Draft guide to the Interim Solvency Standard 2023.

5 December 2024

Reserve Bank of New Zealand
Te Pūtea Matua

This Guide is for licensed insurers subject to the Interim Solvency Standard 2023 and their appointed actuaries. It explains our expectations as a regulator and provides background information on the Standard. The Guide is not legal advice, and we encourage licensed insurers to seek their own professional advice.

Use and Status of the Guide

The purpose of this Guide is to assist *licensed insurers* and *appointed actuaries* to interpret and comply with the Interim Solvency Standard 2023 (the Standard). This recognises the Standard is a technical instrument that incorporates accounting, actuarial and insurance concepts that are not always straightforward to interpret and there may be no case law or other external reference points to assist. Guidance will assist individual insurers with their own compliance and a more consistent approach across the industry.

The Guide assists by:

- Outlining the *Reserve Bank*'s motivations and intentions of the Standard. Technical content can often be better understood with awareness of the policy intent at the time it was drafted.
- Outlining the *Reserve Bank*'s preferred interpretation in relation to some clauses, where the RBNZ has been made aware of differing interpretations by insurers.
- Where the Standard relies on judgement by *licensed insurers* or their *appointed actuaries*, outlining the *Reserve Bank*'s views on how that judgement can be prudently exercised.

The Guide incorporates text that was previously included as demarcated guidance in the Standard. Under changes introduced by the Interim Solvency Standard Amendment Standard 2024, there is no longer any guidance in the Standard itself. It will be easier and more efficient to update any guidance if it is moved out of the Standard itself and into a separate document.

To assist in using the Guide:

- Terms that are defined in the Standard, in *IPSA* or in *NZ IFRS* are italicised in this Guide and have the same meaning.
- Sections of this Guide have the same headings as sections of the Standard. Paragraph and clause numbers are those from the Standard. The term 'paragraph' is used when referring to text from the main body of the Standard, while 'clause' is used when referring to text from an appendix to the Standard.
- In event of any conflict between the text of the Standard and this Guide, the Standard prevails. The Standard is the formal legislative instrument made under the *IPSA*, while the Guide does not have formal status. The Guide represents the *Reserve Bank*'s view and is therefore an authoritative indicator of that view. However, ultimately, the correct interpretation of the Standard is by a Court.
- The *Reserve Bank* will keep under constant review and update the Guide. The *Reserve Bank* may change its guidance or its interpretation of the Standard if it considers this appropriate. The *Reserve Bank* does not do this lightly and will endeavour to notify *licensed insurers* and *appointed actuaries* in advance if it is considering amending the content of the Guide.
- This Guide is not legal advice. We encourage *licensed insurers* seek their own professional advice, as it is their responsibility to determine their obligations and ensure that they comply with the requirements of the Standard.

- Some items and treatments may differ between the Standard and other reporting requirements on *licensed insurers* set by the Reserve Bank.
- The guide relates to the version of the Standard as at 1 March 2025, incorporating both amendments.
- Feedback on the Guide is welcomed by the *Reserve Bank* at any time.

Thematic Guidance

Valuation

Modified Premium Allocation Approach

The modified premium allocation approach of paragraphs 27, 29 & 30 can only be used to value *short-term insurance contracts*. The aims of the approach are to:

- Be relatively simple to apply, where a PAA approach has been adopted under *NZ IFRS 17*;
- Broadly align with the result that the modified general measurement model of paragraphs 27, 28 & 30 would produce; and
- Approximate the economic value of the contract.

These aims are aligned with ICP 14.2 (consistency of valuation bases) and ICP 14.4 (economic valuation).

Under this approach, an *insurance contract* will contribute three amounts to *solvency capital*:

- An insurance liability, gross of tax;
- A premium receivable; and
- Tax item(s).

Taxation

The Standard uses a number of different views of a licensed insurer's balance sheet.

The tax view

The Income Tax Act 2007 defines what constitutes taxable income and deductible expense, and how insurance liabilities are to be measured for tax purposes.

The GAAP or IFRS view

In this view the balance sheet is prepared according to applicable accounting standards. Tax items arise in this view as follows (according to NZ IAS 12 – Income Taxes):

- **Current tax**, which is the amount of income taxes payable (recoverable) in respect of the taxable profit (tax loss) for a period.
- **Deferred tax liabilities**, which are the amounts of income taxes payable in future periods in respect of taxable temporary differences[1].
- **Deferred tax assets**, which are the amounts of income taxes recoverable in future periods in respect of:
    - deductible temporary differences; and

1 **Temporary differences** arise when the carrying value of an asset or liability is different to its valuation for tax purposes ('tax base')

- the carrying forward of unused tax losses or credits.

Under NZ IFRS 17, insurance contract liabilities are determined gross of tax. Future cash-flows embedded in these liabilities are likely to generate tax effects - tax payments, deductions or changes in the current tax liability.

These tax effects should generate deferred tax items on the IFRS balance sheet – either a liability or an asset, depending on whether the insurer expects profits or losses in the future on the tax basis. Under the ISS, these deferred tax items are classified as *insurance items*, because they relate to future policy cash-flows.

We do not expect there to be any *insurance items* classified as current tax, as current tax relates to historic and current year cashflows. There will likely be deferred tax items that are not insurance items, for example unrealised gains on investments.

The standardised view

In the standardisation process, NZ IFRS insurance items are replaced with their 'standardised' equivalent, to support the economic valuation of solvency capital. Some non-insurance items are also corrected to economic value.

The standardisation process may change the future cashflows embedded in insurance contract liabilities. This in turn may drive changes in expected profits and losses on the tax basis, and in the related deferred tax items established on the standardised balance sheet.

Similar changes in non-insurance deferred tax items are also possible where standardised values differ from GAAP/IFRS values.

The stressed view

The stressed balance sheet is that which results from applying the implied or explicit shocks that contribute to the prescribed capital requirement.

These shocks will also have an impact on future cashflows embedded in insurance items, and potentially on some non-insurance items as well. As a result, deferred tax items may further change in value.

It may be the case that these value changes are equal to or can be approximated by multiplying the capital charge by the insurer's tax rate.

The wind-up view

The standard's final step in respect of taxation is to consider whether any resulting deferred tax asset can survive wind-up. The asset can be offset against deferred tax liabilities to the extent that such an offset is legal.

Where the (net) deferred tax asset cannot survive wind-up, its value is added to the distressed wind-up capital charge.

Tax view	*Adjustment Process*	GAAP/IFRS view	*Adjustment Process*	Standardised view	*Adjustment Process*	Stressed view[2]	*Adjustment Process*	Wind-up view
Insurance items on tax basis	*Redetermine on IFRS 17 bases*	(Gross of tax) insurance items **(1)**	*Standardise to economic value, net of tax*	(Net of tax) standardised insurance items	*Determine capital charges, net of tax*	(Net of tax) stressed insurance items		(Net of tax) stressed insurance items
		Other items not held at economic value **(2)**	*Standardise to economic value*	Standardised other items	*Determine capital charges **(4)***	Stressed other items		Stressed other items
		Other items held at economic value **(3)**		Other items held at economic value	*Determine capital charges **(5)***	Stressed other items		Stressed other items
Current tax liability		Current tax liability		Current tax liability		Current tax liability		Current tax liability
		Deferred tax items related to (1)	*Recalculate following standardisation of (1) and include in (1)*					
		Deferred tax items related to (2)	*Recalculate following standardisation*	Standardised deferred tax items related to (2)	*Recalculate to allow for tax on capital charges in (4)*	Stressed deferred tax items related to (2)		Stressed deferred tax items related to (2)
		Deferred tax items related to (3)		Deferred tax items related to (3)	*Recalculate to allow for tax on capital charges in (5)*	Stressed deferred tax items related to (3)		Stressed deferred tax items related to (3)
							Determine net deferred tax asset on wind-up and, test	Additional distressed wind-up charge

2 Standardised values plus capital charges

Line By Line Guidance

Paragraph numbers below align with those in the Interim Solvency Standard 2023.

Introduction

Initial Provisions

Title, Effect and Commencement

1. The Standard is qualified as 'Interim' because the *Reserve Bank* plans to conduct a second stage of the Solvency Standards Review that will result in a 'Final' standard. In this second stage we will take a deeper look at methods and parameters used to determine components of the *solvency margin*, as well as re-visit diversification and the *minimum capital requirement*.

2. Section 55 of *IPSA* gives the *Reserve Bank* the power to "issue solvency standards for the purposes of this Act". Solvency standards can apply to all *licensed insurers*, a class of *licensed insurers* or an individual *licensed insurer*.

   Subsection 55(4) of *IPSA* requires the *Reserve Bank* to, before issuing a solvency standard, have regard to relevant overseas standards for the purpose of ensuring that the proposed standard does not result in unfair treatment of insurers as a function of their jurisdiction of domicile.

3. The Standard came into force on 1 January 2023 and has been applied to individual *licensed insurers* by condition of licence. From the date of application, *licensed insurers* are required to maintain the *solvency margin* specified in the condition (or any applicable direction subsequently issued) and determined according to the Standard.

   The implementation of Appendix 4 was delayed until 1 January 2024 for non-life insurance, as this is a new requirement for that type of insurance and insurers may need time to revise existing treaties.

   The Interim Solvency Standard Amendment Standard 2023 came into effect on 1 August 2023. This amendment standard addressed some minor or technical issues identified in the Standard and has been in force since 1 August 2023.

   The Interim Solvency Standard Amendment Standard 2024 will address more significant errors identified in the standard and be effective from 1 June 2024.

   Insurers have a responsibility to continuously maintain solvency margins in accordance with whatever conditions of licence and whichever solvency standards are currently applicable.

Application

4. Section 59 of *IPSA* allows the *Reserve Bank* to exempt an *overseas insurer* from compliance with a solvency standard if solvency arrangements in the home jurisdiction cover the New Zealand business and are "at least as satisfactory" as those for insurers incorporated in New Zealand.

5. Sections 21(2)(b) and 21(2)(c) of IPSA allow licence conditions that require maintenance of solvency margins in respect of licensed insurers and life insurance statutory funds

respectively. These *solvency entities* have a strong legal perimeter around their assets and liabilities.

6. The Standard is applied on both solo and consolidated bases (where applicable) because a prudentially regulated subsidiary may be managed as either an equity investment or as an integral part of the parent, and because the approach to the subsidiary's management may change. Non-insurance subsidiaries are assumed to be managed separately as the risks involved are different; these are always treated as an equity investment.

Purpose

7. The 1-in-200 failure criterion is standard internationally, with Solvency II Pillar I, Australia's LAGIC and the International Association of Insurance Supervisors' Insurance Capital Standard all being calibrated to it. Setting the same criterion helps us to comply with Section 55(4), mentioned in paragraph 2. This level is thought to provide a good cost / benefit trade-off between the cost of the capital insurers must maintain and the benefit of protecting policyholders in a wide range of adverse circumstances. Note that this criterion is somewhat different to that used in assessing bank capital (a 1-in-200 chance of financial system failure).

   A stronger criterion (1-in-1000) applies to seismic risk, because failure of the insurance industry following a major New Zealand earthquake could cause serious damage to New Zealand's financial system and economy.

8. The Standard forms part of a suite of tools the *Reserve Bank* uses to promote the purposes of *IPSA*, working together with other tools. It is important to note the limitations of what a solvency standard can do, as well as what it is able to achieve.

9. Insurance acts as a catalyst for economic activity by modifying the risk/return trade-off of business projects. Required returns can be lower for insured projects because of the diminished risks attaching to projected cash-flows. Insurance also increases wellbeing by absorbing risks that might be financially ruinous to individuals.

10. The *Reserve Bank* does not operate a zero-failure regime, nor does it seek to offer absolute protection to policyholders. Instead, we allow failure within the 1-in-200 risk criterion and we expect policyholders to accept responsibility for their own decisions.

General Provisions

11. [No comment - deleted]

12. The phrase 'on the basis of' implies that financial statements are the starting point for solvency calculations. It in no way restricts the Standard from taking information contained in the financial statements and adjusting it for the purposes of the Standard.

    NZ GAAP is defined to incorporate *NZ IFRS*, so essentially, we are preferring *NZ IFRS* accounts as the basis for solvency determination.

13. Under the *Act*, the *licensed insurer* is responsible for compliance with all *conditions of licence*, including a condition to maintain a *solvency margin*, and is responsible for compliance with the reporting and disclosure requirements of any applicable solvency standard (see, for example, sections 23 and 24 of the *Act*).

14. Compliance with this standard in respect of a *statutory fund* does not infer compliance with the requirements of subpart 3 of Part 2 of the *Act* with respect to the value of assets to be held in the fund. Under these requirements, certain income items are required to be credited to a fund while only certain types of outgo are permitted. Taken in concert, these result in an implied minimum accumulated asset requirement which will be different from the assets covering the fund's liabilities, its *prescribed capital requirement* and any non-zero *minimum solvency margin*.

15. [No comment]

16. While allowing simplifying assumptions or methodologies reduces insurers' compliance burden, it may also allow errors to creep into the *solvency capital* and *prescribed capital requirement* measures, and hence into *solvency ratios* and *solvency margins*. The *Reserve Bank's* preference is that simplifications that result in a *materially* conservative assessment of the *licensed insurer's solvency margin* are avoided, as these will distort solvency measures.

17. Comments on some individual definitions are provided in the table below. Definitions that are unchanged from previous standards are generally not commented on.

Definition	Comment
Acquisition costs	While the definition used is like that for *NZ IFRS 17*, note that costs must be attributable to the *product class*, rather than *NZ IFRS 17* portfolios or groups.
AMCR and APCR	Adjusted measures are elevated in importance by this Standard. *Solvency licence conditions* that require specified positive minimum *solvency margins* or specified minimum *solvency ratios* greater than 100% reflect, in the opinion of the Reserve Bank, either (i) that *solvency capital* is overstated due to weaknesses in the *standardised balance sheet*, or (ii) that the *prescribed capital requirement* is understated due to risks that are not (fully) hypothesised in the *stressed balance sheet*. It is appropriate that published measures of financial strength reflect these weaknesses and risks.
Balance sheet	While this definition refers to *NZ IAS 1*, the terms 'standardised balance sheet' and 'stressed balance sheet' should be taken to refer to the balance sheets used to determine *solvency capital* and the *prescribed capital requirement* respectively.
Benefit term	Judgement will need to be applied as to what are considered 'extraordinary contingencies'. One approach to this would be to consider the contingencies taken into account when the product was priced as being 'ordinary'. Where guaranteed renewability is in place, the benefit term will extend until there is an absolute contractual termination date, e.g. at an advanced age, or when renewability is no longer guaranteed.

