



Institute of Actuaries of Australia

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## PROFESSIONAL STANDARD 300

### VALUATIONS OF GENERAL INSURANCE CLAIMS

February 2010

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## **1 INTRODUCTION**

### **1.1 Application**

- 1.1.1 This Professional Standard applies to a Member undertaking a valuation of General Insurance Claims for an Entity.
- 1.1.2 A Member undertaking a General Insurance Claims valuation for an Entity in a jurisdiction other than Australia does not have to comply with this Professional Standard if the local actuarial standards in that jurisdiction govern the valuation of General Insurance Claims.

### **1.2 Classification**

- 1.2.1 This Professional Standard has been prepared in accordance with the Institute's Policy for Drafting Professional Standards, as varied from time to time. It must be applied in the context of the Institute's Code of Professional Conduct.
- 1.2.2 This Professional Standard is binding on Members of the Institute of Actuaries of Australia, in respect of all work covered by the Professional Standard.
- 1.2.3 Non-compliance with this Professional Standard by a Member engaged in work covered by the Professional Standard may constitute Actionable Conduct and may lead to penalties under the Institute's Disciplinary Scheme.
- 1.2.4 This Professional Standard in itself defines the requirements of the Institute in respect of all work covered by the Professional Standard. If a Member believes that the Professional Standard is ambiguous or for some other reason wishes to seek clarification of it, that Member may consult the Institute's Professional Standards Committee for guidance as to the interpretation of the Professional Standard. Apart from legislation or regulatory standards, no other document, advice or consultation (including Practice Guidelines of the Institute) can be taken to modify or interpret the requirements of this Professional Standard.
- 1.2.6 Members who find that they cannot carry out work in a manner that complies with this Professional Standard must decline to carry out the work, or terminate their agreement to do so.

### **1.3 Background**

- 1.3.1 In accordance with the strengthening of the Institute's professional governance framework, an updated and revised Professional Standard 300 was released in August 2007 replacing both the then existing Professional Standard 300 and Guidance Note 353 (Evaluation of General Insurance Technical Liabilities).
- 1.3.2 Following the release of the August 2007 version of Professional Standard 300, it became evident that there had been unintended consequences



flowing from the revision referred to in clause 1.3.1. In addition, there had been subsequent changes in APRA's Prudential Standards GPS 310 (Audit and Actuarial Reporting and Valuation) and GPS 311 (Audit and Actuarial Reporting and Valuation: Level 2 Insurance Groups) regarding the preparation of Insurance Liability Valuation Reports. This version of Professional Standard 300 addresses those consequences and regulatory changes.

#### **1.4 Purpose**

The purpose of this Professional Standard is to provide Members with principles and directions that must be followed with regard to technical aspects of the work described in Section 1.1.

#### **1.5 Previous versions**

This Professional Standard was first issued in May 1994, with an updated version issued in April 2002. A major revision was made in August 2007.

#### **1.6 Legislation and other requirements**

- 1.6.1 This Professional Standard must be considered in the context of applicable legislation. If there is a conflict between this Professional Standard and any applicable legislation, then the legislation takes precedence, and any differences must be documented in the Actuarial Report. In this context, legislation includes regulations, prudential standards, subordinate standards, accounting standards, rules issued by government authorities, and standards issued by professional bodies which have the force of law. Clauses 1.6.2 to 1.6.6 indicate specific examples of such legislation that may affect the work undertaken under this Professional Standard.
- 1.6.2 The Act provides for APRA to issue prudential standards regulating the activities of, and imposing requirements on, authorised general insurers and Level 2 Insurance Groups (as defined by APRA). APRA Prudential Standards mandate valuations of General Insurance Claims for authorised general insurers and Level 2 Insurance Groups, with regard taken of the relevant Professional Standards of the Institute.
- 1.6.3 Valuation estimates of General Insurance Claims for self-insurers, specialised insurers, insurance pools and/or accident compensation schemes are required by various Commonwealth, State and Territory authorities in Australia.
- 1.6.4 In countries other than Australia, a valuation of General Insurance Claims may be required by regulators or government authorities.
- 1.6.5 In certain cases, the valuation of General Insurance Claims and the accompanying Actuarial Report will be subject to External Peer Review, which must be undertaken in accordance with the Institute's Professional Standard 100.



