

2000—Insurance

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2100 Insurance Contract Valuation: All Insurance

2110 Scope

- .01 Part 1000 applies to work within the scope of Part 2000.
- .02 Repealed
- .03 Sections 2200 and 2300 apply to the valuation of insurance contracts and other obligations in accordance with IFRS 17, even where the reporting entity is not an insurer.
- Section 2200 reflects Canadian-specific considerations. It includes specific exclusions from Part 1000, a glossary of terms applicable to IFRS 17, and valuation and reporting requirements.
 - Section 2300 reflects International Standard of Actuarial Practice 4 (ISAP 4), developed by the International Actuarial Association. It provides guidance to actuaries when performing actuarial services in connection with IFRS 17.
- .04 Where the valuation of insurance contracts and other obligations is not in accordance with IFRS 17, Sections 2200 and 2300 do not apply to the valuation and the valuation would be in accordance with any applicable accounting standards if the valuation is to be used for financial reporting, or the terms of the actuary's engagement or as mandated by law or as prescribed by practice-specific standards.
- .05 Section 2400 applies to actuaries performing the role of appointed actuary as defined in subsection 2420.
- .06 Section 2500 applies to the appointed actuary of an insurer when preparing a report on an insurer's financial condition as defined in subsection 2510.
- .07 Section 2600 applies to property and casualty ratemaking as defined in subsection 2610.
- .08 Section 2700 applies to policyholder dividend determination as defined in subsection 2710.
- .09 Section 2800 applies to public personal injury compensation plans for both the valuation of insurance contracts and other obligations for financial reporting in accordance with IFRS 17 and the valuation of benefit liabilities for funding purposes.

2200 Insurance Contract Valuation: Canadian Considerations

2210 General

- .01 [IFRS 17 Insurance Contracts](#) (“[IFRS 17](#)”) establishes principles for the recognition, measurement, presentation and disclosure of [insurance contracts](#). The actuary should be familiar with [IFRS 17](#) and apply the requirements in the valuation of [insurance contracts](#) and other obligations where such valuation is to be in accordance with [IFRS 17](#). [Effective January 1, 2023]
- .02 The Standards of Practice provide guidance to actuaries when performing [actuarial services](#) in connection with [IFRS 17](#). They are intended to supplement and not replace or restate the requirements of [IFRS 17](#).
- .03 Notwithstanding the general applicability of Part 1000, paragraphs 1620.35 and 1620.36 on Discount Rate do not apply to the valuation of [insurance contracts](#) and other obligations where such valuation is to be in accordance with [IFRS 17](#).
- .04 The [IFRS 17 risk adjustment for non-financial risk](#) is not considered to be a provision for adverse deviations as defined in paragraph 1120.53.
- .05 When the [principal](#) or another party sets or prescribes an assumption or methodology used by the actuary in performing [actuarial services](#) in connection with [IFRS 17](#), it is to be treated as the actuary’s use of another person’s work as described in subsection 1510. The actuary would not ‘take responsibility’ for such work:
- If the assumption or methodology set or prescribed by the [principal](#) or another party conflicts with what would be appropriate for the purpose of the [actuarial services](#); or
 - The actuary is unable to judge the appropriateness of the assumption or methodology set or prescribed by the [principal](#) or another party without performing a substantial amount of additional work beyond the scope of the assignment, or the actuary is not qualified to judge the appropriateness.

2220 Definitions

- .01 Sections 2100, 2200, 2300, and 2800 use various terms whose specific meanings are defined in ISAP 4. These terms are highlighted in the text with a dashed underscore and in blue (e.g., [Accounting Policies](#)). For the purpose of these sections, these terms have the meaning given in this subsection and have their ordinary meaning otherwise.

- .02 Sections 2100, 2200, 2300, and 2800 also use key terms found in [IFRS 17](#), in which case they have the meaning as used in [IFRS 17](#). These terms are highlighted in the text with a double underscore and in green (e.g., [insurance contract](#)).
- .03 **Accounting Policies** – As defined by the International Accounting Standards Board® (the Board) in paragraph 5 of IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors*, “the specific principles, bases, conventions, rules and practices applied by an [reporting] entity in preparing and presenting financial statements.”
- .04 **Actuarial Services** – Services based upon actuarial considerations provided to [intended users](#) that may include the rendering of advice, [recommendations](#), findings, or [opinions](#).
- .05 **Communication** – Any statement (including oral statements) issued or made by an [actuary](#) with respect to [actuarial services](#).
- .06 **Data** – Facts often collected from records, experience, or observations. Data are usually quantitative but may be qualitative. Examples of data include membership or [policyholder](#) details, claims details, asset and investment details, operating expenses, benefit definitions, and policy terms and conditions. Assumptions are not data, but data are commonly used in the development of actuarial assumptions.
- .07 **General Measurement Approach** – The basis for measuring [insurance contracts](#) set out in [IFRS 17](#), except where [IFRS 17](#) permits a simplification (in the case of the [premium allocation approach](#)) or is modified (in the case of the [variable fee approach](#)).
- .08 **IFRS 17** – International Financial Reporting Standard 17 – Insurance Contracts, including any interpretations from the International Financial Reporting Interpretations Committee thereon, as issued through 16 August 2019.
- .09 **International Financial Reporting Standards (IFRSs)** – As defined by the IASB in paragraph 7 of IAS 1 Presentation of Financial Statements, as amended in June 2011, by Presentation of Items of Other Comprehensive Income (Amendments to IAS 1): “Standards and Interpretations issued by the International Accounting Standards Board (IASB). They comprise:
- a. International Financial Reporting Standards;
 - b. International Accounting Standards;
 - c. [International Financial Reporting Interpretations Committee] IFRIC® Interpretations; and
 - d. [The former Standing Interpretations Committee] SIC Interpretations.”
- .10 **Intended User** – Any legal or natural person (usually including the [principal](#)) whom the [actuary](#) intends to use the output of the [actuarial services](#) at the time the [actuary](#) performs those services.
- .11 **Law** – Applicable acts, statutes, regulations, or any other binding authority (such as accounting standards and any regulatory guidance that is effectively binding).

- .12 **Measurement Date** – The date as of which the value of an asset or liability is presented, whether or not the actual calculations have been made as of a different date and rolled forward or back to the [measurement date](#). This has the same meaning as [calculation date](#).
- .13 **Opinions** – An opinion expressed by an [actuary](#) and intended by that [actuary](#) to be relied upon by the [intended users](#).
- .14 **Principal** – The party who engages the provider of [actuarial services](#). The [principal](#) will usually be the client or the employer of the [actuary](#).
- .15 **Variable Fee Approach** – The measurement approach that is a modification of the [general measurement approach](#) for the valuation of [insurance contracts with direct participation features](#) as set out in [IFRS 17](#).

