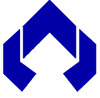
UNCLASSIFIED



OFFICE OF THE SUPERINTENDENT OF FINANCIAL INSTITUTIONS

MEMORANDUM TO THE APPOINTED ACTUARY

ON THE REPORT ON THE VALUATION OF

LIFE INSURANCE POLICY LIABILITIES

2002

Table of Contents

A. General Requirements and Directions

- A.1 Overview
- A.2 Definition of Actuarial and Other Policy Liabilities
- A.3 Accepted Actuarial Practice
- A.4 Opinion of the Appointed Actuary
- A.5 Reliance on the Auditor for Verification of Data
- A.6 Reliance on the Work of Other Actuaries or Individuals
- A.7 Annual Return Materiality Standards
- A.8 Appointed Actuary's Report Materiality Standards
- A.9 Transition Period Reporting
- A.10 Filing Requirements

B. Report Format

- B.1 General Layout
- B.2 Overview of the Company
- B.3 Summary Reporting of Consolidated Data
- B.4 Summary Reporting of Consolidated Actuarial Liabilities
- B.5 Summary Reporting of Other Insurance Policy and Contract Liabilities
- B.6 Summary Reporting of Provisions for Adverse Deviations by Type
- B.7 Summary Reporting of Provisions for Adverse Deviations by Year
- B.8 Summary Reporting of Changes in Methods and Assumptions
- B.9 Details by Asset Segments and Product Lines
- B.10 Asset Segment Reporting
- B.11 Product Line Reporting

C. Additional Disclosures

- C.1 Source of Earnings
- C.2 Asset Default Risk
- C.3 Expenses
- C.4 Income Taxes in Actuarial Liabilities
- C.5 Index-Linked UL and Annuity Products
- C.6 Segregated Fund Products: Liability and Capital Provisions
- C.7 Guarantees
- C.8 Surplus
- C.9 Bulk Liabilities
- C.10 Reinsurance
- C.11 Currency Exchange Rates

D. Asset Liability Management

E. Additional Reporting for MCCSR

- E.1 Negative Reserves and Excess Cash Values
- E.2 Allocations
- E.3 Participating Contracts
- E.4 Index-Linked Policies

F. Review Procedures
F.1 OSFI's Review Procedures
F.2 Peer Review Program

G. Other Requirements for Appointed Actuary's Report
G.1 Dynamic Capital Adequacy Testing
G.2 New Appointment
G.3 Annual Required Reporting to the Board or Audit Committee
G.4 Continuing Professional Development Requirements
G.5 Disclosure of Compensation

A. INTRODUCTION AND SCOPE

A.1 Overview

This Memorandum sets out the directions of the Superintendent with respect to the Appointed Actuary's Report (AAR) specified in Section 667(2) of the Insurance Companies Act (ICA).

The purpose of the AAR is to give OSFI a comprehensive report documenting the work done by the Appointed Actuary to calculate the policy liabilities and to enable OSFI to assess the Company's actuarial financial position and profile.

The requirements for the AAR have changed this year compared to prior years. This revision aims to make the AAR a more useful tool in understanding the company's businesses, the associated risks, the valuation methodologies used, how assumptions were set, how actuarial liabilities are validated and any changes from prior years. OSFI requires a more standardized format to the reporting so as to more readily allow inter-company comparisons. The required reporting in the AAR takes into account that the Peer Review regime is in place.

When this Memorandum uses the words "require" and "must", these terms have the normal English usage meaning. Instructions with these terms are mandatory. This Memorandum also uses the word "should", which means that there is an expectation that the instruction will be followed, but exceptions are allowed in the presence of valid reasons.

The AAR should not be considered to solely be a report from the company's Appointed Actuary to OSFI actuaries. It is read by non-actuaries in OSFI who are knowledgeable about insurance. It should be a generally understandable presentation that can be used as a key component in OSFI's monitoring of the company's financial results.

A.2 Definition of Actuarial and Other Policy Liabilities

Section 365. (1) and Section 629. (1) of the ICA require the Appointed Actuary to value the actuarial and other policy liabilities of the company. Specifically, this includes the following:

- Actuarial liabilities under insurance policies and annuity contracts. For Canadian life insurance companies and for Canadian fraternal benefit societies, this amount is reported in the Annual Return (OSFI (54) and OSFI (56) respectively) on page 20.020, line 001. For the Canadian branches of foreign life insurance companies, this amount is reported in the Annual Return (OSFI (55)) on page 28.020, line 001.

- Other insurance policy and contract liabilities. For Canadian life insurance companies and for Canadian fraternal benefit societies, this amount is reported in the Annual Return (OSFI (54) and OSFI (56) respectively) on page 20.020, line 010. For the Canadian branches of foreign life insurance companies, this amount is reported in the Annual Return (OSFI (55)) on page 28.020, line 010.

- Other liabilities or asset provisions in the Annual Return that are inherently related to or linked to insurance policies or annuity contracts.

A.3 Accepted Actuarial Practice

Section 365(2) and section 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."

The Superintendent understands generally accepted actuarial practice to be defined by the professional actuarial standards of practice promulgated by the Canadian Institute of Actuaries (CIA), together with the additional requirements and directions of this Memorandum. Any deviations from CIA standards or from the additional requirements of this Memorandum must be reported in the AAR and justified.

The CIA annually issues a letter from the Committee on Life Insurance Financial Reporting (CLIFR). This letter gives guidance on certain valuation issues not yet fully covered in the CIA's standards of practice. While the CLIFR Fall Letter is not a mandatory CIA standard, OSFI requires that in the AAR the Appointed Actuary must disclose and justify any deviation from the guidance in the letter.

The Appointed Actuary should consider any additional professional guidance, such as CIA educational notes and research papers.

This Memorandum for 2002 year-end financial reporting does not contain any requirements that override or limit generally accepted actuarial practice.

This Memorandum does contain the following requirements that are additions to the existing CIA standards:

1. For segregated fund products with guarantees, the Appointed Actuary must follow the methodology outlined in the "Report of the CIA Task Force on Segregated Fund Investment Guarantees", dated December 2001, or updated guidance provided in the CLIFR Fall Letter.

2. For allocations to product lines under the Canadian Asset Liability Method (CALM), the Appointed Actuary must follow the guidance provided by CLIFR in the 2001 and 2002 Fall Letters, or in relevant CIA educational notes.