- 1.6.6 Actuaries undertaking a valuation of General Insurance Claims for authorised general insurers have legal obligations to report certain matters or information to APRA. These obligations are referred to as “whistleblowing”. The obligations, details about what must be reported, related powers and protections are provided in section 49A of the Act. Members need to understand the obligations that apply to them in their circumstances. This may require Members to seek legal or other professional advice.
- 1.6.7 A reference to legislation or a legislative provision in this Professional Standard includes any statutory modification, or substitution of that legislation or legislative provision and any subordinate legislation issued under that legislation or legislative provision.

## 2 COMMENCEMENT DATE

This Professional Standard takes effect from 23 February 2010.

## 3 DEFINITIONS

‘**Act**’ means the Insurance Act 1973 (Cth), as amended or replaced from time to time.

‘**Actuary**’ has the same meaning as defined in the Code.

‘**Actuarial Advice**’ has the same meaning as defined in the Code.

‘**Actuarial Report**’ has the same meaning as defined in the Code.

‘**APRA**’ means the Australian Prudential Regulation Authority.

‘**Case Estimates**’ are the claim-by-claim estimates, set and recorded by an Entity at a particular date, of the amounts which are required to settle the reported and open General Insurance Claims.

‘**Central Estimate**’ is intended to be an unbiased estimate of the mean (statistical expectation) of the OCL or the FCL.

‘**Claim Payments**’ are the amounts an Entity has paid, or is liable to pay in the future, in respect of its exposure to General Insurance Claims, comprising payments made directly to claimants and Direct Expenses.

‘**Class of Business**’ means a grouping of General Insurance Claims valued as a unit, which may be a regulator-defined class of business.

‘**Code**’ means the Code of Professional Conduct of the Institute.

‘**Direct Expense**’ means allocated third party costs. These include payments on behalf of claimants, medical and legal fees where these are allocated to particular General Insurance Claims.



**'Diversification Benefit'** means the amount by which an overall Entity Risk Margin is less than the sum of individually assessed Outstanding Claims Liability and Future Claims Liability Risk Margins by Class of Business, where diversification between them occurs.

**'Entity'** means one or more companies, corporations or other bodies with a liability to pay insurance claims, or with a liability to compensate other parties.

**'Financial Condition Report'** means a report prepared in accordance with the Institute's Professional Standard 305 (or a replacement thereof).

**'Future Claim Liability (FCL)'** (also known as 'Premium Liability') means the value of Claim Payments and related Indirect Expenses, to be made after the valuation date, arising from future events for which the Entity is liable under its insurance policies. That value is unknown at the date of the valuation and is treated as a random variable. Such events would not have been reported as at the valuation date.

**'General Insurance Claims'** means:

- (a) claims for which an Entity is liable in respect of the Entity's Insurance Business; and/or
- (b) liabilities incurred by an Entity which, if that Entity was a general insurer as defined in section 11 of the Act, would be classed under that Act as being Insurance Business.

**'Incurred But Not Reported (IBNR)'** refers to General Insurance Claims that arise from events which have already occurred, but which have not yet been reported to the Entity as at the valuation date.

**'Incurred But Not Enough Reported (IBNER)'** refers to the estimated difference between the amount ultimately required to settle the General Insurance Claims which have been reported to the Entity at the valuation date, and the Case Estimates at the valuation date.

**'Indirect Expense'** means the management and administrative expenses incurred by the Entity in relation to the payment of the Outstanding Claims Liability and the Future Claims Liability. Indirect Expenses exclude Direct Expenses and are not allocated to claims, being usually estimated on an aggregate basis across the Entity or Class of Business.

**'Institute'** means The Institute of Actuaries of Australia (ABN 69 000 423 656).

**'Insurance Business'** has the same meaning as under the Act.

**'Material'** means important or essential in the opinion of the Member. For this purpose, 'Material' does not have the same meaning as in Australian accounting standards. 'Materiality' has a consistent meaning to 'Material'.