Definition	Comment
Best estimate	This term has been defined without inclusion of an object (e.g., liabilities, assumptions etc.). When applied to an object it should have the effect of causing the reader to consider the 'range of possible outcomes' for that object, and how the expected value (i.e., the probability-weighted mean) of that range might be determined. Note that the definition allows for asymmetry of the distribution of outcomes.
Capital charge	A *balance sheet* charge is an economic liability for an expense that is expected to arise. A *capital charge* is similar; however, the additional expense only arises under a solvency stress event; it's included in *the stressed balance sheet*, but not in the *standardised balance sheet*.
Contract boundary	While risk-release events, such as the unilateral ability to terminate or re-price, no longer automatically establish a contract boundary, they may be considered alongside other potential futures for the *insurance contract*.
Coverage period	This definition is similar to that in *NZ IFRS 17*, except that it makes reference to the *contract boundary* as defined in the ISS. This means that risk-release events, such as the unilateral ability to terminate or re-price, do not automatically establish a contract boundary, or, as a consequence, truncate the coverage period.
Expected inflation	This is a 'general purpose' definition that refers to the Consumers Price Index. Other measures of inflation are also used in the Standard, for example in relation to medical expenses.
Fixed capital amount	The FCA now performs two functions: 1. By referring to the FCA as a 'minimum amount of capital', we are specifically linking to the provisions of *IPSA* that refer to this term. 2. It is an input to the *Prescribed Capital Requirement*.
Freely available	This definition's purpose is to help NZ insurers with overseas branches determine how much of the capital of the branch should be deducted in determining *solvency capital*.
Guaranteed renewability	The right to renew may be established by contract or by the insurer's habitual practices. Judgement will need to be applied as to what constitutes a sub-class, however in no case should insurance contracts with the following features be considered part of the same sub-class: 1. Stepped and level premiums 2. Main benefits of a different nature (e.g. death and disability) 3. Group and individual coverage

Definition	Comment
General measurement model	This refers to *NZ IFRS 17's* 'building block approach', that is (a) fulfilment cash-flows, plus (b) risk adjustments, plus (c) time-value of money.
Individual claim	An individual claim could be the sum of claims under multiple policies held by the same policyholder.
Insurance contract	The definition of *insurance contract* has been aligned with the *Act* (rather than *NZ IFRS 17*). The *NZ IFRS 17* and *IPSA* definitions do not perfectly align, so *licensed insurers* will need to exercise care in treating business correctly.
Insurance revenue	The requirement to determine insurance revenue for two reporting periods under *NZ IFRS 17* before using *NZ IFRS 17* insurance revenue is designed to ensure that comparable bases are used in different components of the *operational risk capital charge*. Until such time, insurers will need to use *premium revenue* under *NZ IFRS 4*. Note that *insurance revenue* can be determined retrospectively in respect of a reporting period and may be disclosed in a note to the *financial statements* and/or in the profit and loss or consolidated income statements.
Insured event	The exclusion of 'continuation in a certain state' is designed to make it clear that income benefits in payment are to be considered as part of the *liability for incurred claims*.
Interim solvency return	This replaces the half-yearly solvency return under the 2014 solvency standards, allowing for more frequent solvency reporting.
Inwards reinsurance	Note that the ceding insurer in this definition does not necessarily need to be licensed in New Zealand.
Long-term forward rate	The purpose of employing the moving average is to ensure that the rate transitions smoothly from one valuation date to the next (even if a new bond is issued that introduces some discontinuity) whilst being responsive to market movements.
Non-insurance activity	This includes, for example, insurance broking, premium funding, claims management services and risk management or any other consultancy activities.
NZ GAAP	Our expectation is that, by and large, *NZ GAAP* will consist of applicable accounting standards issued by the External Reporting Board. In most cases *NZ GAAP* incorporates *International Financial Reporting Standards*.
Portfolio reinsurance	This definition is designed to capture certain *reinsurances* that cannot be mapped to individual direct insurance policies, for example stop-loss and catastrophe covers.

Definition	Comment
Premium revenue	Appendix D of *NZ IFRS 4* does not contain a concise definition of premium revenue; however, we believe that the contextual usage of the term provides sufficient guidance for the purposes of the Interim Solvency Standard.
Premiums not yet due	This is not an *IFRS* or *standardised* quantity and is defined in the standard to facilitate the *other credit risk capital charge*, on a basis similar to that in prior solvency standards.
Product class	*Product classes* are considered to be the 'minimum saleable blocks' of insurance business (see earlier guidance on the facilitation of resolution). It is unlikely that parts of the business smaller than a *product class* could or would be transferred to another insurer. Assets backing a long-term *product class* need to be sufficient to facilitate its transfer to another *licensed insurer* after a solvency shock. Assets backing short-term *product classes* need to be sufficient to run-off all *short-term insurance contracts* with a 75% probability of sufficiency. *Product classes* are defined in a similar manner to those used in insurer return surveys since 2015. For clarity, the life, health and general insurance subsectors have been defined with reference to *IPSA*.
Inwards (life, general, health) reinsurance	Note that the *solvency entity* ceding the *reinsurance* must be an *insurer* but does not necessarily have to be a *licensed insurer*.
Reinsurance, reinsurer	These definitions require the parties to be *insurers*, but not necessarily *licensed insurers*.
Reinsurance balance	This term replaces the former 'solvency reinsurance balance' as financial *reinsurance* is considered by this standard as a component of *solvency capital* rather than an additional *capital charge*. It is evaluated on the '*standardised*' basis rather than the 'stressed' basis.
Retrocession	This definition has been included for completeness, as an offset to any inwards reinsurance that a licensed insurer may be contracting.
Risk-adjusted best estimate liability	The *risk-adjusted best estimate liability* should reflect the best estimate of the value of the fulfilment cash-flows, but also include adjustments for non-financial risk. Items such as policy assets and future tax assets are considered to be integral parts of the best estimate liability for the purposes of this solvency standard, whether or not these assets or liabilities are presented separately in the financial statements of the *licensed insurer*.
Run-off	The definition now includes situations where a direction or licence condition has 'significantly restricted' the issuance of new contracts. A significant restriction would be one in which new contracts can only be issued in specific and limited circumstances, for example:

Definition	Comment
	1. To existing customers; 2. Within volume restrictions; 3. In order to fulfil existing contractual requirements; and/or 4. Subject to RBNZ approval on a case-by-case basis
Short-term insurance contract	This definition is critical to determining how *insurance contracts* are valued for the purposes of determining *solvency capital* and how *capital charges* are applied in determining the *prescribed capital requirement*. The definition has been designed to encompass all business that does not involve significant risk over the medium or long-term. The treatment of travel insurance recognises that cover for the main benefit may not commence at the commencement date of the policy. A claim is incurred at the time of the insured event if it engages the *licensed insurer's* liability under the policy.
Solvency entity	In the draft version of this standard, the term 'entity' was used. This term, however, has other meanings in other contexts, and so it was decided to use the term 'solvency entity' in the Standard.
Taxation expense	This has been defined on an accruals basis as it does not form part of the cash-flows included in the gross insurance item defined by paragraphs 26-30. Care should be taken to exclude any double counting between cash-flows and movements in assets or liabilities.
Unpaid premiums	This is not an *IFRS* or *standardised* quantity and is defined in the standard to facilitate the *other credit risk capital charge*, on a basis similar to that in prior solvency standards.
Wind-up	The wind-up of an insurer can take many forms. To promote consistency of approaches, we have standardised the definition of *wind-up* for the purposes of this Standard. This does not imply that any actual wind-up will follow the process specified.

Solvency Capital

18. There are some cases in which the use of *alternative financial information* must be allowed, however this should be avoided if possible due to the inconsistencies that may be generated relative to the valuations of insurers applying *NZ GAAP*. The *Reserve Bank's* strong preference is that *licensed insurers* use an *NZ GAAP* accounting basis.

19. This paragraph is a summary of the following sections. The purpose of the adjustments is to move *capital* from a performance-reporting basis closer to a going-concern economic valuation (as mandated by ICP 14.4 – "The valuation of assets and liabilities is an economic valuation") and to ensure that sources of funds are appropriately categorised as *capital* or debt.

Capital

20. *Capital* is now as reported in financial statements; there are now specific deductions for perpetual and disallowed instruments.

It bears noting that retained earnings functions as a balancing item, equating *capital* with net assets on an *NZ IFRS* basis.

21. [No comment]

Adjustments to Insurance Items

22. This paragraph is designed to ensure that all future cash-flows required to fulfil i*nsurance contracts* are included in insurance items.

The last phrase in sub-paragraph (i) has the effect of excluding part of *deferred reinsurance expense* assets from the definition of *insurance items*. The part excluded relates to *reinsurance* of primary *insurance contracts* not yet in existence, and its exclusion means that it contributes to *solvency capital* at its *IFRS* value and is not subject to insurance risk *capital charges*.

Sub-paragraph (ii) is intended to capture *insurance items* valued using accumulation approaches (but still relating to an obligation to be fulfilled in future) such as investment-linked life insurance account balances or *premium allocation approach* reserves. It is not intended to capture cash and investments built up as a result of historical *insurance contract* cash-flows.

The definition of insurance items includes policy liabilities, policy assets, unearned premium liabilities, outstanding claims liabilities, deferred acquisition cost assets, premium receivables etc. and the *reinsurance* equivalents of those quantities. It also captures goodwill, value of business acquired and customer relationship assets, to the extent that those assets represent the value of future cash-flows under existing *insurance contracts*.

23. This paragraph uses the phrase '*taxation items* generated as a consequence of the recognition of *insurance items*'. This phrase may be taken to mean marginal income tax flows that are consequent to the other cash-flows projected under the *insurance contract*, i.e. *taxation* cash-flows that would not otherwise exist.

Failure to include *taxation* items may result in *insurance items* being adjusted while linked *tax items* remain unadjusted.

24. Paragraph 24 imposes some standardisation on terminology used in the *standardised* and stressed balance sheets, to overcome, for example, the situation where some life insurers refer to an item as a policy asset and others as a negative policy liability.

25. This treatment effectively replaces the existing *NZ GAAP* (or alternative) *insurance items* with their *standardised* equivalents.

26. By default, the valuation principles in this section apply to the individual *insurance contract* (as per *NZ IFRS 17*). Note, however that *insurance contract* is defined with reference to *IPSA* rather than *NZ IFRS 17*, so slightly different groups of contracts may be captured.

For pragmatism, any unbundling under *NZ IFRS 17* is allowed to flow through to the *standardised balance sheet*.

The definition of insurance contracts captures inwards *reinsurance* and portfolio *reinsurance*, but excludes outwards *reinsurance* and retrocession arrangements, as these are combined with the underlying contracts.

27. This paragraph deals with settings and assumptions to be used in modifying all of the *NZ IFRS 17* valuation methods – *GMM*, *VFA* and *PAA*.

Comments on sub-paragraphs are provided in the table below.

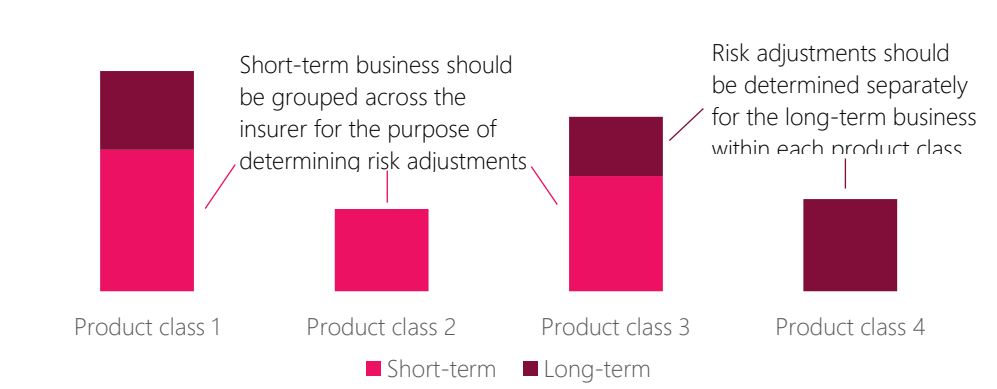
Subparagraph	Comment
i	As our concern is that the assets backing the liabilities of each *product class* are sufficient, there is no need to require sufficiency (and hence valuation) at a lower level. We are comfortable with any offsetting that occurs within a *product class*.
ii	Given the economic valuation objective, it does not make sense to use the valuation methods for onerous contracts, as the inclusion of loss components may generate a non-economic valuation.
iii	a. The purpose of this sub-paragraph is to remove any formally-recognised contract-spanning *deferred acquisition cost assets*. These do not include amounts implicitly included in *PAA* liabilities under *NZ IFRS 17* paragraph 55(a)(ii). b. There may be other circumstances in which items exist on the balance sheet that relate indirectly to the *insurance contract*, but which shouldn't be taken into account in an economic valuation. c. *NZ IFRS 17* may require the valuation in deferred reinsurance expense assets and other items of *reinsurance* beyond the *contract boundary* of the underlying primary contracts (and in some cases including *reinsurance* of *insurance contracts* that have not yet been written and have not themselves been valued). In the Interim Solvency Standard 2023 we value as *insurance items* only *reinsurance* of business already in-force (although other *reinsurance items* can be included as *non-insurance items*). d. The purpose of (d) is to ensure that there are no elements of *capital* included in *insurance items*. A prime example is shareholder surplus in a participating life fund.
iv	[No comment]
v	This sub-paragraph, and the definition of *benefit term*, have been written with the aim of encompassing the vast majority of possible cash-flows under the *insurance contract*. Force majeure, litigation etc. may curtail the *contract boundary*.

Subparagraph	Comment
	It should be noted that there is no direct relationship between the definitions of *contract boundary* (which governs cash-flows to be valued under the *general measurement model*) and *short-term insurance contract* (which is based on the concept of a *coverage period*). Where *reinsurance* (or *retrocession*) cash-flows offset *primary insurance* (or inwards reinsurance) cash-flows in an *insurance contract*, the contract boundary for the *primary insurance* (*inwards reinsurance*) contract should prevail.
vi & vii	There are no receivable assets under *NZ IFRS 17*. These sub-paragraphs re-establish receivable & payable assets for the purposes of the solvency calculation, to restore the liability to its economic value, and potentially to attract an appropriate *credit risk capital charge*.

