Office of the Superintendent of Financial Institutions Canada
Bureau du surintendant des institutions financières Canada

OFFICE OF THE SUPERINTENDENT OF FINANCIAL INSTITUTIONS

LIFE MEMORANDUM TO THE APPOINTED ACTUARY

2022

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A. GENERAL REQUIREMENTS AND DIRECTIONS

A.1 Overview

This Memorandum describes the requirements of the Office of the Superintendent of Financial Institutions (OSFI or Superintendent) with respect to the Appointed Actuary's Report (AAR) specified in subsection 667(2) of the *Insurance Companies Act (ICA)*. It sets out the minimum standards used in determining the acceptability of the AAR and provides guidance for the Appointed Actuary preparing reports in matters relating to presentation, level of detail and nature of the discussions to be included.

Many insurers are required to file an AAR, as part of the Annual Return forms, with more than one regulator, federal or provincial, in Canada. The insurer is responsible for ensuring that the AAR submitted as part of the Annual Return to each regulator complies with the requirements of that regulator.

The term AAR refers to the detailed actuarial report submitted to a regulator. This includes the opinion of the Appointed Actuary concerning the fairness and adequacy of the policy liabilities included in the insurer's financial statements, a detailed commentary, data exhibits and calculations supporting that opinion.

The AAR comprehensively documents the work done by the Appointed Actuary to calculate policy liabilities. The AAR also documents the work the Appointed Actuary does for the administration of Participating Accounts. OSFI views the AAR as a key component of its review of the insurer's financial position and profile.

The AAR is not solely a report from the insurer's Appointed Actuary to OSFI's actuaries. It is also intended for company management and is read by regulators who may not be actuaries but who are knowledgeable about insurance. Therefore, the AAR should be presented in a manner generally understandable to both company management and the regulator.

A. 2 Regulatory Requirements

A.2.1 Application of Professional Standards to the Appointed Actuary's Valuation

Subsections 365(2) and 629(2) of the ICA require that: "The actuary's valuation shall be in accordance with generally accepted actuarial practice with such changes as may be determined by the Superintendent and any additional directions that may be made by the Superintendent."

OSFI's Guideline E-15 *Appointed Actuary: Legal Requirements, Qualifications and Peer Review* describes the role of the Appointed Actuary and sets out some of OSFI's expectations with respect to that role. The guideline also outlines the Actuary's qualification required to carry out the Appointed Actuary's role.

The Canadian Institute of Actuaries (CIA) annually issues a letter (the Fall Letter) from the Committee on Life Insurance Financial Reporting (CLIFR) and, from time to time, may issue other educational notes. While the Fall Letter and educational notes are not standards, the Appointed Actuary should disclose when either the educational notes and/or the CLIFR Fall Letter are/is not followed as well as the supporting justification.

For purposes of the Appointed Actuary's valuation of policy liabilities (and the associated opinion), OSFI currently accepts that work performed in accordance with "accepted actuarial practice" in Canada (as defined by the CIA) is sufficient to satisfy the 'generally accepted actuarial practice' requirement referred to in the ICA sections identified above. "Accepted actuarial practice" is defined by the professional actuarial standards of practice promulgated by the Actuarial Standards Board (ASB), together with the additional requirements and directions of this Memorandum. Any deviations from CIA Standards of Practice or from the additional requirements of this Memorandum must be reported in the AAR and justified.

This Memorandum for 2022 year-end financial reporting does not contain any requirements that override or limit accepted actuarial practice.

In complying with accepted actuarial practice, the Appointed Actuary must meet a standard of care with respect to the data used in valuations. This standard of care, implicitly stated in the CIA Standards of Practice, requires the Appointed Actuary to establish suitable check procedures for the verification of data. While the CIA Standards of Practice (SOP Subsection 1520) offer the Appointed Actuary the option to consider the Auditor's work, the existence of the Joint Policy Statement does not override the ICA's requirement for filing reports with the Annual Return that meet the standard of care implicitly stated in the CIA Standards of Practice. The AAR must discuss the extent to which the Appointed Actuary considers the work of the Auditor. Where the Appointed Actuary uses the work of the Auditor, the details of the Auditor's work should not be addressed in the AAR. If there are instances where the Appointed Actuary does not use the work of the Auditor because of any special circumstances, this must be disclosed in the product sections of the AAR. In such cases, the Appointed Actuary should describe the data verification that was performed.

The CIA Standards of Practice (SOP Subsection 1510) describe the Appointed Actuary's use of another person's work. Such use of the work of others should be disclosed in the section of the AAR where it most logically applies (e.g., at the company level, a specific product level, etc.).

A.2.2 Filing Directions for the AAR, Financial Condition Testing (FCT) Report and Peer Review Report

The filing deadlines for the above reports are:

- AAR - 60 days after the end of the fiscal year,
- FCT Report - the earlier of 30 days after the presentation to the Board of Directors, Audit Committee or Chief Agent and one year after the fiscal year end,
- Peer Review Report (full 3-year review or the limited annual review) - Copies of pre-release reports (encouraged), both the full peer review report, and any summary, for financial statement work should be forwarded to OSFI based on the same deadlines that apply to filings of the Life regulatory financial returns.
- For post-release reviews, the reviewer's report should be submitted to OSFI no later than thirty days after release of the AA's report on the work reviewed, and for future financial condition reports, no later than December 31.

OSFI's Guideline E-15 *Appointed Actuary: Legal Requirements, Qualifications and Peer Review* provides more details on filing deadlines.

For the AAR, the FCT Report and the Peer Review Report, the insurer must submit one electronic copy uploaded via the Regulatory Reporting System (RRS). A scanned copy of the signed opinion must be included in the electronic submission. Failure to meet the deadlines for the filings will result in a penalty fee under OSFI's Late and Erroneous Filing Penalty Framework.

For security reasons, insurers should not file reports through e-mail. For the AARs, the FCTs and the Peer Review Reports the insurer is required to submit:

- One electronic copy uploaded to a secure web portal;
- Word or pdf format, with pdf preferred;
- One electronic copy of the required tables in the AAR in Excel format (life insurers only); and
- Note: No hard copies are required, with the exception of some companies for the AAR. Insurers required to provide hard copies will be contacted individually.

Insurers should follow the file naming conventions outlined in the instructions for Unstructured Financial Returns. Both the full 3-year peer review and the limited annual peer review share the same naming conventions.

Instructions on the use of the web portal can be found on OSFI website at www.osfi-bsif.gc.ca under *Regulatory Data and Returns / Filing Financial Returns / Canadian & Foreign Life Insurance Companies/Fraternal Benefit Societies*.

In order to file a Peer Review Report within RRS, insurers **are reminded that these filings must first be requested by contacting ReturnsAdmin@osfi-bsif.gc.ca or by calling 613-991-0609.**

The ICA requires insurers to file their AAR with their Annual Return. OSFI will not accept a certificate containing only the opinion of the Appointed Actuary in lieu of a full AAR.

Note that in Section 8.5 there is a requirement for a separate cover letter for Disclosure of Compensation.

A.2.3 Filing Directions for the Supplementary Table

Insurers must complete a peer review supplementary table, which is included in a separate excel spreadsheet. The insurer should complete the orange shaded sections of the table.

This Peer Review schedule will permit OSFI to capture select information in a format that facilitates data analysis.

A.3 OSFI's Review Process

OSFI recognizes the confidential nature of the AAR. Reviews of the filed Annual Returns may disclose that an Appointed Actuary's valuation warrants further assessment and questioning. The Superintendent may reject assumptions and methods where it appears that the policy liabilities produced are inappropriate.

Since the review of an AAR may take place over an extended period after filing, OSFI may request the Appointed Actuary to provide supplemental detail to sufficiently assess the assumptions and methods. The Appointed Actuary is expected to respond promptly to all supplemental requests. Working papers required to support the computation of the policy liabilities reported in the Annual Return and the AAR should be available at all times and should be made available to OSFI upon request.

Where the appropriateness of particular assumptions or methods is not sufficiently demonstrated, the Superintendent will require the Appointed Actuary to choose other acceptable assumptions or methods, and to re-compute the policy liabilities. In such a situation, the Appointed Actuary must re-file the AAR. The Superintendent may also require the insurer to amend the Annual Return. Alternatively, the Superintendent may ask the insurer to reflect the changes in the Annual Return for the following year. The Superintendent may request a report from an Independent Actuary.

A.4 Definition of Liabilities for Insurance Contracts, Investment Contracts, Other Contract Liabilities and Assets

Subsections 365(1) and 629(1) of the ICA require the Appointed Actuary to value the liabilities for insurance contracts, investment contracts, reinsurance recoverables and other contract liabilities and assets of the insurer. These amounts are collectively referred to as policy liabilities and are covered by the Appointed Actuaries Opinion and are reported in the AAR. Specifically, this includes the following:

- **Liabilities for insurance and investment contracts**. The gross (net insurance contract liability plus reinsurance recoverables) amounts reported in the AAR must reconcile to the following amounts in the Annual Returns:

  Canadian Life Insurance Companies:

LIFE Quarterly Return Page 20.020 Line 010 (Actuarial liabilities for insurance contracts) plus

LIFE Annual Supplement Return Page 22.020 Line 450 (Actuarial liabilities for investment contracts)

Canadian Fraternal Benefit Societies:

LIFE Quarterly Return Page 20.021 Line 010 (Actuarial liabilities for insurance contracts) plus

LIFE Annual Supplement Return Page 22.020 Line 450 (Actuarial liabilities for investment contracts)

To support this reconciliation, insurers should clearly disclose the presence of the associated undiscounted deferred tax liability or asset, as determined by the accountants. The Canadian Asset Liability Method (CALM) requires that the insurance contract liabilities include a discounted provision for deferred taxes. However, the Annual Return shows a separate undiscounted deferred tax asset or liability (which is determined by the accountants), and an insurance contract liability reduced by the undiscounted deferred tax. Therefore, the total consolidated insurance contract liabilities appearing in the AAR must exclude the associated undiscounted deferred tax assets or liabilities.

Practice varies by insurer regarding the level at which the undiscounted deferred tax is netted (e.g. by product line, business unit, company, etc.). The tables in the AAR should disclose at what level taxes are included.

The AAR should clearly disclose whether or not the insurance contract liabilities for each product line include deferred taxes on a discounted or undiscounted basis and how these reconcile to the consolidated total that excludes the undiscounted deferred taxes. Also any disclosure of changes in insurance contract liabilities or provision for adverse deviations should clearly disclose whether or not these items include deferred taxes on a discounted or undiscounted basis. The same principles apply to the disclosure for the presence of any deferred tax assets or liabilities associated with investment contract liabilities.

- **Other Contract Liabilities**. The gross (net liability plus reinsurance recoverables) amounts reported in the AAR must reconcile to the following amounts in the Annual Return (less the liabilities held for investment contracts):

  Canadian Life Insurance Companies:

  LIFE Quarterly Return Page 20.020 Line 040 (Other Contract Liabilities) less
  LIFE Annual Supplement Return Page 22.020 Line 450 (Actuarial liabilities for investment contracts)

- **Other Liabilities or Asset Provisions** in the Annual Return that are inherently related to or linked to insurance contracts and investment contracts.

- **Total Assets**. The amounts reported in the AAR must reconcile to the following amounts in the Annual Returns:

Canadian Life Insurance Companies: LIFE Quarterly Return Page 20.010 Line 899

B. GENERAL LAYOUT

The format and order of presentation specified in this Memorandum must be followed. The report is ordered so that summary total company information is presented first. This should give the reader an overview of the company's policy liabilities. The data should be ordered to be consistent with, first, the way that the company is reported externally and, second, the way that the company is managed, analyzed and reported internally. This requires that data be displayed in a descending cascade by company, country, asset segment and products.

A uniform manner of presentation allows OSFI to more easily compare methodologies and assumptions between companies.

The Appointed Actuary's Report is to have the following sections:

Table of Contents

1. Overview
   - 1.1. Overview of the Company
   - 1.2. Opinion
   - 1.3. Materiality Standards
2. Total Consolidated Company Data
3. Details by Asset Segment and Product Lines
4. Additional Liability Disclosures
5. Asset Liability Management (ALM)
6. Sources of Earnings
7. Report on Participating Policies
8. Other Disclosure Requirements

The requirements for each of the above sections are detailed in this Memorandum.

B.1 OVERVIEW

B.1.1 Overview of the Company

The overview section of the AAR should include:

- a brief description of the company's structure;
- an overview of its operations;
- any changes in structure;
- any acquisitions/divestitures;
- any key material events affecting the liabilities for insurance and investment contracts, and other contract liabilities;
- any changes in the philosophy towards the valuation of insurance and investment contract liabilities; and
- any material new categories of business.

While the above should be disclosed in the overview section of the AAR, insurers should disclose any extensive product specific details in the appropriate product sub-sections.