**'Member'** has the same meaning as set out in the Code.

**'Non-Reinsurance Recovery'** means an amount recoverable, in respect of an Entity's Claim Payments, from (but not necessarily limited to) salvage, subrogation and sharing agreements.

**'Outstanding Claim Liability (OCL)'** means the value at the valuation date of Claim Payments and related Indirect Expenses, to be made after the valuation date, arising from events occurring on or before the valuation date. The value is unknown at the valuation date and is treated as a random variable.

**'Premium Adjustment'** means an increase or a decrease of the premium made after the insurance policy start date (including premium refunds) on Insurance Business in force at the valuation date.

**'Previous Valuation'** means the previous valuation (if any) undertaken at the most recent annual balance date of the Entity. (Interim valuations are not defined here as Previous Valuations, but can be used for additional comparison.)

**'Principal'** has the same meaning as set out in the Code.

**'Professional Standard'** is a document setting out practice requirements in a particular situation or area that has been: (1) prepared in accordance with the Institute's Policy for Drafting Professional Standards; and (2) issued by the Institute.

**'Regulator'** means any agency, body or instrumentality established by an Australian Commonwealth, State or Territory government and includes APRA and the Australian Securities and Investments Commission.

**'Regulatory Report'** means a report required by a Regulator to be prepared by an Entity, but does not include any return required to be given to a Regulator for statistical or administrative purposes.

**'Reinsurance Cost'** means the cost to the Entity of purchasing reinsurance cover in respect of the General Insurance Claims being valued.

**'Reinsurance Recovery'** means an amount recoverable, in respect of an Entity's Claim Payments, from reinsurance agreements.

**'Replicating Portfolio'** means a notional portfolio of current, observable, market-based, fixed-interest investments of highest credit rating, which has the same payment profile (including currency and term) as the relevant claim liability being valued.

**'Risk Margin'** means any positive amount added to the Central Estimate in order to achieve a liability estimate for General Insurance Claims appropriate for the purpose of the valuation.



**'Unclosed Premium'** refers to the premium revenue from insurance policies that have not yet been processed, but for which the Entity is liable at the valuation date.

## **4 MATERIALITY**

- 4.1 A Member must take Materiality into account when performing any task or forming any opinion or judgment, or reaching any conclusion, required under, or necessitated by, this Professional Standard.
- 4.2 Whether something is Material or not will always be a matter requiring the exercise of the Member's professional judgment.

## **5 DOCUMENTATION**

### **5.1 Requirement for an Actuarial Report**

5.1.1 Where a Member performs a valuation to which this Professional Standard applies and:

- (a) those valuation results are intended to be used in, or as part of, an annual Regulatory Report; or
- (b) those valuation results are intended to be used in connection with a change or transfer of ownership of liabilities for General Insurance Claims; or
- (c) the Member forms a view, as a matter of judgment (and subject to clause 6.3), that the circumstances surrounding or affecting that valuation warrant it,

then, subject to clause 5.1.2, the Member must provide an Actuarial Report on the valuation which satisfies all the requirements laid down in section 5.2.

5.1.2 If the Member is issuing a Financial Condition Report, and the Financial Condition Report satisfies all the requirements laid down in section 5.2, then a separate Actuarial Report is not required.

5.1.3 If clause 5.1.1 does not apply in relation to a valuation performed by a Member, then the Member is not required to comply with the documentation requirements set out in this Professional Standard (including clause 5.2), but must:

- (a) comply with any relevant documentation and reporting requirements set out in the Code; and
- (b) document such other things as to which the Member reasonably forms a view, as a matter of judgment, that circumstances surrounding or affecting the valuation warrant documentation.





## 5.2 Content of an Actuarial Report

5.2.1 An Actuarial Report must:

- (a) comply with any relevant documentation and reporting requirements set out in the Code;
- (b) document all relevant matters stipulated in this Professional Standard as required to be documented; and
- (c) document such other things as to which the Member reasonably forms a view, as a matter of judgment, that circumstances surrounding or affecting the valuation warrant documentation.

