Solvency Standard for Life Insurance Business

Insurance Policy

Prudential Supervision Department

August 2011 (incorporates amendments to December 2014)
Introduction

1.1. Authority

1. This solvency standard is made under Section 55 of the Insurance (Prudential Supervision) Act 2010 (“the Act”).

2. Once approved by the Bank, this solvency standard becomes a regulation under the Act (refer Section 233).

1.2. Application

3. This solvency standard applies (in accordance with this Section) to every licensed insurer that carries on life insurance business in New Zealand subject to:

(a) an overseas insurer is not required to comply with this solvency standard or a part of this solvency standard to the extent it has been granted an exemption under section 59(1) of the Act; and

(b) for all other licensed insurers carrying on life insurance business in New Zealand, this solvency standard applies only if the licensed insurer is required by a condition of licence to maintain a Solvency Margin in accordance with this solvency standard.

4. Where a life insurer carries on health insurance business, such health insurance business will also be subject to this solvency standard as part of the Life Fund outside of the statutory fund(s) of the licensed insurer (refer paragraph 20).

5. Except as provided for in paragraph 6 below, to the extent that a licensed insurer carries on life insurance business in New Zealand all of the provisions of this solvency standard will apply to that licensed insurer in respect of its life insurance business. Except as provided for in paragraph 4 above and paragraph 6 below, to the extent that a life insurer carries on insurance business in New Zealand that is not life insurance business it will be subject to the requirements of any other appropriate solvency standard(s) relevant to its non-life insurance business.

6. Where a licensed insurer is subject to more than one solvency standard the Fixed Capital described in paragraph 18 of this solvency standard applicable to the licensed insurer will be the higher, or highest, of the Fixed Capital (or in the case of a non-life insurer, the Minimum Capital Requirement) amounts within the applicable solvency standards. The requirements shall not be additive.

7. A Solvency Margin must be calculated separately for each Life Fund of a licensed insurer that is a life insurer.

8. Section 6 of this solvency standard applies to the actuary appointed by the relevant licensed insurer in accordance with Section 76 of the Act.
1.3. Previous Versions

9. None.

1.4. Effective Date

10. This solvency standard is effective from the date of commencement of Subpart 2 of Part 2 of the Act.

1.5. Definitions

11. Actual Solvency Capital means Capital minus Deductions From Capital determined in accordance paragraphs 43 - 45 of this solvency standard.

12. Appointed actuary means the actuary appointed by a licensed insurer in accordance with Section 76 of the Act.

13. Best Estimate Assumptions means assumptions about future experience which are made using professional judgement, training and experience and are neither deliberately overstated nor deliberately understated. The Best Estimate Assumptions used for the purpose of this solvency standard should be identical to those used in the calculation of Policy Liabilities as if a calculation in accordance with the New Zealand Society of Actuaries' Professional Standard No. 3 (Determination of Life Insurance Policy Liabilities) is being made as at the same date.

14. Best Estimate Liability means the liability calculated using the Best Estimate Assumptions. The Best Estimate Liability reflects the liability for guaranteed benefits only. Best Estimate Liability should be calculated according to the method outlined in the New Zealand Society of Actuaries Professional Standard No. 3 (Determination of Life Insurance Policy Liabilities). For the purposes of this solvency standard, notwithstanding any different presentation in the financial statements of the licensed insurer, the Best Estimate Liability must be calculated net of reinsurance and with tax treatment as set out in Section 4.3 of this solvency standard. In addition, any other assets or liabilities that in substance form part of the Best Estimate Liability (including but not limited to deferred acquisition costs) are considered to be an integral part of the Best Estimate Liability for the purposes of this solvency standard, whether or not these assets or liabilities are separately presented in the financial statements of the licensed insurer.

15. Collective Investment Vehicle means a managed investment fund including but not limited to unit trusts and group investment funds.

16. Current Termination Value means the termination value of a policy at the reporting date. The Current Termination Value must be determined as the amount that would be paid on the basis of current practice in the event of voluntary termination of the policy, or on wind-up. No policy can have a Current Termination Value of less than zero. If the amount payable on termination is deferred or is in the form of a series of payments over time then the Current Termination Value should be determined as the present value of the future payments using assumptions consistent with Appendix A of this solvency standard. This will also apply where a termination value has not yet vested at the reporting date, but on wind-up, either legally or in...
the opinion of the appointed actuary, an accrued liability will exist that ought to be paid to the policyholder. The Current Termination Value must include allowance for unsettled lump sum insurance claims on a life policy, if applicable, (net of potential reinsurance recoveries) and claims settlement costs such as medical evidence or potential legal costs of disputed claims.


18. Fixed Capital is the amount referred to in Sections 19(1)(f), 21(2)(b) and 56(a)(1) of the Act, and means the minimum amount of Actual Solvency Capital that the licensed insurer is required to hold at all times in order to meet the Solvency Margin requirements of this solvency standard. This requirement applies at the entity level and the capital may be held within or outside the statutory fund(s) of the life insurer provided at all times that, for each statutory fund of the licensed insurer, sufficient Actual Solvency Capital to meet the requirements of the solvency standard is held within the statutory fund(s). If the Actual Solvency Capital falls below the Fixed Capital at any time then the licensed insurer must increase its Actual Solvency Capital to this amount. If the Actual Solvency Capital of the life insurer, calculated in accordance with paragraphs 43 - 45 of this solvency standard, is less than $5 million then the life insurer will be required to increase its Actual Solvency Capital to $5 million.

19. Health insurance has the meaning as defined in the Act.

20. Life Fund means either a statutory fund, or the aggregation of any other assets and liabilities of a licensed insurer that is a life insurer, within the life insurer’s legal entity but outside of the life insurer’s statutory fund(s), including the health insurance business of the life insurer (if any), but not including assets and liabilities that are subject to any other solvency standard. Note: Solvency calculations must be made at the Life Fund level, in respect of each Life Fund.

21. Local Authority has the same meaning as in Section 5(1) of the Local Government Act 2002.

22. Material and materiality have the meaning set out in Appendix B.

23. Minimum Solvency Capital for a licensed insurer means the amount determined in accordance with Section 3 of this solvency standard.

24. Non-insurance Activity means any business activity undertaken for third party customers that does not involve the bearing of risk under a contract of insurance. For example, Non-insurance Activity includes insurance broking, claims management services and risk management or any other consultancy activities.
25. **NZ GAAP** means New Zealand Generally Accepted Accounting Practice. For the purposes of this regulation, **financial statements** will be deemed to comply with NZ GAAP only if those statements comply with:

(a) applicable financial reporting standards; and

(b) in relation to matters for which no provision is made in applicable financial reporting standards and that are not subject to any applicable rule of law, accounting policies that:

i. are appropriate to the circumstances of the reporting entity; and

ii. have authoritative support within the accounting profession in New Zealand.

26. **Other Liabilities** means liabilities, that are not Policy Liabilities, valued according to NZ GAAP except where otherwise provided elsewhere in this solvency standard.

27. **Policy Liability** means a liability that arises under a **life policy** and includes any asset or liability that arises under a management services element of an **investment account contract** or an **investment-linked contract**. Policy Liability should be calculated according to the method outlined in the New Zealand Society of Actuaries Professional Standard No. 3 (Determination of Life Insurance Policy Liabilities). For the purposes of this solvency standard, notwithstanding any different presentation in the financial statements of the licensed insurer, Policy Liability must be calculated net of reinsurance and with tax treatment as set out in Section 4.3 of this solvency standard. In addition, any other assets or liabilities that in substance form part of the Policy Liability (including but not limited to deferred acquisition costs and deferred fee revenue) are to be included within the assessment of Policy Liability for the purposes of this solvency standard, whether or not these assets or liabilities are separately presented in the financial statements of the licensed insurer.

28. **Residual** means assets and liabilities within a Life Fund that are not hypothecated.

29. **Related Product Group** means a grouping of **contracts of insurance** that have substantially the same contractual terms and were priced on the basis of substantially the same assumptions. The contracts of insurance must be considered by the appointed actuary to exhibit benefit characteristics and pricing structures sufficiently similar as to justify grouping for the purposes of profit margin calculation, loss recognition and reporting within the financial statements of the licensed insurer.

30. **Solvency Margin** is defined as the excess of Actual Solvency Capital over Minimum Solvency Capital, expressed as a dollar amount. **Note**: This calculation is to be carried out in respect of each Life Fund (refer Sections 2 and 3 of this solvency standard).
31. **Solvency Ratio** is defined as the ratio of Actual Solvency Capital divided by Minimum Solvency Capital, expressed as a ratio or a percentage.