A.4 Opinion of the Appointed Actuary

A copy of the following opinion must be included in both the AAR and the Annual Return.

OPINION OF THE APPOINTED ACTUARY

With respect to the liabilities for all unmatured obligations under the terms of the company's policies dependent on life, accident and sickness policies or on any other contingencies or on a term certain, including claims under accident and sickness policies payable in instalments, included in the (consolidated) liabilities shown in the annual return, it is my opinion that:

- the methods and procedures used in the verification of the valuation data are sufficient and reliable, and fulfil the required standard of care;
- the rate or rates of interest, and the rate or rates of mortality, accident, sickness or other contingencies used in calculating the (consolidated) actuarial and other policy liabilities are appropriate to the circumstances of the company and the policies in force;
- the methods used to calculate the (consolidated) actuarial and other policy liabilities for non-cancellable accident and sickness policies and for claims under accident and sickness payable in instalments are appropriate to the circumstances of the company and of the said policies and claims;
- the valuation of (consolidated) actuarial and other policy liabilities has been made in accordance with generally accepted actuarial practice with such changes as determined and any directions made by the Superintendent;
- the valuation is appropriate under the circumstances of the company and the financial statements fairly reflect its results;
- having regard for the results of the investigation performed pursuant to sections 368 or 630 of the *Act*, the value of (consolidated) actuarial and other policy liabilities, when taken together with the "Total Capital Available" for purposes of the MCCSR return, makes good and sufficient provision for all unmatured obligations under the terms of the policies in force.

______________________________ ________

Signature of Appointed Actuary **Date**

The bracketed language above applies to Canadian companies.

The opinion must be signed by a Fellow of the Canadian Institute of Actuaries.

A.5 Reliance on the Auditor for Verification of Data

In complying with generally accepted actuarial practice, the Appointed Actuary must meet a standard of care with respect to the data used in valuations. This standard of care, specified in the CIA standards, requires the Appointed Actuary to establish suitable check procedures for the verification of data.

The CIA/CICA's Joint Policy Statement (JPS) notes that the Appointed Actuary "… would consider using the work of the Appointed Auditor with respect to the accuracy and completeness of data used to determine the amounts" of actuarial liabilities contained in the Annual Return. The Superintendent assumes that the auditor's tests of accuracy and completeness comprise more exhaustive and different checking than would normally arise in the course of the Appointed Actuary's own work in complying with the CIA standards. The JPS outlines that the Appointed Actuary may use the Auditor's work provided that the Appointed Actuary "takes reasonable care to determine that there is a basis for such use". This reasonable care includes the establishment of communication between the two professionals, and ensuring the Auditor is aware of the intended use of the work and of the Appointed Actuary's needs.

While the JPS offers the Appointed Actuary the option to use the Auditor's work, the existence of the JPS does not override the ICA's requirement for filing reports with the Annual Return that meet the required standard of care in the CIA standards. The Appointed Actuary of a foreign company should be particularly mindful of this, given the later filing date of a foreign company's Auditor's Report. The Appointed Actuary must ensure that the required reliability and sufficiency checks have been completed. The Appointed Actuary's professional responsibility cannot be deferred to work not yet completed by an Auditor. Qualifications in the Appointed Actuary's opinion should be limited to potential errors arising outside the natural scope of the Appointed Actuary's duties. If such errors have a material impact on an Appointed Actuary's results, the appropriateness of the valuation will have to be confirmed, and the AAR may have to be refiled.

The extent to which the Appointed Actuary uses the work of the Auditor must be discussed in the AAR. Where the Appointed Actuary uses the work of the Auditor, the details of the Auditor's work need 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.

This reliance on the work of the Auditor will be addressed as a part of the Peer Review process.

A.6 Use of the Work of Other Actuaries or Individuals

The CIA standards (CSOP Section 1610) describe the Appointed Actuary's use of another person's work. The Appointed Actuary should disclose in the AAR if use is made of the work of other actuaries, especially non-FCIAs, or other individuals. This disclosure should include the process and controls in place with respect to such use. This disclosure of the use of other individuals' work should be made even if the Appointed Actuary takes responsibility for such work.

Specifically, the disclosure must be made where the Appointed Actuary has used the work, without having a direct prior involvement in the setting of assumptions and methodology, or where he/she has totally relied on other actuaries or individuals, either inside or outside the company, to determine policy liabilities

The disclosure of such use of the work of others should be included in the section of the AAR where it most logically applies (e.g. at the company level, a specific product level, etc.).

A.7 Annual Return Materiality Standards

In preparing the company's Annual Return, the 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 applied in the valuation of actuarial liabilities. For instance, since there may be multiple valuation calculation systems, is the Annual Return materiality standard applied to each system, or are lower materiality standards applied by the Appointed Actuary? If lower materiality standards are applied in the valuation, the Appointed Actuary should disclose them. Also, the Appointed Actuary should report on how immaterial items, or pluses and negatives, are aggregated to decide overall materiality.

A.8 AAR Reporting Materiality Standards

OSFI is introducing the concept of materiality standards for purposes of reporting in the AAR. In the past, there have been instances of excessively detailed reporting in some AARs. In order to avoid unnecessary volumes of data, it is not required that every small product or rider be separately addressed and disclosed in the AAR. Reports brimming with unnecessary details and numbers that serve to obfuscate useful disclosure is discouraged. The inclusion of useful and relevant observations, analysis and comments is encouraged. If OSFI requires additional information, this will be requested from the Appointed Actuary at a later time.

The following minimum levels of detail must be followed in the AAR reporting:

- Company: Data must be presented separately for each life insurance company that is consolidated in the Annual Return.

- Country: If a company operates in more than one country, the data must be shown separately for each country.

- Asset Segment: Each asset segment must be reported separately.

- Product Line Reporting: Guidance on defining product lines is given below.

- Par and Non Par: Participating lines of business must be shown separately.

- New Business vs. In-Force: Guidance on defining this is given below.

The above defines a cascade of levels of reporting that must a priori be presented in the AAR. However, exceptions will be allowed depending on the particular circumstances of the company. Such deviations should be justified.

A.8.1 Product lines: 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 company. The following is some guidance that can be applied:

(i) Product lines that are separately reported to business unit management should be reported separately in the AAR.

(ii) Product lines that the Appointed Actuary, or a business unit actuary, analyzes separately on at least an annual basis should be reported separately in the AAR.

