





HOW MILLIMAN CAN ASSIST



Requirement 3: Valuation of Technical Provisions

Overview:

- The Board of Directors shall appoint an Actuary who is registered by the Authority. The Actuary shall review and approve the Company's Technical Provisions, both gross and net of reinsurance.
- The Company shall report quarterly to the Authority the details of the Technical Provisions which is certified by the Actuary. The end of year report must be authenticated by the External Auditor and endorsed by the Chairman of the Board of Directors.
- The Actuary shall provide the Insurance Authority with an annual report that presents the immediate or future risks facing the Company. The report must be reviewed by an External Auditor.
- The regulations discuss specific aspects of the valuation process, including the review of data, the methodology applied, the estimation of trends, and tests of credibility.
- The Actuary's report on the estimation of reserves should cover the following: Company Overview, Data, Methodology, Back-Testing, Results, Certification.



Requirement 3: Valuation of Technical Provisions

- Through our fully qualified actuaries, each with a specific focus and expertise (Health, Life, P&C), we will provide dedicated resources and tools to provide a valuation of all relevant technical provisions by line of business.
- Our strong understanding of the regulations and global best practices, coupled with our focus on delivering value will help your company deliver the highest quality reports.
- The Milliman team will work closely with all relevant parties, from those responsible for the data, up to the Board of Directors, to ensure appropriate communication and understanding of the business, the data sources and any other pertinent information.
- Some of the Milliman proprietary tools that we will use include: Arius, Reserve Pro, CREW, MGALFA.
- Milliman's strict peer review process will ensure the quality and accuracy of deliverables.



Requirement 1 & 4: Investment Risk Analysis Report

Overview:

- The Company shall submit to the Authority an annual risk analysis report which is certified by the Actuary. The report must cover:
 - A summary of the overall investment strategy
 - An analysis of the investment portfolio
 - Analysis of the Market and Liquidity (Investment) Risk and Credit Risk, including scenario / stress testing
- The Company shall also submit a quarterly report; it does not need to be certified by the Actuary. However, given the tight deadlines in delivering the end of year reports, it is highly recommended that the Actuary is involved in the process throughout the year.
- When 'mark-to-market' is not possible, the Company must use 'mark-to-model' to measure the value of investments. If the model used is developed by the Company, that model must be certified by the Actuary.



Requirement 1 & 4: Investment Risk Analysis Report

- Milliman can provide a comprehensive review and analysis of your Company's investment portfolio, and the associated risks.
- We will rely on Milliman tools and methods including MGALFA, Asset-Liability Modelling, and Risk Dashboards. These tools allow us to conduct sensitivity and stress testing as well.
- Our FRM team can also support in formulating the Company's investment strategy and asset allocation and produce standard report that meet the IA requirements.



Requirement 2: Solvency Template Certification

Overview:

- The Company shall submit to the Authority the solvency template and related information on an annual basis in relation to solvency, including the validation certification of the solvency template by the Actuary.
- The solvency template, developed by the Insurance Authority, will cover Underwriting Risk, Market and Liquidity (Investment) Risk, Credit Risk, and Operational Risk.

- We will work with the relevant personnel to gather the necessary data and figures to complete the solvency template.
- Based on the results of the solvency testing, we will work with the Company on any addressing any issues that may arise, and recommend any necessary remedial actions.
- We can relate the rating agency templates (BCAR etc) with the IA templates and integrate these within the ERM framework



Solvency Forms Explained

Solvency Forms can be summarised into following spreadsheets:

Solvency Margin Analysis	Form Name
Summary of Solvency Margin Analysis	<u>SM-1</u>
Calculation of SCR - Underwriting Risk	<u>SM-2</u>
Calculation of SCR - Investment Risk	<u>SM-3</u>
Calculation of SCR - Credit Risk	<u>SM-4</u>
Calculation of SCR - Operational Risk	<u>SM-5</u>
Calculation of Minimum Guarantee Fund	<u>SM-6</u>

■ The Summary of Solvency Margin Analysis Form (SM-1) form calculates Underwriting Investments and Credit Risks from their respective areas these charges are allowed for diversification to and adds an Operational Risk element to it to arrive at Final Risk Charge.



Requirement 5-7: Enterprise Risk Management

Overview:

■ The Actuary shall, in the presence of immediate or future risks facing the Company that would hinder the Company from fulfilling its short term and long term liabilities, submit a report on a timely basis directly to the Company's Board of Directors.

- Milliman can develop an ERM framework that allows for both qualitative and quantitative assessments and identification of risks. Such a framework will meet Insurance Authority requirements, as well as Rating Agency requirements.
- We can also provide *Milliman's proprietary GRC platform*, providing a more robust framework that can be used by your Company on a regular basis to identify and monitor any emerging risks.



Requirement 5-7: Financial Condition Report

Overview:

- When required by the Authority, the Company shall submit to the Authority a Financial Condition Report (FCR) which is certified by the Actuary and endorsed by the Chairman of the Board of Directors. The requirements of the FCR should include, but is not limited to:
 - a) An actuarial certification of the Technical Provisions
 - b) A risk-based analysis of the investment portfolio, strategy and management process;
 - c) An analysis of the Solvency Capital Requirement
 - d) Evaluation of its reinsurance structure and management process
 - e) A risk-based analysis of the underwriting policies and procedures of the Company
 - f) Evaluation of the pricing policies and procedures of the Company
 - g) Evaluation of the Enterprise Risk Management policies and procedures



Requirement 5-7: Financial Condition Report

- The Insurance Authority's requirements of all companies, which have been discussed in the previous slides, cover most of the required content of an FCR.
- As such, if the Insurance Authority was to require your company to provide an FCR, Milliman's support in handling those requirements identified as part of the new financial regulations, will allow for an effective and encompassing review of the company's financial standing and operations.
- Any additional requirements of the FCR, that are not part of the company's quarterly or annual deliverables, will be addressed and included in the report.



Requirement 7: Financial Forms

Overview:

■ The company is required to complete, on a quarterly basis, extensive financial forms currently being redesigned by the Insurance Authority. These forms cover the standard financial statements, as well as analysis of solvency, investments, premiums, expenses, reinsurance, etc.

How Milliman Can Help:

 We can assist you in completing these financial forms in the most accurate and appropriate manner.



Actuarial role in all functions!

Actuaries are required in all functions within a insurer's risk management framework