2230 Reporting

- .01 The [actuary's report](#), which is a [summary report](#) as described in subsection 1740, should
- conform to relevant Canadian federal and provincial legislation that require the [actuary](#) to value the [policy liabilities](#), not only the [insurance contract liabilities](#);
 - describe the valuation and presentation of [policy liabilities](#) for the [insurer's](#) financial statements prepared in accordance with International Financial Reporting Standards (IFRS);
 - include the [actuary's](#) opinion on the appropriateness of those [policy liabilities](#) and on the fairness of their presentation; and
 - describe the [actuary's](#) role in the preparation of the [insurer's](#) financial statements if that role is not described in those statements or their accompanying management discussion and analysis. [Effective January 1, 2023]

.02 If the actuary can report without reservation, then the actuary's report should conform to the standard reporting language, consisting of

- A scope paragraph, which describes the actuary's work; and
- An opinion paragraph, which gives the actuary's favourable opinion on the valuation and its presentation;

otherwise the actuary should modify the standard reporting language to report with reservation. [Effective January 1, 2023]

Presentation of policy liabilities in financial statements

.03 The valuation of policy liabilities for use in IFRS financial statements requires valuation of items other than the total amount of policy liabilities. All items derived from the valuation of policy liabilities that are reported in the statement of financial position, statement of financial performance, statement of changes in equity, statement of cash flows, and the accompanying notes (disclosures) are part of the presentation of policy liabilities in the IFRS financial statements.

.04 Examples of such items derived from the valuation of policy liabilities are:

- The change in the liability for remaining coverage in the reporting period that is presented as insurance revenue in the statement of financial performance;
- The calculation and projection of coverage units used to allocate the release of the contractual service margin over current and future reporting periods;
- Identification of the components of the total carrying amount (present value of future cash flows, risk adjustment for non-financial risk, and contractual service margin) for each of:
 - portfolios of insurance contracts issued that are assets;
 - portfolios of insurance contracts issued that are liabilities;
 - portfolios of reinsurance contracts held that are assets; and
 - portfolios of reinsurance contracts held that are liabilities.
- Reconciliation of change in the contractual service margin or loss component.

Description of the actuary's role

- .05 An insurer that reports financial statements under IFRS is responsible for the information reported. This means it is responsible for, amongst other things, identification, combination, aggregation, separation, recognition and derecognition of contracts, the choice of measurement approach and assumptions, the measurement calculations and the disclosures in the IFRS financial statements.
- .06 However, where required by legislation, the actuary is responsible for performing a valuation of policy liabilities and reporting to policyholders and shareholders on that valuation and its presentation in the financial statements. Accordingly, the actuary's summary report would include a description of the role of the actuary in the preparation of the insurer's financial statements if the financial statements or their accompanying management discussion and analysis do not provide that description.
- .07 Here is an illustrative description.

“The Appointed Actuary is

appointed by the [Board of Directors] of [the Company];

responsible for ensuring that the valuation of policy liabilities is in accordance with accepted actuarial practice in Canada, applicable legislation, and associated regulations and directives; and

required to provide an opinion on the appropriateness of the policy liabilities reported in the financial statements and the fairness of their presentation.”

The wording of the illustrative description conforms to relevant Canadian federal and provincial legislation that require the actuary to value the policy liabilities, not only the insurance contract liabilities.

- .08 It may also be useful for the financial statements or their accompanying management discussion and analysis to include a description of the formal responsibilities of the actuary beyond the role in the preparation of the financial statements, including for example the annual financial condition testing and report to the directors of the insurer.

Standard reporting language

- .09 Here is the standard reporting language in the usual situation where the financial statements or their accompanying management discussion and analysis include a description of the role of the actuary in the preparation of the financial statements. Otherwise, that description would be inserted between the two paragraphs in this report.

Appointed Actuary's Report

To the policyholders [and shareholders] of [the ABC Insurance Company]:

I have valued the policy liabilities of [the Company] for its [consolidated] financial statements prepared in accordance with International Financial Reporting Standards for the year ended [31 December xxxx].

In my opinion, the amount of policy liabilities is appropriate for this purpose. The valuation conforms to accepted actuarial practice in Canada and the [consolidated] financial statements fairly present the results of the valuation.

[Montréal, Québec]
[Report date]

[Mary F. Roe]
Fellow, Canadian Institute of Actuaries

- .10 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.
- .11 An auditor's report usually accompanies the financial statements. Uniformity of common features in the two reports will avoid confusion to readers of the financial statements. Those common features include
- Addressees: Usually, the actuary addresses the report to the policyholders of a mutual insurer and to both the participating policyholders and shareholders of a stock insurer.
 - Years referenced: Usually, the actuary's report refers only to the current year, even though financial statements usually present results for both the current and prior years.
 - Report date: If the two reports have the same date, then they would take account of the same subsequent events.

Communication with the auditor

.12 Communication with the auditor is desirable at various stages of the actuary's work. Examples of situations where communication with the auditor is desirable are:

- Use of the work of the other professional by both actuary and auditor;
- The drafting of common features in the auditor's report and actuary's report;
- The drafting of a report with reservation;
- The presentation of the insurance contract liabilities and other policy liabilities, including the presentation of other items in the financial statements that are valued by the actuary; and
- The treatment of subsequent events.

Disclosure of unusual situations

- .13 The items that the actuary values for the financial statements may be misleading if the financial statements do not present them fairly. The actuary's report signals to the reader of the financial statements that there is, or is not, fair presentation.
- .14 In an unusual situation, fair presentation may require explanation of an item that the actuary values for the financial statements. Usually, the notes to the financial statements would provide that explanation, including, where appropriate, disclosure of the situation's effect on the financial statements. In the absence of such explanation in the notes, the actuary would provide it by a reservation in reporting that would include the explanation.

- .15 The question, “Will explanation enhance the user’s understanding of the insurer’s financial statements?” may help the actuary to identify such a situation. Examples of unusual situations where explanation may help the user’s understanding are:
- Capital appropriated or repatriated on the actuary’s advice;
 - Off-balance-sheet obligations (e.g., contingent policy liabilities in connection with market conduct);
 - Restatement of items for preceding financial reporting periods;
 - Inconsistency among financial reporting periods;
 - The impracticality of restating any items that are reported in current period financial statements and that were reported inconsistently in preceding period financial statements;
 - An unusual relationship between the items in current period financial statements and the expected corresponding items in future period financial statements;
 - A change in a methodology used in the valuation that does not have an effect in the current financial reporting period but that is expected to have an effect in future financial reporting periods;
 - A difference between the insurer’s present practices (e.g., policy for setting dividend scales) and those which the actuary assumed in valuing the policy liabilities; and
 - A subsequent event.

Consistency across financial reporting periods

- .16 Financial statements usually present results for one or more preceding financial reporting periods in comparison to those for the current period. Meaningful comparability requires the financial statement items for the various periods to be consistent, which can be achieved by the restatement of preceding period items that were previously reported on a basis which was inconsistent with that for the current period. A less desirable alternative to restatement is disclosure of the inconsistency.
- .17 A change in a methodology used in the valuation might create an inconsistency. A change in the assumptions for valuation reflecting a change in the expected outlook does not constitute an inconsistency although, if its effect is material, then fair presentation would require its disclosure.
- .18 A change in assumptions that results from the application of new standards might create an inconsistency.

Reservations in reporting

- .19 The examples that follow are illustrative of situations where a reservation in reporting is required. Where “reference” appears in square brackets in suggested wording, a paragraph in the actuary’s report would provide the additional explanation necessary for fair presentation.

New appointment

- .20 A newly appointed actuary who uses but is unable to take responsibility for the predecessor actuary’s work would modify the standard reporting language as follows:

I have valued the policy liabilities of [the Company] for its [consolidated] financial statements prepared in accordance with International Financial Reporting Standards for the year ended [31 December xxxx].