(iii) Product lines that form a separate part of the basis of determining product line management bonuses should be reported separately in the AAR.

(iv) If product lines are not reported or analyzed separately in the company, they need not be reported separately 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.

(v) Products with essentially the same characteristics, but with some slightly different features, should not be shown separately. For instance, if the company has whole life policies with 3% cash values and other whole life policies with 4% cash values, the details should not be shown separately.

A.8.2 Small product lines: Detailed product reporting is not required for all small products or riders that have very little in force. The reporting of all products and riders would typically result in an excessive level of detailed reporting, which is not useful. In determining these materiality limits, the following guidance can be applied:

(i) Product lines whose liabilities are less than 0.25% of total actuarial liabilities need not be reported separately.

(ii) Product lines whose liabilities are more than $25 million should be reported separately.

(iii) The sum of the liabilities of all product lines not reported separately should not exceed 5% of the total actuarial liabilities.

(iv) There are circumstances where lower level reporting is warranted. Examples are insurance products with a material amount of face amount, but relatively small liabilities (e.g. term insurance, group life and health), products with negative reserves, large segregated fund products with relatively small general fund reserves, etc. These are examples only and are not meant to be an exhaustive list.

A.8.3 New Business: Not withstanding the above materiality guideline, the Appointed Actuary must separately report on new business sold. This is defined as:

(i) All material products that are currently being actively sold.

(ii) New business products that are anticipated in the company's business plan to become material.

(iii) Distinct new product lines introduced for sale during the year, and which the company did not have available for sale in the past.

(iv) Old existing products with only a few new sales need not be detailed.

(v) Some additional guidance is that if the company internally reports on the sales of a product line separately, and has separate planned sales targets for that product line, then the product line should be reported separately in the AAR.

A.8.4 Actuarial Judgement in Reporting: The Appointed Actuary must use judgement in deciding on the level of detail reported in the AAR. If warranted in the Appointed Actuary's opinion, exceptions to the above guidelines on product line reporting may be made. Where the Appointed Actuary decides that an exception is justified, the reasons should be disclosed. Such disclosures should be made in the product line sections of the AAR.

A.8.5 Additional Detail: Some additional requirements for particular products are specified in the detailed instructions found later in this Memorandum.

A.9 Transition Period Reporting

This Memorandum requires new levels of reporting in the AAR that are, in some cases, significantly different from what was required in the past. It is recognized that in some cases this additional reporting would be difficult, or impossible, to recreate for past years.

Where the Appointed Actuary would have to do significant additional work to recreate the past, this is not required for a three-year transitional period. In these cases, only the current year data is required in 2002. An extra year of data should be added in each of the next two calendar years.

This Memorandum specifies the sections where this transitional reporting is allowed. Where it is not specifically mentioned, the data for all three years is required.

A.10 Filing Directions

The deadline for the filing of this Appointed Actuary's Report is specified in Section 665(3) of the ICA. Failure to meet the deadline will result in a penalty fee under OSFI's Late and Erroneous Filing Penalty Framework.

Two (2) paper copies of the AAR should be submitted to OSFI's Accounting and Financial Information Division in Ottawa. We also require that the AAR be filed in electronic form using any of a diskette, a CD or by use of an E-mail.

B. REPORT FORMAT

B.1 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 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 will allow 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 of the Company

2. Total Consolidated Company Data
   - 2.1 Summary of Consolidated Actuarial Liabilities
   - 2.2 Summary of Other Insurance Policy and Contract Liabilities
   - 2.3 Summary of Provisions for Adverse Deviations
   - 2.4 Summary of Changes in Methods and Assumptions
   - 2.5 Opinion of the Appointed Actuary

3. Details by Asset Segment and Products

4. Additional Actuarial Liability Disclosures

5. Asset Liability Management

6. Additional Reporting for MCCSR

7. Reporting on Other Requirements of the Appointed Actuary

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

B.2 Overview of the Company

This introductory 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 policy liabilities, any changes in the philosophy towards the valuation of policy liabilities, any material new categories of business, etc.

While the above can be disclosed in the overview section of the AAR, any extensive details should not be shown in this introductory section, but should be disclosed in the appropriate detailed sub-sections of Section 3.

B.3 Summary Reporting of Consolidated Data

Section 2 of the AAR must show a set of five tables, as follows:

- Consolidated Actuarial Liabilities
- Other Insurance Policy and Contract Liabilities
- Additional Insurance Policy Related Liabilities and Provisions
- Provisions for Adverse Deviations, by Type
- Provisions for Adverse Deviations, by Year
- Method and Assumption Changes, by Year

B.4 Summary Reporting of Consolidated Actuarial Liabilities

Section 2.1 of the AAR must show a table of consolidated actuarial liabilities. The total of this table must match the total of line 001 on page 20.020 of OSFI (54) and OSFI (56) or line 001 on page 28.020 of OSFI (55).

The data must be shown based on the guidelines shown in section A8 of this Memorandum.

The Appointed Actuary is required to show the data separately for each company, since the assets and liabilities are in separate legal entities.

Similarly, within a company the data must be shown separately by country, since in some cases there are local restrictions on the movement of funds out of a country.

The CIA standards require that the valuation of the actuarial 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 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 has to decide how to modify the sample format so that the company's environment is clearly represented. The table must show how actuarial liability data is matched to the separate asset segments that constitute the company's asset structure. Conversely, if the company has a different structure (e.g. asset segments within product lines), this structure should be used in the tables.

The purpose of this summary table is to give the reader an overview of the company and its lines of business. The Appointed Actuary is discouraged from making this summary table too voluminous. However, 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 the company's managers look at the business for internal reporting, while still respecting the separation of companies and countries.

The following is a sample of the table reporting consolidated actuarial liabilities. The format of the table must be followed. OSFI requires consistent reporting by all companies in the summary tables.

Only the level of detail, or order, shown in the three left columns should vary by company. The Appointed Actuary must determine the level of product detail to be shown that matches the above requirements.

More detailed reporting is to be done at the asset segment and product line levels. These requirements are covered in sections B9, B10 and B11 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.

