FINANCIAL SERVICES COMMISSION

Requirements for the December 31, 2021 Valuation of Actuarial Reserves

and Other Policy Liabilities of Life Insurers

November 2021

A. Introduction

Section 44 of the Insurance Act, 2001 ("the Act") requires insurance companies to appoint actuaries to value the actuarial reserves and other policyholder liabilities of the company at the end of each financial year. The valuations are to be conducted in accordance with generally acceptable actuarial practice ("GAAP") and with such directions as may be given by the Financial Services Commission's ("FSC"). Regulation 78 of the Insurance Regulations, 2001 states that the actuary in performing his services shall adhere to and be guided by the Actuarial Regulations 2001, and any Guidelines, Technical Papers and Bulletins issued by the FSC.

The purpose of this Bulletin is to set out the FSC's expectations with respect to the valuation and the preparation of the Appointed Actuary's Report ("AAR") produced as at December 31, 2021 or later. The Bulletin sets out requirements regarding the analysis to be performed, the information to be presented, and the nature of the discussions to be included in the AAR. It speaks to issues that arose during the review of AARs (e.g. experience studies, assumptions and MCCR schedules). It is an update of the December 2020 Bulletin (AD-ADVI-19/12-0010), and therefore, supersedes the 2020 version.

B. Professional Code of Conduct and Standards of Practice

The FSC expects AAs, when performing a valuation of an insurer's reserves and other policy liabilities and preparing an AAR for submission to the FSC, to comply with the following:

1. The requirements of the Act and its regulations;
2. The requirements set out in this Bulletin;
3. The Code of Conduct of the AA's governing body; and
4. The standards and guidance issued by the Caribbean Actuarial Association ("CAA"), and where none is provided by the CAA, generally accepted actuarial practice.

Any deviation from the requirements of this Bulletin must be disclosed in the AAR and justified.

C. Actuarial Reserves and Other Policyholder Liabilities

An AA is responsible for valuing the actuarial reserves and other policyholder liabilities of the life insurance company that retained their services. The actuarial reserves and other policyholder liabilities, which cover the items listed in Lines 002 to 014 of Sheet 30.020 of the Annual Returns, must be disclosed in the AAR. The amounts reported in the AAR must reconcile with those of the audited financial statements and the Annual Returns.

D. Report Layout

The Insurance (Actuaries) (Life Insurance Companies) Regulations ("IALICR") sets out the minimum contents of an AAR. The inclusion of an Introduction/Overview section that contains descriptions of the company's structure (and changes thereto), lines of business and types of products (product details should be inserted in an appendix); and discussions of acquisitions/divestitures and key material events affecting liabilities of the company is encouraged.

A section in which the AA comments on the insurer's preparation for IFRS 17 must be included. The AA should indicate whether the insurer has performed a quantitative assessment of the impact of IFRS 17 and whether decisions about the following accounting policy options have been made or are being or will be considered.

i. **Level of Aggregation**
ii. **Estimate of Future Cash Flows**
iii. **Discount Rates**
iv. **Risk Adjustment**
v. **Contractual Service Margin**
vi. **Embedded Guarantees**
vii. **Accounting for Financial Guarantee Contracts**
viii. **Deferred Acquisition Costs**
ix. **Premium Allocation Approach Measurement**
x. **Contracts with Direct Participation Features**
xi. **Transition**

Each attestation[1] in the ARR must include the name and signature of the person signing and the date of signing.

E. Summary Reporting

The AAR must include the following tables:

E.1 Company In-Force & Liabilities for Insurance and Investment Contracts
E.2 Other Policyholder Liabilities by Line of Business
E.3 Provision for Adverse Deviation by Type by Line of Business
E.4 Movement in Total Actuarial Reserves and Policy Liabilities
E.5 Sensitivity Analysis by Line of Business

- ***E.1 Company In-Force & Liabilities for Insurance and Investment Contracts*** -Table 1 sets out the minimum level of detail that must be presented.