In performing this valuation I used the valuation of the policy liabilities at [31 December xxxx-1] which was performed by another actuary who expressed a favourable opinion without reservation as to their appropriateness and fair presentation.

In my opinion, subject to the use of another actuary’s work as noted above, the amount of policy liabilities is appropriate for the stated purpose. The valuation conforms to accepted actuarial practice in Canada and the [consolidated] financial statements fairly present the results of the valuation.

- .21 If the actuary doubts the appropriateness of the predecessor actuary’s work as a result of a review of it, then the actuary would consider a more serious reservation.

Impracticality of restatement

- .22 The actuary would, if necessary and practical, restate the preceding year valuation to be consistent with the current year valuation. If it is not practical to restate the preceding year valuation, the actuary would modify the [opinion](#) paragraph in the standard reporting language.

- .23 An example of an inconsistency that might require restatement is a change in the methodology chosen to measure the [coverage units](#) used to allocate and recognize the [contractual service margin](#) in profit or loss, in which case the opinion paragraph of the [report](#) might appear as follows:

In my opinion, the valuation conforms to accepted actuarial practice in Canada and the amount of policy liabilities is appropriate for the stated purpose. As explained in [reference], [the methodology for XX] for the current year is inconsistent with that used in previous years. Except for that lack of consistency, in my opinion the [consolidated] financial statements fairly present the results of the valuation.

The reference would identify where to find additional information that explains the change in methodology and the impracticality of applying the new methodology retroactively and discloses the effect of the change on the financial statements.

Takeover of insurer with insufficient records

- .24 If the [insurer](#) took over another [insurer](#) with records that did not provide sufficient and reliable [data](#) for the valuation, then the [actuary](#) would modify the standard reporting language as follows:

I have valued the policy liabilities of [the Company] for its [consolidated] financial statements prepared in accordance with International Financial Reporting Standards for the year ended [31 December xxxx]. The valuation conforms to accepted actuarial practice in Canada, except as described in the following paragraph.

During the year, [the Company] took possession of the assets, liabilities, and policies of [WWW Insurer], whose policy records are, in my opinion, unreliable. [The Company] is implementing but has not completed the necessary improvements. My valuation with respect to the policies taken over from [WWW Insurer] therefore involves an unusual degree of uncertainty. The associated policy liabilities comprise [N]% of [the Company's] total policy liabilities at [31 December xxxx].

In my opinion, except for the reservation in the previous paragraph, the amount of policy liabilities is appropriate for the stated purpose and the [consolidated] financial statements fairly present the results of the valuation.

Liabilities different than those calculated by the actuary

.25 If the financial statements of an insurer report policy liabilities that are materially different from those calculated and reported by the actuary then the actuary would need to disclose the difference in the amounts and identify where to find an explanation for the difference. If possible, such explanation would include the important reasons for the difference.

.26 The actuary could report as follows:

I have valued the policy liabilities of [the Company] for its [consolidated] financial statements prepared in accordance with International Financial Reporting Standards for the year ended [31 December xxxx]. My valuation conforms to accepted actuarial practice in Canada.

In my valuation, the amount of the policy liabilities is \$[X]. The corresponding amount in the [consolidated] financial statements is \$[Y]. The sources of this difference are described in [reference].

In my opinion, the amount of policy liabilities in the [consolidated] financial statements is not appropriate and as explained in [reference] the [consolidated] financial statements do not fairly present the results of my valuation.

Change in assumption or methodology affecting disclosure items

.27 If an item valued by the actuary is materially affected by a change in assumption or methodology that is not disclosed in the financial statements, the actuary would modify the opinion paragraph in the standard reporting language to disclose this situation.

.28 An example of such a change might be a change in the methodology for measuring the risk adjustment for non-financial risk that materially affects financial statement disclosures related to insurance contracts initially recognized in the year.

.29 In this case the opinion paragraph of the report could be changed as follows:

In my opinion, the valuation conforms to accepted actuarial practice in Canada and the amount of policy liabilities is appropriate for the stated purpose. As explained in [reference], [the methodology for XX] was changed from that used for the previous year. Except for the absence of the disclosure of this change and its impact, in my opinion the [consolidated] financial statements fairly present the results of the valuation.

The additional information referenced in the report of the actuary would explain the change in methodology and disclose the effect of the change on financial statements.

Examples not requiring reservation in reporting

- .30 When the actuary uses an assumption or methodology set by another party in performing the valuation of policy liabilities and the actuary is able to take responsibility for the work, the actuary would not modify the opinion paragraph in the standard reporting language.

Following are illustrative examples of such situations:

In setting discount rates, the Chief Investment Officer (CIO) of the insurer selects different reference portfolios for two groups of insurance contracts with the same liquidity characteristics creating inconsistency which the actuary considers to be unnecessary. Both reference portfolios are reasonably representative of the liquidity characteristics as required by IFRS 17. The actuary has confidence in the CIO's qualifications, competence, integrity, and objectivity.

The insurer's risk appetite framework clearly indicates that longevity risk is desirable (i.e., the insurer prices it cheaply). The actuary believes that the insurer should require more compensation than it does for taking on longevity risk, but the risk adjustment for non-financial risk reflects the insurer's requirements as required by IFRS 17.

The Chief Financial Officer (CFO) of the insurer classifies some expenses "directly attributable" as defined under IFRS 17 that the actuary would consider not "directly attributable", which results in a material impact on some components of the valuation. The CFO understands the actuary's view and the impact on the financial statements of the difference in view. The actuary has confidence in the CFO's qualifications, competence, integrity, and objectivity, and acknowledges that the CFO's view is reasonable.

2300 Insurance Contract Valuation: International Actuarial Standards of Practice

2310 General

Purpose

.01 When performing [actuarial services](#) in connection with [IFRS 17](#), actuaries should apply the requirements of [IFRS 17](#) and this Section 2300. [Effective January 1, 2023]

- .02 The purpose of this section is to increase [intended users'](#) confidence that
- [Actuarial services](#) are carried out professionally and with due care;
 - The results are relevant to their needs, are presented clearly and understandably, and are complete; and
 - The assumptions and methodology (including, but not limited to, [models](#) and modelling techniques) used are disclosed appropriately.

Relationship to IFRSs

- .03 Section 2300 refers to the content of [IFRS 17](#) and other IFRSs, including any interpretations from the International Financial Reporting Interpretations Committee (IFRIC) or its predecessor, the Standing Interpretations Committee, as issued through 16 August 2019. The guidance in this Section 2300 complements the guidance in [IFRS 17](#), which is not repeated in this Section 2300.

2320 Appropriate Practices

Relevant knowledge requirements

- .01 The actuary would have or obtain sufficient knowledge and understanding of information necessary to perform the assignment, such as:
- [IFRS 17](#), applicable sections of other relevant IFRSs (e.g., IFRS 13 when measuring Fair Value), the entity's [accounting policies](#) and the relevant processes that are applied in the preparation of IFRS financial statements;
 - The business environment in which the entity operates, including the financial market(s) from which it obtains [data](#);
 - The entity's appetite for risks that have an impact on the measurement under [IFRS 17](#);
 - The entity's products and operations;
 - The methodologies and assumptions used by the entity in other relevant contexts and the rationale for any differences;
 - How [laws](#) affect the application of [IFRS 17](#); and
 - The relevant auditing standards.

