.5 Allowance must be made by the Actuary in each of the steps in the above calculation process, as appropriate, for claims which have been incurred but not reported (IBNRs) and claims which have been reported but not admitted (RBNAs).
- 6.6 The performance of each subsequent step in the calculation process described in paragraph 6.1 must not reduce the progressive result from its amount at the completion of the previous step, with the exception of step 6.1(g), in circumstances where the Reserve for Inadmissible Assets is negative as a result of the alignment to Net Market Value under paragraph 10.6, and step 6.1(i).
- 6.7 The overall solvency calculation methodology involves systematically considering the values and risks underlying the

reported values set out in the regulatory financial statements and assessing appropriate reserving adjustments or margins for each. The methodology requires that all such reserving adjustments are allowed for by means of increases to the Solvency Requirement rather than decreases in the value of the assets against which the Solvency Requirement is compared.

SECTION 7 The Solvency Liability

- 7.1 For both policies that are Life Insurance Contracts and policies that are Life Investment Contracts the Solvency Liability is determined by using the methods used to determine the Best Estimate Liability, as prescribed in section 5 of the Valuation Standard, but:**
 - a) allowing for current and future Bonuses subject to the appropriate application of discretions; and**
 - b) adopting prescribed Solvency Assumptions.**
- 7.2 Where the benefits under the policy are dependent on the performance of the underlying net assets and related liabilities, the Solvency Liability (before application of Termination Value minima) must be aligned with the net realisable market value of those assets and related liabilities. However, to the extent that the Solvency Liability adopted for this Standard in respect of that policy is based on asset values disclosed in the regulatory financial statements and would correspondingly change in value if such net realisable asset or related liability values were adopted for the financial statements, then this adjustment may be ignored in respect of that policy, along with the equivalent adjustment under paragraph 10.6.**

SECTION 8 Minimum Termination Value

- 8.1 The Minimum Termination Value must be determined at the reporting date as the greater of:**
 - a) the lowest Termination Value that the company is obliged to pay; and**
 - b) the amount calculated in accordance with the Surrender Value Standard.**

8.2 For the purposes of the calculation in paragraph 6.1(b) the Minimum Termination Value, in respect of investment-linked business, must include the prescribed margin to reflect the additional risks for this business, as specified in paragraph 4.9.

8.3 Determination of the Termination Value

8.3.1 Where the Termination Value is determined as the amount paid on voluntary termination, the Actuary, in determining the lowest termination value, must have regard for:

- a) any contractual guarantees or obligations, implied by promotional material, to the policy owner; and
- b) legislated minimum surrender value payments required by the Act.

8.3.2 If the company's obligation under the policy involves:

- a) deferred payment of the termination value;
- b) payments by instalment over a period; or
- c) payment in the form of an income stream;

then the Termination Value must be determined as the present value of those future payments, using assumptions consistent with this Standard. Tax relief on payments may be taken into account if available under the relevant scenario and if the corresponding calculation of the best estimate liability is based on valuing net of tax payments.

8.3.3 If there is an unsettled lump sum insurance claim on a policy, the best estimate of the amount potentially payable, taking appropriate account of claims settlement costs is to be counted as the Termination Value.

8.3.4 Where appropriate, the determination of the Termination Value at the reporting date is to include allowance for Bonuses declared as at that date.

8.3.5 For the purposes of calculating the Termination Value at the reporting date, no allowance is to be taken for any additional tax relief that may arise because of an assumed termination of the policy and/or payment of the difference between the Termination Value and the policy liability.

8.3.6 For investment linked business, the unit price published or promulgated on the reporting date is to be used in determining Current Termination Value.

SECTION 9 The Expense Reserve

9.1 In the case of a friendly society, the Expense Reserve is Nil: the risks related to expense overrun are borne, and hence provided for, in the management fund. (Refer to the Management Capital Standard.)

9.2 For other life companies, the Expense Reserve is determined as:

$$\begin{aligned} & M \times \text{Fixed Acquisition Expenses} \\ & \quad \text{less} \\ & \quad \text{Offset Statutory Capital} \end{aligned}$$

9.3 The multiple ‘M’ is the net of tax multiple based on a gross multiple of 1 adjusted for the tax deductibility of expenses only to the extent that a tax deduction would reasonably be expected to be realised on ceasing new business.

