1.

Introduction

* 1. Purpose and Background

The actuarial control function is an independent control function within the company responsible for actuarial activities. The actuarial control function is not restricted to the Actuarial Department but may include other departments and/or individuals who perform actuarial duties professionally.

This Policy, which forms part of the AIA Group-wide ERM framework, is aimed at monitoring, evaluating, managing and mitigating actuarial-related risks. It provides an overview of the minimum requirements of the actuarial control function on:

* data, methodologies, underlying models and assumptions in the processes within the scope of this Policy;
* ensuring compliance with Regulatory and Other Requirements; and
* reporting to the AIA Group Board and relevant Management Committees.

2. Scope and Definitions

* 1. Scope

Processes within the scope of this Policy include the following:

* calculation of technical provisions and capital requirements (collectively called “actuarial valuation”) for all statutory solvency reporting bases (local statutory solvency, HKIO and HKRBC, and Bermuda EBS);
* capital adequacy testing;
* product pricing;
* determination / declaration of discretionary policyholder benefits:
* reinsurance;
* development of ALM policies and SAA; and
* GIECA.

Actuarial valuation for non-statutory solvency reporting bases is governed by separate policies and standards and not in scope of this Policy.

2.2.

Definitions

Below table contains a glossary of terms used in this Policy. Terms are capitalised throughout this Policy.

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| **Short Form** | **Meaning** |
| ALM | Asset Liability Management |
| BU | Business Unit |
| CPG | Corporate Policy Governance |
| EBS | Economic Balance Sheet |
| ERM | Enterprise Risk Management |
| FCR | Financial Condition Report |
| FRC | Financial Risk Committee |
| GAAMCO | Group Actuarial Assumptions and Methodology Committee |
| GALCO | Group Asset Liability Management Committee |
| GEASCO | Group Economic Assumption Setting Committee |
| GIECA | Group Internal Economic Capital Assessment |
| HKIO | Hong Kong Insurance Ordinance |
| HKRBC | Hong Kong Risk Based Capital |
| Management  Committees | Management committees of AIA Group, including but not limited to Group FRC, Group Operating Risk Committee, GAAMCO and GALCO |
| ORSA | Own Risk and Solvency Assessment |
| Policy | AIA Group Actuarial Policy |
| Regulatory and Other Requirements | Relevant statutory and regulatory requirements, accounting standards, professional actuarial standards and/or internal requirements |
| SAA | Strategic Asset Allocation |

* 1. Interpretation and Application

In this Policy, the following rules of interpretation apply unless otherwise specified:

* if there is any conflict between this Policy and the applicable local laws and regulations, local laws and regulations shall prevail to the extent necessary;
* headings are for convenience only and do not affect the interpretation of this Policy;
* words “such as”, “including”, "particularly” and similar expressions are not used as, nor are intended to be interpreted as, words of limitation;
* words such as “should” and “shall” means that the provision is mandatory;
* the singular includes the plural and vice versa; and
* if there is any conflict between the body of this Policy and its appendices, schedules, attachments, and other documents, the terms of the main body of this Policy shall prevail.
  1. Consultation

This Policy has been consulted with the following parties as per the AIA Group CPG Standard:

* Group Chief Financial Officer;
* Director of Group Capital Management;
* Director of Group Financial Management and Planning;
* Head of Actuarial Solutions Architecture;
* Head of Product Portfolio Optimisation;
* Head of Actuarial Valuation and Analytics;
* Chief Reinsurance Actuary;
* Actuarial Head - Economic Capital;
* BU Chief Financial Officer;
* BU Chief Risk Officer;
* BU Chief Actuary;
* Group Regional Business Development Directors,
* Group Legal; and
* Group Risk.

3.

Main Provisions

* 1. Roles and Responsibilities

The AIA Group Board has the ultimate responsibility for establishing, implementing and overseeing an effective ERM framework, and should ensure that the ERM framework is embedded in business activities. Hence, the AIA Group Board is responsible for approving this Policy, which forms part of the AIA Group-wide ERM framework.