33. **Statutory Fund** means a statutory fund maintained under sub-part 3 of Part 2 of the Act.

34. The Act means the Insurance (Prudential Supervision) Act 2010. Terms defined in the Act have the same meaning in this **solvency standard** and are shown in **bold type**.

### 1.6. Requirements of the Act

35. Section 21(2)(b) of the Act allows the Bank to impose a condition of licence that requires that a **licensed insurer** must, at all times, maintain a Solvency Margin as defined in the **solvency standard**. The Solvency Margin must always be a positive amount.

36. Sections 21(2)(f) and (g) of the Act require attestation by a **licensed insurer** to the Bank relating to compliance with any conditions of licence, which includes any that may relate to a **solvency standard**.

37. Section 24 of the Act requires that, if a **licensed insurer** has reasonable grounds to believe that a failure to maintain a Solvency Margin is likely to occur at any time within the next 3 years, the **licensed insurer** must report the likely failure to the Bank as soon as is reasonably practicable.

38. Section 76 of the Act requires each **licensed insurer** to appoint an **actuary**. Section 77 requires the **licensed insurer** to have its **appointed actuary** review certain items in the **financial statements**. Section 56(d) sets out requirements (which are further outlined in paragraph 151 of this **solvency standard**) regarding the preparation of a Financial Condition Report.

39. Compliance with the **solvency standard** is a continuous obligation. As a minimum a **licensed insurer** must undertake calculations as required under this **solvency standard** twice each year – as at its financial year end and as at six months after its financial year end – and report those calculations to the Bank.

### 1.7. Responsibility for solvency calculations

40. The **appointed actuary** of the **licensed insurer** is responsible to the board of the **licensed insurer** for performing or reviewing all aspects of the Solvency Margin calculations to ensure the calculations are complete and accurate.

41. The board of the **licensed insurer** is responsible for ensuring that all requirements of this **solvency standard** and the Act are satisfied.
1.8. Simplifying Assumptions or Methodologies contained in Solvency Calculations

42. This solvency standard represents minimum requirements. Accordingly, if any simplifying assumptions are made or simplifying methodologies are used in calculating the licensed insurer's Solvency Margin, the appointed actuary must:

(a) ensure that such simplifying assumptions or methodologies result in a more prudent assessment of the licensed insurer's Solvency Margin;

(b) disclose such simplifying assumptions or methodologies in any associated reports; and

(c) justify such simplifying assumptions or methodologies on the grounds of materiality or that they provide a more conservative outcome.
2. **Actual Solvency Capital**

*Important Note:*

All components of the Actual Solvency Capital calculation (and Minimum Solvency Capital calculation – see Section 3 of this solvency standard) must be calculated at the Life Fund level. After calculation of Minimum Solvency Capital, each Life Fund must have a positive Solvency Margin.

The capital requirement for a statutory fund resulting from the Solvency Margin calculation must be held within the statutory fund. Capital in excess of the capital requirement for a statutory fund may be held outside the statutory fund.

43. Actual Solvency Capital is defined as the total of Capital (as per paragraph 44) minus Deductions from Capital (as per paragraph 45).

- see following pages
44. **Capital is defined as the following items:**

(a) issued and fully or partly paid-up ordinary shares, that have full voting rights, have no preferential or predetermined rights to distributions of capital or income and are not redeemable within the meaning of Section 68 of the Companies Act 1993. *(Partly paid-up shares qualify as Capital only to the extent the shares have been paid)*;

(b) fully paid-up perpetual non-cumulative preference shares that meet the following requirements:

i. the payment of dividends on shares is able to be withheld if the financial condition of the licensed insurer would not support payment of those dividends; and

ii. dividends that are withheld in accordance with sub-paragraph (a) are not cumulative; and

iii. the dividend rate for the shares must be set:
   a. as a fixed percentage rate; or
   b. as a fixed margin above a benchmark floating rate (e.g. a bank bill rate); and

iv. the shares are not:
   a. subject to any arrangement for resetting the dividend rate; or
   b. redeemable within the meaning of Section 68 of the Companies Act 1993; or
   c. repayable or redeemable at the option of the holder.

Perpetual non-cumulative preference shares without full voting rights may not constitute more than 50% of Capital for a licensed insurer that is a mutual insurer and 25% for all other licensed insurers.

(c) revenue and other reserves, including the following, but not including reserves that are held aside or otherwise committed on account of any assessed likelihood of loss:

i. capital redemption reserves;

ii. other reserves that are created or increased by appropriations of retained earnings net of tax and dividends payable;

iii. any share premium reserves arising from the issue of ordinary shares;

iv. each of the following types of reserves that are reflected in the statement of financial position:
   a. reserves arising from a revaluation of tangible fixed assets, including owner-occupied property;
   b. foreign currency translation reserves;
   c. reserves arising from the revaluation of investments;

(d) retained earnings; and

(e) non-controlling interests.
45. **Deductions From Capital** is defined as the sum of the value of the following items:

(a) goodwill and other intangible assets as determined in accordance with Section 2.2 of this solvency standard;

(b) deferred tax asset calculated in accordance with paragraph 127 assuming the licensed insurer is wound-up and the net taxation position upon wind-up is a deferred tax asset;

(c) equity investments in, and subordinated loans to, related parties (but refer to paragraph 85);

(d) equity investments in, and subordinated loans to, other Financial Institutions or holding companies of other Financial Institutions (whether held directly or indirectly) that are classified as Counterparty Grade 1 or 2 or 3 as per Table 4, to the extent that the total of such equity investments or subordinated loans exceeds 15% of Actual Solvency Capital, calculated excluding this clause;

(e) equity investments in, and subordinated loans to, other Financial Institutions or holding companies of other Financial Institutions (whether held directly or indirectly) that are classified as Counterparty Grade 4 or Counterparty Grade 5 as per Table 4;

(f) unrealised gains and losses on liabilities designated at fair value through profit and loss that arise from changes in the licensed insurer’s own credit risk;

(g) any fair value gain that relates to a financial instrument for which:
   
   i. fair value is determined in whole or in part using a valuation technique based on assumptions that are not supported by processes from observable current market transactions in the same instrument; or
   
   ii. fair value is not based on observable market data; or
   
   iii. fair value is based on prices in a market that is not active;

(h) any surplus, net of any associated deferred tax liabilities, in any defined benefit superannuation fund sponsored by the licensed insurer (or another group entity) as employer; and

(i) allowance for any dividend that has been declared or repayment of Capital made prior to finalisation of the Solvency Margin calculations, but which has not been reflected in the financial statements.
2.1. General Provisions relating to Capital

46. The NZ GAAP financial statements to be used for the purpose of this solvency standard are, in the first instance, the entity accounts of the licensed insurer.

47. The Capital of a licensed insurer is intended to represent capital instruments that are of a permanent nature and freely available to meet losses. If a capital instrument is not of a permanent nature and freely available to meet losses, then the appointed actuary must give advice to this effect to the licensed insurer, and subsequently also in the Financial Condition Report (refer section 6.3 of this solvency standard). If the appointed actuary recommends that part or all of the value of a capital instrument should be excluded from the Actual Solvency Capital, then the licensed insurer must follow that advice.

48. In the case of a licensed insurer that is a mutual insurer incorporated in New Zealand, Capital may be referred to as 'Reserves' or 'Members Funds' or such other term by which it is described in the financial statements of the mutual insurer.

2.2. Intangible Asset Deductions

49. The Intangible Asset Deductions comprise the following amounts to the extent that they form part of the assets of a licensed insurer as recognised and measured under NZ GAAP:

(a) goodwill measured in accordance with NZ GAAP, to the extent that this has not otherwise been deducted;

(b) capitalised computer software costs to the extent that they exceed the known resale value of that software (if the resale value is not known then it should be taken as nil); and

(c) any other asset defined as an intangible asset under NZ GAAP.

2.3. Solo and Group Solvency Reporting Requirements:

50. Where a licensed insurer has a subsidiary or subsidiaries that are themselves licensed insurers then the solvency standard must firstly be applied to, and reported on a solo basis for, each licensed insurer.

51. In addition, where a licensed insurer has subsidiaries that are themselves a licensed insurer, such subsidiaries must be consolidated with the licensed insurer for the purpose of calculating and reporting group solvency in accordance with the requirements of this solvency standard.