SUMMARY TABLE 2.1

CONSOLIDATED ACTUARIAL LIABILITIES ($,000)

Company/ Country	Asset Segment	Product Lines	Actuarial Liabilities 2002			Actuarial Liabilities 2001		Actuarial Liabilities 2000	
			Gross	Net	%	Gross	Net	Gross	Net
Parent Co. - Canada	Segment #1	Product #1							
		Product #2							
		Product #3							
		Segment Total							
	Seg. #2	Product #4							
		Product #5							
		Segment Total							
	Seg. #3	Segment Total							
	SegFunds	Segment Total							
	Surplus	Misc. Liabilities							
	Canada Total								
Parent Co. U.S.	Segment #4	Product #1							
		Product #2							
		Segment Total							
	Seg. #5	Product #3							
		Product #4							
		Segment Total							
	U.S. Total								
Parent Co Total									
Subsidiary Comp. #1	Segment #6	Product #1							
		Segment Total							
	Surplus								
Total Subsid. # 1									
Consolidated Total									

The percentages required in the above table are the ratios of each of the net policy 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 actuarial 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 companies do the income tax calculations at the product level. The effect on actuarial liabilities of income taxes should be shown in this table at the applicable level for the company. Allocations are not required just for purposes of reporting in this table.

B.5 Summary Reporting of Other Insurance Policy and Contract Liabilities

Section 2 of the AAR must show a Table 2.2a of consolidated other insurance policy and contract liabilities. The total of this table must match the total of line 010 on page 20.020 of OSFI (54) and OSFI (56) or line 010 on page 28.020 of OSFI (55).

The liabilities in Table 2.2a must be shown separately for each company, country and par/nonpar detail, corresponding to Table 2.1 above. These liabilities are not required to be reported by product line.

The table should show the liabilities by type. The following is a sample format.

SUMMARY TABLE 2.2a

CONSOLIDATED OTHER INSURANCE POLICY AND CONTRACT LIABILITIES ($,000)

Company/Country	**Liability Type**	**2002**	**2001**	**2000**
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 policies and annuity 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 following is a sample format for reporting such liabilities and assets.

SUMMARY TABLE 2.2b

CONSOLIDATED ADDITIONAL INSURANCE POLICY RELATED LIABILITIES AND PROVISIONS ($,000)

Company/Country	**Liability or Provision Type and Annual Return Line**	**2002**	**2001**	**2000**
Parent Co. - Canada				
	Subtotal			
Parent Co. – U.S.				
	Subtotal			
	Total			

B.6 Summary Reporting of Provisions for Adverse Deviations by Type

Section 2 of the AAR must show a table of the provisions for adverse deviations (PFADs), by type of provision, included in the actuarial liabilities. The company/country/asset segment/product combinations must be the same as shown in Table 2.1 described above.

The following is a sample of the table showing the provisions for adverse deviations. This table shows the provisions for the current year by type of provision.

SUMMARY TABLE 2.3

PROVISIONS FOR ADVERSE DEVIATIONS BY TYPE ($,000)

(Net of Reinsurance Ceded)

Company/ Country	**Asset Segment**	**Product Lines**	**Actuarial Liabilities**	**Provisions for Adverse Deviations**								
				Asset Default	**Mort./ Morb.**	**Exp.**	**Lapse .**	**Interest Rate C3**	**Other**	**General/ Bulk**	**Total PfADs**	**% of Act. 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										
	U.S. Total											
Parent Co Total												
Subsidiary Comp. #1	Seg. #6	Product #1										
		Seg. Total										
	Surplus											
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.

It is recognized that appointed actuaries calculate the amounts of the PFADs using different methodologies. The following are some examples of differences:

- 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 be pre or post income tax.

All such methods are acceptable for purposes of reporting in the AAR. There should be comparability in the calculation method by year.

The Appointed Actuary should disclose the manner 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 disclosed in the detailed sections of this report.

B.7 Summary Reporting of Provisions for Adverse Deviations by Year

Section 2 of the AAR must show a table of the provisions for adverse deviations included in the actuarial liabilities for the last three years. 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 provisions for adverse deviations for the last three years.

SUMMARY TABLE 2.4

PROVISIONS FOR ADVERSE DEVIATIONS BY YEAR ($,000)
(Net of Reinsurance Ceded)

Company/ Country	Asset Seg.	Product	2002			2001			2000		
			Act'l Liabs.	Amount of PFAD	% of Act'l Liabs	Act'l Liabs.	Amount of PFAD	% of Act'l Liabs	Act'l Liabs.	Amount of PFAD	% of Act'l 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									
		Segment Total									
	U.S. Total										
Parent Co Total											
Subsidiary Comp. #1	Seg. #6	Product #1									
		Seg. Total									
	Surplus										
Total Subsid. #1											
Consol. Total											

If the valuation methodology used does not produce separate PFADs for each of the product lines in the table (eg 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. Note that the level of reporting in this table must correspond to Tables 1.3 in Section B.11 of this Memorandum.

B.8 Summary Reporting of Changes in Methods and Assumptions

Section 2 of the AAR must include a table summarizing the effects on actuarial liabilities of changes in methods and assumptions. 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 2.5.a

ACTUARIAL LIABILITIES
METHOD AND ASSUMPTION CHANGES BY YEAR ($,000)
(Net of Reinsurance Ceded)

Company/ Country	**Asset Segment**	**Product Lines**	**2002**		**2001**		**2000**	
			Impact on Act'l Liabs	**Description of Change**	**Impact on Act'l Liabs**	**Description of Change**	**Impact on Act'l Liabs**	**Description of Change**
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.	Segment 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						
	U.S. Total							
Parent Co Total								
Subsidiary Comp. #1	Seg. #6	Product #1						
		Seg. Total						
	Surplus							
Total Subsid. # 1								
Consolidated Total								

A method or assumption change is defined as one that affects the actuarial liabilities of policies that were in-force in the prior reporting period.

The description of the changes shown in the table must be brief and succinct. For example: "Mortality Table Change". Details describing the changes must be shown in the detailed product sections in Section 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 effects of each change must be shown separately and not netted.

The changes should be split between those resulting from expected experience, changes to MFADs and those resulting from special, particular or one time circumstances, such as new standards applications, and any transaction (reinsurance, acquisitions, etc.) or any administrative operational and corporate changes. Any changes in bulk actuarial liabilities (see Section B.11.10) must be disclosed as a basis change.

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

A similar table must be disclosed for method and assumption changes in other insurance policy and contract liabilities. The following is a sample of the table showing such changes in methods and assumptions for the last three years.