Materiality

- .02 The actuary would understand the distinction between materiality with respect to the [actuarial services](#), the preparation of IFRS financial statements and the auditing of those financial statements.
- When appropriate for the work, the actuary would seek guidance from the [principal](#) or the entity regarding materiality.
 - In applying subsection 1240, with respect to the preparation of IFRS financial statements, the actuary's threshold of materiality with respect to the [actuarial services](#) would not be greater than the entity's threshold of materiality.
 - In all following paragraphs of Section 2300, any use of 'material' or 'materiality' is with respect to the [actuarial services](#) carried out in accordance with this section.

Proportionality

- .03 The degree of refinement in specific assumptions or methods recommended by the actuary would be proportionate to their possible impact on the results of the [actuarial services](#).

Identification, combination, aggregation, separation, recognition, derecognition, and modification

.04 The actuary would treat the processes of:

- Identification of [insurance contracts](#);
- Combination of [insurance contracts](#);
- Determination of the level of aggregation (refer to 2320.17);
- Separation of components from an [insurance contract](#) for treatment under a different standard;
- Separation of components of an [insurance contract](#) for different treatment under [IFRS 17](#) (if and to the extent permitted);
- Recognition of [groups of insurance contracts](#) and derecognition of [insurance contracts](#); and
- Treatment of [insurance contract](#) modifications

as work subject to paragraph 2210.05.

The actuary would disclose in the actuary's report changes in the above processes, including the rationale for and impact of the changes.

Measurement approach

.05 The actuary would treat the processes of selecting the appropriate measurement approach to be applied to each [group of insurance contracts](#), whether it is the [general measurement approach](#), the premium allocation approach ([PAA](#)), or the [variable fee approach](#), as work subject to paragraph 2210.05.

The actuary would disclose in the actuary's report changes in the above processes, including the rationale for and impact of the changes.

The General Measurement Approach

.06 **General approach for selection of assumptions** – In applying Part 1000, when advising the [principal](#) or the entity on actuarial assumptions, the [actuary](#) would consider matters such as:

- Combining similar risks based on the nature of the insurance obligation, without being constrained by the actual grouping of [insurance contracts](#) that is used for measurement purposes;
- Whether assumptions developed in other contexts, for example pricing assumptions, may be inappropriate for [IFRS 17](#) purposes;
- Links as necessary to ensure consistency between assumptions, (e.g., assumptions related to option exercise patterns would be linked to the economic [scenarios](#));
- The potential asymmetrical distribution of the current estimates (e.g., assumptions to deal with extreme events like tail events or options and guarantees that are triggered by market conditions);
- The credibility of [data](#) when combining information from various sources or time periods; and
- Long term [trends](#) and seasonal variations, and other changes in the environment (e.g., applicable [law](#), economic, demographic, technological and social).

.07 **Process for updating assumptions** – If the [actuary](#) considers it appropriate to change the process, including the methodology, used to update a recommended assumption, the [actuary](#) would discuss the change with the [principal](#), including whether it would constitute a change in [accounting policy](#) or just a change in an accounting estimate as defined in the International Accounting Standard 8 (IAS 8) *Accounting Policies, Changes in Accounting Estimates and Errors*.

The [actuary](#) would disclose in the [actuary's report](#) changes in such processes, including the rationale for and impact of the changes.

Specific considerations for insurance risks

- .08 **Insurance risks** – When advising the [principal](#) or the entity on assumptions to measure [insurance risks](#), the [actuary](#) would consider relevant factors including the following:
- Characteristics of the [insurance contract](#) including the risks being insured;
 - Characteristics of the [policyholder](#) and the way the contract was sold;
 - Past experience of incurred claims including patterns of delays in reporting and payment and the relevance to expected future experience; and
 - Practices of the entity such as underwriting procedures and claims management.
- .09 **Policyholder Options** – When advising the [principal](#) or the entity on assumptions for the exercise of options by [policyholders](#), the [actuary](#) would consider factors such as the following:
- Past experience of how [policyholders](#) have exercised options;
 - Likely behaviour of [policyholders](#), taking into account factors such as anti-selection, the effects of non-financial considerations, and the relative advantages to the [policyholder](#) of exercising any options;
 - Characteristics of how the [insurance contracts](#) are sold and serviced;
 - Significant scheduled changes in premiums, charges, benefits or terms and conditions; and
 - Any short-term spikes in cancellation rates created by the exercise of certain options.
- .10 **Entity Discretion** – When advising the [principal](#) or the entity on assumptions which consider the exercise of discretion by the entity, the [actuary](#) would take into account expectations, or limitations that may arise from sources, such as
- The entity’s marketing and promotional materials;
 - The entity’s past practices;
 - The entity’s current policy;
 - Market practices; and
 - [Laws](#) and rulings of relevant authorities.

- .11 **Reinsurance Contracts Held** – When advising the [principal](#) or the entity on the measurement of [reinsurance contracts](#) held, the [actuary](#) would
- When estimating amounts recoverable under multiple reinsurance arrangements, consider the order in which the [reinsurance contracts](#) apply;
 - When estimating non-recoverable amounts, consider the [financial condition](#) of the reinsurer, the existence of collateral and the extent to which default by one reinsurer may affect the amounts recoverable from other reinsurers; and in the estimates of future cash flows to be received from [reinsurance contracts](#), allow for the uncertainty caused by the potential of non-performance by reinsurers;
 - When estimating [fulfilment cash flows](#), consider the extent to which each reinsurance counterparty exercises its control over recapture, cancellation or commutation to its advantage; and
 - Consider the impact of reinstatement of [reinsurance contracts](#) following claims.
- .12 **Reinsurance Contracts Issued** – When advising the [principal](#) or the entity on the measurement of [reinsurance contracts](#) issued, the [actuary](#) would consider circumstances such as:
- The expected behaviour with respect to the available options of the [policyholders](#), the issuer of the underlying [insurance contracts](#) and all intermediate reinsurers;
 - The underwriting and management practices, including the underwriting of facultative placements, and the claim management processes impacting the [reinsurance contracts](#) issued;
 - Reinstatements of [reinsurance contracts](#) following claims; and
 - Default by the issuer of the underlying [insurance contracts](#) and all intermediate reinsurers.
- .13 **Currency exchange** – When advising the [principal](#) or the entity on the estimation of [fulfilment cash flows](#) in multiple currencies, the [actuary](#) would reflect current market expectations of future currency exchange rates.

- .14 **Discount rates** – When advising the [principal](#) or the entity on the derivation of
- Discount rates for periods beyond those for which observable [data](#) from an active market is available, the [actuary](#) would consider how current rates are expected to evolve over time using the best information available in the circumstances, including such market prices as are observable;
 - Discount rates for cash flows of [insurance contracts](#) that vary with returns of the entity's invested assets, the [actuary](#) would consider the entity's investment policy, as applied in practice, taking into account the entity's [communications](#) to various stakeholders and, where applicable, anticipated [policyholder](#) behaviour;
 - Illiquidity and credit or default adjustments for determining the discount rates, the [actuary](#) would consider
 - Approaches that are robust and that would be able to be applied reliably over time and under a variety of market conditions, to reflect the illiquidity of the cash flows underlying the relevant liabilities; and
 - The possible methods for calculating such adjustments to observed market rates. Methods include market-based techniques, structural model techniques and expected/unexpected credit loss techniques.
- .15 **Contracts with cash flows that vary with returns on underlying items** – When advising the [principal](#) or the entity on contracts whose cash flows vary with returns on [underlying items](#), the [actuary](#) would
- Select discount rates used to calculate the present value of the cash flows to measure the [fulfilment cash flows](#) that are consistent with the investment returns anticipated in the estimates of the future cash flows. Returns on assets would be estimated using prospective expectations consistent with current market expectations of future economic conditions; and
 - For cash flows which are subject to a floor or a cap, consider the associated impact, if any, on the estimates of future cash flows, the [risk adjustment for non-financial risk](#) and the discount rates in the projection.