  Asset/ Liability Segment: Valuation of insurance contracts liabilities are linked to the supporting assets. Each asset segment must be reported separately. The assets backing one or more products reside in a single asset/liability segment.

[1] For Example: Confirmation of MCCSR Instructions, Report of the Appointed Actuary, Statement of Accuracy of Policy Records, Conflict of Interest Statement, Peer Review

Products: The AA should insert the relevant product groupings within relevant line of business as appropriate to the circumstances of the insurer. Products should be reported in the AAR to the same level of granularity they are analyzed and reported to management.

Ins./Inv.: An indicator identifying Insurance ("Ins.") contracts as defined by IFRS4. If a contract does not meet the IFRS4 definition for insurance "Inv" should be inserted.

L.S.,D.S.: An indicator identifying lapse supported ("L.S.") and death supported ("D.S.") policies. If neither indicator is relevant; insert "-". No row should be left blank.

Investment/Fund Values: The amount associated with a product that is invested in interest sensitive or segregated funds.

Numbers and amounts reported must reconcile to the audited financial statements, to Appendices D, F-O of the IALICR and the Annual Returns (sheets 30.020, 50.010 to50.059 and 50.070) submitted to the FSC.

Line of Business	Asset/ Liability Segment	Product	Ins./ Inv.	L.S. D.S. -	Number of Policies (Individual) /Certificates (Group)	Premium	Gross			Net of Reinsurance Ceded			Account/ Fund Values	Modified Duration
							Face Amount/ Annual Annuity Benefits	Policy Benefit Liabilities	%	Face Amount/ Annual Annuity Benefits	Policy Benefit Liabilities	%		
					#	$’000	$'000	$'000		$'000	$'000		$'000	
LOB #1	Segment #1	Product/ Rider												
		Product/ Rider												
		Product/ Rider												
		…												
		Segment Total												
	Segment #2	Product/ Rider												
		Product/ Rider												
		Product/ Rider												
		…												
		Segment Total												
LOB…	Segment…	Product/ Rider												
		Product/ Rider												
		…												
		Segment Total												
	TOTAL													

TABLE E.1: ***Company In-Force & Liabilities for Insurance and Investment Contracts***

- ***E.2 Other Policyholder Liabilities by Line of Business***

Line of Business	Liability Type	Amount as at Valuation Date ($'000)
LOB #	Outstanding Claims and Adjustment Expenses	
	Provision for Experience Rating Refunds	
	Provision for Policyholder Dividends	
	Proceeds on deposit	
	Premiums paid in advance	
	Policyholder Funds on Deposit	
	Deposit Administration Funds	
	Other	
	Subtotal	
….		
Total Company	Outstanding Claims and Adjustment Expenses	
	Provision for Experience Rating Refunds	
	Provision for Policyholder Dividends	
	Proceeds on deposit	
	Premiums paid in advance	
	Policyholder Funds on Deposit	
	Deposit Administration Funds	
	Other	
	Total	

TABLE E.2 ***Other Policyholder Liabilities by Line of Business***

The Business Lines should be consistent with the lines reported in the In-Force & Liabilities for Insurance and Investment Contracts in E.1. If a liability type for a Business Line is zero then it may not be omitted. However, if all liability types are zero for a Business Line then the Business Line may be omitted from the table.

Numbers reported at the total company summary level must reconcile to those reported in the audited financial statements and the Annual Returns (sheet 30.020) submitted to the FSC.

- ***E.3 Provision for Adverse Deviation by Type and Line of Business***

Provision for Adverse Deviation (PfAD) for Morbidity shall be disclosed separately from Mortality in Appendix P of the IALICR. Provisions for Mortality Improvement and Partial Withdrawals must also be inserted.

A column for total PfAD for a line of business as a percentage of its Net Actuarial Liabilities and a row for total Pfad for each type across all lines as a percentage of total Pfad for all types and lines shall be inserted in the table. See Table E.3 for an example of the table.