5.2.2 In this Professional Standard, where a Member is placed under an obligation “where reasonably practicable”, and the Member forms the view that it is not reasonably practicable, the Member must document his or her reasons.

5.2.3 The level of detail to be provided in an Actuarial Report will depend on the purpose of the valuation, the size and complexity of the Classes of Business and considerations of Materiality. However, in determining the level of detail to be provided, a Member must:

- (a) ensure that the Actuarial Report provides sufficient information that a reader of that report could draw a conclusion that the derivation of the results stated in the Actuarial Report was reasonable; and
- (b) be cognisant of a reviewer’s requirements under the Institute’s Professional Standard 100, where external peer review is performed on the valuation.

## 6 VALUATION REQUIREMENTS

6.1 In undertaking a valuation of General Insurance Claims, a Member must consider and document each of the matters listed below:

- (a) purpose of valuation and terms of reference;
- (b) information and data;
- (c) valuation methods;
- (d) valuation assumptions;
- (e) valuation estimates;
- (f) uncertainty; and



- (g) any other matter the Member identifies as a Material matter relevant to the valuation that is not detailed elsewhere in this Professional Standard.
- 6.2 If a Previous Valuation has been conducted, the Member must also consider and document:
- (a) actual versus expected experience; and
  - (b) a reconciliation of the valuation results with the Previous Valuation results.
- 6.3 If the Member is of the opinion that a matter referred to in clause 6.1 or clause 6.2, or any aspect of a matter covered in this Professional Standard, is:
- (a) not relevant to the valuation in the circumstance, then the Member must document that the matter is not relevant and provide reasons for forming that opinion; or
  - (b) relevant but not appropriate having regard to the circumstances of that matter and the valuation then, provided the valuation results are not intended to be used in, or as part of, a Regulatory Report, the Member:
    - (i) may depart from this Professional Standard in respect of that matter, but
    - (ii) must provide an explanation as to why the approach adopted in those circumstances is more appropriate than the requirement stipulated in this Professional Standard.

For the avoidance of doubt, where a Member relies upon, and complies with, this clause in respect of a matter, the Member is taken to have complied with this Professional Standard in respect of that matter.

## **7 INFORMATION AND DATA**

### **7.1 Information requirements**

7.1.1 The Member must ask the Entity to provide:

- (a) all relevant information required for the valuation, including data and reports; and
- (b) access to staff and/or contractors of the Entity.

7.1.2 The Member must take reasonable steps to verify the consistency, completeness and accuracy of the information provided by the Entity (for example, by undertaking reconciliations against the Entity's financial



statements, trial balances and/or other relevant records, if these are available).

7.1.3 The Member must consider:

- (a) the administration and accounting procedures for policies and claims;
- (b) the characteristics of insurance policies, underwriting and claim processes; and
- (c) the relevant economic, legal and social environments and trends.

## **7.2 Information controls and limitations**

7.2.1 The Member must consider and document:

- (a) data controls, including reconciliations undertaken or relied upon;
- (b) discrepancies that cannot be resolved with the Entity, together with any consequent limitations;
- (c) any comments the Member has on the data used, data extraction, data summarising, quality checking and auditing at source; and
- (d) any consequent limitations arising from any reliance placed on others in accordance with section 7.3 of this Professional Standard.

7.2.2 If:

- (a) the Member is unable to obtain timely access to some or all of the required information from other persons (including the Entity); or
- (b) such information as is provided is limited,

then the Member may omit, from the Actuarial Report, analysis that depends on that information. However, the Member must provide details in the Actuarial Report regarding the circumstances as to why that analysis has been omitted and explain any consequent limitations.

7.2.3 If the Member believes that the information provided by the Entity is insufficient for the purpose of the assignment, then the Member must decline to undertake the assignment.