B.1.2 Opinion

The Appointed Actuary must use the prescribed opinion format (see Appendix I). The opinion wording is as recommended in the CIA Standards of Practice – Practice-Specific Standards for Insurers. OSFI will consider any opinion that varies from this wording to be a qualified opinion.

This section must contain an original signature of the Appointed Actuary of the AAR, the Appointed Actuary's name in type, the date and location of signing.

The actuarial opinions presented to the shareholders and policyholders of the company should be essentially the same as the opinions filed with OSFI. Should this not be the case, the Appointed Actuary must disclose in writing in the AAR to OSFI the material differences between the opinions, as well as the rationale for such differences.

Any qualification or limitation concerning any aspect of the Valuation should be noted in this section of the AAR. These qualifications or limitations should be similar to the ones included in the opinion for Canadian Annual Returns presented to the shareholders and policyholders.

B.1.3 Materiality Standards

In preparing the insurer's Annual Return, company management and the external auditor routinely agree on a level of materiality. The AAR must report these materiality standards. In addition, the Appointed Actuary must report on how the Annual Return materiality standard is selected in the valuation of policy liabilities.

B.2 TOTAL CONSOLIDATED COMPANY DATA

B.2.1 Summary Reporting of Consolidated Data

Section B.2 of the AAR must show a set of seven tables, as follows:

- Table 2.1 - Consolidated Liabilities for Insurance and Investment Contracts
- Table 2.2a - Other Contract Liabilities
- Table 2.2b - Additional Contract Related Liabilities and Assets
- Table 2.3a - Provisions for Adverse Deviations, by Type
- Table 2.3b - Provisions for Adverse Deviations, by Year
- Table 2.4a - Liabilities for Insurance and Investment Contracts, Method and Assumption Changes, by Year
- Table 2.4b - Other Contract Liabilities, Method and Assumption Changes, by Year

The following minimum levels of detail must be followed for the tables in Section B.2 of the AAR:

- Company: Data must be presented separately for each legal entity that is consolidated in the Annual Return. This is required since the assets and liabilities are in separate legal entities.
- Country: If a company operates in more than one country, the data must be shown separately for each country, since in some cases there are local restrictions on the movement of assets and liabilities out of a country.
- Asset Segment: Each asset segment must be reported separately. The CIA Standards of Practice require that the valuation of the insurance contract liabilities has to be linked to the supporting assets. Typically, the assets backing one or more products reside in a single asset segment. The sample format for Table 2.1 is set up to capture this structure. However, there could be cases where a product line is backed by more than one asset segment, or some other combination of asset segments and product lines. In such cases, the Appointed Actuary must decide how to modify the sample format so that the insurer's environment is clearly represented.
- Product Line Reporting: The definition of product line for the purposes of reporting in the AAR should be determined by the Appointed Actuary based on the circumstances of the insurer. Product lines should be reported separately in the AAR to the same extent that they are separately analyzed or reported to business unit management.
- Par and Non Par: Participating lines of business must be shown separately.
- Dollar Amount: The dollar amounts shown in the tables must be expressed in thousands.

The above defines a cascade of levels of reporting that must be presented in the AAR. There is no requirement to do further breakdowns of data exclusively for AAR reporting, except where this is explicitly required in this Memorandum. This reporting structure and format must be followed by the insurer in order to more easily allow for comparisons between insurers. The table must show how liability data is matched to the separate asset segments that constitute the insurer's asset structure. Only the level of detail, or order, shown in the three left columns of Table 2.1 should vary by insurer. The

Appointed Actuary must determine the level of product detail to be shown that matches the above requirements.

However, exceptions will be allowed depending on the particular circumstances of the insurer. If the insurer has a different structure (e.g., asset segments within product lines), such a structure should be used in the tables. Such deviations should be justified. The Appointed Actuary must use judgement in deciding on the level of detail reported in the AAR.

The summary table should give the reader an overview of the insurer and its lines of business. Therefore, the Appointed Actuary is discouraged from making this summary table too detailed. If there are products grouped within an asset segment and not covered by the splits above, and which the Appointed Actuary considers to be significant, then their separation in this table is encouraged. The Appointed Actuary should be influenced by how company management looks at the business for internal reporting, while still respecting the required separation of companies and countries, as shown in section B.2.1 of this Memorandum.

The later sections of the AAR should contain more detailed reporting at the asset segment and product line levels. These requirements are covered in sections B.2.4 and B.3 of this Memorandum.

Numbers reported at the total company summary level must reconcile to those reported in the detailed product sections. If a product line is shown separately in the summary tables, the same product line must be reported on separately in the detailed product sections.

For the purposes of this report, Gross Liability is defined as Net Liability plus Reinsurance Recoverables.

Summary Table 2.1

Consolidated Liabilities for Insurance and Investment Contracts ($, 000)

Company/ Country	Asset Segment	Product Lines	Liabilities 2022			Liabilities 2021			Liabilities 2020		
			Gross	Net	%	Gross	Net	%	Gross	Net	%
Parent Co. - Canada	Segment #1	Product #1									
		Product #2									
		Product #3									
		Segment Total									
	Segment #2	Product #4									
		Product #5									
		Segment Total									
	Segment #3	**Segment Total**									
	Seg Funds	**Segment Total**									
	Surplus	Misc. Liabs									
	Canada Total										
Parent Co. - U.S.	Segment #4	Product #1									
		Product #2									
		Segment Total									
	Segment #5	Product #3									
		Product #4									
		Segment Total									
	Surplus	Misc. Liabs									
	U.S. Total										
Parent Co Total											
Subsidiary Comp. #1	Segment #6	Product #1									
		Segment Total									
	Surplus	Misc. Liabs									
	Total Subsid. # 1										
Consolidated Total											

The percentages required in the above table are the ratios of each of the net contract liabilities to the consolidated total.

This sample chart shows separate asset segments for surplus. However, each company can have its asset segments organized in a different way. Some companies may have surplus inside the other asset segments. Some companies may have corporate asset segments. The sample chart also shows liabilities inside a surplus segment. Again, this may be true for some companies and not for all. The company's actual structure should be used in determining the contents of the three left columns.

Not all insurers calculate income tax at the product level. Allocations should not be done just for purposes of reporting in this table. Refer to Section A.4 of this Memorandum for instructions on reconciliation to the Annual Return.

B.2.2 Summary Reporting of Other Contract Liabilities

The liabilities in Table 2.2a must be shown separately for each company, country and par/non par detail, corresponding to Table 2.1 above. These liabilities are not required to be reported in detail by product line. However, if there is a material amount which the Appointed Actuary judges to be significant, more details are expected to be provided in the Product Line Reporting (Section B.3.1). In particular, if the "other" category is significant, more detailed disclosure is required. The liabilities in Table 2.2a must not include liabilities for investment contracts. (Liabilities for investment contracts are to be included in Table 2.1)

The table should show the other liabilities by type. The following sample table shows the format that the company is expected to follow.

Summary Table 2.2a

Consolidated Other Contract Liabilities ($, 000)

Company/Country	Liability Type	2022	2021	2020
Parent Co. – Canada	Claims reported but not admitted			
	Claims incurred but not reported			
	Provision for exp. Rating refunds			
	Dividends on deposit			
	Proceeds on deposit			
	Premiums paid in advance			
	Premiums on deposit			
	Other			
	Subtotal			
Parent Co. – U.S.	Claims reported but not admitted			
	Claims incurred but not reported			
	Provision for exp. Rating refunds			
	Dividends on deposit			
	Proceeds on deposit			
	Premiums paid in advance			
	Premiums on deposit			
	Other			
	Subtotal			
	Total			

In addition to the liabilities in Table 2.2a, the Appointed Actuary must disclose any other liabilities in the Annual Return that are inherently related to insurance and investment contracts. Included in this are liabilities that were determined by the Appointed Actuary or where the size of the liabilities depends on the Appointed Actuary's judgement. The Appointed Actuary must disclose in which line of the Annual Return each of these liabilities reside.

Similarly, the Appointed Actuary must disclose any assets whose amount depends on the Appointed Actuary's judgement. Examples of such assets include, but are not limited to, some reinsurance receivables, reverse mortgages (whose value depends on assumptions such as real estate appreciation, mortality, etc.), value of warranties on acquired blocks, etc. The Appointed Actuary must disclose in which line of the Annual Return each of these liabilities reside.

The liabilities and assets in Table 2.2b must be shown separately for each company, country and par/non par detail, corresponding to the level of detail shown in Table 2.1 above. The following sample table shows the format that the company is expected to follow for reporting such liabilities and assets.

Summary Table 2.2b
Consolidated Additional Contract Related
Liabilities and Assets ($, 000)

Company/Country	**Liability or Asset and Annual Return Line**	**2022**	**2021**	**2020**
Parent Co. – Canada				
	Subtotal			
Parent Co. – U.S.				
	Subtotal			
	Total			

B.2.3 Summary Reporting of Provisions for Adverse Deviations

Section 2.3 of the AAR must show two tables of the Provisions for Adverse Deviations (PfADs) that are included in the liabilities: 1) by type and 2) by year. The company/country/asset segment/product combinations must be the same as shown in Table 2.1 described above. All the provisions disclosed in the AAR must be on a before-tax basis.

Table 2.3a below shows the provisions for the current year by type of provision. The table cannot be altered by combining columns or removing columns.

The Appointed Actuary must ensure that this table is completed in the stated format. All the rows and columns in the table below are expected to be shown. Column headings should not be changed or reordered. If no data is available, columns should be left blank.

Summary Table 2.3a
Provisions for Adverse Deviations by Type ($, 000)

(Net of Reinsurance Recoverables)

Company/ Country	Asset Segment	Product Lines	Liab.	Provisions for Adverse Deviations (PfAD) 2022															
				Fixed Income Credit Loss	Credit Spread	Additional PfAD outlined in 2330.08. (*)	Mort.	Mort. Improve-ment	Morb.	Morb. Improv-ement	Expense	Lapse	Int. Rate C3	Equity/ Real Estate	Additional PfAD for NFI usage (**)	Other/ General (***)	Total PfADs	% of Liabs.	****Prescribed Mortality Improvement
Parent Co. - Canada	Seg. #1	Product #1																	
		Product #2																	
		Seg. Total																	
	Seg. #2	Product #3																	
		Product #4																	
		Seg. Total																	
	S.F.	**Seg. Total**																	
	Surplus	Misc. Liabs																	
	Canada Total																		
Parent Co. U.S.	Seg. #4	Product #1																	
		Product #2																	
		Seg. Total																	
	Seg. #5	Product #3																	
		Seg. Total																	
	Surplus	Misc. Liabs																	
	U.S. Total																		
Parent Co Total																			
Subsidiary Comp. #1	Seg. #6	Product #1																	
		Seg. Total																	
	Surplus	Misc. Liabs																	
Total Subsid. # 1																			
Consol. Total																			

*Note: The disclosure should include additional PfADs resulting from net credit spread after margin exceeding the maximum for any assets within an asset subgroup, as outlined in paragraph 2330.08 of the SOP.

**Note: The disclosure should include additional PfADs for non-fixed income assets (NFI) usage per section 2340.20 of the SOP.

***Note: The disclosure should include the reasons for holding the Other/General PfAD, the methods and the assumptions used to determine the Other/General PfAD.

****Note: This amount is calculated as the difference between the statement value and the value of insurance contract liabilities calculated using prescribed mortality improvement rates as promulgated by the Actuarial Standards Board (*CIA Standards of Practice 2350.07*). This amount is required by OSFI, for information only, to establish the amount of conservatism built into the statement value liability.

Note that the net PfADs by type for the "credit spread" and the "interest rate (C-3 risk)" in the above table must not include the corresponding "additional net PfADs". These additional net PfADs must be presented in the columns "additional net PfADs". If not, the actuary must provide explanations below the previous table.

If the valuation methodology used does not produce separate PfADs for each of the product lines in the table (e.g. if the CALM aggregates some products), the disclosure in the above table should be at the level at which it is available. Allocations are not required just for purposes of reporting in this table.

The Appointed Actuary must disclose whether the best estimate assumptions for life mortality or health morbidity include an assumption of improving mortality or morbidity.

OSFI recognizes that Appointed Actuaries calculate the amounts of the PfADs using different methodologies. The following are some examples of differences, each requiring disclosure:

- The amount value of each of the PfADs is calculated one at a time, while keeping the others unchanged. This will result in a balancing "other" component.
- The PfADs are calculated in a cumulative manner.
- The order of calculation can vary, and the resulting size of the individual PfADs can be different as a result.
- The calculations can include or exclude related deferred tax liability or asset on a discounted or undiscounted basis (and this should be clearly disclosed as per section A.4 of this Memorandum).

All such methods are acceptable for purposes of reporting in the AAR. OSFI expects there to be comparability in the calculation method by year.