The AA shall disclose the methodology used to calculate PfAD and the order in which PfADs were calculated in the AAR. If this varies by business line this should be noted in the AAR. If the order of calculation has changed from the prior year for any business line, the rationale of the change must be disclosed.

Line of Business	Actuarial Liabilities (Net)	Provisions for Adverse Deviation ($'000)									% of Net Act. Liab.	Report Reference
		Interest	Mortality	Mortality Improvement	Morbidity	Partial Withdrawal	Lapse	Expense	Asset Default	Total PfAD		
Individual Life – par												
Group Life – par												
Individual Life – non-par												
Individual Life – par												
Group Life – non-par												
Individual Annuities – par												
Group Annuities – par												
Individual Annuities – non-par												
Group Annuities – non-par												
Individual Health												
Group Health												
TOTAL												
% of Total PfAD												

TABLE E.3 ***Provision for Adverse Deviation by Type and Line of Business***

- ***E.4 Reconciliation of the Change in Total Actuarial Reserves and Policy Liabilities from prior year to current year by Line of Business***

  The FSC expects the AA to continue to prepare a reconciliation of the change in liabilities from the prior year to the current year identifying the line of business to which the change relates. A brief description of each change in method or assumption must be included in the reconciliation. A justification for each change must be included in the AAR.

  Multiple changes must not be netted. The changes should be split between:[2]

  1. those resulting from a change unexpected experience, including resulting change in PfAD
  2. change in MfAD levels;
  3. those resulting from special, particular or one time circumstances, such as the introduction of new standards or change in methodology;
  4. corrections to errors;
  5. any unusual transactions (reinsurance, acquisitions, etc.)
  6. any changes in bulk liabilities;
  7. any administration, systems, operational or corporate changes.

  The reconciliation must show the calendar quarter the change was made.

- ***E.5 Sensitivity Analysis by Line of Business/Lapse Supported/Death Supported***

  The sensitivity of actuarial liability to changes in material assumptions must be investigated and disclosed in the AAR. The sensitivities to be analyzed are – Mortality (+/-10%); Morbidity (+/-10%); Lapses (+/-10%); Interest Rates (+/-1%); Expenses (+/-10%); Partial Withdrawal (+/-10%); Premium Persistency (+/-10%).

F. Model

The FSC expects the valuation model should be designed to be consistent with the insurer's policies and practices, and to its approach to the treatment of policyholders (e.g. when unit/fund values become zero). Taxes (e.g. asset, investment) must be reflected in the model.

The name, provider and version of the model(s) used to conduct the valuation should be stated. Any changes to the model (e.g. change in system, model version) should be disclosed and the effects quantified.

The AAR should describe the results of any audit or review of the valuation process or system. The report on the audit or review must be made available to the FSC upon request.

G. Data

Regulation 3 of the IALICR allows the AA to rely on an independent accountant or external auditor for the accuracy of the data used in the valuation, but also requires the AA to establish suitable control procedures for the verification of the valuation of data for both assets and liabilities (Regulation 3(1)(b) of IALICR). The AAR must, therefore, disclose the tests performed to verify the sufficiency, reliability and accuracy of the data used in the valuation and the extent of the AA's use of the work of the accountant, auditor or any other party (such as consultants).

[2] Based on B.3.2.9 of OSFI – Life Memorandum to the Appointed Actuary 2020

The FSC expects that the procedures should include reconciliations of the data used in the valuation with the Annual Returns (sheets 50.10 to 50.059) submitted to the FSC and with the administration systems. Where the information is inconsistent, the AA is expected to explain the actions that have been taken to adjust or correct the errors.

H. Method

The Policy Premium Method is to be used to value actuarial reserves and policy benefit liabilities.