## **7.3 Reliance on others**

7.3.1 If, in performing work under this Professional Standard, a Member wishes to rely on someone else's (including another Member's) work, then the Member must:

- (a) inform the other person that the Member is relying on their work; and



- (b) assess the appropriateness of the other person's work for that purpose.
- 7.3.2 If, following the Member's assessment under clause 7.3.1(b), the Member determines that it is not appropriate to rely on the other person's work, the Member must do their own alternative, or supplementary, analysis and must document that analysis.
- 7.3.3 In any report prepared under this Professional Standard, the Member must:
  - (a) state what the Member has relied on that has been provided by another person; and
  - (b) record details of the steps the Member took to determine whether it was appropriate to rely on the other person's work.

## **8 ACTUAL VERSUS EXPECTED EXPERIENCE**

- 8.1 The Member must provide and document a comparison by Class of Business of the actual experience to the expected experience implied by the valuation basis of the most relevant valuation. The "most relevant valuation" is a matter for the Member's judgment, but possible such valuations include, but are not limited to:
  - (a) a Previous Valuation; or
  - (b) an interim valuation for which an Actuarial Report which meets all the requirements laid down in clause 5.2 was prepared.
- 8.2 The Member must decide which aspects of the actual experience compared to the expected experience are relevant for this analysis. The Member must consider whether to compare one or more of the aspects of the claim experience listed in clause 9.1.3 which are relevant to the valuation basis selected.
- 8.3 The Member must document the known or assumed reasons for deviations from the expected experience.

## **9 VALUATION METHODS**

### **9.1 Selection of valuation methods**

- 9.1.1 The valuation methods the Member uses to determine the Central Estimate of an OCL and/or the Central Estimate of an FCL, applied separately by Class of Business, must be methods that incorporate actuarial principles which, in the Member's judgment, are reasonable in the circumstances.
- 9.1.2 The valuation methods and the Class of Business subdivisions selected will depend on:



- (a) the purpose of the valuation;
- (b) the available information;
- (c) the nature and homogeneity of the data;
- (d) whether analysis is by accident period or underwriting period;
- (e) the type of business being valued;
- (f) the maturity of the business;
- (g) the results of the analysis of experience;
- (h) the Entity's environment;
- (i) relevant industry practice;
- (j) the particular circumstances of the Entity; and
- (k) any other matters identified by the Member as being relevant.

9.1.3 When selecting valuation methods, the Member must consider whether to analyse the following aspects of claim experience (by Class of Business):

- (a) claim frequency;
- (b) average claim size;
- (c) pattern of claim occurrence (or seasonality);
- (d) development of reporting of claims;
- (e) development of claim settlement or finalisation;
- (f) development of Claim Payments;
- (g) development of Case Estimates;
- (h) incidence and development of large claims;
- (i) potential impact of catastrophes; and
- (j) any other aspect of claim experience that may be relevant to the valuation.

9.1.4 The Member must document the reasons for the chosen valuation approach. If the data or other factors limit the Member's choice of valuation methods, then the Member must document this limitation together with any consequent limitations.



## 9.2 Employment of valuation methods

The Member must document a description of the valuation methods used, including:

- (a) how any roll forward process is carried out;
- (b) the reasons (and an explanation of the rationale) for selecting the valuation methods employed;
- (c) any control processes undertaken when checking that the application of the valuation methods occurs as intended;
- (d) the criteria used for selecting between the valuation methods, or for weighting the valuation methods (if more than one valuation method is used) with the rationale explained; and
- (e) the reasons for any change to the valuation methods adopted since the Previous Valuation, by Class of Business or grouping, with the rationale for the changes explained.

## 10 VALUATION ASSUMPTIONS

### 10.1 Selection of assumptions

10.1.1 In setting the valuation assumptions to determine the Central Estimate of an OCL and/or the Central Estimate of any FCL, the Member must:

- (a) consider the relevant experience of the Entity or, if the relevant experience of the Entity is not sufficiently credible, then consider the available relevant industry statistics or other information;
- (b) consider the valuation methods used and the analysis of the Entity's relevant actual historical claims experience (from clause 7.1.3);
- (c) take into account any special features of, or trends in, the claims experience; and
- (d) consider the consistency of the valuation basis as a whole, including: consistency between the Central Estimate of the OCL and the Central Estimate of any FCL allowing for changes in underwriting, pricing or similar issues, as well as consistency with the results of the actual versus expected analysis undertaken in Section 8.