52. Where a licensed insurer has subsidiaries that are non-insurance subsidiaries (refer paragraph 24) then, for the purposes of calculating group solvency only, such non-insurance subsidiaries should be treated as related party equity investments, subordinated loans or other obligations in accordance with the provisions of this solvency standard.
2.4. Overseas Insurers

53. An **overseas insurer** that operates a branch in New Zealand, that has been granted an exemption under Section 59 of the Act, will be required to calculate and report its solvency position calculated in accordance with the regulatory requirements of its home jurisdiction. In addition the **Bank** may, as a condition of the exemption, require the **overseas insurer** to report solvency in respect of the New Zealand branch of the **overseas insurer** (as if it were a New Zealand incorporated body), prepared in accordance with the requirements of this **solvency standard**. Within this calculation all or part of the Capital of the branch may be reported as ‘Head Office Balance’ or similar.

54. An **overseas insurer** that operates a branch in New Zealand, that has not been granted an exemption under Section 59 of the Act, will be required to calculate and report its solvency in accordance with the requirements of this **solvency standard**.
3. **Minimum Solvency Capital**

**Important Note:**

*All components of the Minimum Solvency Capital calculation (and Actual Solvency Capital calculation – see Section 2 of this solvency standard) must be calculated at the Life Fund level. After calculation of Minimum Solvency Capital, each Life Fund must have a positive Solvency Margin.*

*The capital requirement for a statutory fund resulting from the Solvency Margin calculation must be held within the statutory fund. Capital in excess of the capital requirement for a statutory fund may be held outside the statutory fund.*

55. The Minimum Solvency Capital, which must be calculated for each Life Fund, is calculated as the excess (if any) of the Total Solvency Requirement over the sum of the Policy Liability plus Other Liabilities at the balance date.

56. The Total Solvency Requirement is the sum of all components of the:

- Insurance Risk Capital Charge (refer Section 3.1 below);
- Catastrophe Risk Capital Charge (refer Section 3.2 below);
- Asset Risk Capital Charge, (refer Section 3.3 below) being the sum of the:
  - Resilience Risk Capital Charge (refer paragraphs 69 - 71 and 93 – 94 below) which incorporates the following:
    - a Credit, Equity and Property Risk Capital Charge (refer paragraphs 72 - 86 below);
    - a Foreign Currency Risk Capital Charge (refer paragraph 87 below); and
    - the impact of interest rate changes (refer paragraphs 88 - 92 below);
  - Asset Concentration Risk Capital Charge (refer paragraphs 95 - 98 below); and
  - Reinsurance Recovery Risk Capital Charge (refer paragraphs 100 - 105 below).

**Capital Charge for Liabilities**

57. Capital charges which cover the inherent risks in the determination of Policy Liabilities are the Insurance Risk Capital Charge and Catastrophe Risk Capital Charge as set out below.

**3.1. Insurance Risk Capital Charge**

**Concept**

58. The Insurance Risk Capital Charge takes into account the risks pertaining to each element in respect of which an assumption is required to set a value
on Policy Liabilities. The risks pertaining to each element 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.

59. The Insurance Risk Capital Charge is also designed to give a reasonable expectation that the licensed insurer will be able to meet its obligations to policyholders and creditors should all policies discontinue and current surrender values be payable.

60. The Insurance Risk Capital Charge requires a calculation of the Solvency Liability. The Solvency Liability is determined using the methods used to determine the Best Estimate Liability, but:

   (a) allowing for current and future bonuses, subject to the appropriate application of discretions (refer Section 4.2 of this solvency standard); and

   (b) adopting the Prescribed Solvency Assumptions, set out in Appendix A.

**Calculation**

61. The Insurance Risk Capital Charge is calculated as follows:

   (a) For each Related Product Group, calculate the total of the Current Termination Values. Where applicable, the Current Termination Values are to be calculated using the Prescribed Solvency Assumptions, set out in Appendix A.

   (b) For each Related Product Group, determine the Solvency Liability at the balance date.

   (c) The Insurance Risk Capital Charge for each Related Product Group is the greater of the Current Termination Values and Solvency Liability for that Related Product Group.

   (d) The Insurance Risk Capital Charge for each Life Fund is the total of the amounts determined in (c) above for the Related Product Group(s) plus the Other Liabilities within that Life Fund.

**3.2. Catastrophe Risk Capital Charge**

**Concept**

62. The Catastrophe Risk Capital Charge is intended to reflect the exposure of a licensed insurer to large claims or large numbers of claims arising from extreme events, for example a pandemic or natural disaster.
Calculation

63. The calculation of the Catastrophe Risk Capital Charge applicable to a licensed insurer is the greater of the Catastrophe Risk Capital Charges for a pandemic (see paragraph 64) and all other extreme events (see paragraph 65).

64. For each Life Fund of a licensed insurer, the Catastrophe Risk Capital Charge for a pandemic is the anticipated claims cost, net of reinsurance recoveries and after allowance for appropriate release of reserves justified as a direct result of the pandemic, arising from a one per thousand increase in the rate of lives insured dying over the following year.

65. Licensed insurers will also be exposed to potential losses arising from other extreme events including natural disasters and extreme events specific to a licensed insurer’s portfolio. The Catastrophe Risk Capital Charge for such events must be quantified having considered the licensed insurer’s exposure(s) in respect of group risk business and any other risk concentration(s).

66. In arriving at the Catastrophe Risk Capital Charge, a licensed insurer can deduct the benefit of any appropriate reinsurance in place, provided the reinsurance contract(s) represents a true transfer of the risk of loss in respect of the pandemic or other extreme events. The Catastrophe Risk Capital Charge must include any gap or shortfall in the reinsurance cover plus the cost (if any) of one reinstatement of the full catastrophe reinsurance contract(s).

Actuarial review

67. The appointed actuary of a licensed insurer must review the basis of the Catastrophe Risk Capital Charge and be satisfied that the calculation adequately reflects the licensed insurer’s potential financial exposure(s), net of any reinsurance, to a pandemic and all other extreme events that could have a Material financial impact on the licensed insurer. If the appointed actuary is of the opinion that the financial exposure of the licensed insurer to extreme events is not adequately reflected in the Catastrophe Risk Capital Charge, the appointed actuary must recommend an increase in the Catastrophe Risk Capital Charge or an alternative method of determining the Catastrophe Risk Capital Charge for the licensed insurer, and the licensed insurer must use the recommendation(s) of the appointed actuary.

3.3. Asset Risk Capital Charge

68. The Asset Risk Capital Charge is the sum of the Resilience Risk Capital Charge (refer paragraphs 69 - 71 and paragraphs 93 - 94), the Asset Concentration Risk Capital Charge (refer paragraphs 95 - 98) and Reinsurance Recovery Risk Capital Charge (refer paragraphs 100 - 105).
**Resilience Risk Capital Charge**

**Concept**

69. The Resilience Risk Capital Charge is intended to reflect the potential exposure of a licensed insurer to adverse changes in the value of assets relative to the value of liabilities due to adverse credit events or other economic or financial market shocks. Such shocks may manifest as changes in interest rates, exchange rates and other market and non-market prices that affect the economic value of the licensed insurer. The Resilience Risk Capital Charge does not, nor does any other capital charge under this solvency standard, require Capital to be held in respect of liquidity risk.

70. The Resilience Risk Capital Charge adheres to the following calculation principles and incorporates the following:

(a) a Credit, Equity and Property Risk Capital Charge (CEP Capital Charge) - refer paragraphs 72 - 86;

(b) a Foreign Currency Risk Capital Charge - refer paragraph 87; and

(c) the impact of interest rate changes - refer paragraphs 88 – 92.

**Calculation Principles To Be Applied**

71. The following principles must be applied when calculating the Resilience Risk Capital Charge:

(a) **Scope**: The Resilience Risk Capital Charge applies to all assets and liabilities, including any derivatives and other off balance sheet exposures, set out within the capital charge calculations below.

(b) **Asset shocks**: The CEP Capital Charge provides for unforeseen losses in asset values at a level determined by the prescribed economic Asset Risk Capital Factors set out within Table 2. Similarly, economic factors are prescribed for unforeseen changes in foreign currency and interest rates ("asset shocks").

(c) **Consequential change in Insurance Risk Capital Charge**: As a result of the asset shocks, the Resilience Risk Capital Charge provides for the consequential change in a licensed insurer’s Insurance Risk Capital Charge, called the Solvency Liability Resilience Impact ("SLRI"). The SLRI must:

i. fully reflect the nature of the business written and how it is managed, including any derivatives, contractual obligations and any other financial return that the licensed insurer reasonably expects to pay policyholders;
ii. reflect the effect of the asset shocks on the licensed insurer’s Solvency Liabilities; and

iii. utilise only those discretions and related principles and requirements set out within Section 4.2 of this solvency standard.