The Appointed Actuary should disclose the order in which the PfADs were calculated. If this varies by product line, this should be noted in the summary section of the AAR, and the details of the calculation method should be disclosed in the detailed product sections of this report. If the order of calculation has changed from the prior year for any product line, the rationale of the change should be noted in the summary section of this report.

Table 2.3b below shows the provisions for adverse deviations included in the liabilities for the last three years.

Summary Table 2.3b

Provisions for Adverse Deviations by Year ($, 000)

(Net of Reinsurance Recoverables)

Company/ Country	Asset Seg.	Product	2022			2021			2020		
			Liabs.	Amount of PfAD	% of Liabs.	Liabs.	Amount of PfAD	% of Liabs.	Liabs.	Amount of PfAD	% of Liabs.
Parent Co. - Canada	Seg. #1	Product #1									
		Product #2									
		Product #3									
		Seg. Total									
	Seg. #2	Product #4									
		Product #5									
		Seg. Total									
	Seg. #3	**Seg. Total**									
	S.F.	**Seg. Total**									
	Surplus	Misc. Liabs									
	Canada Total										
Parent Co. - U.S.	Seg. #4	Product #1									
		Product #2									
		Seg. Total									
	Seg. #5	Product #3									
		Product #4									
		Seg. Total									
	Surplus	Misc. Liabs									
	U.S. Total										
Parent Co Total											
Subsidiary Comp. #1	Seg. #6	Product #1									
		Seg. Total									
	Surplus	Misc. Liabs									
Total Subsid. #1											
Consol. Total											

If the valuation methodology used does not produce separate PfADs for each of the product lines in the table (e.g., if the CALM method aggregates some products), the disclosure in the above table should be at the level at which it is available. Allocations are not required just for purposes of reporting in this table.

B.2.4 Summary Reporting of Changes in Methods and Assumptions

The Appointed Actuary should confirm that the total changes (Gross and Net basis) at a Company level are reconciled to the numbers reported in the Quarterly and Annual Life Returns. Changes in Methods

and Assumptions should also be reconciled to basis changes in the Life Returns. Normal changes should be the difference between total and basis changes.

The Appointed Actuary must explain any material differences between the basis changes reported in the Life Returns and the AAR as well as the rationale for such differences.

Changes in Methods and Assumptions in the AAR table(s) should align with basis changes in the Life Return.

Table 2.4a shows the methods and assumptions changes in liabilities for insurance and investment contracts. The company/country/asset segment/product line combinations must be the same as in Table 2.1 described above.

The following is a sample of the table showing the changes in methods and assumptions for the last three years.

Summary Table 2.4a
Liabilities for Insurance and Investment contracts
Method and Assumption Changes by Year ($, 000)
(Net of Reinsurance Recoverables)

Company/ Country	Asset Segment	Product Lines	2022		2021		2020	
			Impact on Liabs.	Description of Change	Impact on Liabs.	Description of Change	Impact on Liabs.	Description of Change
Parent Co. - Canada	Seg. #1	Product #1						
		Product #2						
		Seg. Total						
	Seg. #2	Product #3						
		Product #4						
		Seg. Total						
	Seg. #3	**Seg. Total**						
	S.F.	**Segment Total**						
	Surplus	Misc. Liabs						
	Canada Total							
Parent Co. - U.S.	Seg. #4	Product #1						
		Seg. Total						
	Seg. #5	Product #3						
		Product #4						
		Seg. Total						
	Surplus	Misc. Liabs						
	U.S. Total							
Parent Co Total								
Subsidiary Comp. #1	Seg. #6	Product #1						
		Seg. Total						
	Surplus	Misc. Liabs						
Total Subsid. # 1								
Consolidated Total								

The method or assumption changes included in the above table should reflect all such changes since the filing of the prior year's report of the Appointed Actuary to OSFI..

The description of the changes shown in the table must be succinct. Details describing the changes must be shown in the detailed product sections in Section B.3 of the AAR.

Each of the changes in methods or assumptions must be disclosed separately. If more than one change is made to any of the products shown, the AAR must show separately the effects of each change, i.e. netting should not be used. As indicated in section A.4 of this Memorandum, the Appointed Actuary must disclose whether the impact on the liabilities includes or excludes the impact on the associated deferred tax assets or liabilities on a discounted or undiscounted basis.

The effect of each change must be split separately into the following:

- those resulting from changes to expected experience;
- changes to Margins for Adverse Deviations (MfADs);
- changes resulting from special, particular or one-time circumstances (e.g., new standards, change in methodology, etc.);
- corrections to errors;
- changes due to a large non-usual transaction (e.g., reinsurance, acquisition, etc.);
- changes in bulk liabilities;
- changes due to any administrative and corporate changes (e.g., new systems, change in investment policy, etc.); and
- changes in Conditional Tail Expectation (CTE) levels when a stochastic model is used for valuation.

When reporting to OSFI, insurers should not consider quarterly changes in yield curve as a basis change. These changes should be treated as a normal change in insurance contract liabilities.

The Appointed Actuary must disclose in which quarter each change was made.

Table 2.4b shows the method and assumption changes in other contract liabilities.

The following is a sample of the table showing such changes in methods and assumptions for the last three years.

Summary Table 2.4.b

Other Contract Liabilities

Method and Assumption Changes by Year ($, 000)

Company/ Country	Liability Type	2022		2021		2020	
		Impact on Liabilities	Description of Change	Impact on Liabilities	Description of Change	Impact on Liabilities	Description of Change

B.3 DETAILS BY ASSET SEGMENTS AND PRODUCT LINES

Section B.3 of the AAR should document the asset segment and product line details of the valuation of the policy liabilities. This section of the AAR must follow the same order, and show the same combination of asset segments and product lines, as is shown in Summary Table 2.1. Thus, this section must follow the same cascade of company/country/asset segment/product.

The amounts disclosed in this section (each asset segment and the related products) must correspond to those shown in Summary Table 2.1.

The CIA Standards of Practice require that the valuation of the insurance contract liabilities be linked to the supporting assets. Typically, the assets backing one or more products reside in a single asset segment. The sample format for Table 3.1 is set up this way. However, there could be cases where a product line is backed by more than one asset segment, or some other combination of asset segments and product lines. In such cases, the Appointed Actuary should modify the sample format so that the company's environment is clearly represented while still being consistent with the spirit of the sample table. The table must show how liability data is matched to the separate asset segments that constitute the company's asset structure.

OSFI recognizes that not all of the elements that are requested to be disclosed are calculated at the same level of detail. Some examples of this are:

- The undiscounted deferred income taxes (as discussed in section A.4 of this Memorandum) may be calculated at a higher level than the product line level of detail required by Table 3.1.
- The actual to expected studies may be at a summarized product level.

Similarly, some of the descriptions of methodology or some assumptions may be the same for more than one product or asset segment. This need only be disclosed once in the AAR at the appropriate summary level, but the detailed product sections must make direct reference to it. Some examples of this are:

- Asset/Liability management (ALM) is the same; and
- The same mortality table is used for several product lines.

The actuary must provide comments in the relevant sections of the report discussing the impact of the COVID-19 pandemic such as experience and economic environment changes, and the adjustments that were made in the current valuation processes, methods or assumptions.

Each product section must be self-contained. It must have either the data within the section or an explicit reference to a specific page at a different summarized level. The reader of the AAR should not have to search through non-cross-referenced sections of the AAR.

B.3.1 Asset Segment Reporting

The composition of each asset segment must be documented separately in the AAR in a table with the following format. The major asset and liability categories must be shown for the last three years. The liabilities for insurance and investment contracts, and other contract liabilities, supported by the asset segment must be included in the table.

Table 3.1

Asset Segment – Assets and Liabilities ($, 000)

(Statement Carrying Values at December 31)

Company/Country/Asset Segment		2022 Statement Asset Value
Bonds:	Held for Trading or FVO	
	Available For Sale	
	Other	
Mortgages:	Held for Trading or FVO	
	Available For Sale	
	Other	
Equities:	Held for Trading or FVO	
	Available For Sale	
	Other	
Real Estate		
Policy Loans		
Cash and S.T.		
Inter-Seg. Notes		
Inter-Company		
Derivatives		
Other Investments		
	Other Investment #1	
	Other Investment #2	
Deferred Tax Assets		
Reinsurance Recoverables*		
Other Assets		
Total		

* “Reinsurance recoverables” is referred to as reinsurance assets in LIFE-1.

Asset/Liability Category	2022		
	Gross	Ceded	Net
Liabilities for insurance and investment contracts			
Product #1			
Product #2			
Etc.			
Net Deferred Gains/Losses on R.E.			
Inter-Company			
Deferred Tax Liability.			
Other Liabilities			
Total Liabilities			
Surplus			

All the rows in the tables above are expected to be shown. Do not blank out rows that do not apply, but explicitly show them to be zero. Three years of data are required.

The Appointed Actuary should disclose the policy for determining the type of assets (held to maturity, available for sale, trading, fair value option) used to back the liabilities in this asset segment.

The Statement asset values should be the same as are used in the Annual Return. The total of all Statement asset values for all the segments reported must equal the total assets (after inter-segment notes and inter-company loans are eliminated) on the balance sheet in the Annual Return (see Section A.4).

The inter-segment notes should be shown as positive and negative amounts in the chart above.

If there are any “other assets”, “other liabilities”, or “other investments” which are material to that asset segment, the Appointed Actuary is expected to provide more detail.

If the asset mix, including bond quality, has changed materially between years, the reason for this should be discussed.

If the investment policy has changed, the effect on the policy liabilities should be discussed.

The use of assets other than bonds, mortgages, equities, real estate, policy loans and cash to back insurance contract liabilities must be disclosed. Such assets include, but are not limited to, inter-segment notes, deferred tax assets, derivatives, goodwill, loans to subs or parents, etc.

As required by ICA subsection 611.1(1), only vested assets may be used by foreign companies to determine their contract liabilities.

The Appointed Actuary should disclose the company’s policy with respect to the level of assets in each segment, transfers in and out of segments, frequency of transfers, new inter-segment or inter-company notes and policies with respect to surplus held within asset segments that back liabilities.

For interest sensitive asset segments, the AAR must have a discussion of the asset liability management applied. The requirements for this reporting are shown in Section B.5 of this Memorandum.

B.3.2 Product Line Reporting

Within each asset segment, the Appointed Actuary must separately discuss the valuation of the products that have been shown in Table 3.1.

The reporting of each product should include the following:

B.3.2.1 Product Data

Table 3.2.X (X = Product Name)

Product Data ($, 000)

(At December 31)

Company & Country			2022	2021	2020
Asset Segment					
Product #1	Liabilities for Insurance contracts and Investment contracts:	Gross			
		Net			
	Face Amount:	Gross			
		Net			
	Account Values:	Gross			
		Net			
	Premiums:	First Year			
		Single			
		Renewal			
		Less, Ceded			
	PfAD (on a before-tax basis) as a % of Net Liabilities:				
	Fixed Income Credit Loss				
	Credit Spread				
	Additional PfAD outlined in 2330.08				
	Mortality				
	Mortality Improvement				
	Morbidity				
	Morbidity Improvement				
	Expenses				
	Lapses				
	Interest Rate C3				
	Equity/ Real Estate				
	Additional PfAD for NFI Usage				
	Other/ General				
	Total PfAD				
	Change in Liabilities From Method and Assumption Changes:				
	Expected Liabilities				
	MfADs				

The above data must be shown for each of the products. The amount of liabilities must reconcile to the amounts shown in Summary Table 2.1. The Appointed Actuary must disclose whether the liabilities and PfADs include or exclude related deferred tax assets or liabilities on a discounted or undiscounted basis as required by section A.4 of this Memorandum.

The purpose of showing face amounts, account values and premiums is to give an overview of the size of the product, which may not always be understood just from the size of the liabilities. Face amount should be shown for life insurance products. Account values should be shown for universal life, segregated fund and deferred annuity contracts. The AAR should note the basis for the premiums shown (e.g., on the same basis as shown in the income statement of the Annual Return, annualized basis from valuation system, etc.).

B.3.2.2 Description of Product

The AAR must include a description of the product, including its key features, the guarantees, benefits, contract durations, etc. The level of detail in this description should be sufficient to justify the methodology and assumptions used. Please indicate for each product whether they are open, closed, or closed but open for new deposits.

For participating products, the AAR must describe whether a contribution to participating account surplus (e.g. as a percentage of premiums/dividends) is expected and the companies practices (if any) on changes to the contribution to surplus.

The Appointed Actuary should discuss the key risks in each of the products. For instance, the Appointed Actuary should disclose the assumptions for which a misestimation would have the largest effect on the policy liabilities, which assumptions are the most volatile, and the results of any testing done for sensitivity analysis.