10.1.2 The Member must document, by Class of Business, the assumptions adopted with the rationale explained, including the extent to which the assumptions used are based on the historical experience of the Entity. If the assumptions for a Class of Business or grouping have changed from the Previous Valuation, then reasons for the change must be explained and documented.



## 10.2 Economic assumptions

10.2.1 The Member must allow for any future escalation of Claim Payments (often called "claim inflation"). Whether the allowance is explicit or implicit will depend on the valuation methods being used. The escalation assumptions must consider:

- (a) wage and/or price inflation; and
- (b) superimposed inflation (any residual claim inflation arising for reasons other than wage and/or price inflation).

10.2.2 Legislative and/or regulatory requirements may prescribe whether Claim Payments are to be discounted. The Member must consider the purpose of the valuation and document whether the future Claim Payments are to be discounted. Discount rates used must be based on the redemption yields of a Replicating Portfolio as at the valuation date, where reasonably practicable.

10.2.3 If the projected payment profile of the future Claim Payments cannot be replicated (for example, for Classes of Business with extended runoff periods), then discount rates consistent with the intention of clause 10.2.2 must be used.

## 10.3 Claim Payment assumptions

10.3.1 The Member must consider and document whether analysis of historical development of Claim Payments is before or after allowance for Non-Reinsurance Recoveries and/or Reinsurance Recoveries.

10.3.2 In the projection of the future Claim Payments to be made after the valuation date, the Member must consider:

- (a) the items listed in clause 9.1.3;
- (b) the Claim Payment experience of the Entity (if available); and
- (c) how these relate to the assumptions about the future that are being made.

## 10.4 Indirect Expense assumptions

10.4.1 Accounting, legislative and/or regulatory requirements prescribe whether an allowance needs to be made for Indirect Expenses. In that light, the Member must consider the terms of reference and the purpose of the valuation and document whether to make an allowance for relevant Indirect Expenses.

10.4.2 For the OCL, the relevant Indirect Expenses include future ongoing claim management and administration expenses for all incurred claims (including both reported and IBNR claims).



10.4.3 For the FCL, the relevant Indirect Expenses include:

- (a) policy management and administration expenses to allow for the cost of managing unexpired policies for which the Entity is on risk; and
- (b) claims management and administration expenses for claims establishment and runoff.

10.4.4 The Member can use either or both of the following to estimate future Indirect Expenses:

- (a) the Entity's historical Indirect Expense information that is reasonably allocated; and/or
- (b) the Entity's internal information that is available to notionally allocate expenses.

If such information is unavailable or is unreliable, the Member must consider any available external benchmarks to assist in setting an appropriate assumption for the Indirect Expenses, and ensure that the overall expense assumptions adopted for the Entity are reasonable.

## **10.5 Non-Reinsurance Recovery assumptions**

10.5.1 The Member must consider and document whether to make an allowance for any relevant future Non-Reinsurance Recovery.

10.5.2 In evaluating any future Non-Reinsurance Recovery, the Member must consider:

- (a) the Non-Reinsurance Recovery Case Estimates (if available);
- (b) analysis of the Entity's past Non-Reinsurance Recovery experience (if available); and
- (c) how these relate to the assumptions about the future that are being made.

## **10.6 Reinsurance Recovery and Reinsurance Cost assumptions**

10.6.1 The Member must consider whether to make an allowance for any relevant future Reinsurance Recovery and document the results of that consideration.

10.6.2 In evaluating any future Reinsurance Recovery, the Member must consider:

- (a) the reinsurance program structure, the Reinsurance Recovery Case Estimates (if available);





- (b) the past Reinsurance Recovery experience (if available) of the Entity;
  - (c) how these relate to the assumptions about the future that are being made;
  - (d) whether the evaluation of Reinsurance Recoveries is consistent with the evaluation of the gross Claim Payments to which they relate; and
  - (e) whether to allow for the associated credit risk or whether reinsurance contracts may not be enforceable or may be disputed, as well as the potential distributions from liquidators of past reinsurers.
- 10.6.3 If a Central Estimate of a Future Claims Liability net of future Reinsurance Recovery is being evaluated, then the Member needs to consider the Reinsurance Cost associated with this Reinsurance Recovery. Where reinsurance has not yet been arranged, an allowance for Reinsurance Cost needs to be made. In projecting the Reinsurance Cost, the Member must consider the terms of any relevant existing reinsurance and any relevant information relating to changes in the reinsurance terms and pricing of the underlying business.