SUMMARY TABLE 2.5.b
OTHER INSURANCE POLICY AND CONTRACT LIABILITIES
METHOD AND ASSUMPTION CHANGES BY YEAR ($,000)

Company/ Country	Liability Type	2002		2001		2000	
		Impact on Liabilities	Description of Change	Impact on Liabilities	Description of Change	Impact on Liabilities	Description of Change

B.9 Details by Asset Segments and Product Lines

Section 3 of the AAR gives the details on the valuation of the actuarial liabilities. This section of the AAR must follow the same order as 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 Appointed Actuary should refer to sections A.8.1, A.8.2, A.8.3 and A.8.4 for guidance on choosing the level of detail to show.

The CIA standards require that the valuation of the actuarial 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 has to decide how to 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 actuarial liability data is matched to the separate asset segments that constitute the company's asset structure.

It is recognized 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 deferred taxes 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, and the detailed product sections can make reference to it. Some examples of this are:

- Asset/Liability management (ALM) is the same for all the asset segments in one country.
- The same mortality table is used for several product lines.

However, it is required that each product section be self-contained. It should either have the data within the section, or there should be an explicit reference to a more summarized level. The reader of the AAR should not have to search through non-cross-referenced sections of the AAR. For instance, if the reader is examining a Universal Life product, all the methods, assumptions and other disclosures must either be directly in that product section, or there must be an explicit reference to where the disclose can be found if it is presented in a more summarized manner.

B.10 Asset Segment Reporting

The composition of each asset segment must be documented separately in the AAR in a table with the following balance sheet format. The major asset and liability categories must be shown for the last three years. The actuarial liabilities, and other policy liabilities, supported by the asset segment must be included in the table. This requirement is subject to the transition period reporting.

Table 3.1

Asset Segment – Assets and Liabilities ($,000)
(Statement Carrying Values At December 31)

Company/ Country/Asset Segment	2002			2001			2000		
	Asset Value	Invest. Income	Yield Rate	Asset Value	Invest. Income	Yield Rate	Asset Value	Invest. Income	Yield Rate
Bonds									
Mortgages									
Stocks									
Real Estate									
Policy Loans									
Cash and S.T.									
Inter-Seg. Notes									
Inter-Company									
Derivatives									
Other Invest.									
Def. Tax Asset									
Other Assets									
Total									

	2002	2001	2000
Actuarial Liabilities			
Product #1			
Product #2			
Etc.			
Net Deferred Gains/Losses			
Bonds			
Stocks			
Mort.			
R.E.			
Inter-Company			
Def. Tax Liab.			
Other Liabilities			
Total Liabilities			
Surplus			

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

The investment income must include the amortization of the net deferred gains/losses. The investment income must be the same definition as used in the Annual Return.

The yield rates by asset type should use the standard 2I/(A+B-I) formula. The calculation must include the amortization of the net deferred gains. It is accepted that the use of this formula may cause some anomalous yield rates in some cases, such as for cash. Significant changes in yield rates between years for bonds, mortgages and real estate should be explained by the Appointed Actuary.

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 actuarial liabilities should be discussed.

If all three years of data is not available in this first year of the revised AAR requirements, then the Appointed Actuary can invoke the transition period rule. If partial data is available, then the Appointed Actuary is encouraged to report it. Similarly, if data is available, but which is not fully consistent between the years, the Appointed Actuary is encouraged to still show it, and note the inconsistency.

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

It is OSFI’s expectation that only vested assets will be used by foreign companies to determine their policy 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 D of this Memorandum.

B.11 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:

1. **A table showing the following:**

Table 3.1.X

Product Data ($,000)

(At December 31)

Company & Country		**2002**	**2001**	**2000**
Asset Segment				
Product #1	Actuarial Liabs.: Gross			
	Net			
	Face Amount: Gross			
	Net			
	Account Values: Gross			
	Net			
	Premiums: First Year			
	Single			
	Renewal			
	Less, Ceded			
	PfAD: Asset Default; % of Res.			
	Mortality; % of Res.			
	Expenses; % of Res.			
	Lapses; % of Res.			
	Lapses; % of Res.			
	Interest; % of Res.			
	Other; % of Res.			
	General/bulk; % of Res.			
	Total PFAD; % of Res.			
	Change in Actuarial Liabs. From Method and Assumption Changes:			
	Expected Exp. Act'l Liabs			
	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 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 actuarial 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.).

2. **Description of Product**: A description of the product and its key features must be disclosed. This should disclose details on the features of the product, the guarantees, benefits, contract durations, etc. The level of detail in this description should be sufficient to justify the methodology and assumptions used. Where reinsurance is material, a description of the reinsurance structure with respect to risks and allowances should be included.

3. **New Business**: Section A.8.3 above gaves guidance on the new business products that should be shown separately. The AAR should disclose details on the features of the product, 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. Where reinsurance is material, a description of the reinsurance structure with respect to risks and allowances should be included.

4. **Expected Experience Assumptions**: The Appointed Actuary must document all the expected experience assumptions used in the valuation. This includes mortality, morbidity, interest (including default), lapses, expenses, inflation, renewal/conversion, disability/recovery, income taxes and any other contingencies that are applicable. OSFI requires the Appointed Actuary to document the rationale, justification and validation of all expected experience assumptions used.

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

   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 qx tables or lapse tables are discouraged. Such detailed data must be kept available at the company if needed. This level of detail will be examined as part of the peer review process, and thus does not need to be included in the AAR.

   Similarly, listings of multitudinous tables of lapse rates are discouraged. Sample rates are sufficient. For example, rates for issue ages 25, 40 and 55 could be shown and rates for durations 1 to 5, 10, 20 and the ultimate rates could be shown.

   The Appointed Actuary should describe the source of the expected experience assumptions. If industry experience is used, this should be stated. If industry tables are available, but not used, the 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.

   The Appointed Actuary should disclose when the expected experience assumptions were last updated or reviewed.

   The AAR should report the key future reinvestment rates and reinvestment strategies assumed.

The AAR should disclose and discuss the results of the scenario testing required by CALM. Additional scenario testing, or the exclusion of any scenario, should be disclosed.

Any use of derivatives must be disclosed.

If the future cash flows from more than one asset segment are aggregated under the CALM methodology, this must be discussed in detail.

The AAR should provide a description of the dividend scale assumed in the valuation, including any prospective changes in the dividend scale relative to the current dividend scale

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

5. **Key Risks**: 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 actuarial liabilities, which assumptions are the most volatile, and the results of any testing done for sensitivity analysis.