B.3.2.3 New Products

The AAR should disclose details on the features of the new products, the guarantees, benefits, contract durations, etc. This description should be sufficient to justify the assumptions and methodology used. Where the product is novel or experimental, and relevant experience data is not available, the Appointed Actuary should describe the work performed to measure the risk associated with these new contingencies.

For new participating products, the AAR should also disclose if the new product(s) are in the same dividend class or participating sub-account as the inforce participating products. The Appointed Actuary should provide the rationale and considerations for the associated practice, and a description of how the company ensures the inter-generation equity is maintained.

B.3.2.4 Reinsurance

Where reinsurance is material, the AAR must provide a description of the reinsurance structure with respect to risks and allowances. It must also disclose any new reinsurance treaty or other arrangement, assumed or ceded, must be disclosed. Disclosure should include the effective and expected termination dates, the type of reinsurance, a description of the products covered, recapture

provisions, and any significant impact to liabilities for insurance and investment contracts and capital.

B.3.2.5 Expected Experience Assumptions

The Appointed Actuary must document all expected experience assumptions used in the valuation, describing their rationale, justification and validation. This includes mortality, morbidity, interest, credit loss, lapses, expenses, inflation, renewal/conversion, disability/recovery, income taxes and any other contingencies that are applicable.

While OSFI expects all assumptions to be documented, the Appointed Actuary must use judgement in deciding on the amount of detail included in the AAR with respect to assumptions. For instance, multi-page listings of mortality/morbidity tables or lapse tables are discouraged. A high level description of the processes and approaches used to conduct experience studies such as number of years of data used, frequency of conducting the study, how data are analysed, use of predictive analytics, etc., should be included.

The AAR must disclose how the expected experience assumptions were determined with specific reference to company experience studies and industry data as applicable. The credibility of the company data is to be disclosed, as is any blending of company and industry data.

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

Any use of implicit assumptions or approximations requires disclosure and discussion.

For participating and adjustable products, the Appointed Actuary should describe how the dividends and non-guaranteed elements are reflected in the calculation of the insurance contract liabilities.

The Appointed Actuary should disclose when the expected experience assumptions were last updated or reviewed, and briefly describe the policy(ies) and guidelines that govern how frequently each material expected experience assumption is to be updated or reviewed. The AAR should also note if the frequency of updating or review of expected experience assumptions is not governed by any policy or guideline.

A comparison of actual experience versus expected experience assumptions should be shown separately for each material assumption within each product and for the last three years if the data is available. The AAR should document where such studies are done at a more aggregate level than the product level. This comparison should be shown separately for the key risk assumptions. The results for lapse should be shown separately for lapse-supported products and non-lapse supported products.

This analysis does not require a full formal experience study. It could consist of expected experience per the valuation system versus actual experience taken from the accounting data. Consistent differences in one direction and large swings should be explained. If such actual to

expected comparisons are done for only a portion of the product lines, the AAR should show the proportion that is measured. The AAR should also disclose if such studies are not available.

B.3.2.6 Economic Assumptions

The AAR must report the key future reinvestment rates and reinvestment strategies assumed and how the valuation models reflect the investment practices.

The Appointed Actuary should disclose how ALM or investment policies and limits are reflected under the constraint that the company's expected investment practice should be determined without taking into consideration any business that could be issued after the valuation date (Paragraph 2330.05 of the SOP).

The Appointed Actuary must provide information related to the determination of the ultimate reinvestment rates for countries other than Canada (if applicable).

The AAR must disclose and discuss the results of the scenarios required by CALM. All CALM required scenarios and the corresponding insurance contract liabilities must be disclosed. Additional scenario testing must also be disclosed.

For the scenario used in the valuation, the AAR must disclose the reinvestment and inflation assumption rates for each duration. The Appointed Actuary should disclose how historic and current investment spreads were considered in the development of future investment spread and future credit loss assumptions.

Appointed Actuaries should pay special attention to the current low interest rate environment in setting valuation assumptions. The actuary must discuss the modelling of negative interest rates, if applicable. Paragraph 2330. 33 to 2330.34 of the SOP refers to running scenarios other than the prescribed scenarios. For the 2022 year-end, the Appointed Actuary is expected to disclose in the AAR the effect of the scenario using 2.5% for all future reinvestment assumptions (both short and long term).

For the credit spread assumption for fixed income assets (Paragraph 2340.12 to 2340.14 of the SOP), the Appointed Actuary must provide information related to the determination of the credit spread assumptions including data used to support the assumptions, best estimates, margins for adverse deviations, etc., along with the rationale supporting these assumptions.

The Appointed Actuary is also asked to disclose the effect of using the following discount rates as valuation rates:

Run 1: Geography specific flat discount rates

- 5.3% for Canada, the United States and the United Kingdom,
- 3.6% for Europe other than the United Kingdom,
- 1.8% for Japan, and
- 5.3% for other locations

Run 2: All geographies

- **Use the September 2022 CIA Curve (https://www.fieracapital.com/en/institutional-markets/cia-accounting-curve), assuming that the spot rates for terms beyond 30 years are flat and equal to the 30-year rate.**

For the above Runs, the liability cash flows should be determined assuming a current and future interest rate environment of the discount rates mentioned above. The present value of best estimate liabilities and the present value of the provisions for adverse deviations are to be disclosed separately, in aggregate and by geography if applicable.

For assumed inflation rates, Investment Income Tax, participating policyholder dividends, adjustable features and minimum interest crediting rates, the Appointed Actuaries should reflect interest rates immediately moving to the flat discount rates and remaining there for all future years.

For each OSFI scenario, describe the impact on participating policyholder dividends and/or participating surplus resulting from the use of the discount rates.

For both fixed income and non-fixed income assets, the Appointed Actuary must discuss the:

- term for which fixed income assets are used to immunize/match liabilities and the use of non-fixed income to support liability cash flows after this term;
- assumptions governing the level and timing of future purchases, sales and reinvestment of cash flows; and
- strategy used (e.g. borrowing or selling assets) when there are negative cash flows. Discussion of the criteria followed when assets are sold (e.g. selling shorter term assets first then longer term assets).

The AAR must disclose and describe the use of non-fixed income assets (e.g. equities, real estate, timber, etc.) for CALM valuation. The basis for the expected experience assumption and the MfAD is to be disclosed separately for income and growth assumptions. The AAR should also disclose the timing and amount of the one-time shock to value along with the rationale supporting these assumptions.

Regarding 2340.20 of the SOP, the Appointed Actuary must discuss the methodology used to derive the discount rates used in calculating the maximum amount of non-fixed income assets at each projected period and the discount rates.

The following table should be filled in:

Table 3.2.6a
Non-fixed Income Assets
Assumptions used in Valuation

Country	Asset Category	Dividend/Income Return		Capital Gain		Market Shock	
		Expected	MfAD	Expected	MfAD	(%)	Year after the valuation date*
		(%)	(%)	(%)	(%)		
	Equities						
	- Public						
	- Private						
	Real Estate						
	Other (please specify)						

* The timing of the one-time shock would be determined by testing, but usually would be the time when their book value is largest.

The AAR should provide the rationale for the split of the total return between income and growth. The description of this basis should include the names and historical period for any published indices used, and the rationale for selection of the index vs. alternative indices available. The description should also include a summary of any internal experience studies. The Appointed Actuary should disclose and explain the difference between the return derived from the historical data and the selected assumption.

Based on the results of the worst scenario, the following table should be used to describe the projected percentage for non-fixed income assets relative to total asset value. This information should be disclosed by segment.

Table 3.2.6b
Projected Percentage of Non-fixed Income Assets Relative to Total Asset Value

Asset Segment	Year from Valuation Date						Maximum % over the projection years	The projection year when the maximum % is reached
	Year 0	Year 5	Year 10	Year 20	Year 30	Year 40		

The above data should be shown for each class of non-fixed income assets (e.g., equity, real estate, timber, etc.) that are material, if available.

Appointed Actuaries are reminded that they should demonstrate, for each segment, the proportion of non-fixed income assets with respect to total assets at each projection period is the lesser of I. and II. where:

I. The maximum proportion that is consistent with the application of the investment strategy in the adopted worst case scenario without regard to the requirements of section 2340.20 of the SOP.

II. The maximum proportion that is implied by section 2340.20 of the SOP.

The above may be disclosed through the use of a graph or any other forms that may be considered appropriate for a given asset segment. OSFI would consider appropriate a graph similar to "Figure 4: NFI Limit Example" used in the CIA Educational Note: "Investment Assumption Used in the Valuation of life and Health Insurance Contract Liabilities".

The AAR must disclose any use of derivatives, together with the approach to modeling their cash flows in CALM.

The treatment of initial short term security or cash positions and receivables should be disclosed.

The AAR must provide detailed disclose if the future cash flows from more than one asset segment are aggregated under the CALM methodology.

If CALM results are separately calculated for a given product line, but then aggregated with other product lines, the worst scenario in aggregate may not be the worst scenario for that product line. If the Appointed Actuary then selects insurance contract liabilities for that product line that are not based on the worst scenario for that product line, this practice must be disclosed and justified. For this purpose, the Appointed Actuary should consider the guidance contained in the CIA Educational Note "*Aggregation and Allocation of Policy Liabilities*", dated September 2003.

If a stochastic interest rate model is used, the Appointed Actuary must justify the appropriateness of the model being used and that the range of stochastic scenarios adequately reflects the asset and liability cash flows of the segments. Discussion must include, but not be limited to, the description of the interest rate model, calibration process, and types of tests performed to ensure that the number of scenarios used were appropriate. Discussion must include, but not be limited to, the following by country and by type of product, as appropriate:

- The description of the interest rate model, calibration process and resulting parameters (e.g., mean, volatility, mean-reversion level and speed, etc.);
- The description of the historical data used to calibrate the interest rate model;
- Assessment on the appropriateness of the number of scenarios used to ensure the convergence of the valuation of the insurance contract liabilities;
- Analysis performed to ensure that the stochastic scenarios cover a reasonable range of outcomes and scenarios robustly represent periods of sustained low rates;
- A comparison between the range of the stochastic scenarios and the CALM prescribed base scenario, including any supporting analysis performed, and the CTE level (indicated by the stochastic model) for the worst prescribed scenario;
- A comparison of the net investment yields (for key durations) under the booking scenario(s) between stochastic and deterministic approaches;

- A comparison of the interest rate term structure (key maturities) between the valuation date and the following key projection horizons of the model (at the left-tail 10th and 15th percentiles):
  - 5-year
  - 10-year
  - 30-year
  - 60-year
- The period of mean reversion for the long and short term risk-free interest rate generated by the stochastic model; and
- Rationale for the choice of the use of a specific model.

B.3.2.7 Mortality/Morbidity Improvement

The current CIA Standards of Practice (2350.07) allow the Appointed Actuary to assume improving future mortality for life insurance products.

Also, a company may assume improving future morbidity for some health insurance products.

The Appointed Actuary must describe the mortality and morbidity improvement assumptions used, the rationale for the assumptions and how they related to actual mortality and morbidity improvement experience in the past few years.

The AAR must discuss separately death-supported policies and clearly disclose the mortality improvement MfADs used. The Appointed Actuary must ensure that the application of a margin for adverse deviations results in an increase to the value of the liability and that the resulting provision is sufficient and adequate in the aggregate. For any permissible diversification benefits recognized by the CIA Promulgation, refer to Section B.4.14 of this Memorandum for the disclosure requirement.

B.3.2.8 Margins for Adverse Deviation for Non-economic Assumptions

The Appointed Actuary must confirm that a margin for adverse deviations (positive or negative) was added to each expected experience assumption, in compliance with CIA Standards of Practice. The Appointed Actuary should discuss the testing done to ensure that the addition of each of the MfADs served to increase the liabilities.

For each assumption, the Appointed Actuary must disclose and justify the level of margin for adverse deviations used. The Appointed Actuary must highlight if a margin is outside the range recommended in the CIA Standards of Practice. If a margin is specified differently than in the CIA Standards of Practice (e.g. use of a percentage for mortality, etc.), the Appointed Actuary must disclose this fact and its effect.

The method used to determine the crossover points for the lapse MfADs should also be disclosed.

B.3.2.9 Method and Assumption Changes

The changes in methods or assumptions must be disclosed in the product tables 3.2.X. The changes must also be described and justified. As well as the new assumptions/methods, the AAR should explicitly document the previous assumptions/methods. This will allow for easier comparisons.

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

- those resulting from changes to expected experience;
- changes to Margins for Adverse Deviations (MfADs);
- changes resulting from special, particular or one-time circumstances (e.g., new standards, change in methodology, etc.);
- corrections to errors;
- changes due to a large non-usual transaction (e.g., reinsurance, acquisition, etc.);
- changes in bulk liabilities;
- changes due to any administrative and corporate changes (e.g., new systems, change in investment policy, etc.); and
- changes in Conditional Tail Expectation (CTE) levels when a stochastic model is used for valuation.