(d) Hypothecated assets and liabilities: The Resilience Risk Capital Charge for hypothecated portfolios of assets and liabilities can be separately calculated. The following criteria must be met for each hypothecated portfolio:

i. The specific assets and liabilities are hypothecated together because the value of the liabilities is dependent on the value of the assets, or to facilitate the effective financial management of the business;

ii. The hypothecated assets and liabilities are managed together where such management includes risk management practices, management accounting and board reporting;

iii. The hypothecation used must be transparent: in particular, which assets and liabilities are hypothecated together as well as how criteria (i) and (ii) above are met must be documented;

iv. Consistency of approach is applied in the identification and management of hypothecated assets and liabilities. Where changes are made to the number, structure or nature of the hypothecated asset or liability portfolio(s) or where there are significant changes in the financial amount of the hypothecated asset or liability portfolio(s), the justification for the change and potential impact should be documented;

v. The licensed insurer’s appointed actuary must be satisfied that all the above criteria are met before the treatment set out within this paragraph can be applied within the licensed insurer’s solvency calculations. If the appointed actuary is not satisfied in this respect then the Resilience Risk Capital Charge must be calculated without hypothecation.

(e) Taxation: Refer to Section 4.3 of this solvency standard for the taxation treatment of the Resilience Risk Capital Charge.
Credit, Equity and Property Risk (“CEP”) Capital Charge

72. The assets and related prescribed Asset Risk Capital Factors which must be used within the CEP Capital Charge calculation are described immediately below. How the calculation is to be performed is set out in paragraph 86.

Assets

73. A licensed insurer must assign each of its assets to the relevant Asset Class in Table 2. The Counterparty Grade, where appropriate, must be determined in accordance with Section 3.4 of this solvency standard.

74. If a licensed insurer holds investments in a professionally managed Collective Investment Vehicle such as a unit trust, then the licensed insurer must ‘look through’ the Collective Investment Vehicle to the nature of the underlying investments that represent the share of the assets attributable to the licensed insurer.

75. If a licensed insurer has a subsidiary entity that is primarily used to hold investments for the licensed insurer, then it must ‘look through’ the subsidiary entity to the nature of the underlying investments.

76. In applying the ‘look through’ approach in the preceding two paragraphs, a licensed insurer must only ‘look through’ if it is satisfied with the quality and reliability of the information about the underlying investments. If the licensed insurer is not satisfied with the quality and reliability of the information about the underlying investments or, if the ‘look through’ approach is unable to be applied, then all other appropriate requirements of this solvency standard apply. The licensed insurer must also take account of any special conditions (such as guarantees or redemption restrictions) that the Collective Investment Vehicle or subsidiary entity may provide.

77. Assets that have been explicitly, unconditionally and irrevocably guaranteed for their remaining term to maturity by a guarantor with a counterparty rating (or for governments, the long-term foreign currency credit rating) in Grades 1, 2 or 3 (refer Table 4) may be assigned the Asset Risk Capital Factor that would be applicable to the guarantor. Guarantees provided to a licensed insurer by its own parent entity or by any related party are not eligible for this treatment.

78. Any asset that is a Deduction from Capital under paragraph 45 of this solvency standard will not be subject to an Asset Risk Capital Charge.

Derivatives

79. For equity and bond derivatives, the appropriate CEP Capital Charge is calculated by multiplying the asset or liability net position by the appropriate equity or bond Asset Risk Capital Factor within Table 2.
80. For options the position to be used is the delta weighted position i.e. face value multiplied by delta factor. The delta factor is that implied after the application of the appropriate equity or bond Asset Risk Capital Factor within Table 2, the shock in foreign currency exchange rates specified in paragraph 87 and the shock in interest rates specified in paragraphs 88 - 92 as applicable.

81. There is no CEP Capital Charge for the interest rate or foreign currency position arising from derivative transactions.

82. Mark-to-market gains on any derivatives will attract a CEP Capital Charge calculated by multiplying the mark-to-market gain by the appropriate Asset Risk Capital Factor within Table 2.

**Other off balance sheet exposures**

83. A licensed insurer can be exposed to credit risk through transactions other than those reflected on its balance sheet, for example by issuing guarantees or letters of credit. A licensed insurer must allow for the amount of any off balance sheet exposures that represent contingent liabilities as if they were assets when calculating its CEP Capital Charge. All known contingent liabilities must be included in the calculation, whether or not the contingent liabilities are disclosed within the NZ GAAP financial statements of the licensed insurer. All contingent liabilities must be quantified or, if unable to be quantified, must be estimated at a prudent amount and noted as such, with the basis of the estimation clearly described in the Solvency Returns submitted to the Bank.

**Related Party Assets**

84. A related party is defined in the Act (refer Section 6) and the definition is significantly broader than the definition of associated person that would generally be applicable for accounting consolidation.

85. Notwithstanding this definition an asset is not regarded as a related party asset for the purpose of determining Deductions From Capital or the Asset Risk Capital Charge if:

(a) the related party is a bank subject to prudential regulation by the Bank or its international equivalents; or

(b) the asset is a reinsurance asset in which case the Reinsurance Recovery Risk Capital Charge applies; or

(c) the asset is a related party trade credit, that does not in substance represent permanent funding, that is provided on not more than 90 day terms in the ordinary course of business on an arm’s length commercial basis and where payment is not overdue.
Table 2 – Definition of Asset Classes and Asset Risk Capital Factors

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<thead>
<tr>
<th>Asset Class</th>
<th>Definition</th>
<th>Asset Risk Capital Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Cash and Sovereign Debt</td>
<td>Notes and coin Cash at bank on call Debt or other obligations issued by or guaranteed irrevocably by the New Zealand government or a government or supra-national agency with a Grade 1 counterparty rating</td>
<td>0.5%</td>
</tr>
<tr>
<td>2 AA rated fixed interest</td>
<td>Any debt obligation (excluding subordinated debt) with counterparty rating of Grade 1 or 2 Cash management trusts with counterparty rating Grade 1 or 2</td>
<td>2%</td>
</tr>
<tr>
<td>3 A rated fixed interest</td>
<td>Any debt obligation (excluding subordinated debt) with counterparty rating of Grade 3 Cash management trusts with counterparty rating of Grade 3</td>
<td>4%</td>
</tr>
<tr>
<td>4 Unpaid premiums &lt; 6 mths</td>
<td>Unpaid premiums that are not yet due or are less than six months past the contractual due date for payment to the licensed insurer (except as provided in Asset Class 14 below)</td>
<td>4%</td>
</tr>
<tr>
<td>5 BBB rated fixed interest</td>
<td>Any debt obligation (excluding subordinated debt) with counterparty rating of Grade 4 Cash management trusts with counterparty rating of Grade 4 Credit provided to a related party on not more than 90 day terms in the ordinary course of business on an arm’s length commercial basis and where payment is not overdue</td>
<td>6%</td>
</tr>
<tr>
<td>6 Unrated Local Authority Debt, and Third Party Claims Recoveries</td>
<td>Any debt obligation with a New Zealand Local Authority that is unrated Claim recoveries collectable from third parties (excluding reinsurance recoveries)</td>
<td>8%</td>
</tr>
<tr>
<td>7 Other fixed interest and short term unpaid premiums</td>
<td>Any debt obligation with counterparty rating of Grade 5 or unrated Cash management trusts with counterparty rating of Grade 5 or unrated Subordinated debt of a counterparty with rating of Grade 1 or 2 or 3 Unpaid premiums that are more than six months but less than twelve</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Percentage</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>8</td>
<td>Off Balance Sheet Exposures not covered elsewhere</td>
<td>20%</td>
</tr>
<tr>
<td>9</td>
<td>Listed equity &amp; trusts, and property, plant and equipment</td>
<td>25%</td>
</tr>
<tr>
<td>10</td>
<td>Unlisted equity, unlisted trusts</td>
<td>35%</td>
</tr>
<tr>
<td>11</td>
<td>Assets incurring a full Capital Charge</td>
<td>100%</td>
</tr>
<tr>
<td>12</td>
<td>Residential mortgage loans</td>
<td>2.75%</td>
</tr>
<tr>
<td>13</td>
<td>Other direct lending</td>
<td>10%</td>
</tr>
<tr>
<td>14</td>
<td>Secured unpaid premiums and loans</td>
<td>Nil</td>
</tr>
<tr>
<td>15</td>
<td>Any Other Assets (not described elsewhere)</td>
<td>40%</td>
</tr>
</tbody>
</table>
Calculation of CEP Capital Charge

86. The CEP Capital Charge is the sum of the absolute value of the assets multiplied by the relevant Asset Risk Capital Factor from Table 2, for each class of asset. The CEP Capital Charge should be calculated net of tax but with the amount of taxation, if any, clearly identified (refer to Section 4.3 of this solvency standard).