28. The terms *general measurement model* and *variable fee approach* have been defined in the Standard and are in widespread usage, even if they do not appear in *NZ IFRS 17* itself. This paragraph imposes specific modifications on these *NZ IFRS 17* methods in order to both impose consistency and produce an economic valuation of the items. These modifications complement the general modifications of paragraph 27.

Subparagraph	Comment
i	*Contractual service margins* are an artificial liability introduced for the purposes of profit-smoothing and should not form part of an economic valuation.
ii	a. Our view is that the economic valuation principle (ICP14.4) requires outwards *reinsurance* to be directly offset against primary insurance cash-flows (within the same contract boundaries etc.), rather than be handled separately as per *NZ IFRS 17*. b. [No comment] c. *NZ IFRS 17* only includes 'directly allocable' expenses in insurance items and does not define 'directly allocable'. *NZ IFRS 17* non-allocable expenses are to be recognised under that standard in the year in which they are incurred. Our view is that non-attributable or indirectly attributable expenses within the contract boundary are also required for the fulfilment of *insurance contracts* and hence, for solvency purposes, should be taken into *insurance items* derived on an economic valuation basis. *Maintenance costs* and *investment management costs* should be allocated to *insurance contracts* based on relevant carriers, e.g., per claim, per dollar of claim, per policy, per dollar of premium or per dollar of sum insured.

Subparagraph	Comment
	For avoidance of doubt, we also require economies or diseconomies of scale to be taken into account. This is particularly important with respect to closed books of business, where unit costs are expected to rise as the books run off. With respect to insurers open to new business, an economic valuation requires the use of best-estimate new business projections or assumptions. d. For the avoidance of doubt, unvested policyholder entitlements are considered an obligation of the *licensed insurer* on an economic valuation basis, notwithstanding the fact that they may provide a degree of loss-absorption on the *stressed balance sheet*.
iii	a. Allowing undiscounted cash-flows out to two years may result in minor overstatement of positive insurance liabilities, reducing *solvency capital* (but making solvency determination easier for a number of non-life insurers). b. Valuation of *participating* business using *NZ IFRS 17* discount rates rather than risk-free rates is not expected to have a major effect on the overall liability for *participating* business, which includes future bonuses and unvested policyholder surplus, and which is ultimately determined by the size of the associated asset pool. It will, however, simplify calculation processes as only a single valuation will be required for both financial reporting and solvency purposes. c. Licensed insurers should apply discount rates appropriate to the terms of their cash-flows. In general, it is appropriate to use risk-free rates to determine *insurance items*, as from the perspective of the insurer, such items represent guaranteed obligations to policyholders. Insurers should not be able to take credit for employing a risky investment mix, as this would lead to inconsistencies among insurers and a recognition of gains that may not eventuate. While swap yields may have some theoretical advantages over bond yields as discounting assumptions, the latter have been preferred as they are easier and cheaper for insurers to obtain. Observed bond yields can be obtained directly from market information sources, or from the downloadable file that the *Reserve* Bank publishes regularly on its website.
iv	Under *NZ IFRS 17*, income benefits in the course of payment can be treated either as *liabilities for remaining coverage* or *liabilities for incurred claims*. For the purposes of the standard, we require consistency and hence have determined that these liabilities should form part of the *liability for incurred claims*.
iv	Financial risk is assumed to be priced into other components of the valuation, so does not need to be allowed for here. *Licensed insurers* in *run-off* are required to have larger *adjustments for non-financial risk* because they have fewer risk mitigants available. For example, they may not be generating profit and may not be able to rely on future capital injections from owners.

Subparagraph	Comment
	For long-term business, calculations are performed at a level no higher than the *product class* because we want the assets backing the long-term business within the *product class* to be sufficient to facilitate its transfer to another *licensed insurer*. Inclusion of compensation for risk makes the *product class* marketable. For short-term business, run-off is the likely mode of resolution, so a risk adjustment determined across all short-term business at the level of the solvency entity should be sufficient to ensure sufficient assets to resolve the business.  Theoretically the market should establish the level of compensation required for risk. In the absence of an observable market for insurance liabilities, we have chosen to use 75% and 90% probabilities of sufficiency as proxies for market value.

29. Insurers may use a modified PAA method to determine liabilities for remaining coverage for short-term insurance contracts. The purpose of the method is to ensure that the item's value is a good approximation to its economic value (and in line with the modified GMM calculation of paragraph 28). Our view is that valuations under the un-modified PAA approach are likely to be mis-aligned with economic value and hence we require three specific modifications to be made. These modifications complement the general modifications of paragraph 27.

We have removed an earlier modification designed to deduct implicit profit margins from the liability. While the modification was conceptually correct, its determination was complex and its absence should only introduce a small error.

The PAA method is a retrospective approach that takes as a starting point the premium charged to the client. It assumes that the premium has been adequately priced and includes loadings for:

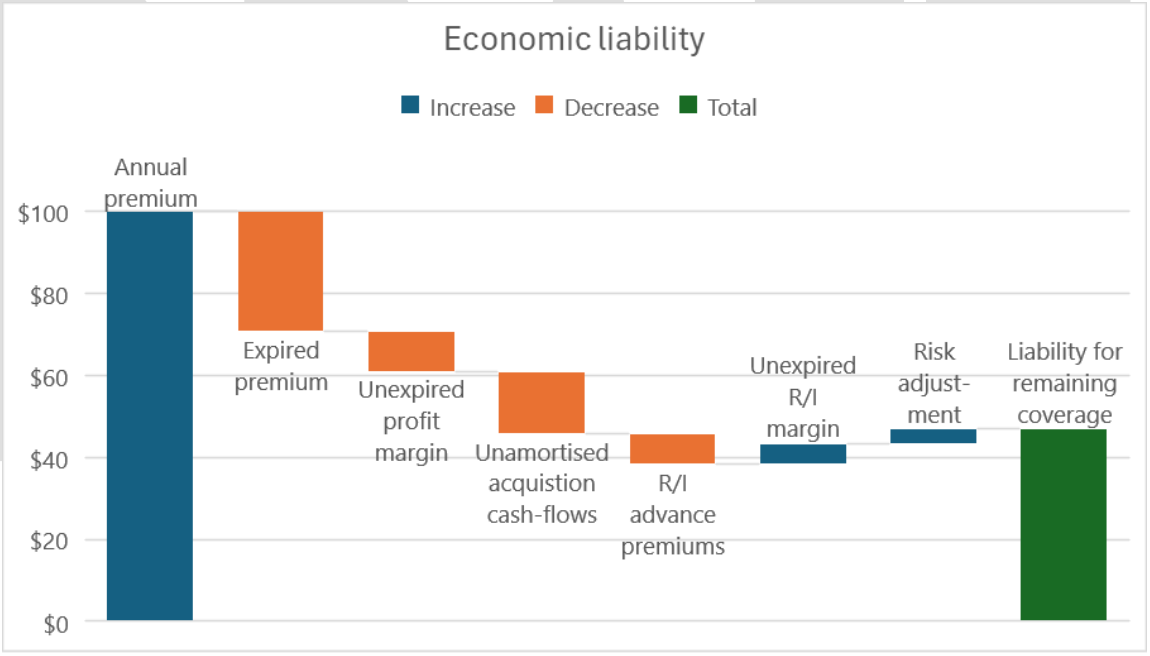
- Gross claims, net of any non-reinsurance recoveries
- The reinsurance margin (premiums less commissions less recoveries)
- Claims handling and maintenance expenses
- Acquisition costs, including sales commissions
- The profit margin (part of which is retained and part of which is paid as tax)

There is no need for the liability to provide for the profit margin, as this is not an obligation. There is no need to provide for acquisition costs once these have been recognised, typically at outset of the contract. Reinsurance payments made ahead of coverage should reduce the liability. The remaining expenses – claims, reinsurance margin and expenses – will run off as the risk expires.

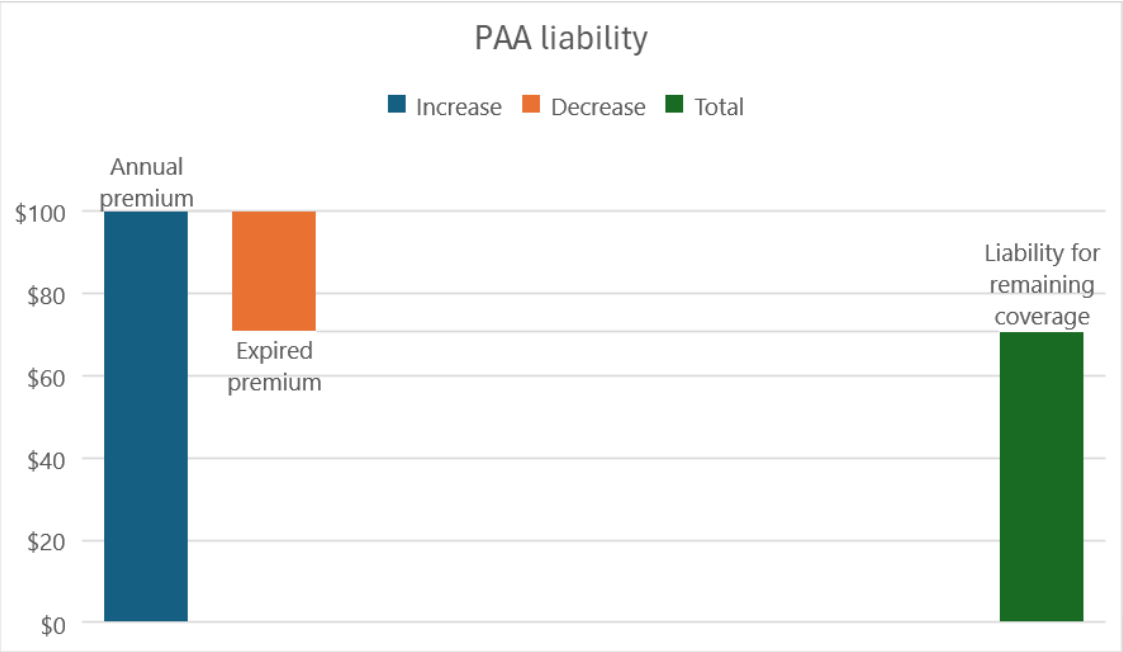
Let's assume that a contract is three and a half months into a twelve month coverage period. As a fraction, this is 7/24ths of the way through the period. Reinsurance is paid quarterly in advance and there are no R/I premiums in arrears.

Let's also assume the annual premium is $100, the profit margin is 10% of premium and acquisition costs are 15% of premium. Expenses are 10% of premium, the reinsurance premium is 36% of premium and the reinsurance margin is 20% of R/I premium. Gross claims are expected to account for the remaining 60%. A risk adjustment of 5% of unexpired premium would be required to move the liability to an economic valuation.

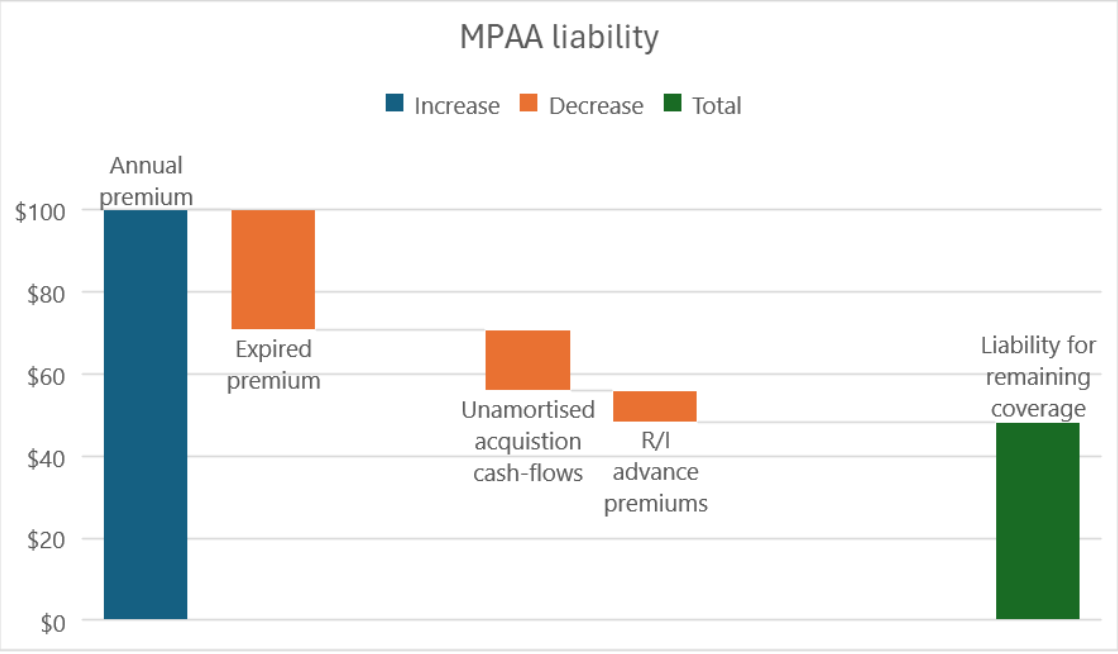
The economic value of the LRC is derived from the premium as follows



The LRC under PAA is derived from the premium as follows (assuming acquisition costs are expensed):



In the modified PAA liability of Paragraph 29, we simplify the economic liability by assuming that the risk adjustment and unexpired R/I margin offset the profit margin. In our example this results in a slightly conservative value:



Subparagraph	Comment
i	This modification ensures that the liability is appropriate to the full coverage period rather than a fraction of it based on the mode of payment.

Subparagraph	Comment
ii	The Standard removes the *NZ IFRS 17* optionality relating to the treatment of *acquisition costs*. Our view is that *acquisition costs* are priced into the premium and should accordingly be deducted from the premium in determining – via a retrospective method – the *standardised liability for remaining coverage*, under the assumption that pricing is adequate. Impairments of these implicit acquisition cost assets under *NZ IFRS 17* should flow across to the standardised valuation of insurance items. As they are part of the insurance item, they are not subject to market and credit risk charges.
iii	Sometimes reinsurance is paid for ahead of the coverage being provided. This reduces the liability in the same way that recognition of a direct insurance premium increases the liability.
iv	Sometimes reinsurance premiums aren't paid on time, and the accruing liability needs to be recognised.

