**[GL7 was repealed with effect from 1 Jul 2024]**

**GL7**

# GUIDELINE
# ON
# THE RESERVE PROVISION
# FOR CLASS G OF LONG TERM BUSINESS

**Insurance Authority**

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## Contents

## 1. Introduction

1.1. This Guideline is issued pursuant to section 133 of the Insurance Ordinance (Cap. 41) ("the Ordinance"). Under the Ordinance, the Insurance Authority ("IA") has the primary function to regulate and supervise the insurance industry for the promotion of the general stability of the insurance industry and for the protection of existing and potential policy holders.

1.2. Policies classified under Class G of long term business ("Class G business") are mainly offered as retirement scheme contracts which provide for a guaranteed capital or return under the Mandatory Provident Fund Schemes or Occupational Retirement Schemes. Given the nature and the risk exposure of the Class G business and its implication on the retirement planning of the insuring public, the IA considers it appropriate that a set of guidelines on reserve provisions for Class G business should be promulgated for compliance by authorized long term insurers.

1.3. The objective of this Guideline is to reinforce and enhance the required standard of provision for Class G business with reference to the regulatory experience gained since the implementation of the first edition of GL7 issued in January 2001 by the Office of the Commissioner of Insurance and the recommendations of the consultancy study commissioned by the Mandatory Provident Fund Schemes Authority ("MPFA") on the subject.

### *Purpose*

1.4. This Guideline aims to provide the basic framework and guiding principles for the provisioning for Class G business. Authorized insurers and hence their appointed actuaries are required to comply with the Guideline with reference to the technical details as drawn up in the relevant professional guidance on the subject issued by the Actuarial Society of Hong Kong ("ASHK").

## 2. Application of this Guideline

2.1. This Guideline applies to an insurer authorized to carry on Class G of long term business as specified in Part 2 of Schedule 1 to the Ordinance.

## 3. Regulatory Framework

3.1. An insurer authorized to carry on long term business is required, among other things, to maintain a separate long term business fund for its Class G business carried on in or from Hong Kong. In respect of the Class G business fund, it is required that the value of the assets representing the fund shall be in the aggregate not less than the amount of the liabilities attributable to such business. The insurer shall also determine the liabilities in respect of long term business in accordance with the Insurance (Determination of Long Term Liabilities) Rules ("the Rules"). Pursuant to rule 4(2)(b) of the Rules, the determination of the amount of long term liabilities shall make proper provision for all liabilities on prudent assumptions that shall include appropriate margins for adverse deviation of the relevant factors.

3.2. In view of the above statutory requirements, it is expected that, in so far as Class G business is concerned, an authorized insurer shall maintain a designated fund for each series of Class G insurance policies with broadly identical contract terms within the Class G business fund. In respect of each designated fund, an authorized insurer is required to have sufficient assets to meet the required provision for all liabilities attributable to the insurance policies concerned including the liabilities arising from the proper provision for investment guarantees in accordance with the approach and methodology as specified in this Guideline and interpreted under the professional guidance on the subject issued by the ASHK in consultation with the IA and MPFA.

## 4. Guiding Principles

4.1. The valuation methodology applied for determining an authorized insurer's provisions shall be based on the following guiding principles:

(a) <u>Objective of the valuation</u>
The objective of the provisioning process is to quantify a total amount of assets sufficient to meet the obligations of the insurer against its policy holders.

(b) <u>Consideration of management action</u>
The insurer can only assume and incorporate into the model an effective response to an evolving risk (through some actions) if it can be demonstrated that:

(i) appropriate decision making authority resides within the insurer;

(ii) relevant controls and monitoring mechanisms are in place that would alert the insurer to an emerging situation in a timely manner;

(iii) adequate documentation exists that describes the insurer's risk and policy management strategies, constraints and objectives; and

(iv) any assumed action is reasonable, practical, lawful and consistent with market conditions, competitive pressures and regulatory requirements (including relevant guidelines).

(c) Relevance of risks

The valuation should attempt to quantify the amount of required assets in light of all relevant risks to which the insurer is exposed. This assessment should consider the insurer's contractual obligations, the reasonable expectations of policy holders, policy issuers, employers and scheme members and the economic conditions that might unfold in the future.