6. **Provisions for Adverse Deviation**: 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.

   For each assumption, the Appointed Actuary should disclose and justify the level of margin for adverse deviations used. If a margin is outside the range recommended in the CIA standards, the Appointed Actuary must highlight this.

   The Appointed Actuary should discuss the testing done to ensure that the addition of each of the MFADs served to increase actuarial liabilities.

7. **Actual vs. Expected**: A comparison of actual experience versus expected experience assumptions should be shown separately for each product and for the last three years if the data is available. Where such studies are done at a more aggregate level, this is acceptable and should be shown. This comparison should be shown separately for the key risk (see #5 above) assumption. 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. If such studies are not available, this should be disclosed. If the studies are not done, reporting for the AAR is not forcing them to be started. If such studies are not available, this should be disclosed. Transition period reporting applies to this requirement.

8. **Guarantees**: The Appointed Actuary should disclose the difference between the interest rates required by the guarantees in the products and the current year's actual earned interest rates, after any deductions. This comparison should be done for the last three years. This comparison can be based on either actual investment income or on interest rates. For participating business, the interest component of current dividends must be included in the required interest. Transition period reporting applies to this requirement.

9. **Type of Valuation Approach or System**: The type of valuation approach or system used should be disclosed. 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.

10. **Bulk Actuarial Liabilities**: The amounts of any bulk actuarial liabilities must be disclosed, with each disclosed separately for the last three years. Examples of liabilities that fall into this category are (i) manual adjustments that are the result of inadequacies of a valuation system, (ii) bulk liabilities to cover potential data problems, (iii) liabilities held to cover cyclical fluctuations, etc. These are examples only and should not be considered an exhaustive list. The disclosure should include the reasons for holding these actuarial liabilities, the methods and assumptions used to determine the actuarial liabilities, and policies for releasing these liabilities in the future. Any changes in these liabilities are must be disclosed as a basis change and reported by quarter in Table 2.5 and Table 3.1.X.

11. **Method and Assumption Changes**: Each of the changes in methods or assumptions must be disclosed separately in the product tables 3.1.X. Multiple changes should not be netted. The changes should also be described and justified. The changes should be split between:
    - Those resulting from a change in expected experience, including any resulting change in PFAD;
    - A change in MFAD levels;
    - Those resulting from special, particular or one time circumstances, such as the introduction of new standards;
    - Any unusual transactions (reinsurance, acquisitions, etc.);
    - Any changes in bulk liabilities;
    - Any administration, systems, operational or corporate changes.

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

12. **Internal Control Analysis of Actuarial Liabilities**: The Appointed Actuary typically makes use of some method(s) of internal analysis to verify or validate the actuarial liabilities. This can take a variety of forms. Examples are (i) ratios of face amount to actuarial 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 actuarial liabilities and disclose the numbers from this process in the AAR. The

numbers for the last three years should be shown. Transition period reporting applies to this requirement.

13. **Comparison With Other Reporting**: The Appointed Actuary should compare the expected experience assumptions used in the valuation of actuarial 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 DCAT 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.

14. **Reliance on Data Checks of Auditors:** If the Appointed Actuary relies on the external auditor for the verification of data, this should be disclosed. Details describing the methods used by the auditor are not required. If the Appointed Actuary does not rely on the auditor for any products, the AAR should describe the data verification methodology used. The Appointed Actuary should refer back to section A.5 of this memorandum.

15. **Reliance on Other Actuaries or Individuals**: The Appointed Actuary must disclose when he/she has relied on other actuaries or individuals to determine the valuation of policy liabilities. Refer back to sectionA.6 of this Memorandum. This disclosure should be included in the AAR where it most logically applies. In many cases this is at the product line level, but it may be at a higher level. The scope of this reliance must be disclosed in the detailed product sections of the AAR and a justification for such reliance must be presented. The Appointed Actuary should disclose the process and controls in place with respect to such reliance. The disclosure should include whether the other actuaries or individuals are internal employees or external consultants.

C. ADDITIONAL ACTUARIAL LIABILITY DISCLOSURES

C.1 Source of Earnings:

A new methodology for the calculation of a Source of Earnings (SOE) analysis is being developed by the CIA. For the 2002 year-end, this calculation is not required by OSFI, due to its early stage of development. However, if a company has this type of data available, either on the CIA basis or something equivalent, disclosure is encouraged. This disclosure is encouraged for the AAR. Such disclosure should be done even if only available for some lines of business. This analysis should be shown in the AAR at the lowest level of detail (business unit/product) for which it is calculated.

For the 2003 year-end, the calculation and disclosure of an SOE analysis will be required in the AAR. In subsequent years, it is planned that this will be a required disclosure in a company's public annual report.

C.2 Asset Default Risk

The Appointed Actuary should describe the process used to determine both normal asset default costs and any asset default costs in excess of normal levels.

The following three tables must be completed. If asset default 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. Transition period reporting applies to this requirement.

TABLE 4.1
Asset Default Assumptions

	2002 Default Factors in Actuarial Liabilities, As Basis Points				2002 Default Factors in Actuarial Liabilities, As Dollar Amounts (,000)			
	Expected	MFAD	Bulk	Total	Expected	MFAD	Bulk	Total
Federal Gov.								
Provincial								
Municipal								
Corporate Bonds AAA								
AA								
A								
BBB								
BB								
B								
Lower than B								
Unrated								
Commercial Mort.								
Residential Mort.								
Real Estate								
Other								
Total								

TABLE 4.2

Actual Default Experience

	Actual Credit Losses, As Basis Points			Actual Credit Losses, As Dollar Amounts (,000)		
	2002	2001	2000	2002	2001	2000
Bonds						
Commercial Mortgages						
Residential Mortgages						
Real Estate						
Other						
Total						

As actual experience unfolds, the credit losses for past events change. The data in table 4.2 should be classified by year to be consistent with how losses and recoveries are classified in the company's financial statements.

TABLE 4.3

Actual Default Provisions in Assets

	Asset Provisions, As Basis Points			Asset Provisions, As Dollar Amounts (,000)		
	2002	2001	2000	2002	2001	2000
Bonds						
Commercial Mortgages						
Residential Mortgages						
Real Estate						
Other						
Total						

With respect to setting the expected experience assumptions and margins for adverse deviations for asset defaults, the Appointed Actuary should discuss any accounting provisions made for this contingency. The Appointed Actuary must ensure, and be able to demonstrate, that all default costs and risks have been covered, either through separate provision in the actuarial liabilities, or in conjunction with any accounting provisions.