The table must show in which quarter the change was made.

B.3.2.10 Other

For participating products, the AAR should provide a description of the policyholder dividend scale assumed in the valuation, including any prospective changes in the dividend scale relative to the current dividend scale.

For participating products, the Appointed Actuary should disclose the dividends determination methodology, which includes but is not limited to:

- the principles of dividend class determination;
- a description of each of the experience factors used in the calculation of dividends;
- whether earnings on surplus are distributing to policyholders through dividends and the proportion of the earnings on surplus that are included in the calculation of dividends; and
- description of all adjustments that are made to the experience factors or to the dividends.

In addition, the AAR should disclose the interpretation of Policyholder Reasonable Expectations (PRE), and how the PRE is taken into account in setting dividends. The AAR should also include a description of how the contribution principle has been followed, and, if it has not been followed, a description of the deviations and the rationale for the deviations.

The AAR must disclose all products that have a separate calculation of unamortized DAC and should explain the methodology. This is to include a description of the recoverability testing and any write-downs in the last three years. The AAR should also disclose and describe any margins not included in the liabilities.

The Appointed Actuary must disclose whether any ancillary sources of earnings margins are assumed to offset any assumptions in the valuation, whether implicitly or explicitly. For example, are earnings margins from riders or amounts on deposit used to subsidize the valuation of the parent policy?

For fraternal benefit societies, the Appointed Actuary should disclose any special fees, subsidies from the fraternal organization and any special income.

B.3.2.11 Bulk Liabilities

The AAR must disclose the amounts of any bulk liabilities, with each disclosed separately for the last three years. Examples of such liabilities that fall into this category include:

(i) manual adjustment reserves that are the result of the absence, or the inadequacies, of a valuation system,

(ii) a bulk reserve to cover potential data problems,

(iii) liabilities held to cover cyclical fluctuations,

(iv) a manual adjustment that does not have a natural run-off pattern based on the underlying policies,

(v) manual adjustments used to offset current experience fluctuations, etc.

The above are examples only and should not be considered an exhaustive list. The disclosure should include the reasons for holding these liabilities, the methods and assumptions used to determine the liabilities, and policies for releasing these liabilities in the future. Any changes in these liabilities must be disclosed as a basis change and reported by quarter in Table 2.4 and in Table 3.2.X.

B.3.2.12 Type of Valuation Approach or System

The AAR should disclose the type of valuation approach or system used. For instance, was the valuation done using (i) a CALM aggregated methodology, (ii) an approximation to CALM, for instance using modelling, (iii) a seriatim calculation or grouped valuation, (iv) an adjustment from another value, such as fund value or NAIC reserves, (v) a bulk approximation, etc.

The disclosure should include whether the valuation system is an in-house system or a commercially purchased system. Any changes in valuation systems should be disclosed and the effects quantified. As well, the AAR should describe the results of any audit or review related to changes in valuation systems. It should also be noted if changes in valuation systems have not been subject to audits or reviews.

B.3.2.13 Internal Control Analysis of Insurance Contract Liabilities

The Appointed Actuary typically makes use of some method(s) of internal analysis to verify or validate the insurance contract liabilities. This can take a variety of forms. Examples are (i) ratios of face amount to insurance contract liabilities, (ii) trend analysis, (iii) a reserve build (e.g., start of year liability plus liability for new business plus natural aging less claims equals liability at end of

year), (iv) ratios to fund values, (v) sources of earnings analysis, etc. The Appointed Actuary should discuss the internal analysis currently used to validate the insurance contract liabilities and disclose the numbers from this process in the AAR. The numbers for the last three years should be shown.

In particular, the Appointed Actuary should describe the type of data provided and the review and verification procedures applied thereto and the procedures and steps undertaken to ensure that the valuation data is sufficient, reliable and accurate. For example, data for both assets and liabilities should be reconciled between the source administration systems and the valuation system. Where any information is found to be inconsistent, the Appointed Actuary should explain what actions have been taken to adjust/correct for any errors found.

The statutory requirement that the Appointed Actuary file an AAR with the Annual Return assumes that the Appointed Actuary has met the standard of care, implicitly stated in the CIA Standards of Practice. In particular, this requires that the Appointed Actuary establish suitable check procedures to verify that the data utilized is reliable and sufficient for the valuation of policy liabilities.

B.3.2.14 Comparison With Other Reporting

The Appointed Actuary should compare the expected experience assumptions used in the valuation of insurance contract liabilities with the comparable expected experience assumptions used in other reporting requirements. These comparisons include (i) the cash flow assumptions underlying the base scenario for the FCT projections, (ii) the current pricing assumptions for new business compared to the valuation assumptions for the same blocks of new business, (iii) any comparable assumptions underlying the current business plan for the company, if applicable. It is accepted that there could be valid reasons for any differences in expected experience assumptions, but if there are such differences, the Appointed Actuary must comment on the reasons.

B.3.2.15 Interest Rate Guarantees

The Appointed Actuary should disclose the minimum interest rate guarantees for the material blocks (e.g. insurance contract liabilities by product, issue years and guarantee rates).

For example, Universal Life: 1% guarantees for current issues with current insurance contract liabilities of $x, 2% guarantees for products issued from 2012-2013 with current insurance contract liabilities of $y, 3% guarantees for issues from 2011-2012 with current insurance contract liabilities of $z and so on. The guarantees may be linked back to account values if insurance contract liabilities are unavailable.

The Appointed Actuary should disclose how provision for these guarantees is made within the insurance contract liabilities.

B.4 ADDITIONAL LIABILITY DISCLOSURES

B.4.1 Credit Risk

Liability for credit risk is composed of the following subsets:

- Expected future asset defaults (including expected future credit downgrades);
- PfAD for future asset defaults; and
- Asset provision for impaired assets.

The current SOP (Section 2340.03 to .08) also uses the term "asset depreciation" to describe credit risk.

Expected future credit downgrades occur when the credit rating for an asset is downgraded by a rating agency or by the company itself (e.g. an AA bond is downgraded to BBB).

Asset provisions for impaired assets are the reductions in asset values required on the asset side of the balance sheet by accounting rules.

With respect to credit risk, the Appointed Actuary should:

- disclose how the above components of credit risk are included in the liabilities.
- describe the process used to determine both normal credit risk liability assumptions and any credit risk assumptions in excess of normal levels.
- explain whether and how credit risk includes both projected asset defaults, asset provisions for impaired assets and the cost of maintaining a target credit quality in the event of credit ratings downgrades.

The following three tables are expected to be completed. If credit risk factors are set at a different level than shown in the tables, the tables should be modified to show the extra detail. If the factors differ by company/country/asset segment, this detail should be shown.

Table 4.1a

Asset Credit Risk Assumptions

Asset Type	2022 Credit Risk Factors in Liabilities, As Basis Points					2022 Credit Risk Factors in Liabilities, As Annual Dollar Amounts (,000)				
	Expected	MfAD	MfAD as % of Expected	Bulk	**Total**	Expected	MfAD	MfAD as % of Expected	Bulk	**Total**
Government Bonds Federal Gov.										
Provincial										
Municipal										
Corporate Bonds AAA										
AA										
A										
BBB										
BB										
Lower than BB										
Unrated										
Commercial Mort.										
Residential Mort.										
Other*										
Total										

*Please specify the type of asset if anything is significant.

The term "annual dollar amounts" in the table above refers to the annual amount for credit risk based on the expected experience assumptions. For instance, if the expected credit risk assumption is x basis points, then the annual dollar amount is the x basis points applied to the corresponding asset value. The basis on which the asset value is determined for this purpose must be disclosed. The intention is to have Table 4.1a be consistent, where applicable, with the data in Table 4.1b below.

Table 4.1b
Actual Credit Risk Experience

Asset Type	Actual Credit Risk Loss, As Basis Points			Actual Credit Risk Loss, As Dollar Amounts (,000)		
	2022	2021	2020	2022	2021	2020
Bonds (Held for Trading or Fair Value Option)						
Bonds (Available for Sale or Other)						
Commercial Mortgages						
Residential Mortgages						
Other						
Total						

As actual experience unfolds, the credit risk loss amounts for past events changes.

Bonds designated Held for Trading or Fair Value option do not require an explicit write-down or accounting provision when they suffer credit loss, because the fair value implicitly reflects the credit

loss. For bonds designated Held for Trading or Fair Value Option, the data in Table 4.1b must be adjusted to include the net change in fair value which is deemed to be due to credit losses. This adjustment would be consistent with the associated credit loss adjustment that would be applied to any cash flows projected on behalf of these bonds in CALM.

For investments Available for Sale or Other, the AAR should classify the data by year to be consistent with how losses and recoveries are classified in the company's financial statements. The calculation of Basis Points should be consistent with the approach to define Basis Points in Table 4.1a.

The AAR should describe any analysis performed on the historical loss associated with credit downgrades, along with a summary of any findings.

Table 4.1c
Actual Impairment Provisions in Assets,
As Included in the Balance Sheet

Asset Type	Asset Impairment Provisions, As Basis Points			Asset Impairment Provisions, As Dollar Amounts (,000)		
	2022	2021	2020	2022	2021	2020
Bonds						
Commercial Mortgages						
Residential Mortgages						
Other						
Total						

With respect to setting the expected experience assumptions and margins for adverse deviations in the liabilities for credit risk losses, the Appointed Actuary should discuss any accounting provisions made for this contingency and any movements in fair value on Held for Trading or Fair Value Option bonds that are due to credit loss. The Appointed Actuary must ensure, and be able to demonstrate, that all credit risk losses have been covered, either through separate provision in the liabilities, or in conjunction with any accounting provisions. These credit risk losses include those which are only implicitly accounted for in the fair value of Held for Trading or Fair Value bonds.

B.4.2 Expenses

The Appointed Actuary should disclose how total company expenses are allocated between acquisition, maintenance and other.

The AAR should include a comparison of the total maintenance expenses to the expected experience assumptions included in the liabilities. If there is a maintenance expense gap (i.e. actual maintenance expenses versus valuation maintenance expenses), the Appointed Actuary should disclose the size of the gap for the last three years, and discuss plans for the future.

If there are expenses that are not classified as acquisition or maintenance, the AAR should disclose the make-up of these expenses.

Where expense-sharing agreements exist between a parent/subsidiary/closed par block, the AAR should disclose the existence of such arrangements, and detail any specific valuation considerations arising from them.

Branches are required to allocate the expenses covered by the head office on behalf of the branch operations. The Appointed Actuary should confirm that all of these direct and indirect expenses are included in the valuation.

For fraternal benefit societies, the Appointed Actuary should disclose how all types of expenses are treated, including those not directly related to insurance. There should be a demonstration that any expenses not included in the valuation as maintenance expenses, or not classified as acquisition expenses, are or will be covered by well-defined revenues.

B.4.3 Deferred Taxes in Liabilities

The Appointed Actuary must clearly and explicitly disclose the assumptions made for deferred taxes in the calculation of liabilities. The AAR must disclose the amount included in the liabilities by the Appointed Actuary and the amount included on the balance sheet by the accountants.

The AAR should include a description of the recoverability testing analysis performed, including details on the assumptions, methods and sources used. The description should discuss how the Appointed Actuary confirmed that he/she and the company's accountant were not double counting the same recovery source.

This disclosure should be done at the lowest level at which it is done in the company (e.g., company, country, product line, etc.).

B.4.4 Index-Linked UL and Annuity Products

The AAR should include a discussion of the different products in force and their features. The discussion should include:

- the face amounts and liabilities of the various products,
- the accumulated values of annuity products,
- the fund values of UL products,
- the amount of new business,
- the crediting mechanisms,
- the assets used to back the products,
- any guarantees,
- the risks of tracking errors or mismatches,
- the level of the MfADs and
- the amounts of the PfADs.

The discussion should describe where the assets are held (e.g., in the general fund, in the company's segregated funds, in external mutual funds). If there is not a direct link between the asset yields and the

return guaranteed to the policyholder, the Appointed Actuary should discuss in detail the investment strategy used. For example, a description would be required if a product guarantees a TSE index but the actual assets are in the general fund and are a combination of bonds, futures, swaps, etc. The basis for the liabilities held to cover tracking errors and guarantees should be explained.

The discussion should also cover the accounting treatment used to ensure consistency between the liabilities and assets in the financial statements.

B.4.5 Segregated Fund Products: Liability and Capital Provision

The high degree of skewness in the cost distribution associated with the guarantees within these products lends itself to the use of stochastic techniques. OSFI expects companies with material guarantees to employ stochastic methods in the determination of guarantee costs. Other companies with smaller blocks of segregated fund products should endeavour to adopt stochastic methods as well.

The Appointed Actuary must disclose any deviations from professional practice standards and include justification for the approach taken. OSFI expects that such deviations would be rare and would pertain to a new or emerging risk where guidance and/or standards are currently limited.