Foreign Currency Risk

87. In applying the solvency standard a licensed insurer must consider the degree of mismatching between assets and liabilities in terms of foreign currency risk. An additional Foreign Currency Capital Charge of 22% must be applied to the net open foreign exchange position in each currency other than NZD, regardless of whether the position is long or short. The net open foreign currency position is the absolute difference (ignoring any negative sign in the outcome) between any assets and liabilities, taking into account applicable derivative positions (refer to paragraphs 79 - 82) that are denominated in the relevant currency. The Foreign Currency Capital Charge should be calculated net of tax but with the amount of taxation, if any, clearly identified (refer to Section 4.3 of this solvency standard).

Interest Rate Risk - Nominal Interest Rate Instruments

88. In applying the solvency standard a licensed insurer must consider the degree of mismatching between assets and liabilities in terms of interest rate risk. The interest rate risk is calculated by reference to fixed interest-bearing assets and fixed interest-bearing liabilities. The impact of interest rate risk is determined as follows:

(a) Fixed interest bearing assets are those assets and derivative positions (refer to paragraphs 79 - 82) bearing a fixed interest rate for a period of time (re-set period) beyond the balance date at which the solvency calculation is performed; and

(b) Fixed interest-bearing liabilities are the Solvency Liability (refer to paragraph 60) and derivative positions (refer to paragraphs 79 - 82) and any other liabilities where the economic value depends upon discounting actual or expected cash flows; in other words those liabilities where the value depends implicitly or explicitly on interest rate assumptions.

89. The impact of interest rate risk is calculated by separately revaluing both the licensed insurer's fixed interest-bearing assets and fixed interest-bearing liabilities.

90. The net revaluation impact for any revaluation of assets and liabilities is the change in the value of assets less the change in the value of liabilities resulting from the revaluation.
91. The net revaluation impact, in respect of each Life Fund, should be calculated for both a 175 basis point increase ("upshock impact") and 175 basis point decrease ("downshock impact") in all interest rates, across all fixed interest-bearing assets and fixed interest-bearing liabilities, where the downshock impact is limited to the absolute size of the interest rates prior to the decrease. The upshock impact and downshock impact are both gross of tax, but refer to Section 4.3 of this solvency standard.

**Interest Rate Risk - Real Interest Rate Instruments**

92. For real interest rate instruments (i.e. indexed assets and liabilities), the net revaluation impact should be calculated for both a 60 basis point increase ("upshock impact") and 60 basis point decrease ("downshock impact") in all real interest rates, across all fixed interest-bearing assets and fixed interest-bearing liabilities. The upshock impact and downshock impact are both gross of tax, but refer to Section 4.3 of this solvency standard.

**Calculation of Resilience Risk Capital Charge**

93. A Resilience Risk Capital Charge (RRCC) must be calculated for each Life Fund. Within a given Life Fund, where hypothecation is employed the RRCC is calculated separately for each hypothecated portfolio and for the Residual, with the resulting amounts being added together to arrive at the RRCC for that Life Fund. Where hypothecation is not employed, the RRCC calculation applies across the entire Life Fund.

(a) The RRCC is calculated for both an upshock impact and a downshock impact (refer paragraph 91). For each of the upshock and downshock impacts, the RRCCs under that shock are summed across the Life Fund. The RRCC for that Life Fund will be the higher of these two sums.

(b) Within a Life Fund, either the upshock or the downshock will apply to all of the hypothecated portfolios and the Residual, whichever shock gives the more adverse result for that Life Fund. Within the licensed insurer, the upshock may apply to one or more Life Fund(s) and the downshock may apply to another Life Fund(s). Each Life Fund is required to be able to withstand whichever shock is more adverse, given the financial position of that Life Fund.

(c) The RRCC is calculated (at the appropriate level) as follows:

\[
RRCC = ARI + SLRI \quad \text{(with RRCC subject to a minimum of zero),}
\]

where

\[
ARI = \Delta AAIS + CEPC + FXCC
\]
\(\Delta\text{AAIS} = \) decrease (+ve) or increase (-ve) in value of fixed interest-bearing assets resulting from the applicable interest rate shock

CEPCC = Credit, Equity and Property Risk Capital Charge

FXCC = Foreign Currency Capital Charge

SLRI = Solvency Liability Resilience Impact (refer paragraph 71(c))

SLRI = RIRCC - IRCC. The SLRI is first calculated for each Related Product Group and Other Liabilities, and then summed to arrive at the SLRI for the hypothecated subgroup or Residual (or for the Life Fund as a whole, if hypothecation is not employed).

IRCC = Insurance Risk Capital Charge, determined in accordance with section 3.1.

RIRCC = Resilience Insurance Risk Capital Charge = IRCC re-calculated allowing for the impact of the scenarios of adverse experience implied by the CEPCC, FXCC and the applicable interest shock, with allowance for appropriate discretions as outlined in section 4.2.

94. The above calculation specifies asset/liability scenarios which must be tested to arrive at a capital charge for the most adverse scenario. Where the circumstances of the Life Fund are such that other scenarios are potentially more adverse then they must also be tested in order to arrive at the most adverse scenario.

**Asset Concentration Risk Charge**

95. In order to determine the Asset Concentration Risk Charge, the licensed insurer must first calculate the total value of the assets of the Life Fund that represent obligations of any single entity or group of related entities (counterparty), to the extent that the asset values have not been excluded from, or reduced in, the determination of Actual Solvency Capital in Section 2 of this solvency standard.

96. The Asset Concentration Risk Charge for each counterparty is a separate charge in addition to the CEP Capital Charge calculated in accordance with paragraphs 72 – 86, and applies only to the total asset exposure of the Life Fund to each counterparty that exceeds the limits specified in Table 3.

97. The Asset Concentration Risk Charge in respect of each counterparty is calculated as the product of the total assets of the Life Fund with that counterparty in excess of the limits specified in Table 3, and the applicable Asset Risk Capital Factor determined from Table 2, except for the obligation category “Any other asset or counterparty exposure” for which the multiplier
will be two times the applicable Asset Risk Capital Factor determined from Table 2.

98. The Asset Concentration Risk Charge is the total for a Life Fund across all relevant counterparties.

99. For licensed insurers with total assets less than NZ $10 million there is no Asset Concentration Risk Charge for obligations secured by bank bills or deposits with a registered New Zealand bank.

**Table 3 – Asset Concentration Risk Limits**

<table>
<thead>
<tr>
<th>Nature of Obligation</th>
<th>Limit (% of total assets of the Life Fund excluding any reinsurance recoverable assets)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guaranteed by the New Zealand government or by a national government or supra-national agency of rating grade 1</td>
<td>100%</td>
</tr>
<tr>
<td>Guaranteed by a New Zealand Local Authority or State-Owned Enterprise</td>
<td>50% (or $5m if greater) and an additional risk weight as per Table 2 for anything in excess</td>
</tr>
<tr>
<td>Secured by bank bills or deposits with any specific New Zealand Banking group</td>
<td>25% (or $5m if greater) and an additional risk weight as per Table 2 for anything in excess</td>
</tr>
<tr>
<td>Any other asset or counterparty exposure (except for reinsurance recoverable assets dealt with elsewhere)</td>
<td>10% (or $2m if greater) and an additional double risk weight for anything in excess</td>
</tr>
</tbody>
</table>

**Reinsurance Recovery Risk Capital Charge**

**Concept**

100. The Reinsurance Recovery Risk Capital Charge is intended to reflect the exposure of a licensed insurer to losses arising from failure to fully recover on reinsurance contracts (including catastrophe reinsurance contracts), including losses due to reinsurer failure and contract dispute.

**Calculation**

101. In order to determine the Reinsurance Recovery Risk Capital Charge a licensed insurer must make the following calculations separately for each of its reinsurance counterparties. 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. The reinsurer counterparty grade must be determined in accordance with Section 3.4 of this solvency standard.

102. For claims already incurred (including any reserves for outstanding claims, claims reported but not paid, claims incurred but not reported, and
reinsurance not yet received on claims already paid), the licensed insurer must determine the amount due in respect of reinsurance on these claims. This calculation must be performed using the Prescribed Solvency Assumptions set out in Appendix A, where applicable. This reinsurance recovery asset is then multiplied by the Reinsurance Risk Capital Factor determined from Table 4.