9.4 Fixed acquisition expenses, for this purpose, are to be determined as the total actual Acquisition Expenses for the statutory fund for the 12 months prior to the valuation date less the variable expenses included in that amount.

9.5 Variable expenses, for the purposes of paragraph 9.4, are to be determined as those expenses otherwise included in fixed acquisition expenses to the extent it can be demonstrated that the expenses are not contracted, are abnormal, are easily eliminated or are sufficiently matched to income. Examples of variable expenses may include commission, advertising costs and direct marketing expenses.

9.6 Offset Statutory Capital applies in the case of a life company which is neither a friendly society nor an eligible foreign life insurance company. It is the amount of Statutory Capital which is appropriately utilised in meeting the expense reserve requirements of the statutory fund.

9.7 The Expense Reserve must not be less than zero.

SECTION 10 The Inadmissible Assets Reserve

- 10.1 The Inadmissible Assets Reserve for the statutory fund is determined as the sum of:**
- a) the reserve prescribed in respect of assets used in the conduct of business;**
 - b) the reserve prescribed in respect of holdings in associated and subsidiary entities which are Financial Services entities;**
 - c) non-realisable (in the context of the solvency tests) intangible assets;**
 - d) the reserve prescribed in respect of asset concentration risks and reinsurance asset recoverability; and**
 - e) the alignment necessary to ensure assets and other liabilities are based on net market value.**

10.2 Assets Used in the Conduct of Business

10.2.1 The prescribed reserve for assets used in the conduct of business is determined as the amount by which the stated value of the asset in the financial statements exceeds the value the asset would have in a run-off or transfer situation.

10.2.2 For the purpose of paragraph 10.2.1, the value to be ascribed to certain assets is subject to the following specific requirements:

a) Loans to Directors, Employees, Advisers and Related Parties
In respect of money loaned or advanced on an unsecured basis, no value is to be ascribed to the debt.

In respect of money loaned or advanced on a secured basis, the value to be ascribed to the debt must not exceed the amount of the security.

b) Policy Loans (including premiums due but not received)
The value of any debt due to the company which is secured on a policy of insurance issued by the company must not exceed the Current Termination Value of the policy.

This does not apply in the case of premiums due from a registered life company under a contract of reinsurance (which is considered in paragraph 10.5 below).

c) Computer Software
The value of computer software owned by the company must not exceed the known resale value of that software. If the resale value of the software is not known, then a zero value must be assumed.

d) Future Income Tax Benefits

The value of a future income tax benefit due to the company must not exceed the value of any income tax benefit that would accrue and be realised in the scenarios being contemplated.

e) Defined Benefit Superannuation Fund Surpluses

Where the entity is an employer sponsor of a defined benefit superannuation fund, no value is to be ascribed to any surplus of that fund which might otherwise be recognised as an asset of the statutory fund.

f) Holdings in Associated and Subsidiary Entities Other Than Financial Services Entities

Where the operations of an associated or subsidiary entity that is not a Financial Services entity are wholly dependent on those of the life insurance company, or the entity is itself an operational entity of the group to which the life insurance company belongs, then the value ascribed to the entity must not exceed its net tangible assets.

Otherwise, to the extent that such an entity has a degree of financial or operational independence from the life insurance company that could lead to it having some value in excess of net tangible assets under adverse circumstances affecting the life company, such additional value may be admissible. The admissible amount must only reflect the likely realisation value of the entity in the scenario contemplated, taking into account the likely circumstances of the sale (e.g. perception of a forced sale, capacity to separately sell entity, and anticipated supply/demand for such entities).

The value ascribed to such an entity that is financially and operationally independent of the life insurance company must not exceed the value in the regulatory financial statements.

In any case, the value ascribed to the entity need not be less than zero, provided that there is no recourse to the life company in relation to the entity's obligations.

10.3 Holdings in Associated and Subsidiary Financial Services Entities

10.3.1 The prescribed reserve in respect of holdings in associated and subsidiary entities that are Financial Services entities is to be determined by the Actuary as the amount by which the value of the entity in the regulatory financial statements exceeds its net tangible assets. This reserve is to be further increased by the amount of any prudential capital requirements of the entity in the jurisdiction in which it operates. The total reserve required need not be more than the value of the entity in the regulatory financial statements,

provided that there is no recourse to the life company in relation to the entity's obligations.