30. Surrender penalties, buy/sell spreads and other features may cause the economic value of investment-linked life *insurance contracts* to differ from the value of the units. Where such differences are material, the modified *GMM* method of paragraph 28 should be applied.

31. The standardisation of the gross-of-tax liabilities by paragraphs 27 – 30 will likely drive changes in the value of *NZ IFRS 17 tax items* that are also *insurance items*. The values at which these items are held on the GAAP/IFRS balance sheet should be replaced with standardised values determined under this paragraph. Insurers should take professional advice on changes in values of tax items on standardisation.

Contracts valued using the *PAA* method may not have any related deferred tax items, as the tax liability on future profit is implicit in the *PAA* liability.

Adjustments to Non-Insurance Items

32. While a change in accounting basis does not in itself modify the *tax* that will eventually be paid by the insurer, it does modify expectations about the *tax* that will be paid. It is important that these changed expectations are reflected in the balance sheet alongside the re-valued underlying items.

33. This section has been introduced to prevent any insurer increasing its *solvency capital* simply by choosing to prepare its accounts on a *wind-up* basis. Such optionality would generate inconsistency with other insurers.

34. The reduction is intended to remove any *capital* benefit the insurer may gain by choosing to account on a *wind-up* basis. (Note that the *ICPs* promote application of a going-concern paradigm.)

35. Where the insurer is reporting on a *wind-up* basis and *capital* is lower than on a going concern basis, we assume that there was no option available to the insurer and the *wind-up* basis is suitable for generating the economic value of *capital*.

36. For the avoidance of doubt, if an asset backing *insurance items* is held at a value other than fair value, an amount representing fair value minus book value should be added to *capital*, whether positive or negative. A positive difference should increase *capital* while a negative difference should reduce it.

37. For clarity, the appointed actuary is under no obligation to adjust the value of intangibles, or even to consider such an adjustment. This clause is here to provide flexibility should the actuary believe that the balance sheet valuations of intangibles are stretched in the going concern context.

38. Deductions from *capital* are limited to *items* that move the valuation of *solvency capital* closer to an economic valuation.

In previous standards, deductions from *capital* have been used to remove intangible assets that may have limited or no value in a *wind-up* under stress. In this Standard, deductions that may be required in adversity are addressed through the *prescribed capital requirement (PCR)* calculation, and in particular the Distressed Wind-up Capital Charge.

With respect to the surviving deductions:

- The Standard views obligations to policyholders as guaranteed by the insurer; it would be inappropriate to reduce the value of such obligations by assuming a risk of non-payment.
- Gains relative to previous valuations must be based on firm evidence.
- Declared dividends are not available to support policyholder obligations in the future.

39. Formerly, financial reinsurance *repayable amounts* triggered an increase in the *insurance risk capital charge*. However, the Standard views financial *reinsurance* as a potential form of *capital* or debt funding and so it becomes an input to the *solvency capital* calculation.

40. *Repayable amounts* only need to be deducted from *solvency capital* to the extent they are not already recognised under *NZ IFRS*. For solvency purposes, *repayable amounts* are the equivalent of debt; however, they are not accounted for as such under *NZ IFRS*.

41. *NZ IAS 37* paragraph 10 says that an asset is contingent if its existence is dependent on events outside the control of the insurer.

42. *NZ IAS 37* paragraph 13(b)(i) says that liabilities are contingent if either they may not represent a present obligation, they may not result in an outflow of resources, or they cannot be reliably estimated. *Contingent liabilities* are not recognised in *NZ IFRS* accounts.

Note that the requirement to recognise and the requirement to disclose are different. *Contingent items* that meet the definitions in *NZ IAS 37* are required to be disclosed in notes to the financial statements but not recognised on the balance sheet. Disclosure of *contingent assets* is required if the inflow of economic benefits is possible (*NZ IAS 37* paragraph 34), while disclosure of *contingent liabilities* is required unless the outflow of economic benefits is a remote possibility (*NZ IAS 37* paragraph 28).

As *solvency capital* is an economic measure, it should reflect the value of *contingent items* disclosed, together with the value of any undisclosed items that have the potential to pose a *material* risk to the ability of the *licensed insurer* to maintain the required *solvency margin* now or in the future. If there is no *material* risk, a contingent liability that does not meet the test for disclosure under *NZ IAS 37* is not required to be included in *solvency capital*.

43. If a fair value (determined in accordance with *NZ IAS 37* paragraphs 36-52) is available in the notes to the financial statements, it should be used (as *solvency capital* aims to reflect economic value).

44. Where an economic value has not been determined, we reluctantly revert to conservatism. The phrase "likely maximum exposure" is left to the judgment of the insurer and its *appointed actuary*. As the maximum exposure for a contingent liability cannot usually be determined with certainty, the word 'likely' is used to qualify it. For an estimate of maximum exposure to be likely, there must be at least a 50% chance that the true maximum exposure is less than the estimate. Likely maximum exposure is usually higher (sometimes much higher) than the likely exposure.

45. If an instrument doesn't meet the requirements of Appendix 1, it is not considered to be fully available to meet the claims of policyholders. For this reason, it is excluded from *capital*.

46. Similarly, concentrations of perpetual instruments are considered to not be fully available to meet policyholder obligations and are deducted in part.

Capital Requirements

47. Of these four *capital requirements*, only the *PCR* contributes to the determination of the *solvency margin* as defined and used by *IPSA*. The *APCR* incorporates any solvency licence condition and is required to be disclosed. Usage of the two 'minimum' measures – the *MCR* and the *AMCR* – is likely to be limited to supervisory intensity & response until an *IPSA* amendment is promulgated.

Prescribed Capital Requirement

48. *Licensed insurers* with *solvency capital* greater than the *PCR* will generally not be subject to heightened supervision on account of *capital* levels or be exposed to the *Reserve Bank's* distress-management powers.

Licensed insurers with *capital* greater than the *PCR* may still be subject to heighted supervision and distress management (non-exclusively) when: (1) solvency licence conditions require the maintenance of *solvency margins* greater than NZ$0; (2) solvency licence conditions require the maintenance of *solvency ratios* greater than 100 percent; (3) the *licensed insurers* have a deteriorating solvency trend; or (4) the *licensed insurers* are being managed imprudently. Note that this list is non-exclusive and there may be other circumstances in which heightened supervision or distress management may be appropriate.

'Normal circumstances' mean that the insurer is expected to continue operating as a going concern and is not in one of the circumstances outlined above. Such an insurer should be able to pay claims following a 1-in-200 solvency shock.

49. The *PCR* formula is both simple and simplistic as it does not allow for any diversification benefits where an insurer is exposed to multiple risks which may or may not crystallise over the coming year, and which are somewhat independent of each other. The *capital charges* for individual risk categories contain an implicit allowance for a certain level of diversification and are subject to a minimum of zero.

In a change from the previous standards, the *FCA* now feeds directly into the *PCR* and the *solvency margin*. There are some consequences:

- The *PCR* can never be less than the *FCA*. Insurers with an *FCA* that exceeds the total capital charges will determine their *solvency margin* as *solvency capital* less *FCA*, giving users of solvency information a clearer picture of the *licensed insurer's* unencumbered *capital*.
- Each *solvency entity* is subject to the *FCA*, so a life insurer with two statutory funds will effectively be subject to a double *FCA* requirement.

Risk categories have been established to broadly align with those used by international comparator regimes.

50. Previous standards indicated that some *capital charges* were calibrated gross of *tax*, but were silent about others. All charges are stated to be gross under this Standard and need to be adjusted for *tax* effects.

51. We encourage insurers to use precise methods to allow for *tax* if possible, or to move towards precision over time if not.

52. *Fixed capital amounts* are largely unchanged from previous standards, although now apply to long-term and short-term business rather than life and non-life.

53. The 'other' category is made up of disparate components with no unifying principle. The contingent items charge provides for valuation shocks triggered by, for example, judicial rulings. The distressed *wind-up charge* is a mechanism for proofing the standard against a change to a *wind-up* paradigm. The asset concentration and business run-off charges don't address risk directly – the former attempts to compensate for the impact of other risks on insufficiently diversified portfolios, while the latter seeks to retain *capital* in the business to cover future expenses.

Insurance Risk

54. *Captive insurers* are not subject to standard insurance risk charges, a treatment carried over from the previous standard for non-life captives.

55. We acknowledge the theoretical shortcomings of the formula set out in this paragraph in not allowing for diversification and interactions between the risks involved. This is a continuation of the approach under the previous standards on an interim basis.

Underwriting Risk

56. The *underwriting risk capital charge* reflects the risk to the *licensed insurer* of writing unprofitable *short-term insurance contracts* and has been largely carried over from the previous non-life standard. Changes include that:

- short-term life insurance *product classes* have been added. For *clarity*, inwards life *reinsurance* classifies as *inwards reinsurance* rather than other life classes.
- A composite charge base has been used in place of *premium liabilities* in the previous standards. The elements of the base reflect items that may contribute to pricing risk in various ways.

Element (ii) – the 'Cost of *reinsurance* not secured on guaranteed terms by the *solvency determination date*' – is the premium the licensed insurer expects to pay for reinsurance required to support element (i) – 'Claims (net of reinsurance)' – but which has not yet been secured and so is subject to pricing risk.

Factors are designed to allow for the level of risk each *product class* is subject to. For example, liability has the highest factor because of the variability of claims and the length of the claims tail.

Claims Run-Off Risk (Short-Term Business)

57. The *claims run-off risk capital charge* reflects the risk to the *licensed insurer* of inadequate provision being made for claim liabilities under *short-term insurance contracts* and has been largely carried over from the previous life and non-life run-off standards. The main change is that short-term life insurance *product classes* have been added.

Factors are designed to allow for the level of risk each *product class* is subject to. For example, *liability* has the highest factor because of the variability of claims and the length of the claims tail. Run-off factors are four times those for insurers open to new business, reflecting both reduced risk diversification and the difficulties run-off insurers would have with generating fresh *capital* to cover an adverse variation in claims.

Long-Term Insurance Risk

The *long-term 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 the *risk-adjusted best estimate liability*. 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. The *long-term insurance risk capital charge* should be applied to *long-term insurance contracts* and is largely carried over from the previous life solvency standard.

58. Note from the definitions in paragraph 17 that the *risk-adjusted best estimate liability* is equivalent to *standardised insurance items* and includes components relating to incurred claims and remaining coverage.

59. The zero minimum on this charge is intended to apply at the *product class* level. This is because we see each *product class* as a 'minimum saleable block' and we want to be able to resolve insurers by transfer of liabilities. Were the post-shock liability to be less than the *risk-adjusted best estimate liability*, it may be difficult or impossible to sell the block of business to a new insurer.

The imposition of the *current termination value* as a minimum on the *solvency liability* allows for adverse lapse experience and distressed *wind-up* (although the amount paid to the policyholder in the latter case may differ from the *current termination value*). The *current termination value* should not be risk adjusted, as it implies a claim event rather than a sale to a new insurer demanding compensation for accepting risk.

60. [No comment]

Catastrophe Risk Capital Charge

61. Our catastrophe charge focuses on seismic risk and pandemic mortality risk, although we recognise that other risks could also be addressed, for example, volcanic, pandemic health, terrorism, cyber etc.

62. Exposure to catastrophes other than under *insurance contracts* is addressed by the *operational risk capital charge*. Secondary event exposures (e.g., an earthquake aftershock) should only be combined with primary event exposures if that is how they would be treated for *reinsurance* purposes.

63. Non-life insurers were given until 1 January 2024 to comply with Appendix 4's *reinsurance* quality requirements. This is because this was a new requirement for them, and *reinsurance* treaties needed to be re-written accordingly.

Seismic Risk Capital Charge

64. For the avoidance of doubt 'risks arising from earthquakes' should be interpreted broadly, e.g., including earthquake-generated tsunamis, landslides and fires caused by earthquakes.

65. To align with other *capital charges*, the *seismic risk capital charge* should be based on aggregate annual losses from earthquakes rather than on those from a single event. As such a treatment would have increased the charge, we have not considered a change at this stage.

In most cases the primary peril for non-life *product classes* will be shaking and the other perils will be secondary. Distant-source tsunamis may also be primary perils.

Non-life losses are calibrated to 99.9% rather than 99.5% as the implications for the New Zealand financial system and broader economy are more significant for non-life insurers than for life insurers.

Where *licensed insurers* hold significant portfolios of seismic risk, the *Reserve Bank* recommends the use of a stochastic model. Small or new carriers of earthquake risk may use other approaches provided these are not expected to produce results that are less conservative than a full stochastic model.

As the charge focuses on the *net insurance losses*, insurers can meet their obligations under the standard by either providing *capital*, securing *reinsurance* or a combination of the two.

66. Paragraph 66(ii) aims to give licensed insurers time to organise the reinstatement of their reinsurance programmes while still recognising the cover provided by their existing catastrophe programmes. The provision of 168 hours of post-event relief is a weakening of the seismic risk capital charge relative to the previous non-life standard.

67. This is a new provision, broadly aligned with Australian requirements and providing for the first time a valuation method for reinstatement cost. It aims to give *licensed insurers* time to organise the reinstatement of their *reinsurance* programmes while still recognising the cover provided by their existing catastrophe programmes.

Pandemic Risk Capital Charge

68. This new formulation has been introduced with the aim of providing consistency among insurers. The wording of the previous life insurance standard[3] left some room for interpretation, with the result that different insurers approached the pandemic charge in different ways.

69. The *net mortality strain* is the impact of deaths on the before-tax profit for the year. By differencing between stressed and expected *net mortality strains* we obtain the cost of the additional pandemic mortality. The *items* mentioned in (iii) include all *items* released, whether they relate to mortality or other risks.

70. [No comment]

Other Event Risk

71. While we understand the need to limit the number of catastrophe events considered, we would nonetheless encourage insurers to think laterally about the potential events that could have a significant impact on their *capital*. We also appreciate that a loss return period of 200 years is well into the tail and may be difficult to estimate with precision.

72. [No comment]

73. [No comment]

Default Risk Capital Charge

74. The *default catastrophe risk charge* is designed to provide a minimal charge for situations in which an insurer is not liable to seismic, pandemic, or other event risks.