(d) Aggregation of risks

The sufficiency of provisions should be judged in aggregate across all risks for a given product grouping (in respect of Class G insurance policies with broadly identical contract terms), taking into account the diversification and/or concentration effects of pooling risks.

(e) Modelling of risks

Provisions should be established by the modelling of assets and liabilities and the potential interaction between them. All material risks should be reflected in the calculations. Where possible, distinct risks should be separately identified and explicitly modelled. The valuation should incorporate into the provision calculations the potential management response to evolving conditions. However, there should be a precedent for such action, and the insurer should have a written policy for risk management.

(f) Appropriateness of the model

The use of assumptions, methods and models should be appropriate to the valuation of the risks, and any risk management strategies, derivative instruments, structured investments, reinsurance or any other risk transfer or risk-sharing arrangements reflected in the valuation should have a valid business purpose and not merely be constructed to exploit "foreknowledge" of the components of the required provisioning methodology. That is, the models and assumptions should not be artificially constructed to manipulate the level of provisions.

(g) Standard of materiality

The valuation should attempt to quantify all relevant risks and establish appropriate provisions with due consideration to the materiality of such provisions.

(h) Acceptability of approximations

Consistent with the principle of materiality, approximations are acceptable provided they do not misrepresent, materially underestimate or systematically misstate the insurer's liabilities.

(i) Reasonableness of assumptions

The implementation of a model involves decisions about the experience assumptions and the modelling techniques to be used in measuring the risks to which the insurer is exposed. Assumptions should tend towards the conservative end of the spectrum of possibilities, but not be catastrophic. Severally, and in aggregate, assumptions should be plausible, but also reflect a degree of adversity that accounts for the uncertainty in making estimates about the future contingent events to which the assumptions relate.

(j) Consistency

Where practical, the insurer should ensure that all model assumptions and methods are internally consistent. Where such consistency is impractical or indeterminable, the insurer should make suitably conservative assumptions.

(k) Model limitations

A model is only a crude representation of reality. It is not a substitute for sound business practices, sufficient pricing, good judgement,

prudent governance, adequate controls or appropriate management action. The model can produce an estimate of the amount of assets needed to support the insurer's obligations, but it is the actual risk to which the insurer is exposed and the management responses related thereto that will ultimately determine the true provision that is necessary. The insurer should account for known deficiencies of the model by adjusting the input parameters and /or the results.

(l) Evolving practice

In conducting the valuation, the insurer should be guided by evolving practice and the expanding knowledge base in the measurement and management of risk.

Without limiting the generality of the foregoing guiding principles, the reserve provision for Class G of long term business shall consistently be adhered to by an authorized insurer writing the business.

## 5. Provisions under Designated Fund

5.1. A designated fund shall be mainly comprised of the provision for account balance, the provision for investment guarantee and the provision for the smoothing of investment returns. In other words, the total market value of the assets pertaining to the designated fund shall at least equal to the provision for all liabilities including account balance plus the respective provisions for investment guarantee and the smoothing of investment returns.

5.2. The account balance shall mean the accumulation of contributions paid into the fund, reduced by applicable expenses, fees or charges, and increased (decreased) by actual investment income (loss) or interests credited in accordance with the applicable guaranteed rate or declared rate or rates.

5.3. The respective provisions for investment guarantee and for the smoothing of investment returns shall each be held as separate provision within the designated fund in accordance with the terms of the insurance policy. The respective provisioning methodologies adopted shall pay due regard to the investment strategies/mandate, interest crediting mechanisms and provisioning practices in an integrated fashion. All processes and methodologies involved shall be properly documented and approved by the relevant committee established by the Board of Directors for the purpose.

## 6. Approaches for Determination of Provisions

### *Provision for Account Balance*

6.1. The provision for account balance within the designated fund should be determined in accordance with the terms of the insurance policy, and the relevant provisions in the Rules.

### *Provision for Investment Guarantee*

6.2. The provision for investment guarantee should be established by modelling to include the cost of the guarantee and have regard to the guidance as set out in paragraphs 6.4 to 6.8 below. The minimum benchmark for the provisioning for investment guarantee maintained in the Class G business fund in aggregate is that the provision should cover most of the adverse situations with a 99% level of confidence. It is expected that an authorized insurer shall use the stochastic approach in determining the provision unless there are circumstances which justify the application of the deterministic or factor approach.