- 10.3.2 To the extent the benefits under the policy are contractually linked to the performance of the assets held, these assets include holdings in associated and subsidiary entities, and**
- a) those holdings take the form of equities as part of an index, or typical balanced, investment portfolio; and**
 - b) the extent of the exposure to those holdings is consistent with the stated investment objective of the fund; and**
 - c) those holdings comply with Section 43 of the Life Insurance Act: and**
 - d) the Actuary is satisfied that there has been appropriate disclosure to policy owners of the risks to which they are exposed;**

no reserve is required under paragraph 10.3.1.

10.4 Intangible Assets

- 10.4.1 The regulatory financial statements of the statutory fund may include intangible assets such as deferred acquisition cost assets, deferred origination cost assets, the value of in-force business and any goodwill asset. Where the values of such assets are not realisable independent of the business in-force, such assets are to be treated as inadmissible.**

10.5 Asset Concentration Risks and Reinsurance Recoverability

- 10.5.1 Except as allowed under paragraph 10.5.2, the prescribed reserve for asset concentration risks is determined as the amount by which the value of any single asset (aggregating, where necessary, individual assets that are exposed to common risks, such as strata titles in the same property) or single credit exposure (with a particular obligor or related party) exceeds the following limits:**

	Asset Exposure	Limit
(a)	Is guaranteed by an Australian state or Federal government:	No limit
(b)	Is guaranteed by a national government being the national government of the country in whose currency the liabilities of the statutory fund are denominated:	No Limit

(c)	Is guaranteed by an overseas provincial government (equivalent in status to an Australian State government), being a government in the country in whose currency the liabilities of the statutory fund are denominated:	The greater of: i) 25% of VASF; and ii) AUD 20 million.
(d)	Is secured by bank bills:	The greater of: i) 25% of VASF; and ii) AUD 20 million.
(e)	Is secured by bank deposits:	The greatest of: i) 50% of VASF less the value of the assets of the fund secured by bank bills; ii) 25% of VASF; and iii) AUD 20 million.
(f)	Is secured by a life insurance policy with a Specialist Reinsurer registered under the Act:	The greater of: i) 25% of VASF; and ii) AUD 20 million.
(g)	Is secured by a life insurance policy with a Reinsurer in respect of overseas business which is: i) a Reinsurer in the same country as that in which the business is written; and ii) is the parent or sister company of a Specialist Reinsurer:	The greater of: i) 25% of VASF; and ii) AUD 20 million.
(h)	Is secured by a life insurance policy, other than a reinsurance policy covered by (f) or (g) above, with a registered life company that is an associated or subsidiary entity:	No limit

(i)	Is secured by a life insurance policy, other than a reinsurance policy covered by (f) or (g) above, with a registered life company that is not an associated or subsidiary entity:	The greater of: i) 25% of VASF; and ii) AUD 20 million.
(j)	Is outstanding premiums receivable by a reinsurer under a reinsurance policy with a registered life company:	The greater of: i) 25% of VASF; and ii) AUD 20 million.
(k)	Is a mortgage which is: i) 100% mortgage insured with an authorised insurer under the Insurance Act 1973; or ii) a first mortgage of an amount not exceeding 70% of the market value of the security; or iii) made up of a first and all of any subsequent mortgages on the same security, the combined value of which does not exceed 70% of the market value of the security:	5% of VASF
(l)	Is: i) any other actively traded security; ii) a non-traded security, loan, or reinsurance arrangement with a grade of 1, 2 or 3 per Attachment 1 of the General Standard; or iii) real estate; or iv) other income producing real property asset:	5% of VASF
(m)	Is any asset not covered by any of the above categories:	1% of VASF

VASF = value of the assets of the statutory fund as per the regulatory financial statements.