- .16 **Maintenance expenses** – When advising the [principal](#) or the entity on the estimation of cash flows for maintenance expenses, such as policy administration and claim handling costs, and attributable overheads, the actuary would consider factors such as:
- The entity’s cost-accounting and expense allocation policies;
 - Expenses expected to arise from fulfilling insurance obligations existing on the [measurement date](#). This estimate would consider factors such as the entity’s past experience and current business plans, and the impact of future inflation; and
 - Terms of any outsourcing arrangements.
- .17 **Insurance acquisition cash flows** – The actuary would be satisfied that the allocation of [insurance acquisition cash flows](#) to each [portfolio of insurance contracts](#) is made on a consistent basis.

- .18 **Risk adjustment for non-financial risk** – When advising the [principal](#) or the entity on the [risk adjustment for non-financial risk](#), the [actuary](#) would
- Understand the [non-financial risk](#) inherent in the [insurance contracts](#);
 - In assessing what the entity requires as compensation for bearing the [non-financial risk](#):
 - Reflect the diversification benefit that the entity recognizes at the relevant level of consolidation; and
 - Consider sources of relevant information such as the entity’s capital management, risk management and pricing policies;
 - Select a methodology that, at the chosen level of aggregation
 - Uses assumptions that are consistent with those used in the determination of the corresponding estimates of future cash flows;
 - Reflects the risk differences between the [portfolios of insurance contracts](#); and
 - Allows for the diversification that the entity recognizes.
 - Make appropriate allowance for mechanisms that result in risk being passed to the [policyholder](#) (e.g., contracts with participation or adjustment features);
 - Consider whether the difference between the total of the calculated gross [risk adjustments for non-financial risk](#) and the total of the ceded [risk adjustment for non-financial risk](#) fairly reflects the compensation that the entity requires for bearing the uncertainty of its net exposure; and
 - When advising on the confidence level disclosure required by [IFRS 17](#), where the [risk adjustment for non-financial risk](#) has not been determined using a specified confidence level approach, consider
 - The ability to diversify [non-financial risk](#) over the entity’s consolidated business; and
 - The inherent uncertainty in the translation to a confidence level and the need to describe such uncertainty in the [actuary’s report](#).

.19 **Aggregation and Contractual Service Margin (CSM)** – The actuary would treat the processes of

- Identification of portfolios of insurance contracts;
- Allocation of individual insurance contracts into portfolios of insurance contracts, and division of each portfolio of insurance contracts into groups of insurance contracts;
- Treatment of the loss component on onerous contracts;
- Determination of the coverage units; and
- Roll forward of the contractual service margin

as work subject to paragraph 2210.05.

The actuary would disclose in the actuary's report changes in the above process, including the rationale for, and impact of the changes.

The Premium Allocation Approach (PAA)

.20 When advising the [principal](#) or the entity in relation to the use of the [PAA](#) for a [group of insurance contracts](#), the [actuary](#) would

- At initial recognition, if the [coverage period](#) is longer than one year, consider:
 - Differences between the expected patterns of insurance revenue under the [general measurement approach](#) and under the [PAA](#);
 - Differences between the expected timing of cash flows under the [general measurement approach](#) and the insurance revenue under the [PAA](#), resulting in different adjustments for the time value of money; and
 - Whether future assumption changes under the [general measurement approach](#) would render the simplification invalid when assessing whether material differences between the respective carrying amounts of the [liabilities for remaining coverage](#) under the [PAA](#) and the [general measurement approach](#) are reasonably expected to arise;
- Assess whether [insurance contracts](#) in the group have a significant financing component, advise the [principal](#) or the entity accordingly, and measure the liability accordingly;
- Be aware of whether the entity has chosen, in accordance with [IFRS 17](#), to recognize [insurance acquisition cash flows](#) as expenses when it incurs those costs and determine the liability in accordance with the entity's choice;
- Be aware of whether the entity has chosen to reflect the time value of money and the effect of [financial risk](#), when not required to do so, and determine the liability in accordance with the entity's choice; and
- Consider whether facts and circumstances indicate that the [group of insurance contracts](#) is or has become onerous and advise the [principal](#) or the entity accordingly.

The Variable Fee Approach

.21 In using the [variable fee approach](#), the [actuary](#) would apply the guidance for the [general measurement approach](#) except for 2320.09 (Reinsurance Contracts Held) and 2320.10 (Reinsurance Contracts Issued), as the [variable fee approach](#) does not apply to reinsurance.

Financial statement presentation and disclosure

- .22 Where the information provided by the actuary will be used in financial statement presentation and disclosure,
- The actuary would provide the related information needed to comply with the relevant presentation and disclosure requirements of [IFRS 17](#) and the entity's [accounting policies](#); and
 - If the actuary becomes aware that such information is used in the presentations and/or disclosures incorrectly or inappropriately, the actuary would discuss and report these issues to the [principal](#).
- .23 In providing advice on the disclosures of reconciliations where the order of calculation alters the information disclosed, the actuary would apply a consistent order of calculation across all reconciliations and from period to period, or disclose any change, including the rationale for and impact of the change, in the actuary's report.

Transition

- .24 When advising the [principal](#) or entity on whether the full retrospective application of [IFRS 17](#) at transition is impracticable, the actuary would take into consideration factors such as:
- The availability and integrity of the past [data](#) that are required to determine the [fulfilment cash flows](#);
 - The availability and integrity of information on past products;
 - The availability, without the benefit of hindsight, of sufficient [data](#) to determine the initial assumptions and subsequent changes that the entity would have adopted over the lifetime of the [insurance contracts](#);
 - The method that would have been used to adjust past known interest rates to achieve the rates that reflect the characteristics of the [insurance contracts](#); and
 - The difficulty, without the benefit of hindsight in evaluating the past [risk adjustment for non-financial risk](#) and entity's use of discretion.

2330 Communication

Disclosures

- .01 In addition to complying with Section 1700, in any report other than the summary report described in subsection 2230, the actuary would disclose in the actuary's report
- Information regarding a change in assumptions or method, whether arising from a consistent or changed process;
 - Changes in processes, together with the rationale for and impact of the changes, related to
 - The identification, combination, aggregation, separation, recognition, derecognition and modification (2320.02);
 - The selection of the measurement approach (2320.03);
 - The process for updating assumptions (2320.05);
 - Aggregation and contractual service margin (2320.17); and
 - The order of calculation on reconciliation provided for financial statement presentation and disclosure (2320.21); and
 - When the risk adjustment for non-financial risks has not been determined using a confidence level approach, the uncertainty inherent in the translation to a confidence level (2320.16).

