ACTUARIAL SOCIETY OF HONG KONG

Actuarial Guidance Note 4:
Outstanding Claims Liabilities and Premium Liabilities for General Insurance Business

Regulatory Background

The Insurance (Amendment) Ordinance 2023, which introduced amendments to the Insurance Ordinance (Cap. 41) ("Ordinance"), the Insurance (Valuation and Capital) Rules (Cap. 41R) ("Valuation Rules") and the Insurance Authority's ("IA") Guideline on Actuarial Review of Insurance Liabilities in respect of General Business ("GL9"), came into full effect from July 1, 2024.

The regulatory framework governing actuaries in Hong Kong involves a hierarchy of regulations and guidelines. The Ordinance serves as the primary legislation, establishing the legal foundation for insurance operations, including actuarial responsibilities such as valuation and financial reporting. Its subsidiary legislation, the Valuation Rules, provides detailed rules on valuation of assets and liabilities, eligibility of capital, capital requirements, as well as the fund requirement. The IA's GL9 provides guidance on the scope, assumptions and methodologies to be used for the actuarial valuation of general insurance liabilities to be conducted pursuant to subsection 18A(1) of the Ordinance, to specify the scope and content of the actuarial report and actuarial certificate for such valuation, and to specify the submission requirements of the report and certificate.

Meanwhile, the Actuarial Society of Hong Kong ("ASHK") Actuarial Guidance Note 4 ("AGN4") offers non-binding but authoritative guidance, outlining best practices for actuarial work, particularly in areas like policy liability valuations. While the Ordinance and the Valuation Rules are legally enforceable and GL9 provides guidance on how the IA interprets these rules for practical application, AGN4 complements them by promoting professional rigor. Together, these regulations ensure actuaries adhere to both statutory obligations and professional ethics, balancing regulatory compliance with industry expertise. The IA oversees enforcement, while the ASHK fosters professional development, creating a cohesive framework for actuarial practice in Hong Kong.

Purpose

The purpose of this Actuarial Guidance Note ("AGN") is to assist Certifying Actuaries ("CA") in the estimation, review and reporting of general insurance liabilities to comply with the relevant provisions under the Ordinance, Valuation Rules and GL9.

Application

This AGN4 applies to ASHK members responsible for estimating outstanding claims liabilities and premium liabilities within Hong Kong's general insurance sector.

This AGN4 applies to all actuarial reviews of general insurance liabilities covered under current GL9.

While compliance with this AGN is not mandatory, non-compliance is only justified in exceptional circumstances where there is good reason. ASHK members not complying with this AGN without good reason may be subject to disciplinary proceedings by the ASHK.

For general insurance businesses that fall under the exemption criteria under Rule 3 of Insurance (Exemption to Appointment of Actuary) Rules (Cap. 41Q), this AGN4 serves as mere guidance for ASHK members who work on the actuarial review.

Definitions

Unless stated otherwise, the terms defined in the Ordinance, the Valuation Rules and GL9 have the same meaning whenever used in this AGN.

Effective Date

This revised AGN4 comes into effect on 27 July 2026 for valuations prepared as of or after 27 July 2026, superseding the previous version of AGN4 dated November 2016.

1. The Role of the Actuary

1.1 The CA[1] is appointed by an authorised insurer under subsection 15AAA(1)(c) or 15AAA(1)(d) of the Ordinance, subject to the approval of the IA under section 15AAAB of the Ordinance and relevant guidelines[2].

1.2 The CA is responsible for reviewing the valuation of the general insurance liabilities of the authorised insurer, and preparing and certifying the associated actuarial report, pursuant to subsection 18A(1) of the Ordinance.

1.3 The CA provides advice on the valuation of general insurance liabilities to his/her principal, who may be the employer or a client of the CA. However, the commercial decision of the actual levels of reserves to be adopted in the accounts of the authorized insurer shall remain the responsibility of the principal.

1.4 The CA is expected to act professionally[3] at all times; in particular:

(a) The CA is responsible for highlighting any material difference between the recommended level of reserves and the actual level of reserves adopted.

(b) If undue influence impacts the liability estimates or report content of the CA, or if data underlying the liability review is inadequate or withheld, the CA should promptly inform management, the board of directors, and/or the regulator (where appropriate).