The Group Chief Actuary is the key person of the Group actuarial control function and the owner of this Policy, and is responsible for:

* proposing material changes, in consultation with relevant stakeholders, for endorsement by the Group Chief Financial Officer and approval by the AIA Group Board;
* approving non-material changes and administering the Policy;
* monitoring compliance with the Policy at the Group level; and
* review of the implementation of this Policy at the BU level.

The BU Chief Actuary as the key person of the BU actuarial control function, together with other heads within the BU actuarial control function, are responsible for implementing and monitoring compliance with this Policy at the BU level. Where the BU Chief Actuary does not exist, the appropriate senior officer appointed by the BU Chief Executive Officer or Chief Financial Officer is responsible for the actuarial function.

The actuarial control function is responsible for the execution of this Policy. The details are outlined in Section 3.2 to Section 3.10. Where prescribed by Regulatory and Other Requirements, these processes should be performed more frequently than as specified in this Policy. Please refer to Appendix A for a list of relevant policies, standards and/or guidance notes for each of these processes.

* 1. Data, Methodologies, Underlying Models and Assumptions

Data, methodologies, underlying models and assumptions are key inputs to the evaluation, monitoring, management and mitigation of actuarial-related risks.

The actuarial control function should make best efforts to ensure that the data used in the processes within the scope of this Policy are current, accurate and complete. Internal and external data should be validated to assess its sufficiency and quality. Means of data validation may include reconciliation of data used in the actuarial calculations to the underlying administration data and investigation of any discrepancies, review of data sign-off by the data provider (e.g. Operations Department) and/or other controls as appropriate. Any limitation of data or insufficient data of appropriate quality should be properly dealt with by appropriate approximations or judgements with sufficient documentation.

The actuarial control function should periodically evaluate and provide advice on the methodologies used in the processes within the scope of this Policy. Considerations should include but not be limited to compliance with Regulatory and Other Requirements, business mix and materiality.

The actuarial control function should periodically evaluate and provide advice on the underlying models used in the processes within the scope of this Policy. The actuarial control function should ensure that model changes are tested for correctness and reasonableness and are properly documented.

The actuarial control function should periodically evaluate and provide advice on the assumptions used in the processes within the scope of this Policy. Considerations should include but not be limited to compliance with Regulatory and Other Requirements, company experience and its credibility, market/industry data, evolving trends, business volumes, granularity, management actions, regulatory developments and expert judgement. Assumptions should be properly justified and documented. Assumptions used in the processes within the scope of this Policy should be internally consistent. Assumptions should be reviewed at least annually.

The actuarial control function should ensure that changes in data, methodologies, underlying models and assumptions with one-off financial impacts exceeding the relevant thresholds are escalated to the Group actuarial control function. The GAAMCO, chaired by the Group Chief Actuary, approves these items.

Long-term economic assumptions used in actuarial valuation, solvency forecasting, product pricing and SAA are recommended by the GEASCO, chaired by the Group Chief Financial Officer, and approved by the Group Chief Financial Officer. Any deviations are approved by the Group Chief Actuary for product pricing and by the Group Chief Financial Officer for all other purposes.

**Requirement #1:** The actuarial control function should ensure accuracy and/or reasonableness of data, methodologies, underlying models and assumptions used in the processes within the scope of this Policy.

* 1. Technical Provisions and Capital Requirements

Technical provisions and capital requirements are key inputs to the assessment of solvency position which measures the financial soundness and condition of the company.

The actuarial control function should provide oversight of actuarial valuations by:

* making best efforts to ensure the appropriateness of data, methodologies, underlying models and assumptions used in actuarial valuations (refer to Section 3.2);
* assessing the sufficiency of technical provisions and capital requirements and ensuring their compliance with Regulatory and Other Requirements by applying appropriate controls and procedures; and
* making best efforts to ensure the correctness and reasonableness of the results by comparing and justifying any material differences in technical provisions and capital requirements from period to period and/or other analyses as appropriate.