- 10.5.2** In the case of a Specialist Reinsurer, the following increased admissible asset limits apply in respect of retrocessions by that Specialist Reinsurer to an overseas parent, associated, or subsidiary company which, with APRA's agreement, has been identified as an appropriate retrocessionaire for the purpose of this paragraph:
- a) where the retrocessionaire has a current counterparty grade of 1, 2 or 3 per Attachment 1 of the General Standard – No limit;
 - b) where the retrocessionaire does not have a current counterparty grade of 1, 2 or 3 per Attachment 1 of the General Standard, but had such a grade at the time the retrocession arrangement was entered into;
 - i) within the first 3 months after the downgrade below grade 3 – No limit.
 - ii) within the next 9 months - 65% of the reinsurance asset.
 - iii) within the second 12 months after the downgrade - 35% of the reinsurance asset; and
 - iv) thereafter, the retrocession arrangements are to be treated as per paragraph 10.5.1.
 - c) in all other circumstances, the retrocession arrangements are to be treated as per paragraph 10.5.1.
- 10.5.3** Notwithstanding the prescribed limits of paragraph 10.5.1, if in the opinion of the Actuary the overall portfolio of assets of the statutory fund has too little diversification, is too illiquid or has too great an exposure to obligors of low credit standing, the Actuary must add to the reserve for inadmissible assets an amount considered appropriate to adequately protect the interests of the policy owners. In particular, where the fund has a significant cumulative exposure through different classes of assets to a single obligor or related obligors the Actuary is to reduce the limit for that obligor in respect of any particular asset class by the exposure to that same obligor that is allowed as admissible in respect of all lower asset classes (assuming a hierarchy of classes from (a) (highest) to (m) (lowest) in paragraph 10.5.1.).
- 10.5.4** Where the policy liabilities are in respect of investment-linked benefits linked to the asset or credit exposure in question and the Actuary is satisfied that there has been full disclosure to policy owners of the risks to which they are exposed, no reserve is required under paragraph 10.5.1.
- 10.5.5** Where the asset or credit exposure is in respect of bank bills or bank deposits, bank for this purpose means:

- a) a deposit taking institution authorised by APRA under the Banking Act 1959; and
 - b) in the case of overseas business, a bank in the same country as that in which the business is written, provided that country has capital requirements in respect of banking business comparable to those in the Banking Act 1959.
- 10.5.6** Where the reserve in respect of inadmissible assets is reduced by deferred tax provisions or other liabilities relevant to the inadmissible portion of the asset the reduction must only be to the extent those provisions/liabilities are assessed as likely to be realised.
- 10.5.7** In order for an insurance or reinsurance arrangement to qualify for treatment under subparagraph 10.5.1 (f), (g), (h) or (i), or paragraph 10.5.2, it must, subject to a 6 month grace period from risk inception, comprise an executed and legally binding contract. Draft or incomplete documentation can at best qualify under paragraph 10.5.1 (m).
- 10.6 Alignment to Net Market Value**
- 10.6.1** The Inadmissible Assets Reserve is to include the net difference between the value disclosed in the regulatory financial statements and the net realisable market value (irrespective of whether this difference is positive or negative) of all assets and financial liabilities (other than policy liabilities) of the statutory fund. Net realisable market value means the mid market value (or equivalent estimated fair value) less (plus for liabilities) any marginal transaction costs that would be incurred on realisation.
- 10.6.2** To the extent that the liabilities adopted for this Standard are based on asset values disclosed in the financial statements and would correspondingly change in value if such net realisable asset or related liability values were adopted for the financial statements, then this adjustment may be ignored in respect of those assets and liabilities along with the equivalent adjustment in paragraph 7.2. This adjustment is also not required in respect of assets already deemed inadmissible under this Standard.

SECTION 11 The Resilience Reserve

- 11.1** The Resilience Reserve is determined as the additional amount that needs to be held before the happening of a prescribed set of changes in the economic environment, such that after the changes the admissible assets of the company are able to meet the policy

owner and other liabilities of the statutory fund, including the assessed liability risks in accordance with this Standard.

