



Insurance Commission of The Bahamas

**Design and Analysis of Quantitative Impact Study:
Capital Requirements for Long-term Insurers**

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INSURANCE COMMISSION
OF THE BAHAMAS

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Capital Requirement for Long-term Life Insurers

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INTRODUCTION

Overview

The Insurance Commission of The Bahamas (ICB) wishes to conduct a Quantitative Impact Study (QIS) to refine the risk-based capital adequacy framework for Long Term Life insurers.

The International Accounting Standards Board (IASB) has issued new International Financial Reporting Standards (IFRS), in particular IFRS 17 Insurance Contracts, IFRS 9 Financial Instruments and IFRS 16 Leases.

The calculation of the Regulatory Capital Ratio (RCR) is set out in the Long-Term Insurance Capital Adequacy Guidelines dated January 2019. These Guidelines apply to both domestic and foreign insurers in respect of insurance business both inside and outside of The Bahamas.

The current target RCR is 150%.

In light of the above, the objective of the QIS is to refine the capital adequacy framework and evaluate the impact of the above changes.

Approach

The existing capital adequacy framework has been adjusted to allow for the key impacts of the changes being made to the IFRS. A capital charge for operational risk and a credit for diversification of risks have also been included in the calculation.

A review of the factors applicable to assets that are impacted as a result of the application of IFRS 9 will be done when the QIS results are submitted in conjunction with the December 31, 2021 financial statements.

The minimum target level of required capital will be reviewed after an analysis of the QIS results is completed.

Insurers are required to use the IFRS 17 discount rates they have been developing internally for the QIS exercise. Discount rates will be provided for use by insurers in cases where these have not yet been prepared. Two sets of discount rates will be provided, one assuming the Government of Bahamas is risk-free and the other adjusted to remove the sovereign risk.

Feedback and Communication Channels

We encourage the insurers to provide feedback when the results are submitted. If there is an alternative method/approach that an insurer would like to propose for any particular risk category, please do so with supporting rationale.



SECTION 1 - INSTRUCTIONS

The insurer should submit the following to the ICB by June 30, 2022.

All figures provided should be as at December 31, 2021.

1. RCR calculations in accordance with the Long-Term Insurance Capital Adequacy Guidelines dated January 2019. The detailed Excel spreadsheet should be submitted.
2. Revised RCR calculations, based on IFRS 17 financials and incorporating the changes and additional risk categories indicated below. The revised capital adequacy worksheet is provided. Note that insurers using the discount rates provided will be required to submit two revised RCR calculations corresponding to the two sets of discount rates.
3. If an insurer has produced its own calculation under the Canadian LICAT requirements as at December 31, 2021, please provide a copy of the LICAT worksheet.
4. Disclosure items as set out in Section 7.



SECTION 2 – CAPITAL AVAILABLE

Acceptance as capital for capital adequacy purposes will be based on satisfaction of the following criteria:

- Permanence
- Absence of mandatory fixed charges against earnings
- Subordination to the rights of policyholders and other creditors of the institution
- Availability i.e., all capital instruments must be issued and fully paid for in cash, or other property with the approval of the ICB.

Changes to Capital Available

The methodology used to calculate capital available is the same as outlined in the Long-Term Insurance Capital Adequacy Guidelines except for the items below:

- The calculation should be based on the IFRS 17 balance sheet as at 31 December 2021.
- Cash surrender value deficiencies are to be calculated net of reinsurance on an aggregate basis within sets of policies by product type. Deficiencies are calculated relative to fulfilment cashflows (i.e., including the risk adjustment for non-financial risk but excluding the Contractual Service Margin (CSM)) and are floored at zero.
- Negative reserves are unlikely to exist under IFRS 17, however insurers are asked to construct negative reserves for use in the calculation of available capital on a policy-by-policy basis on best estimate assumptions (i.e., excluding risk adjustment and CSM) and net of reinsurance.
- The CSM has been included in the Available Capital calculation for domestic insurers. The total actuarial liability included in the calculation of Available Capital for foreign insurers excludes the CSM. Foreign insurers are required to disclose the CSM in the space provided on the Capital Available tab of the spreadsheet.