Actuarial valuations should be performed at least quarterly.

In addition, the BU actuarial control function should maintain documentation outlining the basis and methodology used in the calculation of technical provisions and capital requirements under the local statutory solvency basis. The basis and methodology should be compliant with local statutory and regulatory requirements, accounting standards and professional actuarial standards.

**Requirement #2:** The actuarial control function should (i) provide oversight of actuarial valuation; and (ii) maintain documentation outlining the basis and methodology.

* 1. Capital Adequacy

Capital adequacy testing is an assessment to monitor the current and future solvency position and to identify key risks which have a significant impact on the solvency position.

The actuarial control function should monitor the solvency position and ensure regulatory requirements are met in all but the most extreme market conditions. In case the solvency position falls close to an unhealthy level or is projected to do so, the actuarial control function should recommend mitigation actions to restore it to a safe level. The solvency position should be monitored at least quarterly.

The actuarial control function should periodically perform stress tests under various scenarios to assess the impact on assets and liabilities, and perform an overall assessment on the adequacy of current and future capital levels. The range of scenarios tested should be compliant with Regulatory and Other Requirements, and should cover a broad range of material financial and insurance risks to which the company is exposed. Stress tests should be performed at least annually.

Where an ORSA is required by Regulatory and Other Requirements, the actuarial control function should evaluate and provide advice on the actuarial-related items under the ORSA.

**Requirement #3:** The actuarial control function should (i) monitor the solvency position and recommend mitigation actions where necessary; (ii) perform an overall assessment on the adequacy of current and future capital levels through stress tests under various scenarios; and (iii) evaluate and provide advice on the actuarial-related items under the ORSA.

* 1. Product Pricing

Disciplined product pricing provides a solid foundation for the company’s business.

The actuarial control function should establish sound pricing metrics and limits and provide advice on product pricing (including re-pricing) requirements. Considerations should include but not be limited to compliance with Regulatory and Other Requirements, profitability, terms and conditions of insurance contracts, benefits provided and other values, capital efficiency, sustainability, risk management and management actions (for re-pricing).

**Requirement #4:** The actuarial control function should establish sound pricing metrics and limits and provide advice on product pricing (including re-pricing) requirements.

* 1. Discretionary Policyholder Benefits

Some of the policyholder benefits under participating policies are in the form of dividends / bonuses, whose declaration is at the discretion of the company.

The actuarial control function should periodically evaluate and advise the Board of Directors on the declaration of bonuses, dividends or similar benefits to participating policyholders in accordance with the AIA Group Policyholder Dividend Declaration Policy as well as general principles and practices of financial management of participating business. Considerations should include but not be limited to compliance with Regulatory and Other Requirements, equity between shareholders and policyholders and among policyholders, reasonable expectations of policyholders and contractual requirements. Policyholder dividends / bonuses should be recommended to the applicable Board of Directors at least annually.

Similarly, some of the policyholder benefits under universal life policies or coupon and dividend accumulation funds are in the form of interest incomes credited, whose determination is at the discretion of the company. The actuarial control function should periodically evaluate and provide advice on the determination of crediting interest rates. Considerations should include but not be limited to compliance with Regulatory and Other Requirements, long term investment return assumptions, current portfolio rates, competitors' rates, reasonable expectations of policyholders, economic outlook and crediting rate policy set at pricing stage. Crediting interest rates should be reviewed at least annually.

**Requirement #5:** The actuarial control function should periodically evaluate and provide advice on the (i) declaration of bonuses, dividends or similar benefits to participating policyholders; and (ii) determination of crediting interest rates of universal life policies or coupon and dividend accumulation funds.

* 1. Reinsurance

Reinsurance is a transaction whereby the company passes a portion of its risk on a defined group of policies to a third party, the reinsurer. It is used by the company for various purposes.