- 11.2** While the Resilience Reserve is determined at a statutory fund level, it is recognised that the prescribed set of changes (the adverse scenario) which determines the Resilience Reserve for each particular fund may differ depending on the type of business and other circumstances of that fund. In determining the Resilience Reserve of a particular statutory fund, it is permitted to recognise the potential release of Resilience Reserves from other statutory funds as a consequence of the particular adverse scenario being considered. However, to the extent such recognition is taken, the Actuary must ensure that:
- a) it is limited to the amounts that would be readily available from other statutory funds while leaving each of those funds complying with the capital adequacy standard after the adverse scenario assumed; and**
 - b) the potential release from other statutory funds is only recognised once in reducing the Resilience Reserves of the company; and**
 - c) the total Resilience Reserves of the company, when reductions across all statutory funds are taken together, must not be less than that which would result from the application of the resilience calculation at the company level.**
- 11.3** The Resilience Reserve is determined by reference to the Admissible Assets of the statutory fund. It is not necessary to hold resilience reserves for that part of an asset which is inadmissible nor the free assets (in excess of the Solvency Requirement) of the fund. It is not permitted to hypothecate assets to particular liabilities of the fund.
- 11.4** The Resilience Reserve allows explicitly for the beneficial implications for asset risks of diversification across asset sectors.
- 11.5** **Determination of Resilience Reserve**
- 11.5.1** The Resilience Reserve is determined in accordance with the following formulae:

Resilience Reserve, determined as:

$$L + RR = L' \times 1/f$$

where

- RR** = **resilience reserve**
- L** = **the liability held for the statutory fund for solvency purposes to reflect all liability risks (including other liabilities ie as at step 6.1(f)) prior to the prescribed change in economic environment and asset values**
- L'** = **value of that liability after the prescribed change**
- f** = **A'' / A**
- A** = **value of admissible assets of the statutory fund prior to the prescribed change**
- A'** = **value of those assets at the Adjusted Yield.**
- A''** = **adjusted value of assets (A') reduced by the sum of the Adverse Exchange Movement factor and the Credit Risk Default Factors.**

Adjusted Yield determined as:

$$\text{Current Yield} + \text{Credit Risk Yield Movement} \\ + DF \times \text{Prescribed Yield Change}$$

where

$$DF = \{ \sqrt{(E^2 + P^2 + F^2 + I^2)} \} / (E + P + F + I)$$

unless application of the diversification factor in determining the Adjusted Yield for a given asset sector would have the effect of increasing the overall resilience reserve, in which case the Actuary may adopt

$$DF = 1$$

for that asset sector for all scenarios.

where

DF	= the diversification factor
E, P	the proportionate holding of assets in the asset sectors Equities and Property respectively each multiplied by the factor for that sector: (Prescribed Increase in Yield / Current Yield)
F, I	the proportionate holding of assets in the asset sectors Interest Bearing and Indexed Bonds respectively each multiplied by the factor for that sector: { (Asset Value at Current Yield / Asset Value at Yield after prescribed increase) - 1 }
Note	<ol style="list-style-type: none">1. DF is determined in the scenario of a prescribed increase in yields across all sectors, and is used to determine the Adjusted Yield in that and all other scenarios.2. In determining F, cash is included in the interest bearing sector.

11.5.2 Where the policy owner liabilities of the statutory fund move in harmony with the assets supporting them, the Resilience Reserve in respect of those liabilities can be zero. A Resilience Reserve may be required, however, in respect of the Other Liabilities of the fund.

11.5.3 While for the determination of A' the most adverse scenario must be assumed, in determining the diversification factor the dynamics of that formula require that an increase in yields across all sectors be used (regardless of the fact that for certain classes of business this may not reflect the most adverse scenario).

11.5.4 The Resilience Reserve must not be less than zero.

11.6 Prescribed Yield Change

11.6.1 Subject to paragraph 11.6.2, the prescribed changes to the economic environment are movements, up or down, in yields as per the table below, which reflect corresponding movements in the value of instruments within those respective sectors:

INVESTMENT SECTOR	PRESCRIBED YIELD CHANGE %
Equities	+ or - 1.25
Property	+ or - 1.25
Interest Bearing	+ or - 1.75 (subject to 11.6.2)
Indexed Bonds	+ or - 0.60
CURRENCY	ADVERSE EXCHANGE MOVEMENT
All	10% reduction in value of assets exposed to a denomination other than that of the liabilities.