75. [No comment]

Aggregation and Actuarial Review

76. We accept that it is theoretically incorrect for the charge to simply be the maximum of the individual components, as more than one component could crystallise in a year. This approach continues that in previous standards.

77. [No comment]

Asset Classification

Collective Investment Vehicles

78. [No comment]

3 Solvency Standard for Life Insurance Business 2014 (incorporating amendments to November 2018)

79. [No comment]

Hypothecated Portfolios

80. [No comment]

Market Risk

81. The *market risk capital charge* brings together several elements from the previous standards under a single heading. It allows for adverse movements in *solvency capital* resulting from changes in market variables such as interest rates, exchange rates, share prices and property values.

Interest Rates

82. While this charge is a development of that in the previous standards, it now considers 'other interest-sensitive items' alongside *investment* assets and insurance *items*. This is in keeping with a move towards a 'total *balance sheet*' approach.

The base for the stress on insurance *items* is now the standardised value of insurance *items* rather than the stressed forms of the liability (as the probability of an interest rate stress following an insurance stress is less than 1 in 200). *Negative standardised liabilities for remaining coverage* have been excluded from the base for this charge. This is because in most of these cases the *insurance risk capital charge* effectively assumes that the relevant policies have been terminated and the liabilities extinguished.

83. This charge has been modified to make it functional at low interest rates, and to introduce a relationship with the level of interest rates.

84. Where a single rate is used to discount all an instrument's cash-flows, the current interest rate is that rate. Where different, term-dependent interest rates are used to discount the cash-flows under an instrument, the current interest rate will differ for each cash-flow.

85. [No comment]

Equity

86. 'Listed trusts' exclude listed and unlisted property trusts. These are addressed by the *property risk capital charge* described in paragraph 87. 'Consequent increases and decreases' means changes in the standardised value of insurance items that would be consequent to the shocks to equity values set out in the table.

Property

87. 'Consequent increases and decreases' means changes in the standardised value of insurance *items* that would be consequent to the shocks to property values.

A table has been introduced for the capital charge factor, to explicitly address unlisted property trusts and apply a 35% factor.

88. [Deleted]

Foreign Currency

89. The net open foreign exchange position in each currency should obviously be valued in NZ dollars. 'Consequent increases and decreases' means changes in the standardised value of insurance *items* that would be consequent to the shocks to the values of currency exposures.

90. [No comment]

91. [No comment]

92. Guarantees denominated in a foreign currency that do not limit the New Zealand dollar amount guaranteed, either because the amount of the guarantee is unlimited or because the guarantee is hedged, do not need to be included in the net open foreign exchange position.

Derivative Instruments

93. [No comment]

94. [No comment]

Credit Risk

95. Capital charges for credit risk allow for adverse movements in solvency capital resulting from reductions in asset values due to credit downgrades and defaults.

96. Paragraph 96 gave an overly broad exemption from the credit risk capital charge for any items subject to the market risk capital charge. This incorrectly eliminated, for example, credit risk charges on bonds subject to the interest rate risk charge. This paragraph has been deleted and replaced with more targeted wording in subparagraph 106(i).

Counterparty Grades

97. [No comment]

98. Because rating agencies do not always agree, it is necessary to have a consistent method of determining the *counterparty grade* to use.

99. Rows 8-10 are the three rows at the bottom of the table marked 'Reinsurers and issuers'.

Reinsurance Recovery

100. [No comment]

101. '*Deferred reinsurance expense* may include amounts excluded from "insurance *items*" under paragraph 22, as these are still subject to the credit risk of the *reinsurer*.

Allowances for non-fulfilment of obligations (likely introduced by *NZ IFRS 17*) are to be removed from *reinsurance* assets so that a standard *capital charge* can be applied to the gross asset value. This ensures consistency among insurers, an appropriate calibration of the charge and that no impairments included in the *standardised balance sheet* are double counted.

102. Non-reinsurance recovery assets are treated by the *other credit risk capital charge*.

Where a liability of greater value is offset against a *reinsurance recovery asset*, the net exposure should be taken as zero for the purposes of the *reinsurance recovery risk capital charge*.

Reinsurance Disputes

103. While paragraph 101 defines the *reinsurance recovery asset* as being the sum of several components, the conditions in paragraph 103 should be applied to each component separately, to determine if that component is in dispute.

104. The *Reserve Bank* and the Standard are not able to place a value on *reinsurance* assets in dispute, hence equal credibility is given to *standardised* and *reinsurer* valuations. Note that the value of the assets may already have been adjusted in moving from *IFRS* valuations to *standardised* valuations.

Reinsurance Credit Risk

105. [No comment]

Other Credit Risk

106. Subparagraph (i) exempts items that have been subject to the equity and property risk *capital charges* from the *credit risk capital charge*. Items subject to the *interest rate risk capital charge* are not exempt.

Paragraph 29(i) implicit unamortised acquisition cash-flow assets do not contribute to credit risk charges as they are seen as being an intrinsic part of *insurance items*.

107. In subparagraph (i), specific mention is made of *unpaid premiums* and *premiums not yet due*. That is because these quantities have values established by their paragraph 17 definitions and are not *standardised items*. This treatment aims to align with treatments under previous solvency standards, with charges varying across 0%, 4%, 15% and 100% depending on the security available and the time since the receivable fell due.

Premium receivables established under paragraph 27(vi) should not be capital-charged, as that would result in double counting with *unpaid premiums* and *premiums not yet due*.

'Consequent increases and decreases' means changes in the standardised value of *insurance items* that would be consequent to the credit shocks set out in the table.

'Positive tax balances' was a new (under the principal version of the ISS) entry in the '2%' row of the table, designed to recognise some fungibility risks attaching to these amounts.

Language about 'fixed or floating charges' in the 100% row was archaic and has been updated to refer to the relevant legislation.

108. [No comment]

Operational Risk

109. The *operational risk capital charge* has been broadly aligned with similar formulae in international solvency regimes. The first component is based on business volumes (*insurance revenue* or liabilities) while the second component recognises the additional risk attached to *rapid insurance* revenue growth.

Where a continuing *solvency entity* and an absorbed *solvency entity* have different financial years, only *insurance revenue* earned by the absorbed *solvency entity* during the continuing *solvency entity's* financial year should be taken into account. This is not intended to only count the *insurance revenue* of the absorbed *solvency entity*; it is a given that the *insurance revenue* of the continuing *solvency entity* remains in the measures.

Other Capital Charges

110. [No comment]

Contingent Items

111. [No comment]

112. The outcome distributions in question should represent values one year after the *solvency determination date*. We accept that estimating the 99.5th percentile of an outcome distribution for *contingent items* is very difficult given the heterogeneous nature of such *items*, the relative lack of historic data and difficulties in estimation of tail risk. Insurers should use their best efforts, however can revert to 'likely maximum exposure' (contingent liabilities) and zero (contingent assets) if estimation is impossible. (The guidance on paragraph 44 addresses the term 'likely maximum exposure')

The *capital charge* is the difference between the stressed value determined under this paragraph and whatever value was determined as part of *solvency capital* in paragraphs 43-44.

Distressed Wind-Up

113. *Solvency capital* is determined assuming that the insurer is a going concern. The *PCR* is also determined assuming that the insurer is a going concern, albeit one under stress. The purpose of the *distressed wind-up capital charge* is to allow for the possibility that, because of solvency shocks exceeding those prescribed, the insurer may be in a *wind-up* process. In a *wind-up*, values of certain assets may change from their standardised values, due either to the change of status itself or to the need to liquidate assets in a short timeframe.

Most of the assets listed in paragraph 113 were formerly deducted from *capital*, however they are now added to the *PCR* because the change in value arises due to a solvency stress. Comments on individual items are as follows:

Sub-paragraph	Comment
i	Any *deferred tax liability* relating to a goodwill asset can now be offset against it. By 'relating to' we mean that the *DTL* would not exist if the goodwill asset did not exist.

Sub-paragraph	Comment
iv	By referring to the 'shareholder portion', we are recognising that in a participating life sub-fund, policyholders may legitimately bear some of the impact of any nullification of deferred *tax* assets on *wind-up*. Where *participating insurance contracts* would share in the write-off of a deferred *tax* asset on the *wind-up* of a company, only the remaining shareholder proportion should contribute to the charge.
ix	'Freely available' is defined in paragraph 17. The aim of this sub-paragraph is to establish a *capital charge* for any *capital* that may be trapped or become trapped in an overseas branch, as in this case, it cannot be used to provide security for all the policyholders of the insurer.

114. Assets that generate *distressed wind-up capital charge* components are effectively charged at 100%. It would be inappropriate to charge these assets beyond the amount of their value, and hence charges under other headings are disallowed.

Asset Concentration

The *market and credit risk capital charges* in the Standard assume that insurers have a reasonably well diversified asset portfolio and hence are only subject to systematic risk. Insurers that have highly concentrated asset portfolios are subject to additional diversifiable risk and their investment outcome probability density functions will have thicker tails.

An *asset concentration capital charge* is required in order to put aside funds against the possibility that returns will be worse than those assuming only systematic risk.

115. Right-of-use assets have been excluded from concentration consideration because they are assumed to be largely offset by lease liabilities.

116. Small entities often have simplified investment management functions and may run bank balances that are proportionately high. This provision aims to avoid incentivising them into riskier (but diverse) assets.

117. The assumption here is that it is the guarantor that is ultimately responsible for fulfilling obligations under guaranteed debt.

118. [No comment]

119. As the risks associated with *captive insurers* are largely borne by members of the same group, we are less concerned about concentrated exposures to group companies.

Dollar limits have been established for categories 3, 4 and 5 to give more flexibility to insurers that are smaller and have less impact on financial stability.

120. Exposures should be allocated to the subcategory to which they naturally relate. For example, for insurers other than captives, an intercompany balance would classify as 'short-term related party debt' in the table in paragraph 107 (with a 6% capital factor). An office building owned by the insurer would classify as property under paragraph 87 (with a 25%

capital factor). Where an exposure can be allocated to multiple subcategories, the one with the highest capital factor should be employed.

121. [No comment]

122. [No comment]

123. It would be illogical for the *capital charges* under the Standard to exceed the value of the *item*, as in most cases this value should be the limit of the insurer's exposure.

124. [No comment]

Business Run-Off

125. The *business run-off capital charge* is designed to lock in some *capital* to fund expenses in the tail of a *run-off* when there is no economic motivation for shareholders to provide support. For particular business models this charge may be insufficient, however, and the *Reserve Bank* may impose a stronger requirement through a *condition of licence*.

Some *items* of expense related to the future management of *insurance contracts* may not be captured under the modified *GMM* and *PAA* methods of paragraphs 28 and 30 respectively. $100,000 per year of *run-off* , appropriately inflated, is an approximate allowance for this uncaptured expense.

Insurers continuing to offer new business have a zero *capital charge* as they are assumed to both:

- remain attractive targets for shareholder investment; and
- be able to maintain scale due to future new business.

126. This paragraph assumes that an insurer becomes unable to cover its expenses from its in-force business when expense loadings in premiums received first fall below $1m per year. The uncovered expenses are assumed to grow from zero, with $100,000 representing an average over the *run-off* term.

The $1m per year threshold is set in 1 January 2023 dollars. It should be inflated in line with actual and expected increases in the Consumer Price Index.

The *Reserve Bank's* supervisory experience indicates that it can take a couple of years to fully wind up an insurer after the last contract has terminated, and *capital* must be available to cover the costs in this period in order to fully meet the insurance obligations.

The termination date of a contract may be clear in some instances, for example a fixed-term life insurance. In other cases, for example a liability insurance with claims outstanding and in litigation, judgement will have to be applied.

Other Capital Requirements

127. The Standard introduces adjusted solvency measures. We believe that such measures are a more appropriate tool for insurer management and for publication because the minimum margin and/or ratio requirements stipulated in *licence conditions* generally relate (non-exclusively) to either:

- areas where the *standardised balance sheet* overvalues the *capital* of the insurer; or
- areas where the insurer is subject to *material* risk that is not hypothecated by the Standard.

128. [No comment]

129. [No comment]

130. [No comment]

131. [No comment]

132. 80% of the *PCR* is an initial level for the *MCR*.

133. The *AMCR* is a function of the *APCR*; it is not the *MCR* modified for the *solvency licence condition*.

Reporting and Accountability

Obligations of the Licensed Insurer

Reporting to the Reserve Bank

134. [No comment]

Solvency Returns

135. [No comment]

136. Our preference is that audited *financial statements* for the *licensed insurer* are provided under subparagraph (ii), as group *financial statements* are difficult to reconcile with other documents.

137. This paragraph and paragraph 138 refer to individual *licence conditions*, whereas the requirements for the *annual solvency return* are set out in paragraph 136.

138. [No comment]

139. Our intention is to include solvency reporting with other reporting on financial position, financial performance, and business metrics. This will reduce inconsistencies while increasing the frequency with which we obtain solvency information.

Audit of Annual Solvency Return

140. The *catastrophe risk capital charge* and solvency projections have continued to be excluded from the audit requirement. In the former case, this relates to difficulties with signing off on third-party models, while in the latter, assurance is difficult to provide for figures relating to the future and based on company business plans.

141. [No comment]

142. [No comment}

Financial Condition Report

143. Here and in several other places, the direct obligation has been placed on the *licensed insurer* as they are the regulated entity. The *appointed actuary* continues to have an indirect obligation to produce the *financial condition report*.

Disclosure of Solvency Measures

144. The solvency information disclosed in *financial statements* should typically be that contained in the *annual solvency return* as at the same balance date. Where *financial statements* and the *annual solvency return* are being prepared as at different balance dates, solvency information from the latest *interim solvency return* may be used.

'Comparative information for the immediately preceding financial year' means solvency information as at the balance date immediately prior to the balance date for the *financial statements* or the group *financial statements*, if they exist.

145. [No comment]

146. The requirement to disclose *annual solvency return* information on the insurer's website has been removed, as it will quickly be superseded by *interim solvency return* information for the first quarter of the next financial year. For information presented in respect of annual balance dates, we suggest that insurers note on the website the possibility of differences arising between the solvency information in *financial statements* (from the audited *annual solvency return*) and that shown on the website (from the unaudited *interim solvency return*)

147. Insurers should make sure that solvency information is easy to find and prominently displayed on their websites. All necessary information should be provided, and care should be taken to ensure that any accompanying commentary does not mislead readers.