The actuarial control function should manage the selection, implementation, monitoring, control, review and documentation of reinsurance arrangements. Considerations should include but not be limited to compliance with Regulatory and Other Requirements, adequacy and suitability of reinsurance arrangements, profit/growth objectives, risk appetite and tolerance levels, regulatory capital requirements, risk profile and market practice, subject to materiality judgment by the actuarial control function.

The actuarial control function should ensure appropriate treatment of reinsurance arrangements in product pricing and actuarial valuation taking into account the design of the reinsurance arrangements.

The actuarial control function should be involved in establishing a process to settle payments with external and internal reinsurers.

**Requirement #6:** The actuarial control function should (i) manage the selection, implementation, monitoring, control, review and documentation of reinsurance arrangements; (ii) ensure appropriate treatment of reinsurance arrangements in product pricing and actuarial valuation; and (iii) be involved in establishing a process to settle payments with external and internal reinsurers.

* 1. ALM Principles and SAA

In consideration of the long-term nature of insurance liabilities and the risks created by the potential mismatch between assets and liabilities, appropriate ALM principles and SAA are fundamental to the long-term financial health of the company.

The actuarial control function should periodically evaluate and provide advice on the financial and strategic impact of product-related decision-making, the management of discretionary benefits such as bonuses and crediting rates, SAA decisions and other in-force management actions. Considerations should include but not be limited to compliance with Regulatory and Other Requirements, strategic and financial objectives, risk and return, costs and constraints, asset-liability matching and market availability. ALM principles and SAA should be reviewed at least annually. The GALCO, chaired by the Group Chief Financial Officer, provides oversight of ALM and SAA at the Group level. ALM principles are approved by the Group

FRC, chaired by the Group Chief Executive, while SAA is approved by the applicable Board of Directors.

**Requirement #7:** The actuarial control function should periodically evaluate and provide advice on the financial and strategic impact of product-related decision-making, the management of discretionary benefits such as bonuses and crediting rates, SAA decisions and other in-force management actions.

* 1. GIECA

GIECA is a set of internal metrics based on economic principles that are used to quantify the risks faced by AIA Group and assess the strength of the balance sheet to absorb those risks should they materialise.

The actuarial control function should observe the GIECA framework described in the AIA Group Internal Economic Capital Assessment Policy. In particular, the actuarial control function should:

* subject the GIECA model and methodology to periodic review, testing and validation with sufficient, proper and clear documentation;
* perform actuarial valuations and relevant analyses on the GIECA basis at least semi­annually;
* perform capital adequacy testing (including projections and stress tests) on the GIECA basis at least annually; and
* ensure that the GIECA is embedded in the risk management framework and key business processes.

**Requirement #8:** The actuarial control function should observe the GIECA framework described in the AIA Group Internal Economic Capital Assessment Policy.

* 1. Reporting to the Board of Directors and Relevant Management Committees

Timely reporting enables the Board of Directors and relevant Management Committees to take effective and informed decisions.

To facilitate regular review of actuarial-related risk management, the actuarial control function should at least annually:

* evaluate and advise the Board of Directors and relevant Management Committees about the financial soundness and condition of the company, actuarial-related items under the ORSA and other actuarial matters per the statutory requirements as appropriate;
* issue an actuarial opinion, report, advice or review on the current and future financial conditions of the company; and
* report to the Board of Directors and relevant Management Committees any matter that has, or is likely to have, a materially adverse effect on the solvency position, technical provisions or financial condition.

AIA Group’s Risk Tolerances and Risk Limits, as defined in the AIA Group Risk Management Policy, govern the monitoring, reporting and triggering higher levels of management interaction on material risks.

**Requirement #9:** The actuarial control function should at least annually evaluate and advise the Board of Directors and relevant Management Committees the financial conditions of the company and other actuarial matters.

