



Singapore Actuarial Society

SAS SAP G01

Standards of Actuarial Practice

for

**Actuaries Investigating Policy Liabilities
Relating to General Insurance Business**

**Effective:
1 January 2018**

Table of Contents

Table of Contents.....	2
1. BACKGROUND AND SCOPE	3
2. DEFINITIONS	4
3. MATERIALITY	6
4. DATA & INFORMATION.....	6
5. ACTUAL VERSUS EXPECTED EXPERIENCE	7
6. VALUATION METHODS.....	7
7. VALUATION ASSUMPTIONS.....	7
8. UNCERTAINTY	8
9. RESULTS	9
10. REPORTING	9

1. BACKGROUND AND SCOPE

- 1.1. This Standard applies to a Member of the Singapore Actuarial Society (SAS) engaged as a Certifying Actuary to perform a statutory valuation of Policy Liabilities in the course of preparing the actuarial investigation report relating to General Insurance business regulated by MAS.

In accepting an appointment as the Certifying Actuary for a General Insurer, the Member must consider most carefully in light of previous and current experience and workload whether acceptance would be in line with proper professional behaviour and standards.

No Member should act as a Certifying Actuary without the necessary practical experience and up-to-date knowledge of the external environment that could impact the affairs of the General Insurer. A Certifying Actuary must hold a valid Practising Certificate issued by the Singapore Actuarial Society.

- 1.2. The Policy Liabilities are calculated as the sum of the Premium Liabilities and the Claim Liabilities.
- 1.3. The purpose of this Standard is to provide Members with principles and standards that must be followed with regard to technical aspects of the work described in Section 1.1.
- 1.4. Members of the SAS who perform statutory valuations of Policy Liabilities must make reference to their compliance with this Standard whenever they give written advice. In particular, any area where the Certifying Actuary gives advice which is not consistent with this Standard should be specifically highlighted.
- 1.5. If there is a conflict between this Standard and the Act and any relevant MAS regulation, the Act and relevant regulation take precedence.
- 1.6. This Document takes effect from 31 December 2017 and applies for statutory valuations in Singapore with balance dates on or post this commencement date.
- 1.7. The Member, in fulfilling their role as a Certifying Actuary, shall prepare a written report to the chief executive of the insurer on any matter which:
- a) has come to the attention of the Member during the course of the individual's duties;
 - b) in the opinion of the Member, has any Material adverse effect on the financial condition of the General Insurer in respect of its business; and
 - c) requires rectification by the General insurer.

Where the Certifying Actuary of the General insurer is of the opinion that the General insurer has failed to take appropriate steps to rectify any matter reported by the individual within a reasonable time, the Member shall immediately send a copy of the report to the MAS and notify the board of directors of the General insurer that he has done so.

- 1.8. Some of the language used in all SAPs is intended to be interpreted in a very specific way in the context of a decision of the Member. In particular, the following verbs are to be understood to convey the actions or reactions indicated:

“Must” means that the indicated action is mandatory and failure to follow the indicated action will constitute a departure from this SAP,

“Should” (or “shall”) means that, under normal circumstances, the Member is expected to follow the indicated action, unless to do so would produce a result that would be inappropriate or would potentially mislead the intended users of the actuarial services. If the indicated action is not followed, the Member must disclose that fact and provide the reason for not following the indicated action; and

“May” means that the indicated action is not required, nor even necessarily expected, but in certain circumstances is an appropriate activity, possibly among other alternatives. Note that “might” is not used as a synonym for “may”, but rather with its normal meaning.

2. DEFINITIONS

‘**Act**’ means the Insurance Act (Cap 142).

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

‘**Central Estimate**’ is equivalent to ‘Best Estimate’, is intended to be an unbiased estimate of the mean (statistical expectation) of the Claim Liabilities or the URR.

‘**Certifying Actuary**’ refers to Members approved by MAS to perform the function of a Certifying Actuary.

‘**Claim Liabilities**’ are the sum of the:

- Value of expected future Claim Payments in relation to all claims incurred prior to and on the valuation date (other than payments which have fallen due for payment on or before the valuation date), whether or not they have been reported to the General Insurer, including any expense expected to be incurred in settling these claims; and
- the Provision for Adverse Deviation.

‘**Claim Payments**’ are the amounts a General Insurer 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.

‘**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.

‘**General Insurance Business**’ means insurance business other than life business as defined in the Act

‘General Insurer’ means a MAS regulated entity registered as an insurer and licensed to carry on General Insurance business

‘Indirect Expense’ means the management and administrative expenses incurred by the General Insurer in relation to the adjustment, payment and settlement of the Claim Liabilities and the URR. Indirect Expenses exclude Direct Expenses and are not allocated to claims, being usually estimated on an aggregate basis across the General Insurer or Class of Business.

‘MAS’ means the Monetary Authority of Singapore.

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

‘Member’ refers to individuals registered as members under the Singapore Actuarial Society.

‘Policy Liabilities’ is the sum of the Premium Liabilities and the Claim Liabilities.

‘Premium Adjustment’ means an increase or a decrease of the premium made after the insurance policy start date (including premium refunds from policy cancellations) on insurance business in force at the valuation date.

‘Premium Liabilities’ are the higher of the UPR and the URR.

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

‘Provision for Adverse Deviation (PAD)’ means any provision for any adverse deviation from the expected experience as set out in the Valuation Regulations

‘Unearned Premium Reserve (UPR)’ is a provision set aside from the premiums written before the valuation date to cover risks incurred after that date and is calculated as per the Valuation Regulations.