The Appointed Actuary must disclose the following information in Section B.4.5 in the format presented below:

B.4.5.1 Product features for the material blocks. Include separate descriptions of products for differing guarantee levels and features;

B.4.5.2 New products (include features) issued in the year;

B.4.5.3 Methodology employed to determine guarantee provisions (liabilities and capital). If stochastic techniques are not used, the reasons should be disclosed along with any plans to adopt such methods;

B.4.5.4 Description of aggregation methodology including level at which aggregation is set (e.g. product, year of issue, business segment, etc.) and rationale for choice;

B.4.5.5 Description of investment return model, calibration process and resulting parameters;

B.4.5.6 Description of valuation fund mapping process;

B.4.5.7 Liability assumptions detailing expected experience and margins for adverse deviations;

B.4.5.8 Description of the policyholder behaviour assumptions including form of function and sample rates. Policyholder behaviour assumptions include lapse rates, partial lapse rates, fund transfers, future deposits, and utilization rates and payout levels for products such as GMWB. The most critical aspects of policyholder optionality must be disclosed;

B.4.5.9 Sensitivity analysis and rationale of choice for critical assumptions;

B.4.5.10 Where hedging is employed to manage the risks, a discussion of the methodologies used to include hedge costs. In such situations, the additional capital provision should be determined assuming no hedging unless explicit written approval (subject to strict criteria) is obtained from OSFI.

For companies that have included the costs and benefits of any hedge programs in the valuation, the following information must be disclosed in the format presented below:

(1) Description of the hedging strategy and rebalancing metrics,

(2) Description of the methodology used to reflect hedging benefits, costs and risks in the valuation and an analysis of why it is a suitable approximation to the actual hedging strategy,

(3) Description of any unhedged risks or limitations of the methodology employed and how the valuation implicitly or explicitly addresses these risks,

(4) Description of hedge effectiveness and how it is measured (provide metrics and formulae) as well as hedge targets against which hedge effectiveness is measured,

(5) Description of any revised or enhanced controls to ensure that the valuation appropriately or prudently reflects the hedging strategy,

(6) Where relevant, how counterparty credit risk is captured in the valuation, and

(7) Any planned refinements to either controls or the valuation methodology.

B.4.5.11 Provision for Adverse Deviation (PfAD) included in the financial statements;

B.4.5.12 Level of liabilities held in respect of guarantee costs [i.e. CTE (60), CTE (80) or other]. Any movement in CTE level should be based upon specific criteria similar to changes in other valuation assumptions;

B.4.5.13 Insurance contract liability for the guarantees and required capital;

B.4.5.14 Whether OSFI has approved an internal model for determination of capital requirements or whether standard factors are used for determining capital;

B.4.5.15 For each material product, total MER, charge for guarantees, and charges assumed in valuation to fund deferred acquisition costs (DAC);

B.4.5.16 Sources and amount of revenue (e.g. surrender charges, MER fees-identify source as well as amounts) for the funding of DAC;

B.4.5.17 Brief discussion on controls to ensure that results are appropriate;

B.4.5.18 Impact of an immediate 15% or higher downward shock on the total fund value and the resulting LICAT ratio. The Appointed Actuary can alternatively disclose the results of the most recent FCT or alternate scenario provided it captures market downturns of at least 15%. Potential action plans should be disclosed as appropriate.

Table 4.5
Consolidated Insurance Contract Liability and Additional Capital Provisions Currently Held For Segregated Funds

Company/ Country	Product	Segregated Fund Account Value	Insurance Contract Liabilities Held in General Fund for Segregated Fund Guarantees	Negative Liability for Def. Acq. Costs	Other General Fund Liabilities	Credit for Reinsurance Recoverables	Additional Capital Provision*
Total							

Segregated fund products with guarantees should be shown separately from segregated fund products without guarantees.

Policyholder behavior assumptions are critical in the determination of guarantee costs.

OSFI expects the lapse assumption will vary by key drivers of the risks. The assumption should also take into account the degree to which the policies are in the money. The Appointed Actuary should exercise caution in applying a single assumption or margin to non-homogeneous policies.

OSFI strongly encourages companies to develop and use dynamic lapse assumption to reflect more accurately policyholder behaviour for products where there is a clear link between behaviour and benefits. The assumed lapses for a given contract would reflect a number of variables including product type, term to maturity, surrender charge period and degree to which the contract is in-the-money. The formula should produce relatively low or zero lapses in situations where the contract is deep in-the-money and close to maturity. Conversely, for business well out-of-the-money, the assumed lapses may be high, reflecting the perceived lack of value by the policyholder.

Please refer to Table 1 of Chapter 7 of OSFI's LICAT guideline for an example of a dynamic lapse formula. The Appointed Actuary is expected to determine a lapse formula appropriate to their block of business taking into account the considerations noted above. The Appointed Actuary should model all key elements of policyholder behaviour for material exposures.

B.4.6 Deferred Acquisition Cost for Segregated Funds

The Appointed Actuary should describe the methodology used to set the amount of the deferred acquisition expenses at policy issue, recoverability term and assessment of recovery. For DAC recoverability testing, the Appointed Actuary should detail the assumptions used and the criteria (e.g. at what CTE level is DAC recoverability tested) to determine if a write-down is required.

The Appointed Actuary should disclose the margin (in basis points) allocated to offset the cost of the guarantees and the margin allocated to fund the deferred acquisition cost requirements for the last three

* In cases where hedging is utilized, companies should determine the additional capital provision assuming no hedging program is in place unless explicit written approval was received from OSFI. These approvals are subject to stringent terms and conditions and are specific to the particular hedging program contemplated.

years. For companies employing a whole contract approach, the amounts shown each year should reflect the actual allocations year-by-year.

Table 4.6
Margin Allocated to Fund Guarantees and Deferred Acquisition Costs (Basis Points)

Margin Allocated	**2022**	**2021**	**2020**
Guarantees			
Acquisition Costs			

In any case, if a draw-down of the DAC is deemed appropriate, the Appointed Actuary should disclose the amount of the draw-down and its impact on income. The Appointed Actuary should also discuss whether the methodology (bifurcated or whole contract) used to determine the segregated fund guarantee liabilities differs between the calculation of the total requirements and liability determination.

B.4.7 Guarantees

The Appointed Actuary should disclose any product-related guarantees that are not part of the policy contract. This disclosure is required whether or not the Appointed Actuary holds any liabilities for such guarantees.

B.4.8 Fraternal Funds

The Appointed Actuary for a fraternal benefit society must disclose any surplus or deficit in the fraternal funds of the company.

B.4.9 Surplus

The Appointed Actuary should comment on the quality and composition of the assets allocated to surplus. Table 3.1 must be disclosed for each surplus asset segment.

B.4.10 Bulk Liabilities

The Appointed Actuary must disclose separately and comment on the need for holding any bulk liabilities. Examples of such liabilities that fall into this category include:

(i) manual adjustment reserves that are the result of the absence or the inadequacies, of a valuation system,

(ii) a bulk reserve to cover potential data problems,

(iii) liabilities held to cover cyclical fluctuations,

(iv) a manual adjustment that does not have a natural run-off pattern based on the underlying policies,

(v) manual adjustments used to offset current experience fluctuations, etc.

The above are examples only and should not be considered an exhaustive list. The disclosure should include the reasons for holding these liabilities, the methods and assumptions used to determine the

liabilities, and policies for releasing these liabilities in the future. Any changes in how these liabilities are calculated must be disclosed as a basis change.

The disclosure of bulk liabilities must be done at the product level. The Appointed Actuary must provide a summary table listing all the bulk liabilities held in the company.

Table 4.10
Summary of Bulk Liabilities and Provisions ($, 000)

Company/Country/ Product Line	2022	2021	2020
Total			

The Appointed Actuary is expected to show the type and amounts of any bulk provisions for the last three years. OSFI expects companies to have approved policies describing the purpose and criteria for building and releasing such provisions. The Appointed Actuary should disclose the purpose, the criteria for building and releasing the provisions and by whom the policies are approved.

B.4.11 Reinsurance

The Appointed Actuary must document the company's reinsurance ceded policy. This includes retention limits, and any changes in such limits in the last three years. The disclosure should also include any company policies with respect to the maximum exposure allowed to a single reinsurer. The Appointed Actuary should give a list of all material reinsurance agreements, both assumed and ceded. The AAR should detail the effective and expected termination dates, the type of reinsurance, a description of the products covered, and the impact on reserves and capital and any other relevant information.

Disclosure on reinsurance should include retention limits, any unregistered reinsurance, any reinsurance with associated companies and a brief description of experience (or other) refund mechanisms.

The AAR should also clearly describe stop loss and catastrophe arrangements.

The AAR should also detail the method of computing gross and net liabilities for significant blocks of business subject to coinsurance, and treatment of expense sharing between the reinsurer and the direct writer. For material reinsurance arrangements, the AAR should provide the rationale for actuarial assumptions that differ between net liabilities for insurance and investment contracts and the related reinsurance recoverables.

OSFI is concerned about the use of back-to-back reinsurance contracts. Any reinsurance arrangements where a company cedes a block of business to a reinsurer and then accepts the same, or a similar, block of business back on a different basis requires full disclosure in the AAR. OSFI does not permit companies to take capital credit for these arrangements.

The Appointed Actuary must disclose information about any material financial reinsurance agreements where there is no significant transfer of insurance risk between the ceding company and the reinsurer, or where there are other reinsurance agreements or side letters that could offset the financial effect of the first reinsurance agreement. If no such agreements exist, the Appointed Actuary must state that there are no material financial reinsurance agreements. The Appointed Actuary should also describe the process used to reach the above conclusion. Companies should not use insurance contract accounting for transactions that are substantially a form of financing, or principally involve the transfer of financial risks.

The AAR must list all of the assumption reinsurance deals entered into or exited from during the last three years. This information, which is expected from both the ceding and the assuming companies, should include the:

- date of the transaction,
- line of business involved,
- size of the liabilities at the time of the transaction and
- name of the company.

The Appointed Actuary should disclose any bulk reinsurance agreements, how the liabilities were determined, and the impact on capital.

The Appointed Actuary should disclose any related party reinsurance. This includes reinsurance to or from a parent company, a subsidiary company or any affiliated company, whether Canadian or foreign. The disclosure should include the:

- parties involved,
- type of reinsurance deal,
- amount,
- issue date and
- maturity date.

The Appointed Actuary should disclose whether there are any material risks from possible recapture of existing reinsurance agreements.

The Appointed Actuary should discuss any risk mitigation techniques in place, including but not limited to trust accounts, letters of credit, etc. The AAR should include a list of the reinsurance agreements that incorporate trust accounts or letters of credit.

In cases where a reinsurance financing arrangement significantly alters the pattern of liabilities, the Appointed Actuary should discuss the extent to which this arrangement involves a complete transfer of risk to the reinsurer. OSFI may request the Appointed Actuary to calculate and disclose capital requirements as if the particular arrangement had not been in place.

The Appointed Actuary should disclose any investigation of a reinsurer's credit risk, as well as any provisions held for this contingency.

The amounts of reinsurance recoverables credit taken across all lines of business must be aggregated by reinsurance company. The resulting ten largest reinsurers, based on credit taken in reinsurance recoverables, ceded outstanding claims and other amounts owed, must be disclosed in the form of a table. The amounts owed should include amounts held as assets. OSFI expects this disclosure to be done by product type. This top-ten list must be assembled by company groups, and not by individual subsidiaries of a reinsurance conglomerate.

The following is a sample of a table showing this disclosure.

Table 4.11
Reinsurance Recoverables for Insurance Contracts, Investment Contracts and Other Contract Liabilities

Company	Product	Type of Reinsurance	Type of Credit Taken	2022	2021	2020
Reinsurer XX	Individual UL		Liabilities			
			Assets owed			
	Group Ins.		Liabilities			
Subtotal						
Reinsurer YY						
Total of Top 10						

B.4.12 Currency Exchange Rates

If applicable, the Appointed Actuary should show in tabular form the material currency exchange rates for the last three years.

B.4.13 Inter-Segment Notes

Inter-segment notes are governed by OSFI's Guideline E-12. When companies use an Inter-Segment Note program, OSFI expects that the notes will be formally incorporated into the investment policy framework. The Appointed Actuary should describe the structure of the Note program, the procedures used to manage the Notes, and the controls in place with respect to such use.

B.4.14 Mortality/Morbidity Improvement Diversification

The CIA Promulgation of Prescribed Mortality Improvement Rates and Associated Margins for Adverse Deviations allows the Appointed Actuary to recognize diversification between death sensitive and death supported blocks of business. When diversification is recognized, the Appointed Actuary should describe the blocks of business involved, the diversification factors applied, and the resulting impact on policy liabilities.