103. The licensed insurer must also consider for each of its reinsurers whether in its calculation of the Insurance Risk Capital Charge under paragraph 61 of this solvency standard, any reinsurance arrangement gives rise to an asset in respect of reinsurance cash flows relating to future experience. This may require calculations to be done on both a net and gross of reinsurance basis, unless it can be demonstrated that no asset could arise under any of the reinsurance arrangements in place. Any resulting asset must then be multiplied by the appropriate Reinsurance Risk Capital factor determined from Table 4.

104. In addition the licensed insurer must hold capital in respect of the recovery risk associated with reinsurance assets arising as a result of recoveries on catastrophe reinsurance. This amount is calculated by multiplying the amount of catastrophe reinsurance recoveries from each catastrophe reinsurer, as allowed for in the calculation of the Catastrophe Risk Capital Charge, by the appropriate Reinsurance Risk Capital Factor determined from Table 4.

105. The Reinsurance Recovery Risk Capital Charge is the sum of all the amounts, calculated as per paragraphs 101 - 104 above, in respect of each reinsurer.

3.4. Determining Counterparty Grades

106. Some of the capital charges in this solvency standard depend upon the counterparty grade of reinsurers and asset counterparties. The counterparty grade is determined based on financial strength ratings issued by recognised rating agencies. Because rating agencies do not always agree it is necessary to have a consistent method of determining which financial strength rating to use.

107. Each licensed insurer must adopt a policy that states the rating agency that it will use as a first preference and other agencies (in order of preference) that it will use if the preferred agency does not publish ratings for a particular counterparty. A licensed insurer must notify the Bank as soon as practicable if it changes its counterparty grading policy and explain the nature of and reasons for the change.

108. The counterparty grades are determined from Table 4.
Table 4 – Counterparty Grades

<table>
<thead>
<tr>
<th>S&amp;P/Fitch</th>
<th>AM Best</th>
<th>Moody’s</th>
<th>Counterparty Grade</th>
<th>Reinsurance Risk Capital Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>A++</td>
<td>Aaa</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>AA- to AA+</td>
<td>A+</td>
<td>Aa3 to Aa1</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>A- to A+</td>
<td>A- A</td>
<td>A3 to A1</td>
<td>3</td>
<td>4%</td>
</tr>
<tr>
<td>BBB- to BBB+</td>
<td>B+ B++</td>
<td>Baa3 to Baa1</td>
<td>4</td>
<td>10%, up to a 20% proportion of the total reinsurance recovery asset, and 20% above that limit</td>
</tr>
<tr>
<td>Below or unrated</td>
<td>Below or unrated</td>
<td>Below unrated or</td>
<td>5</td>
<td>20%, up to a 10% proportion of the total reinsurance recovery asset, and 40% above that limit</td>
</tr>
</tbody>
</table>
4. **Special Circumstances, Discretions and Taxation**

4.1. Special Circumstances

109. If the **Bank** is not satisfied that the calculation methods and/or capital charges specified in this **solvency standard** are appropriate for the risk profile of, or other matters relating to, the **licensed insurer** the **Bank** may impose a condition of licence (as per section 22(1) of the Act) to vary the solvency margin for the **licensed insurer**, or it may issue a new **solvency standard** (as per section 55(2)(c) of the Act) to apply to the **licensed insurer**. Any such variation or specific **solvency standard** may incorporate amended capital charges, alternative calculation methods, alternative parameters or assumptions, or any other requirements considered appropriate by the **Bank**.

110. Once notified in writing by the **Bank** of such amended requirements, the **licensed insurer** and its **appointed actuary** must apply these amended requirements in accordance with the requirements of the **Bank**.

4.2. Discretions

111. Discretions may be applied, as set out below, by a **licensed insurer** in the process of calculating the:

   (a) Insurance Risk Capital Charge (refer Section 3.1); and

   (b) Resilience Risk Capital Charge (refer paragraphs 69 - 71 and paragraphs 93 - 94).

112. In both calculations the valuation is being performed under an assumed scenario of adverse experience: in the former case under the Prescribed Solvency Assumptions and in the latter case under the adverse impact implied by the application of the prescribed Asset Shocks, Interest Rate Shocks and Foreign Exchange Shocks. The discretions assumed to be applied should be consistent with these scenarios of adverse experience.

113. The discretions assumed to be applied must be applied consistently within each calculation of a **licensed insurer's** Minimum Solvency Capital.

114. The following sections provide further guidance on the application of discretions. Application will always be a matter of professional judgement and that judgement should be made in accordance with the principles underlying the calculations within this **solvency standard**.

**Termination Value**

115. When applying termination value discretions the **appointed actuary** should consider the impact of these discretions on future discontinuance rates, the impact on the Insurance Risk Capital Charge and, if any, the impact on the Resilience Risk Capital Charge.
116. It is not appropriate to assume application of discretions in the calculation of Current Termination Values used in calculating the Insurance Risk Capital Charge.

Reduction in Discretionary Benefits

117. This discretion applies where a licensed insurer is able to reduce or discontinue discretionary benefits. In determining the Minimum Solvency Capital, where it is likely that discretionary benefits would be reduced under the above scenarios of adverse experience, then it is appropriate to allow for that reduction. When applying such discretions the appointed actuary should also consider the impact of these discretions on future discontinuance rates and the impact on the Insurance Risk Capital Charge and Resilience Risk Capital Charge. The unvested policyholder benefits liability forms part of Other Liabilities under this solvency standard. In carrying out the calculations in this solvency standard, the licensed insurer may reduce the value of this liability, to the extent that is justified under the relevant scenario of adverse experience.

118. The amount and timing of the reduction in discretionary benefits assumed in the calculation of Minimum Solvency Capital should be consistent with a licensed insurer's ability to reduce discretionary benefits in practice.

119. Approximate methods, consistently applied, may be used to determine levels of future discretionary benefits under the above scenarios of adverse experience assumed.

Increases to Expense Charges - Inflation Linked

120. Where a licensed insurer has discretion to increase policy expense charges in line with the changes in an inflation index and where the licensed insurer has consistently utilised such discretions in the previous five years, it is appropriate to allow for inflation-linked increases to charges. The amount and timing of the indexation of charges assumed in the projection must be consistent with a licensed insurer's normal practice. The underlying inflation rate should be the same as the rate calculated under the Prescribed Solvency Assumptions.

121. Where there is insufficient past experience to prove consistent utilisation of such discretions in the previous five years, the amount and timing of the indexation of charges assumed in the projection must be realistic in the circumstances.

Quantum (one-off) Increase to Expense Charges

122. Where a licensed insurer has discretion to increase policy expense charges, other than as covered by paragraphs 120 - 121 above, and it is likely that the discretion would be exercised under the scenarios of adverse experience used for assessing Minimum Solvency Capital, then it is appropriate to allow for the exercise of the discretion.
Premium Rate Increase

123. Premium rates may be increased to reflect changes in loss experience where:

(a) it is likely that the discretion would be exercised under the above scenarios of adverse experience: and

(b) the timing and extent of the discretion applied is consistent with normal practice or, in the absence of sufficient past experience to prove "normal practice" is realistic in the circumstances.

124. In determining the Insurance Risk Capital Charge and the Resilience Risk Capital Charge, the appointed actuary should consider all appropriate factors including the unexpired risks, any guaranteed renewal options, the effect of anti-selection exercised by discontinuing policy owners, the delays in claims reporting and the time lags involved in assessing experience and making the subsequent changes to premium rates.

Claw-back of Acquisition Commission

125. Where acquisition commission paid may be recovered and it is likely that this discretion would be exercised under the above scenarios of adverse experience, it is appropriate to allow for the exercise of this discretion. The timing and extent of the discretion applied should be consistent with established practice of the licensed insurer and a realistic assessment of what is achievable given potential delays in recoverability and the possible risk of adviser/broker default.

4.3. Taxation

126. In considering the appropriate adjustment(s) for taxation the appointed actuary must consider the taxation status of the licensed insurer, in respect of New Zealand taxation laws, and other entities within the licensed insurer’s taxation group (if any), against applicable taxation laws, and whether any requirements or aspects of the taxation laws need to be taken into account.

127. Taxation should be applied to the calculation of the Solvency Margin in the following manner:

(a) Where, for NZ GAAP reporting purposes, the Policy Liability is calculated on a net of tax basis the Best Estimate Liability, Policy Liability and Solvency Liability should be calculated net of tax for the purposes of this solvency standard.