I. Expected Experience Assumptions [3]

The FSC expects the AA to consider the guidance on best estimate assumptions given by the Canadian Institute of Actuaries (CIA) in its Standards of Practice (Effective January 1, 2020) sub-section 2350 and comply with IALICR. Regulation 13(3) of the IALICR states that "mortality rates for life insurance products shall not reflect an assumption of trends (either deterioration or improvement) beyond the valuation date but annuity mortality may reflect long-term mortality improvement, if indicated." The mortality improvement assumption must be consistent with the company's expected annuitant experience.

All best estimate/expected experience assumptions used in the valuation of actuarial reserves and other policyholder liabilities must be documented in the AAR including rationale, justification and validation. Where assumptions are changed, the prior, as well as the current assumption should be disclosed in the AAR. The AAR must also disclose how the expected experience assumptions were determined with reference to company experience studies and industry data as applicable. The credibility of the company data is to be disclosed as well as any blending of company and industry data.

The AA must describe the source of the expected experience assumptions. If industry experience is used, this should be stated. If industry tables are available, but not used, the AA should show how the assumptions compare with industry tables. For assumptions where limited experience exists, the AA must disclose the basis and rationale for determining the assumptions.

Where assumptions are not changed, the results of tests conducted to support their continued use must be disclosed.

The FSC expects that there should be policies and guidelines that govern how frequently assumptions are reviewed and updated. For material assumptions, the period for review should be at least annual. The AA must disclose when the expected experience assumptions were last updated or reviewed. If the frequency of updating or review of expected experience assumptions is not governed by any policy or guideline this must be noted.

A comparison of actual experience versus expected experience assumptions must be shown separately for each material assumption within each product. Where such studies are done at a more aggregate level than the product level, this information should be shown. The comparisons should be shown separately for the key risk assumptions. The results for lapse must be shown separately for lapse-supported products and non-lapse supported products. Death supported policies must be discussed separately.

[3] Section based on B.3.2.5 of OSFI – Life Memorandum to the Appointed Actuary 2020

J. Margins for Adverse Deviation – Non-Economic Assumptions[4]

AAs shall set margins for adverse deviation that reflect the challenges in estimating the best estimate assumption and the potential deterioration of the best estimate assumption.

The FSC expects the AA to consider the guidance on margins for adverse deviations (MfADs) for non-economic assumptions issued by the CIA in its Standards of Practice (Effective January 1, 2020) sub-section 2350 and comply with the IALICR. Any deviations must be highlighted and rationale explained.

The AA must ensure that the application of **each MfAD results in an increase to the value of liability** and should discuss the testing done to confirm the increase. For each assumption, the AA must disclose and justify the level of margin for adverse deviation used.

K. Economic Assumptions – Best Estimate and Margins for Adverse Deviation

Regulation 11 of the IALICR sets out the considerations when determining discount rates.

Margins for adverse deviation shall reflect the challenges in estimating the best estimate assumption and the potential deterioration of the best estimate assumption.

L. Validation of Actuarial and Other Policy Benefit Liabilities[5]

The AAR shall discuss the analysis used to validate the actuarial and other policy benefit liabilities and the numbers from this process. Examples of forms of validation are (i) ratios of face amount to actuarial liabilities, (ii) trend analysis, (iii) a reserve build, (iv) ratios to fund values, (v) sources of earnings. An analysis of sources of earnings is encouraged.

M. MCCSR Calculation

The AAR should **include all the pages** of the Sixth Schedule "MCCSR Ratio Calculations" not only the Summary Page.

N. Reconciliation Prior Year Projected MCCSR with Current MCCSR

The AA shall reconcile any difference between the current year's MCCSR and the ratio that was projected in the prior year's DCAT report and disclose the reasons for any material deviations in the AAR.

O. Queries

Please direct any queries about the requirements set out in this Bulletin to Angela Beckford, Chief Actuary beckforda@fscjamaica.org .

[4] Section based on B.3.2.8 of OSFI – Life Memorandum to the Appointed Actuary 2020
[5] Section based on B.3.2.13 of OSFI – Life Memorandum to the Appointed Actuary 2020