B.5 ASSET/LIABILITY MANAGEMENT (ALM)

B.5.1 Overview of the Asset Liability Risk Management Practice

In the reporting for each interest sensitive asset segment, the AAR must include an overview of the asset/liability risk management practice for that segment. This should include the specific operating guidelines and processes in place by asset segment to manage interest rate risk such as the mismatching tolerance limit, asset mix guideline, key metrics used to measure asset liability mismatch position, etc. Any major changes during the year in the ALM and Investment strategies and Guidelines should be disclosed. The Appointed Actuary should provide charts/narratives to show and explain the asset and liability mismatch position as of the current year-end.

The Appointed Actuary should discuss how the ALM environment is reflected in the setting of the assumptions for insurance contract liabilities.

The Appointed Actuary should detail all considerations regarding guarantees in the various products and the resultant interest sensitivity of the liability cash flows. The Appointed Actuary should report on the interest rate sensitivity of the liabilities using the appropriate durations.

B.5.2 Immunization

The AAR must include a discussion on the operating process used to manage, monitor and measure interest rate risk, including:

a. The type of immunization desired:
    - dollar amount of surplus or income;
    - surplus ratio;
    - dollar amount of capital or capital ratio; and
    - quantities measured on economic (define what is meant by "economic") or accounting basis.
b. The immunization strategy(ies), risk metrics and associated exposure limits used to measure and manage interest rate risk. Strategies could include (but are not limited to):
    - cash flow matching;
    - average Macaulay or modified duration matching;
    - key rate duration matching;
    - convexity matching;
    - value at risk or CTE measures ;
    - maximum term (if any) of liability cash flow for fixed income immunization against interest rate risk;
    - how the max term for fixed income immunization changes over time; and
    - strategies for investments supporting liability cash flows after the maximum term, including discussion of the investment in non-fixed income.

B.5.3 Investment Guidelines

The AAR must include a discussion on the investment guidelines used to manage, monitor and measure interest rate risk and non-fixed income risk, including:

a. The frequency of asset trading, including details on how these practices impact the valuation;

b. The frequency of rebalancing to meet the ALM objective;

c. The use of any derivative instruments, short term securities or receivables, equities or real estate in the matching process;

d. The breakdown of assets used to back each business segment and surplus, including details on the composition of the non-fixed income instruments used;

e. Details on the characteristics of the assets that impact the interest sensitivity of the asset cash flows (See section 3.2.6 for more detailed reporting requirements.); and

f. Details on hedging strategies used to manage the ALM risks.

B.5.4 Risk Metrics

The AAR must include a discussion on the risk metrics used to manage, monitor and measure interest rate risk and non-fixed income risk, including:

a. The Appointed Actuary must disclose the assumptions and methods used to calculate the risk metrics for interest rate risk, asset and liability cash flows and the allowance for expenses and credit losses;

    - method of including short term securities, receivables, derivatives, equities, real estate or other non-fixed income assets;
    - if non-fixed income assets are used to support non participating, non indexed liabilities, state the method by which these liabilities are measured for ALM purposes;
    - interest rates used for discounting cash flows; (e.g. zero coupon rates, forward yield curve, bond equivalent yields, government rates, corporate rates, swap rates, etc.);
    - the ultimate interest rate assumption used for discounting cash flows beyond the maximum term of marketable bonds or swaps and disclose the maximum term;
    - high level description of assumptions and methods underlying the Economic Scenario Generator (if applicable);
    - disclose if market values or statement values are used as weights to determine risk metrics totals;
    - is the same calculation used for both assets and liabilities, or if not, provide justification;
    - disclose how embedded options are reflected; and
    - frequency of measurement and reporting.

b. The Appointed Actuary must disclose where the interest rate risk exposure is determined across asset and liability segments (e.g., natural offsets across asset and liability segments are reflected),

the methodology and assumptions used. Any related credit taken by aggregating separately produced CALM results should be disclosed.

B.6 SOURCES OF EARNINGS

Appointed Actuaries of Canadian life insurance companies[1] are required to include in their annual reports to OSFI an analysis of the company's earnings by source in the format described by the table below. Appointed Actuaries should refer to OSFI's Guideline D-9, *Source of Earnings Disclosure (Life Insurance Companies)*, CIA Educational Note: "*Sources of Earnings: Determination and Disclosure*" and the CIA Educational Note: "*Sources of Earnings Calculations – Group Life and Health"* for consistent interpretation of terminology.

An analysis (or copy of the table) should be provided for the total company and for each of its principal business units. Guideline D-9 provides guidance on the level of reporting as follows:

> "While IFRS 8 only applies to certain entities, OSFI expects, at a minimum, the SOE analysis to be disclosed at the same level as that required in respect of the segmented information reported in the notes under IFRS 8, whether or not the company is required to apply IFRS 8 for financial reporting purposes.
>
> OSFI encourages companies to exercise the option of disclosing SOE information at a more detailed level of segmentation if this would give more meaningful information to the company's stakeholders, or if a more detailed level is consistent with other disclosure in the public financial statements. For instance, if a more detailed level of disclosure of financial information is used in the MD&A to explain the company's operations, the company should consider disclosing the SOE on a consistent basis."

Table 6.1
Sources of Earnings Analysis
(C$ millions)

Sources of Earnings	2022	2021	2020
Expected Profit on Inforce Business			
Impact of New Business			
Experience Gains & Losses: Mortality/Morbidity			
Expense			
Lapse			
Seg. Fund Guarantees			
Currency			
Investment			
Other			
Management Actions and Changes in Assumptions			
Other			
Earnings on Operations (pre-tax)			
Earnings on Surplus			
Net Income before Tax			
Taxes			
Net Income after Tax			

[1] The Sources of Earnings disclosure does not apply to Canadian incorporated fraternal benefit societies or property and casualty companies, or to Canadian branches of foreign life insurance companies, fraternal benefit societies, or property and casualty companies. However, OSFI may request these companies to disclose the sources of earnings information on a case-by-case basis.

Guideline D-9 does not require the level of detail for "Experience Gains & Losses" as shown above. Where this breakdown already exists, the Appointed Actuary is expected to disclose it in the above table in the AAR.

B.7. REPORT ON PARTICIPATING POLICIES

B.7.1 Participating Account and Sub-Account Disclosure

While companies typically disclose only one participating account, in some cases a company may also have multiple participating sub-accounts. A sub-account may arise for the following reasons:

1. Sub-accounts required by a demutualization. The closed fund, open fund and ancillary fund are such sub-accounts;
2. Sub-accounts required as part of a past agreement to take over / acquire / merge a block of business from another company; and
3. Sub-accounts that the company is internally tracking in its accounting and/or experience for use in setting dividends.

The Appointed Actuary should provide a brief description of the nature of the business in each sub-account.

B.7.1.1 Participating Account Surplus and Transfers to Shareholders Account

The AAR must disclose the following details for the total participating account and for each sub-account that may exist:

Table 7
Participating Sub-Accounts ($,000)

Sub-Account Name		**Total Par Account**	**Sub-Account 1**	**Sub-Account 2**
i.	Sub-account surplus, start of year			
ii.	Currency adjustment			
iii.	Sub-account net income			
iv.	Transfers from sub-account surplus to shareholder account per paragraph 462(a) of the ICA(*)			
v.	Other transfers to/from sub-account surplus(**)			
vi.	Sub-account surplus, end of year(***)			
vii.	Total sub-account (Liabilities and Surplus), start of year			
viii.	Total sub-account (Liabilities and Surplus), end of year			
ix.	Policyholder dividends (excluding experience rating refunds) - Gross - Assumed - Ceded - Net			
x.	Transfers from sub-account surplus to shareholder account per paragraph 462(a) of the ICA, if included in Net Income(*)			
xi.	Calculation of paragraph 462(a) transfers to demonstrate compliance with Section 461 of the ICA.			

(*) Some companies include the Section 462(a) transfer in Net Income while other companies show them as a transfer from par account surplus.
(**) Disclose in detail the cause of any such other transfers.
(***) The surplus of the total par account must reconcile to the amount in the Annual Returns LIFE Quarterly Return Page 20.040 Line 199 for the Canadian Life Insurance Companies.

B.7.1.2 Allocation of Investment Income, Expenses and Taxes

The Appointed Actuary should disclose the method(s) used to allocate investment income, expenses and taxes to each of the sub-account(s).

The Appointed Actuary should also disclose if there is any commingling of assets between different participating sub-accounts or between participating and non-participating accounts.

When disclosing expense allocation method(s), the Appointed Actuary should describe how expenses are charged to each participating sub-account. The Appointed Actuary should also disclose the type of expenses (e.g. maintenance expense, acquisition expense, etc.) that are allocated to the participating sub-account(s).

B.7.1.3 Participating Policyholder Dividend Policy, Participating Account Management Policy and Dividend Scale Changes

The Appointed Actuary is expected to include the Dividend Policy and Participating Account Management Policy that are publicly disclosed to participating policyholders in the AAR. The Appointed Actuary is to disclose where this public disclosure is made. If there are any changes to the Dividend Policy and Participating Account Management Policy, describe all the changes and rationale for these changes.

The AAR must disclose if there are any changes to the current dividend scales from the previous year's dividend scales, and the key drivers for these changes, including any changes to the dividend determination practices (e.g. experience factor classes). A comparison of actual experience (e.g. interest, mortality, expense, etc.) in the past year versus current expected experience assumptions and to the current dividend assumptions should be tabulated in Table 7.1.3a. The dividend interest rate, actual portfolio yields for assets supporting the par account, and yields on surplus should be tabulated in Table 7.1.3b.

Table 7.1.3a

	Sub-Account 1		**Sub-Account 2**	
Comparison of Experience Rate	Actual Experience / Current Expected Assumption	Actual Experience / Current Dividend Assumption	Actual Experience / Current Expected Assumption	Actual Experience / Current Dividend Assumption
Mortality				
Lapse				
Expense				
Interest				
Other				

Table 7.1.3b

Sub-Accounts	2022	2021
Sub-Account 1		
Dividend Interest Rate		
Returns on assets backing participating account liabilities		
Yield on participating account surplus		
Sub-Account 2		
Dividend Interest Rate		
Returns on assets backing participating account liabilities		
Yield on participating account surplus		

B.7.2 Participating Closed Blocks

This section of the Memorandum applies only to former Canadian mutual companies that have demutualized.

B.7.2.1 Reporting

When a company has established participating closed blocks per the OSFI document entitled "Par Account Restructuring of Canadian Demutualizations", the Appointed Actuary must provide an annual report listing the following:

a) A financial analysis of the experience in each of the participating accounts over the past twelve months;
b) The current and projected excess or deficit positions (i.e. the amount by which the value of the assets backing the policies in a closed block exceeds the amount of the policy liabilities as determined under accepted actuarial practice, based on the current dividend scale approved by the Board) in the closed par blocks.;
c) A projection of the gain/loss position of the closed component;
d) The identification of accumulated gains or losses in dividend stabilization reserves (DSR) (if applicable);
e) The dividend recommendation (or most recent dividend recommendation);
f) A description of other factors influencing the dividend recommendation, e.g., competitors' actions; and
g) Disclosure of closed par block PfADs. If any changes occur in the reserve basis for the PfAD, a justification for those changes should be included.

B.7.2.2 Ongoing Opinions

The Appointed Actuary will be required to give opinions on an annual basis in response to the following questions:

- Are the participating accounts being maintained in accordance with any commitments made at the time of demutualization, including the Conversion Proposal, the Operating Rules and any related reports?
- Are the assets in the Closed Block sufficient to provide for the contractual benefits, plus reasonable policyholder expectations of non-guaranteed elements? Are dividends being managed in a way that neither a material surplus (tontine) nor deficit situation develops?
- Is the dividend recommendation in compliance with the dividend policy (or policies) of the company?
- Are allocations of investment income, expenses, etc. between the account fair and equitable? Are the allocations being determined on the basis outlined in the Operating Rules?
- Is the asset mix consistent with the prior period and with the Closed Block investment policy?

B.7.2.3 AAR Reporting

OSFI recognizes that all of the data required to be reported in section B.7.2.1 above may be difficult to obtain within the deadlines required for reporting the AAR. However, the AAR must include, at a minimum, the reporting disclosure items (i), (iv) and (vii) in table 7 as well as item (a) and (d) in Section B.7.2.1.

In addition, the Appointed Actuary must provide the reconciliation of DSR balance for the current year and the previous two years in Table 7.2.3. The AAR should include the limits or thresholds that are set to restrict the magnitude of the DSR and explain the key drivers of the current year DSR change.

Table 7.2.3

Company/ Country	(in $ millions)	**2022**	**2021**	**2020**
	DSR, start of the year			
	Experience gains/losses			
	Others (Please specify if applicable)			
	DSR, end of year			

The other reporting disclosure items and the ongoing opinions must be filed with OSFI no later than six months after the end of the fiscal year.