- 11.6.2** The prescribed reduction (but not increase) in yield for the Interest Bearing investment sector must not exceed 20% of the current Mid Swap Rate as determined for the purposes of paragraph 4.1.'
- 11.6.3** Yield, as referred to in this Section 11, is determined in respect of the holdings of the statutory fund and is to be taken to mean:
- a) for Equities, dividend yield based on the dividend yield under the ASX200 Index as at the valuation date, unless the Actuary justifies otherwise;
 - b) for Property, rental yield, based on most recent leases in force and determined net of expenses;
 - c) for Interest Bearing Securities, redemption yield (running yield in the case of irredeemable securities); and
 - d) for Indexed Bonds, real yield.
- 11.7 Credit Risk**
- 11.7.1** An addition to the resilience reserves is to be made for credit risk in respect of interest bearing and indexed bond assets, including cash deposits and floating rate assets. This will be achieved by a reduction in the value of assets under the relevant adverse scenario. The change will not affect the value of liabilities under the adverse scenario unless the benefits under the policies are contractually linked to the performance of the assets held.

11.7.2 In calculating A”:

- a) The applicable Credit Risk Yield Movement from the table below is first included in the Adjusted Yield as determined in paragraph 11.5.1 to determine A’. The duration used for this purpose may differ from that used to determine sensitivity to interest rate shocks (e.g. floating rate instruments not immediately redeemable may be regarded as dead short for the application of the prescribed yield change, but may have a longer term for the credit risk yield movement, depending on the extent to which credit risk deterioration can be mitigated).
- b) Each of the values determined in a) above (i.e. A’) is then reduced by the sum of the applicable Credit Risk Default Factor taken from the table below and the Adverse Exchange Movement factor from the table in paragraph 11.6.1.

Credit factors to apply to fixed interest and cash investments		
Counterparty Grade	Credit Risk Default Factor	Credit Risk Yield Movement
1 (OECD government)	0.00%	0.00%
1 (other)	0.00%	0.20%
2	0.00%	0.30%
3	0.00%	0.40%
4	0.75%	0.60%
5	2.00%	0.80%
6	6.25%	0.90%
7	9.75%	0.90%

11.7.3 In calculating the Adjusted Yield under paragraph 11.5.1 the Credit Risk Yield Movement is always positive, even though the Prescribed Yield Change may be positive or negative, depending on the relevant adverse scenario being tested.

11.8 Determination of L'

- 11.8.1 In determining the change to the discount rate for valuing the liabilities, it is the Prescribed Yield Change for the interest bearing investment sector determined under paragraphs 11.6.1 and 11.6.2 which is relevant. The Adjusted Yield as defined in paragraph 11.5.1 (including diversification and credit risk adjustments) is relevant only for asset values or for changes to the benefits to be valued where those benefits are contractually linked to the performance of the assets held. In the case of changes to those benefits to reflect the combined effect of the Adjusted Yield, the**

Credit Risk Default Factor and the Adverse Exchange Movement
factor allowance may be made for discretions in accordance with
paragraphs 5.2.3 and 5.2.4.

- 11.8.2 In determining the Resilience Reserve required, other assets and liabilities whose value is dependent on the value of investment assets, such as tax assets and liabilities, must be adjusted in a manner consistent with the action the company would take were asset values to change by the prescribed amount. However, in scenarios where asset values are assumed to fall, any resulting tax benefit may only be taken into account to the extent that the Actuary is satisfied that the tax benefit would actually be realised on the company ceasing business.
- 11.8.3 In calculating L' no adjustment is required for any potential impact that the Prescribed Yield Change would have on the value of a deficit held in respect of a defined benefit superannuation fund for which the entity, or an associated entity, is an employer sponsor.

11.9 Application of Prescribed Yield Changes

- 11.9.1 In applying the prescribed yield changes of paragraph 11.6 to the determination of A' and L', the Actuary must address the worst combination of rising or falling yields for the different asset sectors to which the business is realistically exposed. At the very least, the following two scenarios must be tested:
- a) rising fixed interest yields (investment categories Interest Bearing and Indexed Bonds) and rising equity/property yields (investment categories Equities and Property), and
 - b) falling fixed interest yields (investment categories Interest Bearing and Indexed Bonds) and rising equity/property yields (investment categories Equities and Property).
- 11.9.2 Where the circumstances of the fund are such that other scenarios are potentially relevant then they must also be tested.