## **10.7 Premium Adjustment and Unclosed Premium assumptions**

If the FCL is being estimated, then the Member must consider (if relevant):

- (a) unexpired contractual obligations arising from the Insurance Business with an inception date up to the valuation date, for which the Entity is liable as at the valuation date, particularly how long after the valuation date events may occur for which the Entity is on risk;
- (b) any projected Premium Adjustments and make reasonable allowance for the effect of the anticipated Premium Adjustments; and
- (c) the Entity's Unclosed Premiums and other commitments arising from its insurance policies, and make reasonable allowance.

## **10.8 Taxation assumptions**

The Member must consider how the taxation environment, as well as government charges, levies and duties, impact the valuation assumptions. If necessary, the Member must make reasonable allowance for, and document, such.

## **10.9 Risk Margin and Diversification Benefit assumptions**

- 10.9.1 If the scope of the valuation includes the estimation of Risk Margins, then the Member must provide a quantitative indication of the variability. This can be achieved by examining scenario analyses, sensitivity analyses



and/or statistics such as the estimated standard deviation of any assumed probability distribution of claim cost outcomes.

10.9.2 If Risk Margins are required for an Entity, or for multiple Classes of Business, then the estimation process must be reasonable in aggregate and the Member must consider and document any Diversification Benefit.

10.9.3 If Risk Margins are required for a Class of Business in isolation, then the relevant undiversified Risk Margin must be evaluated and documented before the application of any Diversification Benefit.

## **11 VALUATION ESTIMATES**

### **11.1 Estimates appropriate to the valuation date**

11.1.1 The Member must:

- (a) produce valuation results appropriate to the valuation date; and
- (b) if the valuation is carried out using information and claim data current at a date that is before the valuation date using a roll forward process, allow for Material changes up to the valuation date.

11.1.2 If, before signing the Actuarial Report, the Member becomes aware of events after the valuation date which (based on reasonable grounds) are expected to have a Material financial impact on the valuation results, then the Member must:

- (a) disclose in the Member's Actuarial Report that such events have occurred and comment on the possible effect on the valuation results in the Member's Actuarial Report; and
- (b) if time reasonably permits, consider allowing for such events in the Member's valuation, taking into account the nature of the event and other relevant matters, such as the regulations and/or accounting standards relevant to the Member's valuation.

### **11.2 Outstanding Claim Liability**

11.2.1 The results of the OCL valuation must be documented. Where reasonably practicable, the Member must separately document the results by relevant Class of Business, both gross and net of any Non-Reinsurance Recovery, Reinsurance Recovery, any Risk Margin and any Diversification Benefit.

11.2.2 If the Central Estimate of the OCL includes an allowance for Indirect Expenses (refer to clause 10.4.1) the allowance must be separately documented.



- 11.2.3 Where reasonably practicable, if the Central Estimate of the OCL explicitly allows for Government charges imposed, such as levies, duties and taxes, then they must be separately documented.
- 11.2.4 Where reasonably practicable, comparisons of the Central Estimate of the OCL to the Case Estimates must be documented, both gross and net of any Non-Reinsurance Recovery and Reinsurance Recovery.
- 11.2.5 Where reasonably practicable, comparisons by relevant accident or underwriting periods of the past Claim Payments plus the Central Estimate of the OCL (both gross and net of the Non-Reinsurance Recovery) to earned premium (or other relevant exposure measure such as wages), must be documented, both gross and net of any Reinsurance Recovery.