SECTION 3 – CAPITAL REQUIRED FOR ASSETS

Credit Risk (Asset Default)

The calculation of capital required for asset default risk remains the same as set out in guideline 5.A except that Insurers are asked to use the IFRS 17 balance sheet value of the assets (i.e., net of IFRS 9 provisions).

Disclosure of the total IFRS 9 provision included on the IFRS 17 balance sheet as at December 2021 is also required.

Asset default factors for assets impacted by the adoption of IFRS 9 will be reviewed as part of the QIS in conjunction with the December 31, 2021 financial statements.

Off Balance Sheet Asset Risk Charge

Guideline 5.B remains unchanged in the QIS.

Foreign Exchange Risk

The factors are unchanged and differ by whether the issuing country is investment grade (2%) or not (8%). The liabilities used in the calculation of open positions are to be determined in accordance with IFRS 17 requirements.

Asset Liability Mismatch Risk Charge

Guideline 5.D remains unchanged in the QIS except that the liabilities to be used in the calculation should be net of reinsurance fulfillment cashflows (i.e., incorporating risk adjustments but excluding contractual service margins).



SECTION 4 – CAPITAL REQUIRED FOR LIABILITIES

Policy Liabilities Defined

The approach being used to calculate the capital requirements in respect of mortality, morbidity, lapse, and interest margin pricing risks is unchanged for the QIS.

However, all references to policy liabilities / reserves should be interpreted as net of reinsurance IFRS 17 liabilities including the risk adjustment but excluding the contractual service margin.

Net amounts at risk for use in the calculation of the capital requirement for mortality risk would be based on this definition of policy liabilities.

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SECTION 5 – OPERATIONAL RISK (ADDITIONAL RISK)

Operational Risk is the risk arising from inadequate or failed internal processes or systems, behavior of personnel, or from external events. Operational risk includes legal risk and the portion of conduct risk that affects insurers but excludes strategic and reputational risk.

The required capital for Operational Risk is calculated as 10% of the total required capital before the provision for Operational Risk.

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SECTION 6 – DIVERSIFICATION CREDIT (NEW)

Losses arising across some risk categories are not perfectly correlated with each other. Hence, a company is not likely to incur the maximum possible loss at a given level of confidence from each type of risk simultaneously. Consequently, an explicit credit for diversification is permitted between the sum of credit and market risk requirements, and the insurance risk requirement so that the total capital required for these risks is lower than the sum of the individual requirements for these risks.

The diversification credit is calculated using the following formula. Note that this is automatically calculated in the worksheet.:

$$\text{Diversification Credit} = (A + I) - (A^2 + I^2 + 2 \times R \times A \times I)^{1/2}$$

where:

A is the asset risk margin, which is the sum of capital required for:

- asset default risk.
- off-balance sheet risk; and
- market risk, including asset liability mismatch risk, foreign exchange risk, and other market risk exposures.

I is the insurance risk margin, which is the sum of capital required for:

- policy liabilities

R is the correlation factor between A and I, equal to 50%.



SECTION 7 – CALCULATING THE RATIO AND DISCLOSURES

Regulatory Capital Ratio

The RCR is to be calculated using the formula prescribed in the Guidelines as below:

$$\text{RCR} = \frac{\text{Total Available Capital}}{\text{Total Required Capital}}$$

Where

Total Available Capital is equal to:

- Tier 1 Capital + Tier 2 Capital – Deductions

Total Required Capital is equal to the sum of required capital for the following risks less a Diversification credit in respect of the asset and insurance risks:

- Assets
 - Asset Default
 - Off Balance Sheet
 - Market (asset liability mismatch, foreign exchange)
- Insurance
 - Mortality / Longevity
 - Morbidity
 - Lapse
 - Interest Margin Pricing
- Operational

Required Disclosures

Companies are required to disclose various items including:

- IFRS17 balance sheet
- Reconciliation of the insurance contract liability from IFRS4 to IFRS 17
- Product portfolio split of various items including best estimate actuarial liabilities, risk adjustment and CSM
- The IFRS 17 discount rates used by the insurer in the exercise showing the adjustments that were made for sovereign risk and illiquidity. Note that this requirement only applies to insurers who have used their own IFRS 17 discount rates.

Please refer to the “Disclosure Items” tab within the template for a complete listing of the information to be supplied.