11.10 Other Asset Exposures

- 11.10.1 Paragraph 5.2.5 outlines the principles to be followed where the fund is materially exposed to changes in investment market conditions that are not captured by the application of the prescribed rules of this section, and where a corresponding additional provision must be made. In this regard, the Actuary needs to consider the impact on the fund of significant adverse changes in investment markets such as:
- a) changes in the slope and shape of the yield curve, especially those that can give rise to difficulties with the reinvestment of assets backing long term liabilities; and

- b) changes in yield, volatility and correlation parameters that would be reflected in the fair value of derivative assets or analogous provisions in the liabilities.**
- 11.10.2** The Actuary must also consider whether the impact of credit risk is adequately provided for through the combination of the prescribed asset concentration limits in paragraph 10.5 and the credit risk adjustments of paragraph 11.7 noting that the prescribed credit risk adjustments presume that the asset portfolio is highly diversified. If credit risks are not adequately provided for, for example because of a lack of diversification, the Actuary is to adopt lower concentration limits or employ other additional reserving requirements.

SECTION 12 Transitional Arrangements

Overview

The Solvency Requirement determined in accordance with this Solvency Standard AS 2.04 may be significantly different from the equivalent amount determined in accordance with the previous version AS 2.03. To allow life companies that are significantly affected sufficient time to implement any necessary changes for either reducing the Solvency Requirement or increasing the amount of assets in the Statutory Fund to cover the new Solvency Requirement it is appropriate to allow some short term transitional arrangements.

These transitional arrangements will be in the form of a reduction to the amount of the Solvency Requirement, such reduction reducing to zero over the transitional period.

- 12.1** Where, at the date of introduction of this Standard, the amount of the Solvency Requirement determined prior to allowing for any Transitional Adjustment (i.e. after step 6.1(h)) exceeds the Solvency Requirement that would have resulted at the same date from application of the previous version of this standard (AS 2.03) by an amount exceeding the Transitional Materiality Limit, the Actuary may, with APRA's agreement, apply a Transitional Adjustment to the Solvency Requirement in accordance with the provisions of this section.

- 12.2 The Transitional Adjustment is determined at the date of calculation as:**

$$(SR - SR') \times t / n$$

where

- SR = the Solvency Requirement determined prior to allowing for any Transitional Adjustment (i.e. after step 6.1(h)) as at the date of calculation**
- SR' = the Solvency Requirement that would have resulted at the same date from application of the previous version of this standard (AS 2.03)**
- t = the period from the calculation date to the Transition End Date**
- n = the period from application date of this Solvency Standard to the Transition End Date.**

SECTION 13 Materiality

Overview

Particular values or components are considered material to the overall result of a calculation when their mis-statement or omission would cause that result to be misleading to the users of the information.

Materiality tests assess the significance of the particular value/component by relating it to the amount of the overall result to which it contributes.

- 13.1 The Solvency Requirement determined in accordance with this standard is subject to materiality standards applied at a statutory fund level.**
- 13.2 The base amount for materiality purposes is the difference between the assets of the statutory fund and the Solvency Requirement of that fund.**

- 13.3** While materiality must be applied at the statutory fund level, the materiality of the statutory fund relative to the size of the company overall may be taken into account.
- 13.4** In applying the materiality standards described in paragraphs 13.1 and 13.2:
- a) it is appropriate to use as the base amount for materiality purposes a rolling average of the base amount provided that the average so derived is a function of not less than three and not more than five years experience and is reflective of the current and anticipated future experience; and
 - b) it is appropriate, as the base amount approaches zero, for alternative key indicators to be used in establishing materiality.
- 13.5** While assessing materiality will always be a matter of professional judgement, the following quantitative thresholds are generally to be used:
- a) variations in amounts of 10% or more of the base amount may be presumed material; and
 - b) variations in amounts of 5% or less of the base amount may be presumed immaterial.