### **11.3 Future Claim Liability**

- 11.3.1 If FCL results are required, then the Member must evaluate and document those results. Where reasonably practicable, the results must be separately documented by relevant Class of Business, both gross and net of Non-Reinsurance Recovery, Reinsurance Recovery, Risk Margin and Diversification Benefit.
- 11.3.2 If the Central Estimate of the FCL includes an allowance for Indirect Expenses (refer to clause 10.4.1), the allowance must be separately documented.
- 11.3.3 If the Central Estimate of the FCL explicitly allows for Government charges imposed such as levies, duties and taxes then, where reasonably practicable, they must be separately documented.
- 11.3.4 Where reasonably practicable, comparisons of the Central Estimate of the FCL (net of any Non-Reinsurance Recovery and Reinsurance Recovery) to unearned premium (net of unearned reinsurance premium) less deferred acquisition expenses must be documented.

## **12 UNCERTAINTY**

### **12.1 Uncertainty**

- 12.1.1 The Member must consider the level and the implications of the uncertainty related to the assessment of possible future claims cost outcomes and any potential future deviations they may cause to the results obtained.
- 12.1.2 The Member must describe, qualitatively, the main sources of uncertainty in the valuation and communicate the consequences of that uncertainty in the Actuarial Report.
- 12.1.3 To assist in quantitatively describing these sources of uncertainty, the Member must, if reasonably practical and as appropriate, use sensitivity analyses and/or scenario analyses and/or descriptive statistics (such as



the estimated standard deviation of any assumed probability distribution of claim cost outcomes).

- 12.1.4 The Member must document the key risks and uncertainties identified during the valuation.

## **12.2 Sensitivity**

- 12.2.1 The Member must consider and document the implications of the uncertainty identified in key assumptions of the valuation. Sensitivity and/or scenario analyses on key assumptions must be undertaken as a means of quantitatively illustrating the impact of the uncertainty related to the key assumptions.
- 12.2.2 The assumptions used in these analyses must be selected to illustrate the impact on results when a reasonable variation to key assumptions is made. The Member must document the results of the sensitivity analyses and comment in the Actuarial Report on the reasonableness of the alternative assumptions. The Member must state that the variations selected in the sensitivity analyses do not indicate upper or lower bounds of all possible outcomes.

## **13 RESULTS AND RECONCILIATION WITH PREVIOUS VALUATION**

### **13.1 Valuation results**

- 13.1.1 The Member must provide a clear statement of each of the following elements (if relevant) in the Actuarial Report:
- (a) the Central Estimate of the OCL;
  - (b) the Central Estimate of the FCL;
  - (c) Risk Margin; and
  - (d) sum of relevant items.

- 13.1.2 The Member must document the control process around the valuation results, including any high-level reasonableness tests undertaken during the valuation.

### **13.2 Reconciliation**

- 13.2.1 Subject to clause 13.2.2, the Member must quantify the amount by which the Central Estimate of the OCL determined at the Previous Valuation has proven too great or too small to provide for claim payments in the inter-valuation period and the residual OCL estimate. For this purpose:
- (a) the OCL estimates may be net of any allowance for Indirect Expenses;



- (b) the payments in the inter-valuation period are those relating to exposure for which the estimates at the Previous Valuation date aimed to provide; and
  - (c) the residual OCL estimate is that portion of the current valuation's OCL estimate that relates to exposure for which the Previous Valuation's OCL estimate aimed to provide.
- 13.2.2 For any Class of Business being valued, the Member may substitute the sum of the OCL and FCL estimates for the OCL estimate to satisfy clause 13.2.1.
- 13.2.3 Unless the Member has invoked clause 13.2.2, the Member must document a hindsight review of the reasonableness of the FCL determined at the Previous Valuation, with reference to the assumptions used in determining that FCL and the subsequent experience. However, the quantification described in respect of the OCL in clause 13.2.1 is not required.

### **13.3 Attribution**

The Member must explain the amount determined in clause 13.2.1 by quantifying the contribution of the components of such, including but not limited to:

- (a) discount rates at the current valuation being different to those applied at the Previous Valuation;
- (b) experience during the inter-valuation period being different to that projected at the Previous Valuation. For this purpose, "experience" excludes changes made to valuation model parameters in response to experience; and
- (c) residual changes to the valuation basis.

**END OF PROFESSIONAL STANDARD 300**