1.5 In the event that the CA assumes more than one role in relation to an authorized insurer, it is the responsibility of the CA to avoid or resolve any apparent and real conflict of interest[4] between such roles, which may otherwise impair his/her ability to discharge duties in relation to any activity regulated by the IA.

2. Valuation of General Insurance Liabilities

2.1 Valuation scope and valuation basis

GL9 paragraph 3.1 states that: "*(t)he actuarial review should cover all classes of general business within the regulatory scope, including both onshore and offshore insurance liabilities, gross and net of reinsurance recoverables which must be valued on the basis as prescribed under the Valuation Rules.*"

2.2 Liabilities valuation

"*Subdivision 3 - Valuation of General Insurance Liabilities*" of the Valuation Rules sets out the manner in which general insurance liability items should be valued; in particular:

(a) General insurance liabilities are the sum of the **current estimates** of such liabilities, and the **margins over current estimates**[5].

(b) The **current estimate** is "the probability-weighted averages of the present values of the future cash flows required to settle the obligations giving rise to the liability within the relevant boundary"[6], using "**discount rates**"[7] to arrive at the present values.

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[1] GL9 paragraph 1.3

[2] Guideline on "Fit and Proper" Criteria in relation to Authorized Insurers under the Insurance Ordinance (Cap. 41) ("GL4")

[3] Refer to ASHK Professional Conduct Code

[4] This is set out in section "7. Conflict of Interest" of the ASHK Professional Conduct Code.

[5] Cap. 41R Subrule 27(2).

[6] Cap. 41R Subrule 28(1)

[7] Cap. 41R Subrule 28(2)

(c) The current estimate must be gross of reinsurance while reinsurance recoverables must be determined separately[8].
(d) Current estimates must be calculated separately for **outstanding claims liabilities** and **premium liabilities**[9].

2.3 Reserving methodology

2.3.1 GL9 specifies that:
(a) The CA is responsible for selecting an appropriate valuation method[10]; and
(b) When a standard and well-understood valuation method is adopted, the CA only needs to provide a brief reference to the method and an explanation of the data elements to which the method has been applied[11].

2.3.2 In this context, the following valuation methods are regarded as "standard and well-understood":
- Chain ladder method;
- Bornhuetter-Ferguson method;
- Expected loss ratio method; and
- Frequency and severity method.

The CA should provide additional disclosure in accordance with GL9 paragraphs 4.13 and 4.14 when an alternative valuation method is adopted.

2.3.3 In estimating outstanding claims liabilities and premium liabilities, the CA should consider such factors as:

- Appropriateness of triangle data dimension for the analysis;
- Accident year versus underwriting year basis for reserving;
- Historical experience and trends in claims incurred;
- Modelling large losses and attritional losses separately;
- Allowance for large claim loadings or adjustments where appropriate;
- Allowance for emergence delays, especially for long-tail classes of business;
- Changes in business mix, exposure or product features;
- Changes in case reserving or underwriting processes;
- Changes in premium rates and pricing ratios;
- Changes in reinsurance arrangements;
- Macroeconomic factors such as inflation, including superimposed inflation/social inflation; and
- External factors that may affect policyholder behaviour.

2.3.4 In addition to the expected claim costs, allowance for future expenses should be included in the current estimates (e.g. allocated loss adjustment expenses, unallocated loss adjustment expenses, policy administrative expenses). To project future expenses, the CA may refer to actual expense allocations, historical expense trends and/or information on planned future expenses.

2.4 Margin over Current Estimate (MOCE)

2.4.1 Valuation Rule 32(1) defines MOCE as "*an amount, calculated net of reinsurance, added to the current estimates for such liabilities, such that the sum of current estimates and MOCE provides for a 75% probability of adequacy for its general*

[8] Cap. 41R Subrule 28(3)
[9] Cap. 41R Subrule 30(1)
[10] GL9 paragraph 4.12
[11] GL9 paragraph 4.13

insurance liabilities".

2.4.2 The assessment of the MOCE generally requires the use of one or more of:
- statistical analysis (e.g. Mack method or Bootstrapping method);
- sensitivity analysis;
- scenario analysis; and
- professional judgement.