(b) Where, for NZ GAAP reporting purposes, the Policy Liability is calculated on a gross of tax basis the Best Estimate Liability, Policy Liability and Solvency Liability should be calculated gross of tax with an appropriate amount of deferred tax liability being explicitly calculated and added for the purposes of this solvency standard.
(c) The Insurance Risk Capital Charge, the Catastrophe Risk Capital Charge, the Resilience Risk Capital Charge, the Asset Concentration Risk Capital Charge and Reinsurance Recovery Risk Capital Charge should be calculated with allowance for tax. The gross amount of these capital charges and the taxation on these capital charges, if any, must be clearly identified. The taxation calculations to be performed are specific to the application of this solvency standard, should tax-effect the capital charge calculations made, and the results may differ from taxation calculations prepared for other purposes.

(d) Additional current or deferred taxation liabilities or assets that arise as a result of the capital charge calculations in (c) above must be clearly identified and arrived at using a prudent assessment of the taxation rate and any other relevant taxation assumptions. For any current or deferred taxation assets to be included within the taxation effect of the capital charge calculations in (a) and (b) above, the potential recovery of such taxation assets must be beyond doubt were the licensed insurer to be wound-up.

(e) Using the results of the calculations in (c) – (d) above and any other necessary information, the licensed insurer must calculate its net taxation position were the licensed insurer to be wound-up ("net taxation position upon wind-up") by adjusting, as appropriate, the net taxation position reported in the licensed insurer’s financial statements for the taxation effect of all capital charges listed in (c) above. In arriving at the net taxation position upon wind-up, taxation liability and taxation asset balances may be netted off where this treatment is legally certain.

(f) If the net taxation position upon wind-up is an asset arising from a deferred taxation asset(s) of the licensed insurer, then the net taxation position upon wind-up must be treated as a Deduction From Capital (refer to paragraph 45(b)).
5. **Obligations of a Licensed insurer**

5.1. **Appointment of an Actuary**

128. Each **licensed insurer** must appoint an **actuary**, as required by Section 76 of the Act.

129. The suitability of an **actuary** for the role is the responsibility of the **licensed insurer** and must be dealt with in its **fit and proper policy**.

130. The **appointed actuary** must be a Fellow of the New Zealand Society of Actuaries, or hold an equivalent professional qualification approved by notice to the **licensed insurer** from the **Bank**.

5.2. **Licensed Insurer must provide Solvency Returns to the Bank**

131. Section 56(d) of the Act allows the **Bank** to issue **solvency standard(s)** that include requirements for reports relating to the solvency of a **licensed insurer** and the frequency with which such reports must be provided to the **Bank**.

5.3. **Frequency of Solvency Returns to the Bank**

132. The **licensed insurer** must provide an annual solvency return to the **Bank** within five months and twenty days after the end of the **licensed insurer’s** financial year. The annual solvency return must be in the form specified by the **Bank** and be accompanied by:

   (a) an attestation by two directors of the **licensed insurer** (or in the case of an **overseas insurer**, its New Zealand Chief Executive Officer) in the form specified by the **Bank**; and

   (b) a copy of the audited **financial statements** of the **licensed insurer**; and

   (c) a report by the auditor of the **licensed insurer** on the audit of the solvency return;

   (d) a financial condition report prepared by the **appointed actuary** of the **licensed insurer**: and

   (e) a report from the **appointed actuary** that meets the requirements of section 78 of the Act.

133. The **licensed insurer** must provide a half-yearly solvency return to the **Bank** within five months of the date six months after the end of the **licensed insurer’s** financial year. The half-yearly solvency return must be in the form specified by the Bank and must be accompanied by an attestation by two directors of the **licensed insurer** (or in the case of an **overseas insurer**, its New Zealand Chief Executive Officer) in the form specified by the Bank.
134. The Bank may (as per section 121(1) of the Act), at its discretion, require the licensed insurer to provide the Bank with solvency returns on a more frequent basis, and in such format and subject to such verification or attestation as it may require.

5.4. Audit of Annual Solvency Return

135. A licensed insurer must engage its auditor to undertake an audit of the annual solvency return and must do everything necessary to allow the auditor to undertake this function.

136. The auditor's report on the solvency return must address the matters prescribed in this solvency standard and must be signed by the auditor.

5.5. Report by the appointed actuary

137. A licensed insurer must engage its appointed actuary to prepare a Financial Condition Report for the licensed insurer and must do everything necessary to enable the appointed actuary to undertake this function.

5.6. Disclosure of Solvency Calculations

138. A licensed insurer must disclose in its annual financial statements (required under the Financial Reporting Act 1993) and on its website (if any) the licensed insurer's current Solvency Margin for each Life Fund, from its most recent annual solvency return. In addition an aggregate Solvency Margin must be disclosed for all Life Funds of the licensed insurer. Website disclosure must reflect the solvency position in the latest financial statements provided to the Bank in accordance with Section 81 of the Act.

139. Following submission of its half-yearly solvency return to the Bank, a licensed insurer must update the disclosure on its website (if any) to reflect the solvency position reported in that half-yearly return.

5.7. Advice to the Bank on likely breach

140. Section 24 of the Act requires that, if a licensed insurer has reasonable grounds to believe that a failure to maintain a Solvency Margin is likely to occur at any time within the next three years, the licensed insurer must report the likely failure to the Bank as soon as is reasonably practicable.

141. In order to comply with Section 24 of the Act a licensed insurer will need to consider a forward looking assessment of its compliance with the solvency standard in addition to the calculations at the most recent balance date.

142. The forward looking assessment must extend at least three years from the current date and must take into account known aspects of the licensed insurer's business plan.
143. Because Section 24 of the Act applies continuously, not just once a year, a licensed insurer will need to be satisfied that it has adequate procedures in place to identify and escalate circumstances that may give rise to a reporting obligation under Section 24. Those procedures must include timely advice to the licensed insurer's appointed actuary.
6. **Obligations of the appointed actuary**

6.1. **Financial Statements**

144. Section 77 of the Act requires a review by a licensed insurer’s appointed actuary of actuarial information in the financial statements. Section 77(4)(c) allows the Bank to specify, within a solvency standard, information which is actuarial information for the purpose of the solvency standard. The specified information for the purpose of this solvency standard is:

(a) the Policy Liability;
(b) the reinsurance and any other recovery asset(s) relevant to the Policy Liability, or relevant to outstanding claims reserves or incurred but not reported claims reserves held outside of the Policy Liability;
(c) any deferred or other tax asset relevant to the Policy Liability;
(d) any deferred acquisition cost or deferred fee revenue relevant to the Policy Liability;
(e) the unvested policyholder benefits liability; and
(f) any other information deemed by the appointed actuary to warrant actuarial review for the purpose of profit or solvency reporting.

145. If it is a licensed insurer’s established policy to seek the advice of the appointed actuary in respect of part or all of this information and to always adopt that advice in its financial statements, then the advice from the appointed actuary to the licensed insurer satisfies the review requirements of this solvency standard.

146. In other circumstances the appointed actuary must undertake whatever additional work is necessary in order to complete the review for the purposes of this solvency standard.

147. The review of the appointed actuary must be carried out in accordance with the New Zealand Society of Actuaries’ Professional Standards.

148. The results of the appointed actuary’s review must be documented in a report that meets the requirements of Section 78 of the Act.

6.2. **Solvency Calculations**

149. The appointed actuary must perform or review a licensed insurer’s calculations of Actual Solvency Capital and Minimum Solvency Capital in accordance with this solvency standard. The results of the review must be documented in the Financial Condition Report.

150. The appointed actuary’s review must include specific comment on the basis for determining the Catastrophe Risk Capital Charge, taxation and any
other Material issues arising from Sections 2, 3 and 4 of this solvency standard.