PART C – ACTUARY'S STATEMENT

SECTION 14 Statement Relating to the Determination

- 14.1 In respect of any determination of the Solvency Requirement the Actuary must provide in the investigation report required by section 113 or 115 of the Act, details of the calculation processes and the assumptions used in deriving the results.**

ATTACHMENT 1 – SOLVENCY ASSUMPTIONS

	% Factor	Base to which Factor Applies (1)
Insured Lives and Annuitants in Deferment (refer Note 2 and Note 3)		
Individual		
- Australia		
Non-smokers	75%	Defined Table
Smokers	150%	Defined Table
Others	100%	Defined Table
- Overseas	110%	Best Estimate
Group		
- Australia and Overseas	110%	Best Estimate
Annuitants (Refer Note 2)		
Australia (Refer Note 5)		
- Base	50%	Defined Table
- policy duration ≥ 1	60%	Defined Table
- Improvements pa		Refer Note 4
Overseas		
- Base	90%	Best Estimate
- Improvements	100%	Best Estimate
Total Permanent Disability		
Individual		
Australia	120%	Best Estimate
Overseas	120%	Best Estimate
Group		
- Australia and Overseas	110%	Best Estimate
Disability Income		
Individual and Group		
Australia		
- Active Lives	120%	The greater of: • Best Estimate Claims Cost Liability; or • x% of Claims Cost Liability determined on Defined Table (Refer Note 6 and Note 7)
- Claims in Payment	120%	The greater of: • Best Estimate Liability; or • x% of Liability determined on Defined Table (Refer Note 6)
Overseas		
- Active Lives	150%	Best Estimate Claims Cost Liability (Refer Note 7)
- Claims in Payment	125%	Best Estimate Liability
Trauma		
Individual and Group		
Australia	130%	Best Estimate
Overseas	130%	Best Estimate
Other Insured Events		
Individual and Group		
Australia	130%	Best Estimate
Overseas	130%	Best Estimate

Notes

- (1) A reference in the above to the Defined Table is a reference to the table prescribed by the LIASB for this purpose from time to time. As at the issue date of the Standard the Defined Tables are:

For Insured Lives	IA 95-97
For Annuitants	IM/IF80, for calendar year 1980 Ultimate
For Disability Income	IAD 89-93

- (2) Where policies are issued on underwritten sub-standard terms (including in the case of structured settlements), those terms are to be given effect in determining the Solvency Liability through an appropriate adjustment to the Defined Table. If the terms of the rating are not readily expressed in this form, the Solvency Assumption must be taken as:
- 110% of Best Estimate for insured lives and annuitants in deferment; and
 - 90% of Best Estimate for annuitants.

- (3) Where policies for insured lives and annuitants in deferment are issued on non underwritten terms, the Solvency Assumption must be taken as 110% of Best Estimate subject to a minimum of the relevant prescribed Solvency Assumption.
- (4) Allowance for annuitant mortality improvements after 1996 is to be made as follows:

$$q_{x,t} = q_{x,0} * RF(x,t)$$

where: $q_{x,t}$ is the “improved” q_x for age x at time t years after 1996

$$\begin{aligned} RF(x,t) &= 0.975^t \quad \text{for } x \leq 60 \\ &= (0.975 + 0.0005 * (x - 60))^t \quad (\text{max of 1}) \quad \text{for } x > 60 \end{aligned}$$

- (5) For annuities issued on non underwritten terms and in the course of payment, the use of the assumptions set out in this note is subject to a minimum related to the Best Estimate assumptions. The Solvency Liability is to be determined as the greater of that calculated using
- the assumptions set out in this attachment, and
 - 90% of Best Estimate

with the comparison done in aggregate across all the annuities in the Related Product Group.

- (6) The reliance on Best Estimate base for disability income is subject to a minimum related to the company’s own experience. That minimum, to be determined by the Actuary, is to be expressed by reference to the Defined Table (as $x\%$ of the Defined Table). Where the company’s own recent experience over not more than the last 3 years can be demonstrated to be statistically credible, that experience

is to be calibrated to the Defined Table and applied as a minimum on the current Best Estimate base. Where the company's available experience has little or no credibility (e.g. small portfolios or new products), x% is to be taken as 150%. Where the company's experience has some, but less than full, credibility, a factor between the apparent x% and 150% is to be adopted based on a suitable credibility weighting method.

- (7) **The Claims Cost Liability for disability income policies is the component of the liability for active lives in respect of claims.**