2400 The Appointed Actuary

2410 Definitions

- .01 In sections 2400 and 2500, “senior management” means
- In the case of a Canadian insurer, the chief executive officer, the chief financial officer, and the chief risk officer; and
 - In the case of a foreign insurer, both the chief agent for Canada and the person designated by the insurer as having responsibility for its Canadian operation.
- .02 In this section 2400, “directors” means an insurer’s board of directors and, in the case of a foreign insurer, includes the person whom they designate as responsible for the insurer’s Canadian branch.

2420 Scope

- .01 Part 1000 applies to work within the scope of this section 2400.
- .02 This section 2400 applies to an appointed actuary who, pursuant to
- The federal Insurance Companies Act, is the actuary of a company or society;
 - The federal Insurance Companies Act, is the actuary of the Canadian branch of a foreign company; or
 - A provincial Act, has the access to information, protection against civil liability, and duties in an insurer, that are substantially the same as those of the appointed actuary in the federal Act.
- .03 This section 2400 also applies to an actuary who has the access to information and protection against civil liability equivalent to that which the federal Insurance Companies Act grants to an appointed actuary, even if this actuary is not an appointed actuary.

2430 Accepting and continuing an engagement

- .01 Section 1300 applies rigorously to the engagement. [Effective February 1, 2018]

Qualifications, experience, and knowledge

- .02 The necessary qualifications, experience, and knowledge for the engagement go beyond technical understanding and include the awareness that comes with maturity, communication with other actuaries, discussions at Institute meetings, and familiarity with conditions both internal and external to the insurer, and include communications skills.

- .03 An actuary accepting an engagement for the first time may wish to arrange professional, formal, and timely access to another actuary with experience as an appointed actuary.
- .04 It is important that the insurer's directors understand and accept the actuary's role and its requirements for time, resources, and access to information. The actuary may wish written confirmation of the understanding and acceptance unless the role is part of the insurer's corporate culture.

Information needed

- .05 The information necessary for the work consists of the records, accounts, documents, and oral briefings which provide an understanding of the insurer's operations, its obligations, and the resources available to meet those obligations. That information includes, but is not limited to
- Files of in-force policies and outstanding claims, including their reinsurance;
 - Policy provisions and other communications with policy owners;
 - Past experience data;
 - Past financial data;
 - Communications with auditors and regulators;
 - Pricing practice;
 - Underwriting practice;
 - Accounting practice;
 - Claims settlement practice (including case estimate practice) and cost;
 - Asset-liability management practice;
 - Capital management practice;
 - Enterprise risk management policy; and
 - Own risk and solvency assessment (ORSA) report.

- .06 The process to identify and assure timely receipt of that information includes
- An understanding of the insurer's decision-making;
 - Continual communication with members of management who can supply information; and
 - Continual communication with the auditor in accordance with the CIA/CICA *Joint Policy Statement*.

2440 Report on matters requiring rectification

- .01 The appointed actuary should identify and monitor matters that may threaten the insurer's financial condition. The appointed actuary should investigate and then report, as required by law, any such matter that requires rectification to the senior management and, in the case of a Canadian insurer, send a copy of the report to the directors. Depending on the jurisdiction of the insurer, the law may also require that the report be provided to the insurer's regulator. [Effective April 15, 2017]
- .02 The report may include recommendations for rectification and should specify a deadline for rectification that the actuary may later extend if appropriate. If there is no suitable rectification by that deadline or its extension, then the appointed actuary should report the matter to the insurer's regulator. [Effective April 15, 2017]
- .03 The sensitivity of financial condition to adverse conditions and events varies among insurers. Financial condition and hence, the magnitude of the conditions and events that may threaten it, also varies among insurers.
- .04 The frequency and intensity of the monitoring depend on the threatening conditions and events and on the circumstances of the insurer. A quarterly review would usually be a minimum.
- .05 There would be no such report to senior management of an adverse condition that does not threaten the insurer's financial condition. Informal notification and consultation would usually precede, and may obviate, that report to senior management.
- .06 That report would describe the threatening condition or event and the assumptions and methods in the actuary's investigation of it. It is desirable that the report includes recommendations for its rectification.
- .07 The deadline would allow time, that is reasonable in the circumstances, to arrange rectification.
- .08 The report to the regulator would describe the actuary's investigation, the report to senior management, and senior management's response to that report. The actuary would advise the directors of the report to the regulator.

2450 Report to the directors

- .01 The appointed actuary for a Canadian insurer should report at least yearly to the directors, or to their audit committee if the directors so delegate,
- On the insurer's financial position and financial condition; and
 - If required by law;
 - If the insurer has one or more participating accounts;
 - On the method of allocation of income and expenses to each such participating account;
 - On the management of the participating account(s), the dividend policy and dividend scales for the participating policy owners; and
 - If the insurer has adjustable policies in force, on the criteria established or amended by the directors for changes made by the company to the premium or charge for insurance, amount of insurance or surrender value in respect of its adjustable policies. [Effective April 15, 2017]
- .02 The appointed actuary for a foreign insurer should report at least yearly to its chief agent for Canada on its financial position and financial condition. [Effective April 15, 2017]

Allocation of income

- .02 The report on allocation of income and expenses among accounts would consider the fairness and equity of such allocation to participating policy owners.

Management of the participating account(s)

- .03 The report on the management of the participating account(s) would consider the fairness to participating policy owners of the policy established by the directors respecting the management of the participating account(s).

Dividend policy and dividend scale

- .04 The report on the dividend policy would consider the fairness of the policy to the participating policy owners. The report on the dividend scale would consider the conformity of the dividend scale to the dividend policy and its fairness to the participating policy owners.

Adjustments of adjustable policies

- .05 The report on adjustable policies would consider the fairness of the criteria for changes to adjustable policies established or amended by the directors, the fairness to adjustable policy owners of the adjustments made, and their conformity to those criteria.

Fairness opinions

.06 Where the applicable law requires that the appointed actuary opine on the fairness of the policies, criteria, or methods established by the insurer with respect to any of

- Management of the participating accounts;
- Dividend policy;
- Dividends declared;
- Policy established respecting the criteria for making adjustments to adjustable policies and the adjustments made under this policy;
- Allocation of investment income to the participating accounts; and
- Allocation of expenses to the participating accounts;

the wording of an unqualified opinion would be as follows:

Management of participating accounts opinion

I have reviewed the policy established by the Board of Directors with respect to the management of the participating accounts of [the Company], [including amendments made during the most recent 12 months]. I conducted my review in accordance with accepted actuarial practice in Canada and pursuant to the guidance of the Superintendent of Financial Institutions.

In my opinion, the policy is fair to the participating policyholders.

Mary F. Roe

Fellow, Canadian Institute of Actuaries

[Place of issue of opinion]

[Date of opinion]

Dividend policy opinion

I have reviewed the policy established by the Board of Directors for determining the dividends [and bonuses or other benefits] of [the Company], [including amendments made during the most recent 12 months]. I conducted my review in accordance with accepted actuarial practice in Canada and pursuant to the guidance of the Superintendent of Financial Institutions.

In my opinion, the policy is fair to the participating policyholders.