2.5 Timing of cash flows for discounting

Expected future cash flows may be derived by applying payment pattern assumptions to the current estimates. The CA is expected to make appropriate assumptions on the expected timing of cash flows within each cash flow period (e.g. annual, quarterly, monthly). Under normal circumstances, it would be reasonable to assume that cash flows occur at the midpoint of the period for discounting purposes.

3. Analysis of Issues and Recommended Practices

3.1 Deviation from company booked reserves

3.1.1 According to Rule 7(3)(b) of Insurance (Submission of Statements, Reports and Information) Rules (Cap. 41S), the CA's report must include a certificate by the CA (amongst other things):

> "*(ii) confirming that the insurance liabilities in respect of the authorized insurer's general business have been valued in accordance with the Insurance (Valuation and Capital) Rules (Cap. 41 sub. leg. R) and the relevant guidelines as issued by the Authority;*
>
> *(iii) stating whether in the actuary's opinion, the valuation of the insurance liabilities in respect of the authorized insurer's general business makes appropriate provision for the insurer's policy obligations;*
>
> *(v) containing such other information as the actuary considers necessary, including any qualification, amplification or explanation considered appropriate.*"

3.1.2 In order to opine on the appropriateness of provisions pursuant to Rule 7(3)(b)(iii), one practical approach is for the CA to compare the provisions against his/her own estimates. In the event that provisions differ materially from the CA's own estimates, the CA is expected to seek an understanding of the reasons for the differences as part of the confirmation pursuant to Rule 7(3)(b)(i). The CA should also consider providing commentary on the reasons pursuant to Rule 7(3)(b)(v).

3.1.3 The CA's own estimate is a range of reasonable estimate representing the CA's view under the Valuation Rules, quantified after applying professional judgement (for example, by varying key assumptions to other plausible selections). As such, the range represented by the CA's own estimate is expected to be narrower than the range of possible outcomes. The CA's best estimate should naturally fall within the range of his/her own estimate.

3.1.4 When comparing the provision and the CA's own estimate, there are four scenarios:

- **Scenario (i):** Provision falls short of the lower bound of the CA's own estimate: The CA should communicate to the insurer and the IA that the insurer "does not

make appropriate provision" on the certificate, present the deficit and provide an explanation on the drivers of the deficit as appropriate in the certificate.

- **Scenario (ii):** Provision is above the lower bound of the CA's own estimate but falls short of the CA's best estimate: The CA may conclude that the insurer "makes appropriate provision", elaborate in the actuary's report on the approach taken to establish the CA's own estimate and the justifications for his/her opinion.

- **Scenario (iii):** Provision lies between the CA's best estimate and the upper bound of the CA's own estimate: The CA may conclude that the insurer "makes appropriate provision".

- **Scenario (iv):** Provision exceeds the upper bound of the CA's own estimate: In this scenario, the CA should communicate to the insurer and the IA that the insurer "does not make appropriate provision" on the certificate, present the surplus, and provide an explanation on the drivers of the surplus as appropriate in the certificate.

3.1.5 The approach described in 3.1.3 is one suggestion to evaluate the differences between the CA's own estimate and company's booked reserves. The CA may adopt other approaches to opine on the appropriateness of provisions.

3.1.6 Before concluding the appropriateness of a provision and disclosing accordingly in the certificate[12].

(a) The CA is expected to investigate any potential shortfall or excess in provision by discussing with the management of the insurer to understand their bases of and their reasons for setting provisions. The investigations should be documented by the CA, as part of the basis of the CA's opinion.

(b) The CA is expected to consider the materiality of any shortfall or excess in provision - both by line of business as well as in aggregate.

3.2 Materiality

3.2.1 Materiality is mentioned in various parts of sections 4 ("Actuarial Review and Report") and 5 ("Certification of the Actuarial Opinion") of GL9.

3.2.2 The CA is expected to exercise professional judgement to determine what constitutes a material item, a material change in an item or a material risk - all of which requires elaboration in the report. The materiality of a financial metric may be judged by its importance to the intended users of the report and certificate (and/or how a change in such a metric) may influence the users' decisions.

***** END OF ACTUARIAL GUIDANCE NOTE *****

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[12] GL9 section 5 Certification of the Actuarial Opinion