Advice to the Reserve Bank on a Likely Failure to Maintain a Solvency Margin

148. Under section 24 of the *IPSA*, a *licensed insurer* must report to the *Reserve Bank* as soon as is reasonably practicable, if it 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. We expect and encourage insurers to discuss with us informally at an earlier stage, when a solvency breach over the next three years is just a 'significant possibility' (say, a 25% chance of breach sometime in the next three years).

149. *Capital* movements encompass all *capital* transactions between the *licensed insurer* and its shareholders, including share issues, rights issues, direct *capital* injections and dividend payments. This list should not be seen as exclusive.

Activities of the Appointed Actuary

Financial Statements

150. It is not within the remit of the *Reserve Bank* to regulate the preparation of *financial statements*, although *IPSA* and its regulations do require insertion of certain information in the statements (e.g., allocation of profit and capital for statutory funds). The report to be prepared by the appointed actuary under sections 77 and 78 of the *IPSA* is in respect of a review of, and is additional, to the *financial statements*.

For clarity, this Standard does not and cannot give the *appointed actuary* the authority to modify *financial statements*. The *appointed actuary* can only review and comment on them.

151. [No comment]

152. [No comment]

153. [No comment]

154. [No comment]

155. [No comment]

156. While the *Reserve Bank* does not regulate *financial statements*, it does regulate the *solvency capital* and *capital* requirements determined under the Standard, and these measures must take account of any adjustments made by the *appointed actuary*.

157. A full assessment would include comparisons of:

i. the relevant accounting provisions (for example, the *liability for remaining coverage*, *DAC*, deferred *reinsurance* expense and deferred *reinsurance* commissions); and

ii. the actuarial estimate of the *liability for remaining coverage*, comprising:

- determination of the appropriate assessment period.
- central estimate of expected claims and recoveries.
- discounting at a risk-free rate.
- allowance for policy administration and claim-handling expenses.
- allowance for the cost of any future (not yet purchased) *reinsurance* required to cover unexpired risks.
- an adjustment for non-financial risk.

158. For the avoidance of doubt, paragraph 158 refers to the tests of onerousness mentioned in sub-paragraph 151(vii) and paragraph 157, not to the *appointed actuary's* entire review under ss77-78.

Solvency Calculations and Reporting

159. The *appointed actuary* must 'own' the solvency calculations, and it is not acceptable for them to be uninvolved.

160. The derivation of *tax* effects and the catastrophe charge can be quite idiosyncratic, and hence we ask for specific comment to gain a better understanding of the methods and parameters used.

Financial Condition Report

161. The *Reserve Bank* understands, in relation to sub-paragraphs (xi) and (xii) that *appointed actuaries* are not professionally trained to comment on outsourcing and conduct. Our expectation is that they could rely on others in forming their commentary (be they staff or external consultants).

The commentary on outsourcing arrangements and conduct risks under sub-paragraphs (xi) and (xii) can be sourced from and rely upon other staff of the *licensed insurer*.

Sub-paragraph (xiii) is new but important and is designed to help the board of *the licensed insurer* and the *Reserve Bank* in understanding the viability of the *licensed insurer's* business model. In this version of the Standard, we have left the form of the commentary up to the *appointed actuary* to determine.

Sub-paragraph (xiv) is designed to ensure that readers of the *financial condition report* understand the ability of the business to generate *capital*, and in particular to generate *capital* in excess of regulatory solvency requirements.

162. [No comment]

163. Under sub-paragraph (vi), *reinsurance* arrangements are tested at inception, and again on major change to the arrangement. In the latter case, the arrangement is treated as a new treaty and modelled from the time of the change.

164. The *appointed actuary* is not expected to have the competence to provide *financial condition report* commentary and analysis beyond their professional skill base and may call on and rely on other individuals to provide the necessary expertise.

New Zealand Society of Actuaries' Professional Standards

165. The Standard does not provide full instruction to *appointed actuaries* when exercising the judgements required. The New Zealand Society of Actuaries issues professional standards. Note that the Society's standards must be adhered to by *appointed actuaries* producing or reviewing work under the Standard, regardless of whether they are a member of the Society.

Appendices

1. Capital instruments

1. [No comment]

2. [No comment]

3. [No comment]

4. [No comment]

5. [No comment]

6. [No comment]

7. [No comment]

8. Sub-paragraph (iii): Waived distributions cannot be required to be made up by the *licensed insurer* later, and bonus payments to compensate for unpaid distributions are prohibited.

Sub-paragraph (v): "Legal and contractual obligations" could, for example, include payment obligations on more senior *capital* instruments and debt. This means that the ordinary shares must not have any preferential or predetermined rights to distributions of *capital* or income.

9. [No comment]

10. The claim of ordinary shareholders is variable, unlimited, and not fixed or capped.

11. [No comment]

12. [No comment]

13. [No comment]

14. [No comment]

15. [No comment]

16. [No comment]

17. [No comment]

18. [No comment]

19. [No comment]

20. [No comment]

21. [No comment]

22. Sub-paragraph (i): waived distributions cannot be required to be made up by the licensed insurer later and bonus payments to compensate for unpaid distributions are prohibited.

Sub-paragraph (v): A distribution that is reset periodically based in whole or in part on the credit standing of the *licensed insurer* or any *related party of* the *licensed insurer* may be considered a credit-sensitive distribution feature. Perpetuals may utilise a broad index as a reference rate for the calculation of distributions, provided that the index does not exhibit any significant correlation with the *licensed insurer's* credit rating.

Sub-paragraph (vi)(b)(B): It would be acceptable to specify the distribution rate as a fixed margin above a recognised market benchmark such as the bank bill rate.

Sub-paragraph (vi)(b)(C): Conversion from a fixed rate to a floating rate that is determined as a benchmark rate plus a margin will be considered an incentive to redeem if there is an increase in the margin relative to that implied for the fixed rate.

23. [No comment]

24. [No comment]

25. [No comment]

26. [No comment]

27. [No comment]

28. [No comment]

29. See section 58A(2) of the Friendly Societies and Credit Unions Act 1982, which provides that such securities are transferable only between members and confer no voting rights on holders.

30. [No comment]

31. [No comment]

32. [No comment]

33. [No comment]

34. Sub-paragraph (iii): Waived distributions cannot be required to be made up by the *licensed insurer* at a later date and bonus payments to compensate for unpaid distributions are prohibited.

    Sub-paragraph (v): This includes, for example, payment obligations on more senior *capital* instruments and debt having been made. This means that the Securities must not have any preferential or predetermined rights to distributions of *capital* or income.

35. [No comment]

36. [No comment]

37. [No comment]

38. [No comment]

39. [No comment]

40. [No comment]

2. Financial reinsurance

We expect that many future *reinsurance* cash-flows will be incorporated in *standardised insurance items* under *NZ IFRS 17* and hence under this solvency standard, and we draw attention to clause 28 of this appendix, which allows the offsetting of such values in the determination of *repayable amounts*.

There have been some changes relative to prior standards and clause-by-clause guidance is provided below.

Overview

1. The term *repayable amount* is used to quantify features of a *reinsurance* arrangement that represent 'hidden' debt and should therefore not form part of *solvency capital*.

2. Under paragraph 39, only *reinsurance* arrangements in respect of *long-term insurance contracts* need to be inspected and can give rise to *repayable amounts*.

3. [No comment]

4. Premium receivables may still be referred to in this appendix, notwithstanding their elimination from accounting treatments under *NZ IFRS 17*. The fact that accounting treatments are included does not mean that other treatments are excluded.

Testing of Reinsurance Arrangements

5. Only new or modified *reinsurance* arrangements need to be tested; there is no requirement to test treaties annually. We are not expecting existing treaties to be re-tested when this standard first becomes applicable to a *licensed insurer*.

6. While testing does not have to be repeated, *repayable amounts* do need to be revalued at each *solvency determination date*, however.

7. [No comment]

8. This clause addresses possible double counting (inclusion in other liabilities), and rules out increases to *solvency capital* where an arrangement is an asset to the *licensed insurer*.

Likelihood Test

The purpose of the likelihood test is to assess whether there is an effective transfer of risk under the *reinsurance agreement* as a whole.

9. The *likelihood test* is focussed on the *net reinsurance liability* as it is a component of *capital* for both the *licensed insurer* and the *reinsurer*. Significant volatility in the *net reinsurance liability* under possible different futures indicates that the *reinsurer* is bearing risk under the arrangement.

10. We would prefer that insurers take a constructive rather than a contractual approach to 'the point where the *reinsurer* can unilaterally terminate or reprice'. If the contract allows for termination or repricing, but it is highly unlikely in practice that the *reinsurer* would put them in effect, no break point should be assumed.

Outgoes and incomes should be on a cash basis.

11. While future new business is not valued as part of *insurance items* under the Standard, it is appropriate that it is taken into account for the purposes of testing risk transfer, especially for new treaties where no business has yet been written but a *repayable amount* may already exist.

12. An equity risk premium is added to the discount rates so that the *net reinsurance liability* approximates its value (and hence its risk) to the shareholders of the *licensed insurer*.

13. Ideally probability density functions for lapses and claims should be developed, based on experience but adjusted with judgement to be appropriate for the projection period. These should then be modelled stochastically if possible.

14. [No comment]

15. The *reinsurer* profit multiple is designed to provide a benchmark for the arrangement's profitability, which is established at outset, but used later in the arrangement to determine whether remaining insurer outgo is greater than would be justified by *reinsurer* profit margins alone.

16. For the purposes of valuing the *repayable amount*, risk-free discount rates are used. The purpose of this calculation is to determine an offset to *solvency capital*, not to determine whether the shareholder is bearing risk (as in clauses 9-14).

The *reinsurance* contract boundary is used, as repayment obligations can exist beyond the boundary of the underlying *insurance contract*.

17. The function of the *reinsurer* profit multiple is to determine whether the remaining cash-flows to the *reinsurer* create profitability in excess of that expected at the outset, and hence the presence of a financing element.

As per clause 8, the Standard currently makes no allowance for 'hidden *reinsurance* assets' and hence there is a zero floor on the *repayable amount*.

Specified Event Test

The purpose of the specified event test is to ensure that potential obligations for the *licensed insurer* to pay amounts to the *reinsurer* from outside the cash-flows generated by the reinsured portfolio are recognised in solvency calculations.

18. The phrase 'out of the future profits arising from the reinsured portfolio' is used in this clause to place an upper bound on payments to the *reinsurer* that could be funded by the reinsured business. Any payments that can't be funded by the portfolio's cash-flows are assumed to be debt-like and give rise to a *repayable amount*.

19. As the Standard does not allow for 'gone concern' or 'tier 2' *capital*, any financial *reinsurance* that is akin to subordinated debt is not allowed to generate a *capital* benefit for the *licensed insurer*.

20. The sub-clauses of this clause are designed to ensure that the test is not triggered by certain specific payments that do not represent a financing arrangement – commission clawbacks, calculation errors, court-directed payments, insurance premium increases, recapture of the portfolio and forced termination.

21. The *repayable amount* is set equal to the maximum value of the entire obligation.

Embedded Obligations Test

22. [No comment]

23. Unlike the specified event test, this test looks for amounts received (for example, *reinsurance* commissions) that will need to be repaid, and which have nothing to do with insurance risk transfer under the arrangement.

24. As with the specified event test, there are certain cash-flows that are excluded from consideration because they do not represent a financing arrangement.

25. [No comment]

26. This clause defines *reinsurance* commissions by their substance, in case they are not described as such in the financial records of the *licensed insurer*.

27. Sub-clause (i) establishes a potential *repayable amount* equal to the *reinsurance* balance. The terms 'related' and 'offsets' require a connection between the *licensed insurer's* obligation to the *reinsurer* and the offsetting recoveries.

In sub-clause (ii), 'the initial amount received' refers to the original payment made by the *reinsurer* and mentioned in sub-clause 23, while 'any amount that has already been repaid' refers to any partial repayment of 'the initial amount received' that has already been made by the *licensed insurer*.

Repayable Amount to be Deducted

28. The three tests may identify different debt-like features in the *reinsurance* arrangement, hence the starting point for the overall *repayable amount* calculation is the sum of the *repayable amounts* arising under the three tests.

It is possible that the debt-like obligations identified in this appendix have already been taken into account in *solvency capital*, for example due to the *reinsurance* cash-flows taken into account in the derivation of standardised *insurance items*. Where this is the case, the *repayable amount* should be reduced or eliminated accordingly.

29. [No comment]

30. This clause eliminates any double-counting between the tests (e.g., where two or more tests have identified the same debt-like feature), while ensuring that an appropriate amount remains after elimination.

3. Materiality

There is no guidance on individual clauses for this appendix.

4. Quality of reinsurance

1. As these *reinsurance* quality requirements are new for the non-life sector, the requirements of Appendix 4 do not come into effect until 1 January 2024 for non-life business. This is to give non-life insurers time to make any necessary rectification to treaties, or to take the requirements into account when concluding new treaties.

2. Whilst the focus of the appendix is on the economic substance of *reinsurance* arrangements, there are elements that relate to the legal form (such as the requirement that treaties are signed by authorised persons).

3. [No comment]

4. Under sub-clause (i), a *reinsurance* arrangement that is a liability to the *licensed insurer* cannot be expected to offset the *licensed insurer's* risk. Neither, under sub-clause (ii) can an arrangement which is not properly contracted, or under which claim payments are uncertain, be relied upon to provide *reinsurance* benefits.

5. This clause is designed to allow the reinsurer to not continue the treaty or make claims payments in circumstances where either (a) the reinsurer is not at fault or (b) the reinsurer has made adequate provision for claims incurred prior to termination.

5. Prescribed solvency assumptions

1. The scope of Appendix 4 in the Standard differs from the scope in previous standards. As the Standard has changed the scope – from *life insurance* to *long-term insurance contracts* – some new categories of assumption have been added.

2. The *adjustment for non-financial risk* is designed to adjust an *insurance item* from its *best estimate* to its economic value, providing compensation to the holder for accepting uncertainty relating to the insurance cash-flows. One of the aims of the solvency regime is to ensure that business can be resolved after a solvency shock, and this requires *insurance*

items to be risk-adjusted in a post-shock environment (i.e., an environment in which the characteristics of risks may have changed)

Discount Rates

3. The *prescribed solvency assumptions* are used in measuring insurance risk. They are not required to measure credit or market risk, which have their own *capital charges*. For this reason, best estimate risk-free yield and discount rates are employed.