Mary F. Roe
Fellow, Canadian Institute of Actuaries
[Place of issue of opinion]
[Date of opinion]

Dividend declaration opinion

I have reviewed the proposed dividends [and bonuses or other benefits], determined by the Board of Directors of [the company] with respect to policy years [ending between XX and YY], and have considered whether they have been determined in accordance with the policy established by the Board. I conducted my review in accordance with accepted actuarial practice in Canada and pursuant to the guidance of the Superintendent of Financial Institutions.

In my opinion, the proposed dividends [and bonuses or other benefits] are in accordance with the policy established by the Board and are fair to the participating policyholders.

Mary F. Roe
Fellow, Canadian Institute of Actuaries
[Place of issue of opinion]
[Date of opinion]

Adjustable policy changes opinion

I have reviewed the criteria established by the Board of Directors of [the company] with respect to any changes to be made to the premium or charge for insurance, amount of insurance or surrender value in respect of its adjustable policies [including amendments made during the most recent 12 months] and the changes made pursuant to those criteria. I conducted my review in accordance with accepted actuarial practice in Canada and pursuant to the guidance of the Superintendent of Financial Institutions.

In my opinion, the criteria are fair to the adjustable policyholders, and the changes made to the adjustable policies during the most recent 12 months are in accordance with those criteria and are fair to the adjustable policyholders.

Mary F. Roe
Fellow, Canadian Institute of Actuaries
[Place of issue of opinion]
[Date of opinion]

Allocation of investment income to participating account(s) opinion

I have reviewed the method established by the Board of Directors for determining the portion of the investment income or losses of [the company] for the financial year ending [XX], including capital gains and losses, that is allocable to the participating account [each participating account] maintained by the company. I conducted my review in accordance with accepted actuarial practice in Canada and pursuant to the guidance of the Superintendent of Financial Institutions.

In my opinion, the method is fair and equitable to the participating policyholders.

Mary F. Roe
Fellow, Canadian Institute of Actuaries
[Place of issue of opinion]
[Date of opinion]

Allocation of expenses to participating account(s) opinion

I have reviewed the method established by the Board of Directors for determining the portion of the expenses, including taxes, of [the company] for the financial year ending [XX] that is allocable to the participating account [each participating account] maintained by the company. I conducted my review in accordance with accepted actuarial practice in Canada and pursuant to the guidance of the Superintendent of Financial Institutions.

In my opinion, the method is fair and equitable to the participating policyholders.

Mary F. Roe
Fellow, Canadian Institute of Actuaries
[Place of issue of opinion]

[Date of opinion]

- .07 If the appointed actuary is unable to issue an unqualified opinion, the wording of the opinion would be adjusted to reflect the necessary qualification.

2460 Communication with the auditor

- .01 Communication with the insurer's auditor would be desirable when the actuary makes a report to the insurer's senior management on a matter requiring rectification or makes an unfavourable report on the insurer's financial condition.

2470 Certification of capital filings as required by the regulator

- .01 This subsection 2470 applies to the appointed actuary of a life insurer when giving an opinion on the appropriateness of regulatory capital calculations pursuant to law or on the appropriateness of internal models used to determine required capital for segregated fund guarantees pursuant to requirements of the regulator.

- .02 Such certifications should contain an opinion signed by the appointed actuary. [Effective April 15, 2017]

Appropriateness of regulatory capital calculations

- .03 The appointed actuary should prepare a report to support the opinion on the appropriateness of regulatory capital calculations that outlines the areas where the calculation required discretion or significant technical calculations, and the methods and judgments that were applied. The report should be completed before the provision of a signed opinion pursuant to subsection 2470. [Effective February 22, 2018]

- .04 The opinion would be provided annually in support of the fiscal year-end regulatory capital filing on form(s) as directed by the regulator.
- .05 In providing such an opinion, the actuary would not be opining on whether the underlying factors or specified methods to be followed are appropriate but rather on the appropriateness of any interpretation and discretionary technical calculations and methods with respect to such guidelines.
- .06 Here is the standard opinion language [insert appropriate wording where indicated by square brackets].

“I have reviewed the calculation of the Life Insurance Capital Adequacy Test ratios of [company name] as at [date]. In my opinion, the calculations of the components of the base solvency buffer, available capital, surplus allowance, and eligible deposits have been determined in accordance with the regulatory guidelines, and the components of the calculations requiring discretion were determined using method and judgement appropriate to the circumstances of the company.”

[Note: For application to branches “Life Insurance Capital Adequacy Test ratios” is replaced by “Life Insurance Margin Adequacy Test (LIMAT)” and “Base Solvency Buffer” is replaced by “Required Margin” and “Available Capital” is replaced by “Available Margin”.]

[Note: For filings for provincially regulated companies, the ratio definition, and definitions of base solvency buffer, required capital, available capital, surplus allowance, and eligible deposits, would be amended to reflect the appropriate definitions in the provincial requirements.]

Appropriateness of internal models used to determine required capital for segregated fund guarantees

- .07 The appointed actuary should prepare a report to support the opinion on the appropriateness of internal models used to determine required capital for segregated fund guarantees that outlines how the models comply with the related requirements of the regulator. The report should be completed before the provision of a signed opinion pursuant to subsection 2470. [Effective April 15, 2017]

- .08 The opinion would be provided annually in support of the fiscal year-end regulatory capital filing on form(s) as directed by the regulator. The opinion would also be provided to the regulator upon a new application to the regulator for permission to use such a model for required capital purposes and upon request of the regulator when making a modification to an existing model approved by the regulator.
- .09 In providing such an opinion, the actuary would not be opining on whether the underlying factors or specified methods to be followed are appropriate, but rather on the compliance with the requirements of the regulator.
- .10 Here is the standard opinion language [insert appropriate wording where indicated by square brackets].

“I have reviewed the internal model of [company name] for determining required capital for segregated fund guarantee risks as at [date] in the context of the requirements of [the regulator]. In my opinion, the [proposed] model is compliant in all material respects with the requirements of [the regulator] for an approved model used to determine required capital for segregated fund guarantee risks.”

2500 Financial Condition Testing

2510 Scope

- .01 Part 1000 applies to work within the scope of this section 2500.
- .02 This section 2500 applies to the appointed actuary of an insurer when reporting on the insurer's financial condition pursuant to law.

2520 Analysis

- .01 The appointed actuary should make an investigation at least once during each financial year of the insurer's recent and current financial position and financial condition, as revealed by financial condition testing for selected scenarios. [Effective January 1, 2020]
 - .02 The appointed actuary should make a report of each investigation in writing to the insurer's board of directors (or to the appropriate committee of the board such as audit committee, risk committee, etc., if they so delegate) or its chief agent for Canada. The report should identify possible actions, and reasons for those actions, for dealing with any threats to satisfactory financial condition that the investigation reveals. The actuary should also comment on the consistency of the results of the investigation and possible actions with the own risk and solvency assessment (ORSA). [Effective January 1, 2020]
 - .03 The appointed actuary should ensure that the investigation is current. The investigation should take into consideration recent events and recent financial operating results of the insurer. [Effective April 15, 2017]
- .04 The timing and frequency of the appointed actuary's investigations would be sufficient to support timely corrective actions by management and the board of directors or chief agent for Canada.

Recent and current financial position

- .05 The investigation would review operations of recent years and the financial position at the end of each of those years.

Financial condition testing

- .06 Financial condition testing examines the effect of selected adverse scenarios on the insurer's forecasted capital adequacy. The actuary can supplement the financial condition testing with the use of other means, such as the ORSA and the business plan.