B.7.3 Participating Blocks Excluding Demutualization Closed Blocks

This section of the Memorandum applies to participating blocks (i.e. participating blocks open to new business and participating blocks not accepting new business).

B.7.3.1 Smoothing of Dividends

The AAR must disclose if any smoothing mechanism is used in the dividend determination.

If a DSR (or other equivalent terms used by the company) has been established as part of smoothing dividends, the Appointed Actuary should describe the methodology and explain how the Appointed Actuary can ensure DSR is run off in a reasonable time frame.

B.7.3.2 Surplus Management

For each participating open block, the Appointed Actuary should disclose methods used to manage participating account surplus, including, but not limited to the following:

- Whether the contribution to surplus is permanent, temporary or other; the rationale for using the approach and the definition of the chosen approach;
- For each chosen approach how the distributable surplus is determined.

B.7.3.3 AAR Reporting

The Appointed Actuary must disclose the following in the AAR for each participating open block:

- A financial analysis of the experience in each of the participating accounts over the past twelve months;
- Any material changes in practice with respect to managing risks within the block;
- If a DSR (or other equivalent terms used by the company) has been established:
    - the Appointed Actuary must provide a reconciliation of DSR balance for the current year and the previous two years in Table 7.3.3;
    - the Appointed Actuary must disclose any limits or thresholds that are set to restrict the magnitude of the DSR and should explain the key drivers of the current year DSR change.

Table 7.3.3

Company/ Country	(in $ millions)	**2022**	**2021**	**2020**
	Sub-Account Closed to New Business			
	DSR, start of year			
	Experience gains/losses			
	Amount distributed			
	Others (Please specify if applicable)			
	DSR, end of year			
	Sub-Account Open to New Business			
	DSR, start of year			
	Experience gains/losses			
	Amount distributed			
	Others (Please specify if applicable)			
	DSR, end of year			

B.8 OTHER DISCLOSURE REQUIREMENTS

B.8.1 Dynamic Capital Adequacy Testing (DCAT)/ Financial Condition Testing (FCT)

The AAR must disclose the following information with respect to the DCAT/FCT reporting in the last three years:

- the date on which the DCAT/FCT reports were signed by the Appointed Actuary;
- the date on which the DCAT/FCT reports were presented;
- to whom the DCAT/FCT reports were presented (e.g. full board, audit committee, chief agent);
- whether the reports were presented in person or only in written form; and
- the date used as the start of the projection period in the DCAT/FCT reports.

B.8.2 New Appointment

OSFI expects Appointed Actuaries to comply with the qualification requirements contained in OSFI Guideline E-15 *Appointed Actuary: Legal Requirements, Qualifications and Peer Review*. The AAR must explicitly disclose any deviations from these qualifications, including future steps being/to be taken to meet the qualification requirements.

If the Appointed Actuary was appointed to the role during the last year, the AAR must include the following disclosures:

- the date of appointment;
- the date of resignation of the previous Appointed Actuary;
- the date on which OSFI was notified of the appointment;
- confirmation of communication with the previous Appointed Actuary, as required by ICA subsection 364(1); and
- a list of the Appointed Actuary's qualifications, keeping in mind, but not limited to, the CIA's Rules of Professional Conduct.

B.8.3 Annual Required Reporting to the Board or Audit Committee

For a Canadian company, the AAR must disclose the date on which the Appointed Actuary met with the board or the audit committee of the board as required by paragraph 203(3)(f) of the ICA.

For a foreign company, the AAR must disclose the date on which the Appointed Actuary met with the chief agent, as required by section 630 of the ICA.

For participating account management, the Appointed Actuary must disclose the following in the AAR:

- The written opinion of the Appointed Actuary on the allocations of investment income, capital gains and expenses and whether they are fair and equitable, as required by sections 457 and 458 of the ICA;
- Date on which the Appointed Actuary reported on this to the directors, as required by section 460 of the ICA;
- The opinion of the Appointed Actuary that any transfers from the participating funds to the shareholders does not materially affect the company's ability to continue to comply with its dividend or bonus policy or to maintain the levels or rates of dividends or bonuses paid to the company's participating policyholders, as required by paragraph 461(c) of the ICA;
- The report of the Appointed Actuary to the board opining on the fairness to participating policyholders of the proposed dividends and whether the dividends declared are in accordance with the company's dividend policy, as required by subsection 464(2) of the ICA;
- The report of the Appointed Actuary to the board opining on the continuing fairness to participating policyholders of the policies for determining dividends of participating accounts during the financial year, as required by subsection 165(3.1) of the ICA; and
- The report of the Appointed Actuary to the board opining on the fairness to participating policyholders of policies on the management of each of the participating accounts, as required by subsection 165(3.2) of the ICA.

Additionally, the Appointed Actuary should describe the due diligence and evidence (e.g. description of analysis) to support the above opinions.

B.8.4 Continuing Professional Development Requirements

The Appointed Actuary must disclose in the AAR that he/she is in compliance with the Continuing Professional Development requirements of the CIA.

B.8.5 Disclosure of Compensation

The Appointed Actuary must disclose their compensation. This disclosure is consistent with the Financial Stability Board's Principles for Sound Compensation Practices, which have been adopted by OSFI. The form of the disclosure statement should be as follows:

Disclosure of Compensation

I attest that all of my direct and indirect compensation is derived using the following methodology:

____
____
____
____

I confirm that I have performed my duties as Appointed Actuary without regard to any personal considerations or to any influence, interest, or relationship in respect of the affairs of my client or employer that might impair my professional judgment or objectivity.

I confirm that my ability to act fairly is unimpaired and that there has been full disclosure of the methodology used to derive my compensation (and/or my firm's compensation, if applicable) to all known direct users of my services as Appointed Actuary.

If the Appointed Actuary is an employee of the insurance company, the methodology should include a list of the major components of the Appointed Actuary's compensation. This could include: base salary, cash and/or stock-based bonuses, retirement and other significant benefits, other compensation (e.g. signing bonuses, severance packages), and perquisites (e.g. car allowances).

For each component of the Appointed Actuary's compensation listed above that varies with the performance of the company, the value of that component as a target percentage of the base salary, must be disclosed. This might include, but is not limited to, participation in a bonus plan and/or a stock option plan that is based on company performance. The company must disclose the basis used to determine the amounts of these variable compensation components.

If the Appointed Actuary serves as an external consultant to the company, then the information provided to OSFI must include:

- The consulting fees payable for the preparation of the AAR, FCT, and any other work performed as the Appointed Actuary in respect of the company's current fiscal year;
- The basis used to determine the consulting fees payable for the Appointed Actuary's work (for example, fixed fee basis, time and expense basis, as well as any caps etc.), and whether the fees include any element of incentive or results-based compensation;
- The proportion that the consulting fees payable for the Appointed Actuary's work for the company represents, as a percentage of the total revenue billed by the consulting firm's Canadian legal entity to the company in the consulting firm's prior fiscal year (<10%, 10-25%, 25-50%, 50-75%, 75%+); and
- The proportion that the consulting fees payable for the Appointed Actuary's work for the company represents, as a percentage of the total revenue billed by the consulting firm's Canadian legal entity to all clients in the consulting firm's prior fiscal year (<10%, 10-25%, 25-50%, 50-75%, 75%+)

Due to its sensitive nature, the "Disclosure of compensation" must be included in a separate cover letter to AAcompletterlife@osfi-bsif.gc.ca and, on request, to other Canadian regulators with reference to the cover letter made in the relevant section of the AAR.

B.8.6 Reporting Relationships of the Appointed Actuary

The AAR should disclose the reporting relationships and dependencies of the Appointed Actuary.

For Appointed Actuaries who are employees of the company, the AAR should disclose the name and position of the person (or persons) to whom the Appointed Actuary reports as well as any changes in this regard over the past year. Both solid line and dotted line reporting relationships should be disclosed, as well as any anticipated change.

When the Appointed Actuary is not an employee of the company, the AAR should disclose the names and positions of the main contacts within the company with respect to the different functions of the Appointed Actuary, such as the valuation, FCT, and LICAT.

For example, the AAR should disclose the name and position of:

- the person who has hired the Appointed Actuary; and
- the company employees with whom the Appointed Actuary discusses findings and reports.

B.8.7 Peer Review of the Work of the Appointed Actuary

OSFI requires the work of the Appointed Actuary to be externally peer reviewed, as set out in OSFI's Guideline E-15 *Appointed Actuary: Legal Requirements, Qualifications and Peer Review*. The Guideline, which includes peer review requirements, was updated in 2012.

For each Peer Review Report filed in the last three years, the Appointed Actuary must complete the following table:

Peer Review Disclosures	AAR			FCT/DCAT			LICAT/LIMAT		
	2022	**2021**	**2020**	**Y***	**Y-1**	**Y-2**	**2022**	**2021**	**2020**
(a) Accounting period for work reviewed									
(b) Peer reviewer name									
(c) Work reviewed and nature of the peer review (e.g. full 3-year or limited annual)									
(d) Peer reviewer date signed									
(e) Date submitted to OSFI									
(f) Date submitted to Audit Committee or Chief Agent									
(g) Whether the Peer Review Report was issued pre-release or post-release									
(h) Year of next full 3-year review									
(i) Peer reviewer for the next 3-year cycle (if known) including the plan and the name of the next reviewer									

*Y = the most recent year

For each peer review report, the Appointed Actuary should summarize the key findings or recommendations, and the status of each finding / recommendation by year.

The Appointed Actuary should disclose if no peer reviews were completed in the last three years and the reasons why. Note that such circumstances would be rare and require OSFI pre-approval.

B.8.8 Life Insurance Capital Adequacy Test (LICAT)

The AAR must disclose all PfADs included in the Surplus Allowance of the Total and Core LICAT Ratios per the requirements of OSFI's LICAT guideline. The Surplus Allowance is based on PfADs calculated under the CALM, or any other method prescribed under the SOP of the CIA, that is used to determine insurance contract liabilities reported on the company's financial statements.

The following sample table shows the format that the company is expected to follow.

Summary Table 8.8
Provisions for Adverse Deviations in Surplus Allowance by Type ($, 000)

Company/ Country	Asset Segment	Product Lines	Liabilities [2]	Provisions for Adverse Deviations (PfAD) in Surplus Allowance 2022 [1]						
				Risk-free Interest Rate [3]	Non-Economic Assumptions [4]					Total Surplus Allowance [6]
					Mortality	Longevity	Morbidity	Lapse [5]	Expense	
Parent Co. - Canada	Seg. #1	Product #1								
		Product #2								
		Seg. Total								
	Seg. #2	Product #3								
		Product #4								
		Seg. Total								
	Surplus	Misc. Liabs								
	Canada Total									
Parent Co. U.S.	Seg. #3	Product #1								
		Product #2								
		Seg. Total								
	Seg. #4	Product #3								
		Seg. Total								
	Surplus	Misc. Liabs								
	U.S. Total									
Parent Co Total										
Subsidiary Comp. #1	Seg. #5	Product #1								
		Seg. Total								
	Surplus	Misc. Liabs								
Total Subsid. # 1										
Consol. Total										

(1) Any PfAD included in the Surplus Allowance to account for a specific risk must correspond to a PfAD included in the total liability reported in financial statements.
(2) Liabilities are net of all reinsurance and quantified on a before-tax basis. Amounts shown must reconcile with Table 2.3a.
(3) PfADs relating to scenario assumptions for risk-free interest rates associated with insurance contracts other than segregated fund contracts, calculated net of all reinsurance.
(4) Includes PfADs for non-economic assumptions associated with insurance contracts other than segregated fund contracts, calculated net of registered reinsurance only.
(5) Includes: anti-selective lapse, withdrawal and partial withdrawal, and policy owner options.
(6) The Total Surplus Allowance must reconcile with the amount reported on Page 10.100 Line 1010010060/Page 120.000 Line 12000010050 of the LICAT year-end Quarterly Return.

Appendix I – Opinion of the Appointed Actuary

The AAR must include a copy of the following opinion. The electronic filing of the AAR with OSFI must include a scanned copy of the signed opinion.

OPINION OF THE APPOINTED ACTUARY

I have valued the policy liabilities [and reinsurance recoverables] of [the Company] for its [consolidated] [statement of financial position] at [31 December XXXX] and their changes in the [consolidated statement of income] for the year then ended in accordance with accepted actuarial practice in Canada including selection of appropriate assumptions and methods.

In my opinion, the amount of policy liabilities [net of reinsurance recoverables] makes appropriate provision for all policy obligations and the [consolidated] financial statements fairly present the results of the valuation.

____
(Signature)

____
(Name in Print)
Fellow, Canadian Institute of Actuaries

____
(Location)

____
(Date)

The language in square brackets is variable and other language may be adjusted to conform to interim financial statements and to the terminology and presentation in the financial statements.