Servicing Costs

4. [No comment]

5. [No comment]

6. Paragraph 28 requires expenses to be fully allocated to insurance contracts.

7. [No comment]

8. While a contractual fixing of servicing expenses obviates the need for prescribed solvency assumptions, it potentially creates outsourcing risks.

Inflation Rates

9. Prescribed solvency assumptions for inflation are independent of the definition of *expected inflation*, which is used for other purposes in the Standard.

Taxation

10. [No comment]

Insurance Claims

11. New rows have been inserted for underwriting and claims run-off risk relating *to long-term non-life insurance items*. For consistency, these rows employ the same factors used for measuring insurance risk for short-term contracts. The factors are, however, applied to the long-term assumptions and/or *insurance items*. These rows do not apply to health insurance business.

Similarly, a new row has been inserted to provide *prescribed solvency assumptions* for long-term health business. These build on the analogical solvency shocks for short-term health insurance contracts, but also allow for longer-term effects such as stressed claims inflation. Note that the factor based on incurred claims should be applied to the *standardised liability for incurred claims*, while the increase in best estimate assumptions should be applied to the *standardised liability for remaining coverage*.

12. Where *prescribed solvency assumptions* already allow appropriately for IBNR, IBNER and RBNA[4] claims, there is no need to develop additional assumptions under this clause.

4 ' Incurred but not reported', 'incurred but not enough reported' and 'reported but not admitted'.

13. This clause should not be overlooked, and *appointed actuaries* should be considering additional *insurance items* and *capital charges* for *material* areas of *specialised risk* that have not been allowed for under the Standard.

Voluntary Discontinuances

14. [No comment]

15. We suggest interpreting 'adverse change' in the following way, noting that a change that increases *solvency capital* cannot be considered 'adverse'.

Increase in discontinuances	Decrease in discontinuances	Adverse shock
Increases solvency capital	Increases solvency capital	Zero – no change to insurance items[5]
Increases solvency capital	Decreases solvency capital	Decrease in discontinuances
Decreases solvency capital	Increases solvency capital	Increase in discontinuances
Decreases solvency capital	Decreases solvency capital	The shock that produces the greatest decrease in solvency capital

Options Provided to Policyholders

16. [No comment]

17. [No comment]

Investment-Linked Policies

18. [No comment]

19. [No comment]

6. Guarantees

This appendix is carried over from previous standards. There are no comments on individual clauses.

7. Discretions

1. Discretions are actions that management could and would take in response to solvency shocks. In theory discretions could respond to all solvency shocks, however for this version of the Standard we have limited them to insurance, market and credit risks.

2. The Standard requires approaches to the determination of solvency shocks. In the case of long-term insurance risk, a revaluation using different assumptions is required. Market and credit risk shock are generally determined by applying a factor to standardised values. In all cases, however, there is an underlying shock that can be elicited, and discretions applied proportionately to that shock.

5 Theoretically, as shock smaller than 40% could produce a decrease in solvency capital in certain condiitions.

3. The purpose of this clause is to avoid the use of a set of assumptions and discretions that may not be implementable in reality (e.g., increased premium rates together with lower lapse rates).

4. The purpose of this clause is to ensure that solvency stresses generate losses and are not nullified by assumed future premium increases. While in the long-term losses may be recoverable, in the short-to-medium term they will reduce *solvency capital*.

5. Any change in the nature and scale of discretions applied between solvency determination dates should be justified by changes in the economic or operating environment, changes in business models etc.

   'Consistency within each calculation of the *PCR*' also requires the exclusion of double or triple-counting of discretions. As *capital charges* are additive and the Standard allows discretions to reduce insurance, market and credit risk *capital charges*, the possibility arises that the same discretion could be employed three times. Each discretion should only be employed once.

   The following clauses describe how the discretions are to be applied. Their 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

6. [No comment]

7. The *current termination value* minimums perform a specific function in the Standard (charging off intangible policy assets) and hence it would be inappropriate to apply discretions.

Reduction in Discretionary Benefits

8. Management action to reduce bonus rates etc. should only be allowed where it is likely that such action would actually be taken in the event of a solvency shock. Where practical considerations would render action unlikely (e.g., due to the establishment of a benefit expectation by prior practice etc.), no discretion should be allowed for.

9. The unvested estate is a balancing item between the value of the asset pool for a block of business and the value of its liabilities (including vested and planned bonuses). Solvency shocks may impact on both assets and liabilities, and hence on the value of the unvested estate. To the extent that the policyholder will bear any loss in this value, it can be allowed as a discretion.

10. See comment on clause 8.

11. Any approximate methods employed should meet the requirements of paragraph 16.

Increases to Expense Charges – Inflation-Linked

12. [No comment]

13. 'Realistic in the circumstances' means, among other things, that the assumptions should take into account any practical difficulties in implementing increases in charges, including push-back from customers.

Quantum (One-Off) Increase to Expense Charges

14. [No comment]

Premium Rate Increase

15. Note that there is currently no discretion to increase premium rates for reasons other than insurance loss experience. See comment on clause 13 regarding the meaning of 'realistic in the circumstances'.

16. Hurdles to premium rate increases need to be allowed for in setting discretion assumptions.

17. Health insurance rate increases have been capped due to likely market pushback at higher levels (e.g., in the form of increased lapses and lower sales).

    It is intended that one-off and annual increases can be applied in combination.

Claw-Back of Acquisition Commission

18. [No comment]

19. As with clause 17, there are limits to changes that the health insurance market will realistically accept.

8. Taxation and the prescribed capital requirement

1. The 'appropriate adjustment for *taxation*' refers to the recognition of *tax* losses consequent to solvency shocks. Other *tax* effects and items are not governed by this appendix.

   As *tax* liabilities and assets can be moved around *taxation* groups, the *appointed actuary* should consider likely management actions in this respect when making *tax* adjustments.

2. Comments by sub-clause:

   i. The previous standards were silent on *tax* effects for some *capital charges* while requiring them for others. The Standard, however, requires allowances for *tax*.

      While approximations can be used where *tax* calculations are onerous, we would prefer accurate calculations where possible and would suggest that insurers develop systems over time to facilitate them.

   ii. As a general principle, solvency regimes should countenance different future operating paradigms. For the purposes of the Standard, *taxation* assets should be robust to the paradigm.

   iii. Advice may be sought from the licensed insurer's *tax* professionals with respect to the net *taxation* position.

iv. At first glance it may seem redundant to determine *tax* benefits and then effectively write them off through a 100% *capital charge*. However, the process is meaningful if the net *taxation* position is a liability (before or after solvency stresses), or if there are floors and ceilings applied in the derivation of the net *taxation* position.

v. In the previous standards it was unclear whether capital factors were net or gross of *tax*. In the Standard this is now clear.

The *taxation* calculations to be performed are specific to the application of this solvency standard and should affect the capital charge calculations made. The results may differ from *taxation* calculations prepared for other purposes.

Worked Examples

Example 1 - Short-term monthly-pay contract under modified PAA (amortisation of IACF)

Premium	$100	per month (in advance)
Acquisition costs	$120	
Expected claims	50%	of premium
Claim handling expense	10%	of premium
Reinsurance premium	10%	of premium
Risk adjustment	15%	of premium
Tax rate	28%	of profit

Other assumptions:
- domestic motor insurance
- no pre-existing assets or liabilities relating to the contract
- coverage period of one year
- contract boundary sufficient to allow for payment of claims in normal circumstances
- reinsurance premium paid annually in advance

Time in months	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**Paragraph**	**Notes**
Profit & loss items															Items measured over month to 'time in months'
Gross cash-flow	-20	30	30	30	30	30	30	30	30	30	30	30	-70		Combined ratio basis
Increase in ISS gross liability	-960	80	80	80	80	80	80	80	80	80	80	80	80		
Increase in premium receivable	1100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	0		
ISS Profit	120	10	10	10	10	10	10	10	10	10	10	10	10		Trail profits in months 1-12 are the release of the risk adjustment
Tax	-34	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3		
Balance sheet items															Items measured immediately after premium receipt
Starting liability	0	20	10	0	-10	-20	-30	-40	-50	-60	-70	-80	-90	55(b)	Brought forward from previous month
Premium received	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100		55(a)(i) & 55(b)(i)	Receipt of premium instalment establishes a liability
IACF paid	120													55(b)(ii)	Implicit asset means no adjustment is required under 29(i).
IACF amortised	0	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	55(b)(iii)	Gradual de-recognition of implicit IACF asset
Revenue recognised		100	100	100	100	100	100	100	100	100	100	100	100	55(b)(v)	Earning of premium
NZ IFRS 17 liability	20	10	0	-10	-20	-30	-40	-50	-60	-70	-80	-90	0		
Receivable adjustment	-1100	-1000	-900	-800	-700	-600	-500	-400	-300	-200	-100	0	0	29(i)	Remaining months × 100
Reinsurance adjustment	120	110	100	90	80	70	60	50	40	30	20	10	0	29(iii)	Prepaid reinsurance premium
ISS gross liability	-960	-880	-800	-720	-640	-560	-480	-400	-320	-240	-160	-80	0		
Premium receivable	1100	1000	900	800	700	600	500	400	300	200	100	0	0	29(i)	Offsets the receivable adjustment
Tax liability	-34	-31	-28	-25	-22	-20	-17	-14	-11	-8	-6	-3	0	31(i)	Present value of tax on ISS Profit
Contribution to Solvency Capital	106	89	72	55	38	20	3	-14	-31	-48	-66	-83	0		

Positive numbers are increases in solvency capital

Purple references refer to NZ IFRS 17, red references refer to the ISS

Example 1a - Short-term monthly-pay contract under modified PAA (expensing of IACF)

Premium	$100	per month (in advance)
Acquisition costs	$120	
Expected claims	50%	of premium
Claim handling expense	10%	of premium
Reinsurance premium	10%	of premium
Risk adjustment	15%	of premium
Tax rate	28%	of profit

Other assumptions:
- domestic motor insurance
- no pre-existing assets or liabilities relating to the contract
- coverage period of one year
- contract boundary sufficient to allow for payment of claims in normal circumstances
- reinsurance premium payable annually in advance

Time in months	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**Paragraph**	**Notes**
Profit & loss items															Items measured over month to 'time in months'
Gross cash-flow	100	30	30	30	30	30	30	30	30	30	30	30	-70		Combined ratio basis
Increase in ISS gross liability	-960	80	80	80	80	80	80	80	80	80	80	80	80		
Increase in premium receivable	1100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	0		
ISS Profit	240	10	10	10	10	10	10	10	10	10	10	10	10		Trail profits in months 1-12 are the release of the risk adjustment
Tax	-67	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3		
Balance sheet items															Items measured immediately after premium receipt
Starting liability	0	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	55(b)	Brought forward from previous month
Premium received	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100		55(a)(i) & 55(b)(i)	Receipt of premium instalment establishes a liability
IACF paid														55(a)(ii) & 55(b)(ii)	No implicit asset (so adjustment is required under 29(ii)).
IACF amortised														55(b)(iii), 59(a)	Election made to expense
Revenue recognised		100	100	100	100	100	100	100	100	100	100	100	100	55(b)(v)	Earning of premium
NZ IFRS 17 liability	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	0		
Receivable adjustment	-1100	-1000	-900	-800	-700	-600	-500	-400	-300	-200	-100	0	0	29(i)	Remaining months × 100
IACF adjustment	120	110	100	90	80	70	60	50	40	30	20	10	0	29(ii)	Adjustment to reinstate unamortised DAC
Reinsurance adjustment	120	110	100	90	80	70	60	50	40	30	20	10	0	29(iii)	Prepaid reinsurance premium
ISS gross liability	-960	-880	-800	-720	-640	-560	-480	-400	-320	-240	-160	-80	0		
Premium receivable	1100	1000	900	800	700	600	500	400	300	200	100	0	0	29(i)	Offsets the receivable adjustment
Tax liability	-34	-31	-28	-25	-22	-20	-17	-14	-11	-8	-6	-3	0	31(i)	Present value of tax on ISS Profit
Contribution to Solvency Capital	106	89	72	55	38	20	3	-14	-31	-48	-66	-83	0		

Positive numbers are increases in solvency capital

Purple references refer to NZ IFRS 17, red references refer to the ISS

Example 2 - Short-term monthly-pay contract under modified GMM

Premium	$100	per month (in advance)
Acquisition costs	$120	
Expected claims	50%	of premium
Claim handling expense	10%	of premium
Expected reinsurance cost	5%	of premium
Risk adjustment	15%	of premium
Tax rate	28%	of profit

Other assumptions:
- domestic motor insurance
- no pre-existing assets or liabilities relating to the contract
- coverage period of one year
- contract boundary sufficient to allow for payment of claims in normal circumstances
- no discounting

Time in months	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**Paragraph**	**Notes**
Profit & loss items															
Premium	100	100	100	100	100	100	100	100	100	100	100	100			
Acquisition costs	-120														
Claims		-50	-50	-50	-50	-50	-50	-50	-50	-50	-50	-50	-50		
Claim handling expenses		-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10		
Reinsurance cost		-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5		
Gross cash-flow	-20	35	35	35	35	35	35	35	35	35	35	35	-65		
Increase in ISS gross liability	-960	80	80	80	80	80	80	80	80	80	80	80	80		
Increase in premium receivable	1100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	0		
ISS Profit	120	15	15	15	15	15	15	15	15	15	15	15	15		Trail profits in months 1-12 are the release of the risk adjustment
Tax	-34	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4		
Balance sheet items															
Fulfilment cash-flows	320	285	250	215	180	145	110	75	40	5	-30	-65	0	32(a)(i)	Sum of future gross cash-flows
Risk adjustment	-180	-165	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	32(a)(iii)	Compensation for risk borne
Receivable adjustment	-1100	-1000	-900	-800	-700	-600	-500	-400	-300	-200	-100	0	0	27(vi)	Remaining months × 100
ISS gross liability	-960	-880	-800	-720	-640	-560	-480	-400	-320	-240	-160	-80	0		
Premium receivable	1100	1000	900	800	700	600	500	400	300	200	100	0	0	27(vi)	Offsets the receivable adjustment
Deferred tax liability	-50	-46	-42	-38	-34	-29	-25	-21	-17	-13	-8	-4	0	31(i)	Present value of tax on ISS Profit
Contribution to Solvency Capital	90	74	58	42	26	11	-5	-21	-37	-53	-68	-84	0		