‘Unexpired Risk Reserve (URR)’ relates to the sum of the:

- Value of future Claim Payments arising from future events insured under policies in force as at the valuation date and includes any expense expected to be incurred in administering the policies and settling the relevant claims. 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; and
- the Provision for Adverse Deviation.

‘Valuation Regulations’ means the Insurance (Valuation and Capital) Regulations 2004 (G.N. No. S 498/2004).

3. MATERIALITY

- 3.1. The Member must take Materiality into account when performing any tasks required under this document.
- 3.2. When determining the threshold of Materiality, the Member must make an assessment from the point of view of the intended user(s) and the purpose of the actuarial valuation.

4. DATA & INFORMATION

4.1. Basis of Data

- 4.1.1 It is the Member's responsibility to ensure that the data used is appropriate for estimating insurance liabilities.

4.2. Data Source and Verification

- 4.2.1 The Member must take reasonable steps to verify consistency, completeness and accuracy of the information used in the valuation.
- 4.2.2 The Member must document in the actuarial investigation report:
 - a) reconciliations undertaken or relied upon; and
 - b) discrepancies that cannot be resolved with the General Insurer.

4.3. Sub-division or Grouping of Risks

- 4.3.1 The value of the insurance Policy Liabilities must be reported for each Class of Business prescribed under the relevant regulation.
- 4.3.2 Where a sub-division or grouping of Classes of Business is made, the Member must document how the sub-division or grouping of risks reconcile to the Classes of Business prescribed by relevant regulation.

4.4. Reliance on others

- 4.4.1 When relying on another person's work, 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
- 4.4.2 In any report prepared under this Standard, the Member must:
 - a) state what the Member has relied on from another person;
 - b) record details of the steps the Member took to determine whether it was appropriate to rely on the other person's work; and
 - c) disclose any consequent limitations arising from any reliance placed on others.

5. ACTUAL VERSUS EXPECTED EXPERIENCE

- 5.1. The Member must document a comparison by Class of Business of the actual experience to the expected experience implied by the valuation basis of the Previous Valuation.

6. VALUATION METHODS

6.1. Selection of valuation methods

6.1.1 The valuation methods used by the Member to determine the Central Estimate of the Claim Liabilities and/or the Central Estimate of the Unexpired Risk Reserve must be applied separately by Class of Business.

6.1.2 The valuation methods must be based on sound actuarial principles which, in the Member's judgment, are reasonable in the circumstances.

6.1.3 The Member must document the reasons for the chosen valuation approach.

6.2. Employment of valuation methods

6.2.1 The details of the valuation analysis must be documented.

6.3. Estimates appropriate to the valuation date

6.3.1 The Member must produce valuation results appropriate to the valuation date.

6.4. Provisions for Adverse Development (PAD)

6.4.1 The PAD is to be determined based on sound actuarial principles which, in the Member's judgment, are reasonable in the circumstances.

6.4.2 The details of any PAD analysis must be documented. This includes an explanation of the methodology and a rationale for the use of any external data used.

7. VALUATION ASSUMPTIONS

7.1. Selection of assumptions

7.1.1 The valuation assumptions to determine the Central Estimate of Claim Liabilities and/or the Central Estimate of the URR, are based on the expected cash flow to fulfil the insurance contractual obligations of the General Insurer.

7.1.2 Both internal and external factors to the General Insurer that may have influenced the observed patterns in historical experience and/or future patterns of claims must be considered.

7.1.3 The assumptions used to determine the PAD are selected to achieve the required level of prudence as set in the regulations. Internal and external factors must be considered in their selection.

7.1.4 The Member must document, by Class of Business, the assumptions adopted.

7.1.5 Assumption changes from Previous Valuations must be documented.

7.2. Indirect Expenses

7.2.1 Indirect Expenses must be reflected in the Claim Liabilities and/or the URR.

7.3. Discounting

7.3.1 The Member must consider the purpose of the valuation and document whether the future Claim Payments are to be discounted, including justification of the rate utilised.

7.4. Recoveries

7.4.1 Future Recoveries and their associated costs must be considered in the valuation.

7.5. Premium Adjustments

7.5.1 The following must be reflected in the Premium Liability:

- a) unexpired contractual obligations arising from the insurance business with an inception date up to the valuation date;
- b) any projected Premium Adjustments; and
- c) other commitments arising from its insurance policies

7.6. Provision for Adverse Deviation

7.6.1. Diversification benefit between Classes of Business must be considered and documented.

8. UNCERTAINTY

8.1. The Member must document the main sources of uncertainty in the actuarial valuation report.

8.2. The Member must conduct sensitivity and/or scenario analyses on key assumptions to illustrate the impact of uncertainty.

9. RESULTS

- 9.1. The Member must document a clear summary of valuation results by Class of Business in the actuarial valuation report.

10. REPORTING

10.1. Format

- 10.1.1. The actuarial investigation report must follow the structure prescribed by the relevant regulation.

10.2. Content

- 10.2.1. The Member must document the extent of compliance with this standard.
- 10.2.2. The Member must ensure the actuarial investigation report provides sufficient information such that a reader of that report is able to draw a conclusion that the derivation of the results stated in the report was reasonable.
- 10.2.3. The Member must prepare, date and sign the actuarial investigation report