C.3 Expenses

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

There should be a comparison of the total maintenance expenses to the expected experience assumptions included in the actuarial liabilities. If there is an 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 make-up of these expenses should be disclosed.

Where expense sharing agreements exist between a parent/subsidiary, often times a fixed or variable percentage of costs are shared. 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 the actuarial valuation.

For fraternals, 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.

C.4 Income Taxes in Actuarial Liabilities

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

A description of the recoverability testing analysis performed should be included in the AAR detailing 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.)

C.5 Index-Linked UL and Annuity Products

The AAR should include a discussion of the different products in force and their features. Included should be the face amounts and actuarial liabilities of the various 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 actuarial liabilities, the level of the MFADs and the amounts of the PFADs.

The discussion should include 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, 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., this requires a description. The basis for actuarial 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.

C.6 Segregated Fund Products: Liability and Capital Provision

Standards covering segregated fund investment guarantees are not included in the LSOP. However, they are included in the draft CSOP in section 2320.49. The Superintendent requires that for companies with material exposures to segregated fund guarantees, the Appointed Actuary must follow the methodology outlined in the "Report of the CIA Task Force on Segregated Fund Investment Guarantees" (December 2001). Section 4.3 of that report provides guidance on establishing the level of the actuarial liabilities for the guarantee. The Appointed Actuary should ensure that the actuarial liabilities established takes into account the considerations discussed in this section.

The high degree of skewness in the cost distribution associated with these products lends itself to the use of stochastic techniques, particularly in respect of the determination of future investment paths. It is OSFI's expectation that insurers with material guarantees employ stochastic methods in the determination of guarantee costs. Other insurers with blocks of segregated fund products should endeavour to adopt stochastic methods as well.

The actuary should disclose the following:

(1) Description of material products for which liabilities are held
(2) Methodology employed. If stochastic techniques are not used, the reasons should be disclosed along with any plans to adopt such methods
(3) Description of investment return model and calibration process
(4) Description of fund mapping process used to develop valuation cost distributions
(5) Liability assumptions detailing expected experience and margins for adverse deviations separately [including, if applicable, reset utilization, fund transfers, consideration of future deposits or other features]
(6) Rationale for choice of assumptions
(7) Level of liabilities held in respect of guarantee costs [i.e. (60) to CTE (80) or other]
(8) Total liability and required capital
(9) Whether OSFI has approved an internal model for determination of capital requirements and if approved, a confirmation that it is being used to determine capital
(10) For each material product, total MER, charge for guarantees, and charges available in adverse scenarios and assumed in valuation to fund costs after recovery of DAC
(11) Brief description of controls on model use and the associated development of costs distributions and liability values
(12) Description of any hedging strategies or reinsurance arrangements and how they are reflected in the valuation.

The following table should be filled in.

Table 4.4

Liability and Additional Capital Provisions Currently Held For Segregated Funds

Product	Segregated Fund Liability	Liabilities Held in General Fund for Segregated Fund Guarantees	Negative Reserve for Def. Acq. Costs	Other General Fund Laibilities	Credit for Reinsurance Ceded	Additional Capital Provision
Total						

C.7 Guarantees

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

C.8 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.

C.9 Bulk Liabilities

The Appointed Actuary must disclose separately and comment on the need for holding any bulk actuarial liabilities. Examples of such liabilities that fall into this category are (i) manual adjustment reserves that are the result of inadequacies of a valuation system, (ii) a bulk reserve to cover potential data problems, (iii) liabilities held to cover cyclical fluctuations, etc. These are examples only and should not be considered an exhaustive list. Any changes in how these liabilities are calculated must be disclosed as a basis change.

The Appointed Actuary must provide a table summarizing all the bulk liabilities held in the company.

Table 4.5

Summary of Bulk Reserves and Provisions ($,000)

Company/Country/ Product Line	**2002**	**2001**	**1999**
Total			

C.10 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 summarize all material or new reinsurance agreements, both assumed and ceded. Detail should include the effective and expected termination dates, the type of reinsurance, and a description of the products covered.

Disclosure should include retention limits, any unregistered reinsurance, and any reinsurance with associated companies.

Stop loss and catastrophe arrangements should also be clearly described.

The method of computing gross and net actuarial liabilities for significant blocks of business subject to coinsurance, and treatment of expense sharing between the reinsurer and the direct writer should be detailed.

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 block of business back on a different basis requires full disclosure in the AAR. No credit can be taken for these arrangements in the capital requirements.

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

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. A list of the reinsurance agreements which incorporate trust accounts or letters of credit should be shown in the AAR.

It should also be noted that for any reinsurance financing arrangement that significantly alters the pattern of actuarial liabilities the Appointed Actuary should discuss whether this arrangement involves a true transfer of risk to the reinsurer. The Appointed Actuary may also be asked 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. Any provisions held for this contingency should be disclosed.

The AAR must disclose the amount of reinsurance ceded credit taken in the actuarial liabilities in total.

The amounts of reinsurance ceded credit taken across all lines of business must be aggregated by reinsurance company. The resulting ten largest reinsurers, based on credit taken in ceded actuarial liabilities, 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.

This disclosure should 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 XXX

Ceded Actuarial Liabilities and Other Liabilities

Company	Product	Type of Credit Taken	2002	2001	1999
Reinsurer XX	Individual UL	Actuarial Liab			
		Assets owed			
	Group Ins.	Actuarial Liab			
Subtotal					
Reinsurer YY					
Total of Top 10					

The AAR should give a list of all assumption reinsurance ceded deals entered into in the last 10 years. This should list the date of the transaction, the line of business involved, the size of the liabilities at the time of the transaction and the name of the company.