(a) Stochastic approach
The model adopted shall be verifiable (e.g. in terms of data, testing, processes, documentation and reasonableness of results) and the results from stochastic modelling shall be reasonably reproducible.

(b) Deterministic approach
This approach is acceptable only when an adequacy test using a stochastic model has been performed on the chosen adverse deterministic scenarios.

(c) Factor approach
This approach is acceptable only when the factors are determined by a stochastic model which is regularly updated to take into account any significant change in the bases, such as guarantee features, investment environment, fee structures, membership demographics etc.

### *Provision for Smoothing of Investment Returns*

6.3. The methodology should be designed so that the smoothing provision would substantially even out the market fluctuations and be eliminated over longer periods of stable investment returns. Smoothing of the actual provisions arising from the investment guarantees is not permitted, and thus the insurer

cannot simply modify the model results to smooth the reported provision (such as taking a moving average).

### *Modelling of Liabilities for Provision for Investment Guarantee*

6.4. The modelling work ordinarily focuses on quantifying provision for investment guarantee that may be needed in adverse scenarios to honour guaranteed benefit payments and cover associated expenses. In this regard, the liability model needs to be integrated with the investment return model in a reasonable and consistent manner. When constructing the model, it needs to reflect:

(a) all significant product features such as retirement date, fund and other charges, member options and contract guarantees;

(b) the characteristics of the membership demographics as of valuation date, which may include reasonable forecasts of future contributions (from both existing and new members) to the extent that these are covered under existing investment guarantees;

(c) on scheme sponsor behaviour and scheme member behaviour, unless there is clear justification for the contrary, behaviour assumptions should be supported by past experience and reasonable future expectations. For example, it should not assume an unreasonably high level of early voluntary terminations in which the member clearly loses a valuable guarantee by exercising the option; and

(d) the way in which the guarantor expects to exercise any available options in the event of the specific situation projected in each scenario.

### *Modelling of Investment Returns under the Stochastic Approach*

6.5. Investment return models for the provision for investment guarantee may be developed separately for different types of investments. These models include:

(a) Interest rate models;

(b) Fixed income asset return models; and

(c) Equity index return models.

6.6. The testing scenarios shall reflect any significant correlation between the returns of various modelled asset classes. However, investments with similar return and risk characteristics can be grouped together for the purposes of investment return modelling.

6.7. The investment return model shall be determined with due regard to historical data as deemed relevant and reliable for predicting future volatility. The IA may request a calibration to be performed by the actuary to justify the choice of the investment return model where it considers appropriate. In this connection, the actuary shall pay due regard to relevant standard or guidelines issued by the MPFA and the ASHK in respect of the modelling process, the calibration standard and the modelling constraints.

6.8. The investment return model must be tested by the actuary to ensure that it will not produce unacceptable or inconsistent results. In building up the model, the actuary is required to be satisfied with the relationship between the nature and term of the underlying assets and that of the liabilities, having regard to risks of default and anticipated changes in future investment returns.

## 7. Frequency of Provision Determination

7.1. Provisions for investment guarantees must be revised at least quarterly to reflect current information. Provisions at month-ends within a quarter may be extrapolated from the previous quarter-end values. However, when there are significant fluctuations in the underlying factors that have been modelled by the stochastic analysis, the scenario testing shall be done on a monthly basis.

7.2. For the deterministic or factor approach, a stochastic adequacy test must be performed on the total provision for investment guarantees at least once a year.

## 8. Reporting

8.1. An insurer authorized to carry on Class G business is required to submit to the IA a report certified by its appointed actuary. The report should document the methodology and assumptions upon which the provisions for Class G business are calculated and demonstrate that this Guideline has been followed.

In case there is any material deviation from this Guideline, it should be clearly described and justified in the report.

8.2. The report shall be submitted to the IA annually within 6 months after the close of the financial year to which the report relates. As and when considered necessary, the IA may require the insurer to submit the information on a more frequent basis or to submit further information as specified by it.

## 9. Commencement

9.1. This Guideline shall take effect from 26 June 2017.

**June 2017**