6.3. Financial Condition Report

151. Section 56(d) of the Act allows the Bank to include, within a solvency standard, the requirement for a report on the financial condition of a licensed insurer. The appointed actuary must prepare a Financial Condition Report in accordance with Section 56(d) of the Act which must, inter alia:

(a) identify and describe the Material risks (of which it is reasonable to expect the appointed actuary to be aware) facing a licensed insurer that, in the appointed actuary's opinion, pose a threat to the licensed insurer's ability to meet the solvency standard now and in the future, and where practicable quantify such risks;

(b) comment on the steps taken or proposed to be taken by the licensed insurer to address the risks identified in (a);

(c) where the licensed insurer has issued any instruments that form part of Actual Solvency Capital but that may not be both of a permanent nature and freely available to meet losses, comment on the implications for current and future compliance with the solvency standard;

(d) advise the licensed insurer on the appropriate treatment, for solvency purposes, of any insurance business with risk characteristics not adequately covered by this solvency standard;

(e) advise the licensed insurer, if relevant, on the treatment of derivatives and the approximate impact on the Asset Risk Capital Charge over the course of the year and at the date of calculation of the Solvency Margin;

(f) comment on the adequacy of the Resilience Risk Capital Charge including the risks involved with mismatching of assets and liabilities;

(g) detail all assumptions used in the calculation of the Solvency Margin, separately distinguishing assumptions made on the following bases:

   i. best estimate;

   ii. solvency assumptions made to arrive at the Insurance Risk Capital Charge, both prescribed and any other assumptions made including discretions;

   iii. all assumptions made to arrive at the Resilience Risk Capital Charge, including discretions assumed; and
(h) describe how all the principles supporting the Resilience Risk Capital Charge have been met (refer paragraph 71);

(i) identify those assumptions to which the licensed insurer’s Solvency Margin is most sensitive (“key sensitivities”) and quantify those key sensitivities;

(j) describe the insurance contracts which are deemed to be health insurance, and details of assets that are set aside or attributed to such contracts and any movements in those assets to or from the assets attributed to contracts of insurance that are not health insurance contracts. If there is no direct attribution of specific assets to such contracts then full details of how assets are apportioned to such insurance contracts must be given; and

(k) advise the licensed insurer on whether, in the appointed actuary’s opinion, the licensed insurer needs to consider reporting to the Bank under Section 24 of the Act, taking account of the licensed insurer’s forward looking assessment of the solvency standard and the appointed actuary’s assessment of the licensed insurer’s business plans, its enterprise risk management practices and the external environment.

152. The appointed actuary may need to deal with issues that are not within the relevant skills and experience of the appointed actuary. In this situation the appointed actuary will need to utilise the skills and experience of others and may rely on other relevant experts provided adequate disclosure is included on the nature of that reliance.

6.4. New Zealand Society of Actuaries’ Professional Standards

153. The appointed actuary must ensure that all actuarial work carried out for the purposes of, or supporting, this solvency standard is carried out in accordance with the New Zealand Society of Actuaries’ Professional Standards.

Standard Ends
Prescribed Solvency Assumptions

Discount Rates

1. For life insurance policies, the Solvency Assumption(s) for gross investment yield and liability discount rate will be risk free rate(s), based on current observable, objective rates that relate to the nature, structure and term of the future obligations. Typically, government bond or swap rates may be appropriate rates for this purpose, or they may be an appropriate starting point in determining appropriate discount rates.

Servicing Costs

2. The Solvency Assumption for Maintenance Costs must include a margin of 7.5% above the greater of the unit costs required to cover:

   (a) actual Maintenance Costs in the twelve months prior to the date at which the Solvency Margin is calculated; and

   (b) expected Maintenance Costs in the twelve months subsequent to the date at which the Solvency Margin is calculated.

3. The Solvency Assumption for Investment Management Costs 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 1 above. The Solvency Assumption must also include a margin of 7.5% above this base requirement. However, if the licensed insurer has contractually agreed to pay a higher Investment Management Cost regardless of the asset profile adopted, then this higher expense must be assumed.

4. When determining Servicing Costs for each policy, the appointed actuary must be satisfied that direct and indirect expenses have been allocated to individual policies in an appropriate manner.

5. The Servicing Cost assumptions may be adjusted to allow for one-off expenses (both actual and expected), for example, expenses arising from major redundancy programmes and/or merger implementations. These assumptions should exclude costs that would not be incurred if the licensed insurer ceased to write new business, provided this adjustment does not reduce the cost below best estimate. This provision must not be used to sanction the exclusion of operational expenses relating to the servicing of policies.

6. The solvency assumption for Servicing Costs should not be applied to any component of those expenses which is contractually agreed for the life of the policy, for example, renewal commission.
Inflation Rate

7. The Solvency Assumption for inflation in respect of Maintenance Costs and all other cash flows that are subject to inflation must be determined using the Best Estimate Assumption methodology, but based on the Solvency Assumption for gross investment yield. The Solvency Assumption for inflation is subject to a minimum of 0%.

Taxation

8. For the taxation treatment of the Insurance Risk Capital Charge in respect of these Prescribed Solvency Assumptions, refer to Section 4.3.

Insurance Claims

9. The Solvency Assumptions for probabilities of death, disablement and other contingent events on which the payments of insurance claims are to be based are shown in the following table:

<table>
<thead>
<tr>
<th>Insured Lives: (Individual and Group)</th>
<th>110% of Best Estimate Assumptions for mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annuities:</td>
<td></td>
</tr>
<tr>
<td>Base Improvements</td>
<td>90% of Best Estimate Assumptions for mortality</td>
</tr>
<tr>
<td></td>
<td>2% per annum in addition to the Best Estimate Assumptions</td>
</tr>
<tr>
<td>Total Permanent Disability: (Individual and Group)</td>
<td>120% of Best Estimate Assumptions for morbidity</td>
</tr>
<tr>
<td>Disability Income: (Individual and Group)</td>
<td>150% of Best Estimate Assumptions for claims costs</td>
</tr>
<tr>
<td>Active Lives Claims in Payment (Projection Method)</td>
<td>Reduction of 25% in Best Estimate Assumptions for termination rates</td>
</tr>
<tr>
<td>Claims in Payment (Case Estimate)</td>
<td>125% of Best Estimate Assumptions for case estimate, adjusted to allow for the prescribed investment earnings assumption. Limited to the case estimate calculated using the maximum benefit period of the individual policy.</td>
</tr>
<tr>
<td>Trauma: (Individual and Group)</td>
<td>130% of Best Estimate Assumptions for morbidity</td>
</tr>
<tr>
<td>Other Insured Events: (Individual and Group)</td>
<td>130% of Best Estimate Assumptions for claims costs</td>
</tr>
</tbody>
</table>

10. Appropriate assumptions must be applied (on bases consistent with the above) for claims which have been incurred but not reported (“IBNR”) and claims which have been reported but not admitted (“RBNA”).

11. The appointed actuary must make appropriate specific allowance for Material specialised risks. A specialised risk is a risk that cannot be suitably allowed for
through the use of a margin applied to the underlying Best Estimate Assumption. These specialised risks may be allowed for through the determination of specific additional reserves.

**Voluntary Discontinuances**

12. The Solvency Assumption for the rate of voluntary discontinuances (including partial surrender) must reflect an adverse change in experience of 40% of the Best Estimate Assumption.

13. The Solvency Assumption for rates of premium dormancy and conversion of policies to paid-up status must reflect an adverse change in experience of 40% of the Best Estimate Assumption.

14. An adverse change in experience may be an increase or a reduction in the rate of discontinuances. The adverse change must be that which increases the Insurance Risk Capital Charge at the Related Product Group level utilised for Best Estimate Assumptions.

**Options Provided to Policyholders**

15. The Solvency Assumption in relation to experience after the exercise of an option must allow for appropriate risk margins applied to Best Estimate Assumptions.

16. The Solvency Assumption for the take up rate of the option must reflect an adverse change of 10% of the Best Estimate Assumption.

**Investment-Linked Policies**

17. A Solvency Assumption must be included to reflect the additional risks that may be borne by the entity in conducting investment-linked business.

18. The prescribed margin is 0.25%, which must be applied to the Solvency Liability as determined immediately prior to the inclusion of this margin.

19. The prescribed margin of 0.25% must also be applied to the Current Termination Value as determined immediately prior to the inclusion of this margin.
Appendix B

MATERIALITY

1. All calculations required in relation to this Solvency Standard are subject to the following materiality requirements.

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

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

4. The base amount for materiality purposes is the Solvency Margin.

5. The Appointed Actuary must consider materiality relative to the amount of both:
   (a) the major individual components of the calculation; and
   (b) the overall cumulative effect of those individual components.

6. Values or components generating variations in amounts of 10% or more of the Solvency Margin must be presumed material, while those generating variations in amounts of 5% or less of the Solvency Margin may be presumed immaterial. The materiality of values or components generating variations between 5% and 10% will be a matter for professional judgement.

7. In applying the materiality standards described in paragraphs 4 - 6 above:
   (a) it is appropriate to use as the base amount for materiality purposes a rolling average of the Solvency Margin provided that the average so derived is a function of not less than three and not more than five years experience and reflects the current and anticipated future experience; and
   (b) it is appropriate, as the Solvency Margin approaches zero, for alternative key indicators to be used in establishing materiality.

8. Materiality applies to all aspects of the determination and covers the acceptability of grouped data, modelled projections and approximate valuation methods.
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