Positive numbers are increases in solvency capital
Purple references refer to NZ IFRS 17, red references refer to the ISS

Example 3 - Short-term annual-pay contract under modified PAA

Premium	$1200	per annum (in advance)
Acquisition costs	$120	
Expected claims	50%	of premium
Claim handling expense	10%	of premium
Reinsurance premium	10%	of premium
Risk adjustment	15%	of premium
Tax rate	28%	of profit

Other assumptions:
- domestic motor insurance
- no pre-existing assets or liabilities relating to the contract
- coverage period of one year
- contract boundary sufficient to allow for payment of claims in normal circumstances
- reinsurance premium payable annually in advance

Time in months	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**Paragraph**	**Notes**
Profit & loss items															Items measured over month to 'time in months'
Gross cash-flow	1080	-70	-70	-70	-70	-70	-70	-70	-70	-70	-70	-70	-70		Combined ratio basis
Increase in ISS gross liability	-960	80	80	80	80	80	80	80	80	80	80	80	80		
Increase in premium receivable	0	0	0	0	0	0	0	0	0	0	0	0	0		
ISS Profit	120	10	10	10	10	10	10	10	10	10	10	10	10		Trail profits in months 1-12 are the release of the risk adjustment
Tax	-34	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3		
Balance sheet items															Items measured immediately after premium receipt
Starting liability	0	-1080	-990	-900	-810	-720	-630	-540	-450	-360	-270	-180	-90	55(b)	Brought forward from previous month
Premium received	-1200													55(a)(i) & 55(b)(i)	Receipt of premium instalment establishes a liability
IACF paid	120													55(b)(ii)	Implicit asset means no adjustment is required under 29(ii).
IACF amortised	0	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	55(b)(iii)	Gradual de-recognition of implicit IACF asset
Revenue recognised	0	100	100	100	100	100	100	100	100	100	100	100	100	55(b)(v)	Earning of premium
NZ IFRS 17 liability	-1080	-990	-900	-810	-720	-630	-540	-450	-360	-270	-180	-90	0		
Receivable adjustment														29(i)	Remaining months × 100
Reinsurance adjustment	120	110	100	90	80	70	60	50	40	30	20	10	0	29(iii)	Prepaid reinsurance
ISS gross liability	-960	-880	-800	-720	-640	-560	-480	-400	-320	-240	-160	-80	0		
Premium receivable														29(i)	Offsets the receivable adjustment
Deferred tax liability	-34	-31	-28	-25	-22	-20	-17	-14	-11	-8	-6	-3	0	31(i)	Present value of tax on ISS Profit
Contribution to Solvency Capital	-994	-911	-828	-745	-662	-580	-497	-414	-331	-248	-166	-83	0		

Positive numbers are increases in solvency capital

Purple references refer to NZ IFRS 17, red references refer to the ISS

Example 4 - Short-term annual-pay contract under modified GMM

Premium	$1200	per annum (in advance)
Acquisition costs	$120	
Expected claims	50%	of premium
Claim handling expense	10%	of premium
Expected reinsurance cost	5%	of premium
Risk adjustment	15%	of premium
Tax rate	28%	of profit

Other assumptions:
- domestic motor insurance
- no pre-existing assets or liabilities relating to the contract
- coverage period of one year
- contract boundary sufficient to allow for payment of claims in normal circumstances
- no discounting
- no lapses

Time in months	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**Paragraph**	**Notes**
Profit & loss items															
Premium	1200														
Acquisition costs	-120														
Claims		-50	-50	-50	-50	-50	-50	-50	-50	-50	-50	-50	-50		
Claim handling expenses		-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10		
Reinsurance cost		-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5		
Gross cash-flow	1080	-65	-65	-65	-65	-65	-65	-65	-65	-65	-65	-65	-65		
Increase in ISS gross liability	-960	80	80	80	80	80	80	80	80	80	80	80	80		
Increase in premium receivable	0	0	0	0	0	0	0	0	0	0	0	0	0		
ISS Profit	120	15	15	15	15	15	15	15	15	15	15	15	15		Trail profits in months 1-12 are the release of the risk adjustment
Tax	-34	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4		
Balance sheet items															
Fulfilment cash-flows	-780	-715	-650	-585	-520	-455	-390	-325	-260	-195	-130	-65	0	32(a)(i)	Sum of future gross cash-flows
Risk adjustment	-180	-165	-150	-135	-120	-105	-90	-75	-60	-45	-30	-15	0	32(a)(iii)	Compensation for risk borne
Receivable adjustment														27(vi)	Remaining months × 100
ISS gross liability	-960	-880	-800	-720	-640	-560	-480	-400	-320	-240	-160	-80	0		
Premium receivable														27(vi)	Offsets the receivable adjustment
Deferred tax liability	-50	-46	-42	-38	-34	-29	-25	-21	-17	-13	-8	-4	0	31(i)	Present value of tax on ISS Profit
Contribution to Solvency Capital	-1010	-926	-842	-758	-674	-589	-505	-421	-337	-253	-168	-84	0		

Positive numbers are increases in solvency capital

Purple references refer to NZ IFRS 17, red references refer to the ISS

Example 5 - Annual-pay YRT contract under modified GMM

Term	10	years
Discount rate	5%	per annum
Premium	$1000	per annum (in advance)
Acquisition costs	150%	of premium
Year 1 net death claim	$500	
Death claim growth	5%	per annum
Maintenance expense	10%	of premium
Expected reinsurance cost	5%	of premium
Risk adjustment	1%	of PV(risky cashflows)
Tax rate	28%	of profit

Other assumptions:
- No lapses

Other comments:
- Risk adjustments have been determined as a percentage of risky cashflows for the purpose of this example, but they could be determined in many other ways.

Time in years	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Paragraph**	**Notes**
Profit & loss items													
Premium	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000			
Acquisition costs	-1500												
Net death claims		-500	-525	-551	-579	-608	-638	-670	-704	-739	-776		
Reinsurance cost		-50	-50	-50	-50	-50	-50	-50	-50	-50	-50		
Maintenance expense		-100	-100	-100	-100	-100	-100	-100	-100	-100	-100		
Gross cash-flow	-500	350	325	299	271	242	212	180	146	111	-926		
Increase in ISS gross liability	1128	-287	-276	-263	-249	-232	-213	-191	-167	-140	890		
Increase in premium receivable	0	0	0	0	0	0	0	0	0	0	0		
ISS Profit	628	63	49	35	22	10	-1	-11	-21	-29	-35		Profit is largely released on sale
Tax	-176	-18	-14	-10	-6	-3	0	3	6	8	10		
Balance sheet items													
Asset for Insurance Acquisition Cash-Flows	1500	1350	1200	1050	900	750	600	450	300	150	0	28B	NZ IFRS 17 contract-spanning IACF
Remove asset for IACF	-1500	-1350	-1200	-1050	-900	-750	-600	-450	-300	-150	0	27(iii)(a)	
Best estimate liability	1188	897	617	349	95	-142	-361	-559	-734	-882	0	32(a)(i)	Present value of future gross cash-flows
Risk adjustment	-59	-56	-52	-47	-42	-37	-31	-24	-17	-9	0	32(a)(iii)	Compensation for risk borne
Receivable adjustment												27(vi)	No receivable as premium for the year is paid in advance
ISS gross liability	1128	841	565	302	53	-179	-392	-583	-750	-890	0		
Premium receivable												27(vi)	Offsets the receivable adjustment
Deferred tax liability	-27	-11	2	12	19	23	23	21	17	9	0	31(i)	Present value of tax on ISS Profit
Contribution to Solvency Capital	1101	830	567	314	72	-157	-369	-562	-734	-881	0		
PV of risky cashflows:													
Net death claims	-4762	-4500	-4200	-3859	-3473	-3039	-2553	-2010	-1407	-739	0		**Positive numbers are increases in solvency capital**
Reinsurance cost	-386	-355	-323	-289	-254	-216	-177	-136	-93	-48	0		**Purple references refer to NZ IFRS 17**
Maintenance expenses	-772	-711	-646	-579	-508	-433	-355	-272	-186	-95	0		**Red references refer to the ISS**
Sum of absolute values	5920	5566	5169	4727	4234	3688	3084	2419	1686	882	0		

Example 6 – Benefit term

*ISS Paragraph 17: **Benefit term** means the term over which contractual benefits or claims may be paid under an insurance contract, excluding cases where benefits are delayed by force majeure, litigation or other extraordinary contingencies.*

The determination of the **benefit term** requires the consideration of plausible futures for the insurance contract. Futures that should *not* be considered are delays in payments due to force majeure, litigation or other extraordinary contingencies; an 'extraordinary' contingency may be taken as a future path having a likelihood of less than 1% at the valuation date

Consider a 10-year insurance contract purchased by a 35-year old which has:

- premiums payable monthly in advance
- an income benefit on disability payable to age 65
- a 5% chance of being cancelled by the insured within the 14-day free look period, or by the insurer later;
- a 0.5% chance of extending beyond the 10-year premium term due to the inception of a claim; and
- an 94.5% chance of expiring at the end of the 10-year premium term.

Then:

- The 0.5% chance of paying an income benefit can be dismissed as an 'extraordinary contingency';
- Cancellation does not set the benefit term as there are other plausible futures for the contract; so
- The benefit term is 10 years as this is when the last 'ordinary' cash-flow - expense incurred in terminating the contract- is expected.

NB: Had there been a 2% chance of extending due to inception of a claim, the benefit term would have been to age 65, as claim payment would not have been an extraordinary contingency.

Examples 7 & 8 – Guaranteed renewability

*ISS Paragraph 17: **Guaranteed renewability** means the contractual right of a policyholder to, at the end of the current contract term, renew their cover with no new underwriting (medical or otherwise) and on terms (premium rates, benefit limits, contract wording etc.) that are set from time to time for the sub-class to which their insurance contract belongs. A sub-class is a subset of a product class having common product design, for example premium pattern (level vs stepped), benefits provided & risks insured, whether the policyholder is a physical or legal person etc.*

For an insurance contract to be **guaranteed renewable**, all of the following statements must all be true:

- The policyholder must have the option of renewing their insurance contract at the end of its current term;
- The insurer must not be able to re-underwrite the insurance contract on renewal;
- The insurer must not be able to reset premium rates for the insurance contract, separately from other similar business;
- The insurer must not be able to reset benefit types and levels for the insurance contract, separately from other similar business; and
- The insurer must not be able to change contract wording to the detriment of the policyholder, separately from other similar business.

Example 7:

An insurer offers an annual renewable policy covering medical expenses. In order to renew the policy the insured completes an application form including an attestation of continuing good health. Premium rates and benefits may be changed by the insurer from year to year for all policies of the same type.

This policy is not guaranteed renewable, as the attestation signed by the insured is a simplified form of underwriting and, if signed fraudulently, could result in the voiding or other modification of the renewed contract.

(NB: Without the attestation requirement, the contract would be guaranteed renewable)

Example 8:

A yearly renewable term (YRT) life insurance policy is renewed automatically at the end of the contract year. Unless the policyholder opts to terminate, the renewed policy will have the same sum insured as the original contract and a premiums that are based on attained age and set by the insurer for all YRT policies.

As the policyholder has the option to renew and the insurer is not able to re-underwrite, reset premium rates, reset benefits or change contract wording, this contract is guaranteed renewable.

Examples 9, 10 & 11 – Short and long-term business

*ISS Paragraph 17: **Short-term insurance contract** means an insurance contract that meets all the following requirements on commencement:*

i. The contract is eligible to be measured using the Premium Allocation Approach in accordance with the conditions in paragraphs 53 and 54 of NZ IFRS 17.

ii. The licensed insurer is not expected to be at risk for any claims that may be incurred more than one year after the commencement date of the insurance contract, or more than two years after in respect of the travel insurance product class only.

iii. There is no expectation that future renewals of the contract will fund acquisition or insurance expenses in the current policy year.

iv. There is no expectation that the current contract will fund acquisition or insurance expenses under future renewals of the contract.

v. The contract does not have guaranteed renewability.

In NZ IFRS 17, the premium allocation approach (PAA) can be used for groups of contracts where

- the approach provides a valuation that is not materially different to that under the general model; or
- the coverage period is one year or less.

A group of contracts would fail to qualify for the PAA approach if at least one of them had a coverage period more than one year and the approach does not provide a good approximation to the general model results. A group with such a contract is unsuitable for valuation using the modified PAA method of paragraph 29, or for capital charges determined on the simplified, short-term basis.

Where an insured event can take place and a claim can be incurred in future years under the current contract, the policy is not suitable for valuation and capital -charging using short-term, approximate methods. Neither is it appropriate where there is financing (subsidisation) of claims, benefits or expenses between policy years, or where the contract is long-term by virtue of being guaranteed renewable. Applying short-term methods to such contracts will result in solvency capital failing to represent economic value and capital charges failing to model risk at the desired level.

Example 9:

A yearly renewable term life insurance contract pays 150% of premium as up-front commission.

As this cannot be funded out of the first contract year's premium, there is an expectation that it will be financed by future years' premiums.

The contract fails requirement (iii) and is therefore long-term.

Example 10:

An insurer markets a product that provides foreign travel cover for a period of up to 18 months. For this product, the premium allocation approach (PAA) provides results that are identical with those that would be determined using the general model. All claims and expenses are expected to be fully funded by the single premium collected at outset. The contract cannot be renewed on guaranteed terms.

While this contract has a coverage period greater than one year, it is still eligible for PAA (requirement (i)). While the contract is at risk for claims incurred up to 18 months after commencement, it belongs to the travel insurance class and so still meets requirement (ii). As there is no possibility to renew, there can be no financing (requirements (iii) and (iv)) and there is no guaranteed renewability (requirement (v)).

The contract meets all requirements and is therefore short-term.

Example 11:

A five-year mechanical breakdown insurance is paid by level annual premiums and eligible to be measured using the PAA. Management expenses and commissions in a policy year are expected to be fully funded by the relevant loadings in that year's premium.

The contract is, however, long-term, as it fails two of the requirements:

- The insurer is at risk for claims incurred in years 2 - 5 after commencement; and
- As cars age, their repair costs are expected to increase. The current year's premium will need to part-fund claims in future years.