C.11 Currency Exchange Rates

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

D. ASSET/LIABILITY MANAGEMENT (ALM)

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

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

a. The asset/liability matching objectives for each business segment;
b. The level of immunization (of either surplus or accounting income) desired;
c. The immunization strategy and exposure limits used to manage interest rate risk. Strategies could include (but are not limited to) cash flow matching, duration gap, horizon matching. Limits could include (but are not limited to) asset concentration limits, limits on duration mismatches or limits on the number of scenarios that are allowed to reveal losses.
d. The investment strategy used to achieve the ALM objectives.
e. Whether or not the company actively trades assets and should detail how these practices impact the valuation.
f. The breakdown of assets used to back each business segment and surplus. Details on the characteristics of the assets that impact the interest sensitivity of the asset cash flows should be described.
g. The frequency of rebalancing to meet the ALM objective.
h. The use of any derivative instruments, stock or real estate in the matching process.
i. The assumptions used in developing asset cash flows and the allowance for expenses.
j. The provision made for the asset/liability mismatch (C3 risk).
k. The risk metrics chosen to measure and monitor the exposure to interest rate risk and performance of the immunization strategy, such as: Macaulay duration, modified duration and convexity, option-adjusted duration/effective duration, key rate durations, VaR. The AAR should comment on:
    - The appropriateness of the duration measures used for the assets and liabilities given the interest sensitivity of the asset and liability cash flows. If different duration measures for the assets and liabilities are being used, provide justification.
    - Weights used (market value and/or book value) for calculation of surplus duration and convexity
    - Frequency of measurement and reporting of the duration of the assets and liabilities and other risk metrics.
l. Processes used to validate the immunization strategy (e.g. simulation, stress testing, cash flow projections).
m. Where the C3 risk provision is determined across asset segments (e.g. natural offsets across asset segments are reflected), the methodology and assumptions used should be described.

E. ADDITIONAL REPORTING FOR MCCSR

In recent years, the MCCSR has been refined, so that in some cases actuarial judgment is required. The following disclosures are required in the AAR.

E.1 Negative Reserves and Excess Cash Values

Negative reserves must be calculated on a policy-by-policy basis. The AAR must disclose the methodology used to calculate negative reserves. CLIFR's guidance from the 2002 Fall Letter should be followed.

The amount for Excess Cash Values is calculated on a group basis. The AAR should disclose what grouping is used.

The AAR disclosure should include the following:

- Whether surrender charges are included in the calculations,
- The use of net deferred gains,
- The calculation method for segregated fund contracts.
- Whether bulk liabilities are allocated.

E.2 Allocations

The use of CALM methodology results in actuarial liabilities on a grouped basis. Some MCCSR factors require policy data at a more detailed level. The AAR should disclose the methodology used to produce such allocations.

E.3 Participating Contracts

In order to qualify for the reduced C-1 asset default requirement, certain conditions with respect to dividend policy have to be met. If the reduced requirement is used, the AAR should disclose how the conditions have been met.

E.4 Index-Linked Policies

A mismatch test is required for index-linked policies. The AAR should disclose the results of the correlation testing for each asset sub-group.

F. REVIEW PROCEDURES

F.1 OSFI's Review Procedures

The Superintendent recognizes the confidential nature of the contents 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 methods and assumptions where it appears that the actuarial liabilities produced are inappropriate.

The review of an AAR may take place over an extended period after filing, and OSFI may notify the Appointed Actuary that supplemental detail is required to sufficiently assess the methods and assumptions. The Appointed Actuary is expected to respond promptly to all supplemental requests.

Working papers required to support the computation of the actuarial and other policy liability amounts reported in the Annual Return and the AAR must be available with the Appointed Actuary at all times and must be made available to OSFI upon request.

Should the questioning of particular methods or assumptions not sufficiently demonstrate the appropriateness of the policy liabilities produced, the Superintendent will require the Appointed Actuary to choose other acceptable methods or assumptions, and to re-compute the policy liabilities. In such a situation, the Appointed Actuary will have to refile the AAR. The Superintendent may cause the company to amend the Annual Return. Alternatively, the Superintendent may ask the company to reflect the changes in the Annual Return for the following year. The Superintendent may request an Independent Actuary's Report, if deemed necessary.

F.2 Peer Review Program

A revised peer review program is being introduced. This is described in OSFI's draft Guideline E-15. In the past, there was a program of independent peer review instituted by OSFI, under which ten companies were selected to be peer reviewed each year. In addition, companies have been free to undergo a peer review on their own initiative.

The AAR must disclose the following:

- Products that have been peer reviewed in the last three years. This should state in which year they have been peer reviewed.
- Accounting period covered by each peer review. This should include disclosure of whether the review was pre-issue or post-issue.
- Date on which each peer review report was signed and presented to the company by the peer reviewer.
- Date on which each peer review report was forwarded to OSFI.

- All recommendations for material changes and improvements that were made in each peer review in the last three years. The status of each of these recommendations relative to the current valuation must be discussed. If changes were made, these should be described and the effect on actuarial liabilities disclosed. This disclosure should be included in the appropriate product sections in section 3 of the AAR.

- Any other changes in procedures since the last peer review for the affected product line must be disclosed and the effects on actuarial liabilities addressed and quantified.

- Any changes in material valuation systems.

G. OTHER DISCLOSURE REQUIREMENTS FOR THE AAR

G.1 Dynamic Capital Adequacy Testing (DCAT)

The AAR should not include the DCAT report, since the full report must be filed with OSFI after it is prepared. The AAR must disclose the following information with respect to the DCAT reporting in the last three years:

- Date on which the DCAT reports were signed by the Appointed Actuary.
- Date on which the DCAT reports were presented.
- To whom the DCAT reports were presented (e.g. full board, audit committee, chief agent).
- Did the Appointed Actuary present the reports in person or only in written form.
- Date used as the start of the projection period in the DCAT report.

G.2 New Appointment

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

- Date of appointment by the board.
- Date of resignation of previous Appointed Actuary.
- Date on which OSFI was notified of the appointment.
- Confirm communication with previous Appointed Actuary, as required by the ICA section 364(1).
- List of the Appointed Actuary's qualifications, keeping in mind, but not limited to, the CIA's Rules of Professional Conduct.

G.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 the ICA, section 203(3)(f).

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

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 the ICA sections 457 and 458.
- Date on which the Appointed Actuary reported on this to the directors, as required by the ICA section 460.
- 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 the ICA section 461(c).
- The report of the Appointed Actuary to the board opining on whether the dividends declared are in accordance with the company's dividend policy, as required by the ICA section 464(2).

G.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.

G.5 Disclosure of Compensation

The Appointed Actuary should make a disclosure of compensation in the AAR. The form of the opinion should be as follows:

> Disclosure of Compensation
>
> I attest that all my direct and indirect compensation is derived using the following methodology:
>
> ____
> ____
> ____
> ____
>
> I confirm that I have performed my duties 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, that there has been full disclosure of the methodology used to derive my compensation to all known direct users of my services.