* 1. Exceptions

Exceptions to this Policy, in whole or in part, should be escalated to the Group Chief Actuary and be supported by a rationale from the BU Chief Actuary. Approval for any proposed exception should be received explicitly from the Group Chief Actuary before the exception is treated as authorised.

* 1. Breach Management and Escalation

The BU Chief Actuary should report any breaches or instances of non-compliance with this Policy to the Group Chief Actuary so that consultation and/or appropriate corrective actions, if any, can be taken promptly. The Group Chief Actuary should report instances of material breaches and exceptions to the AIA Group Board.

* 1. Monitoring, Review and Amendments

This Policy should be reviewed at least every three years as per the AIA Group CPG Standard.

* 1. Delegation of Authority

Not applicable.

4. Approvals

In line with the endorsement and approval procedures outlined by the AIA Group CPG Standard, material changes must be endorsed by the Group Chief Financial Officer and approved by the AIA Group Board before implementation.

Administrative changes to this Policy (e.g. editorial and minor wording changes which are not considered material) may be approved and implemented immediately by the Group Chief Actuary.

Termination of this Policy must be approved by the AIA Group Board.

5.

Appendix

5.1. Appendix A - Relevant Policies, Standards and Guidance Notes

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| **Section** | **Relevant Policies, Standards and Guidance Notes** |
| 2.4, 3.13 and 4 | **Standard**  • AIA Group CPG Standard (issued by Group Risk & Compliance governing policy lifecycle management) |
| 3.2 | **Standard**   * AIA Group Actuarial Model Risk Standard (providing further guidance on underlying models) * AIA Group Experience Analysis and Assumption Setting Standard (providing further guidance on assumptions)   **Guidance Note**   * Best Estimate Assumption Setting Guideline (providing further guidance on assumptions) * Business Process Manual for Prophet Model Change Management (providing further guidance on underlying models) * Risk and Control Library on Actuarial Valuation (providing further guidance on data, methodologies, underlying models and assumptions) |
| 3.3 | **Standard**   * AIA Group Bermuda Technical Provisions Standard * AIA Group Hong Kong Statutory Reserving and Solvency Margin Standard   **Guidance Note**   * HKIO Reserve / Solvency Margin Submission Procedure Manual * Product Classification Guidelines - Hong Kong Return Basis * Risk and Control Library on Actuarial Valuation |
| 3.4 | **Standard**  • AIA Group ORSA Standard\* |
| 3.5 | **Standard**   * AIA Group Pricing Standard   **Guidance Note**   * Product Development Handbook |

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| **Section** | **Relevant Policies, Standards and Guidance Notes** |
| 3.6 | **Policy**   * AIA Group Policyholder Dividend Declaration Policy   **Standard**   * AIA Group Universal Life and Non-Participating Crediting Interest   Rate Standard |
| 3.7 | **Policy**   * AIA Group Reinsurance Management Policy   **Standard**   * AIA Group Reinsurance Pricing Standard   **Guidance Note**   * Guidance Note on Determining Reinsurance Recapture Fee * Reinsurance Pricing Handbook |
| 3.8 | **Standard**   * AIA Group ALM Standard * AIA Group SAA Standard |
| 3.9 | **Policy**  • AIA Group Internal Economic Capital Assessment Policy |
| 3.10 | **Policy**   * AIA Group Risk Management Policy (issued by Group Risk & Compliance providing guidance and setting principles in relation to the design and execution of AIA Group’s Risk Management Framework)   **Standard**   * AIA Group ORSA Standard (embedded in the AIA Group Risk Management Policy)\*   **Guidance Note**   * FCR Guideline |

\* The AIA Group ORSA Standard issued by Group Risk & Compliance specifies that the elements of “risk tolerance position monitoring", “interest rate risk and foreign exchange risk monitoring”, “capital planning (scenario and stress testing)" and “dynamic solvency testing (if applicable)” under the ORSA require inputs from the actuarial control function.