- .07 The purpose of financial condition testing is to identify plausible threats to satisfactory financial condition, actions that would lessen the likelihood of those threats, and actions that would mitigate a threat if it materialized.
- .08 Financial condition testing is defensive, i.e., it addresses threats to financial condition rather than the exploitation of opportunity.

Satisfactory financial condition

- .09 The insurer's financial condition would be satisfactory if throughout the forecast period,
- Under the solvency scenarios, the statement value of the insurer's assets is greater than the statement value of its liabilities;
 - Under going concern scenarios, the insurer meets the regulatory minimum capital ratio(s); and
 - Under the base scenario, the insurer meets its internal target capital ratio(s) as determined by the ORSA.

Data, methods, and assumptions

- .10 The actuary would start the forecast period using the data as of the most recent available fiscal year-end statement of financial position date.
- .11 The assumptions and methods would reflect up-to-date studies and analysis available to the actuary.
- .12 The policy liabilities would be revalued at the end of the first financial year of the forecast period if a change in assumption or method that is expected to be made by the insurer would result in a material change to the financial position of the insurer.
- .13 The actuary would consider recent events and recent operating results of the insurer up to the date of the report.
- .14 If an adverse event occurs between the date of the report and the date of its presentation to the insurer's board of directors (or its chief agent for Canada), then the actuary would, at a minimum in the presentation to the insurer's board of directors (or its chief agent for Canada), address the event and its potential implications on the results of the investigation. If appropriate, the actuary would redo the investigation.

Forecast period

- .15 The forecast period for a scenario would be sufficiently long to be aligned with the risk emergence and the recognition of impacts through the accounting and solvency results, and to capture the effect of management actions.

Scenarios

- .16 The scenarios would consist of a base scenario and adverse scenarios. Each scenario takes into account not only in-force policies but also the policies assumed to be sold or acquired during the forecast period, and both insurance and non-insurance operations (e.g., asset management, banking, or trust company subsidiaries).

Base scenario

- .17 The base scenario would be a realistic set of assumptions used to forecast the insurer's financial position over the forecast period. Normally, the base scenario would be consistent with the insurer's business plan. The actuary would accept the business plan's assumptions for use in the base scenario unless these assumptions are so inconsistent or unrealistic that the resulting report would be misleading. The actuary would report any material inconsistency between the base scenario and the business plan.

Adverse scenarios

- .18 An adverse scenario is developed by stress testing the assumptions used in forecasting the business plan, including the determination of insurance contract liabilities, with regard to risk factors that may trigger potential threats to the insurer's financial condition. The number and types of adverse scenarios may vary among insurers and over time for a particular insurer.

Solvency scenario

- .18.1 A solvency scenario is a plausible adverse scenario if it is credible and has a non-trivial probability of occurring. The actuary may use percentile rankings of outcomes to determine whether a solvency scenario is both plausible and adverse.
- .19 The actuary would consider material, plausible risks or events to the insurer. Reverse stress testing can help assess whether certain risk factors need to be tested, on the grounds that certain risk factors could never deteriorate to the point where they would be a threat to the insurer's financial condition. The actuary can thereby determine whether a material, plausible risk or event exists for the insurer over the forecast period.

Going concern scenario

- .19.1 A going concern scenario is an adverse scenario that is more likely to occur and/or less severe than a solvency scenario, and could include risks not considered in solvency scenarios.

Risk categories

.20 The actuary would assess various risk categories and identify those that are relevant to the insurer's circumstances when considering threats to capital adequacy under adverse scenarios.

.21 Repealed

Integrated scenarios

.22 The actuary would construct integrated scenarios by combining two or more risk factors whose combination gives rise to an adverse scenario.

.23 In developing integrated scenarios, the actuary would consider how risk factors interact. For example, the impact of combining adverse scenarios for two or more risk factors, where each is associated with a relatively high probability, may give rise to an integrated adverse scenario to which the insurer's financial condition is sensitive. In such cases, an integrated scenario would be constructed by combining stress tests related to two or more risk factors. An integrated scenario would be designed so as to itself constitute an adverse scenario.

.24 Repealed

Ripple effects

.25 In assuring consistency within each scenario, the actuary would consider ripple effects, including policy owner action, management's routine action, and regulatory action. Although most of the other assumptions used in the base scenario may remain appropriate under the adverse scenario, some may require adjustment to reflect the interdependence of assumptions in the adverse scenario.

.26 Selection of the assumptions for management's routine action would, where appropriate, take into account

- Effectiveness of the insurer's management information systems and adjustment mechanisms;
- Insurer's historical record of promptness and willingness, to respond to adversity;
- Policy owner action; and
- External environment assumed in the scenario.

.27 The actuary would report management's routine action, so that users may consider its practicality and adequacy. The actuary may also report the results assuming that the insurer does not respond to the adversity.

.28 Ripple effects also include regulatory action, which would vary depending on the regulatory capital ratio requirement breached by the adverse scenario. The actuary would consider action that could be taken by the Canadian regulator(s) as well as action taken by regulators in foreign jurisdictions. Such regulatory action and associated management action would consider the local assessment of solvency regardless of the insurer's worldwide solvency position as measured by Canadian regulatory standards. The actuary could also review the regulatory actions included in the ORSA's scenario testing, including internal target-setting exercise, and consider their applicability to the financial condition testing's adverse scenarios.

Corrective management actions

.29 For each of the adverse scenarios that would result in a threat to satisfactory financial condition, the actuary would identify possible corrective management actions that would lessen the likelihood of that threat, or that would mitigate that threat, if it materialized.

.29.1 Consideration would also be given to the effectiveness of possible corrective management actions in a volatile or stressed environment.

Management actions

.29.2 Management actions may include but are not limited to

- Repricing of insurance products;
- Policyholder dividend scale updates;
- Adjustments to non-guaranteed product elements;
- Suspending dividend payments, capital reductions, and transfers to the parent or home office, where applicable;
- Raising additional capital or adopting an approved plan to raise additional capital if and when needed within a reasonable time frame, or, in the case of a branch, requesting transfer of adequate funds from the parent company;
- Strengthening risk management practices;
- Mitigating the risk causing the capital shortfall; and
- An increased level of monitoring and reporting with respect to the insurer's capital position.

.30 Whether a management action is considered a ripple effect, a corrective management action, or a combination of both, would depend on the scenario analyzed and circumstances of the insurer.

Scope of the investigation and report

- .31 The report would contain the key assumptions of the base scenario and the adverse scenarios posing risks to the satisfactory financial condition of the insurer.
- .32 The report would disclose each of the risks considered in undertaking the financial condition testing analysis. It is expected that the actuary would scenario test and report at least once during each financial year on the base scenario, and adverse scenarios posing significant risk for the insurer.
- .33 The report would also contain the adverse scenarios examined that cause the insurer to fall below its internal target capital ratio(s) as determined by the ORSA. The report would make it clear whether under these scenarios the regulators may impose restrictions on the operations of the insurer, including its ability to write new business.
- .34 If the investigation identifies any plausible threat to satisfactory financial condition, then the actuary would identify possible corrective management action that would lessen the likelihood of that threat, or that would mitigate that threat, if it materialized. For each such adverse scenario reported upon, the actuary would report the results both with and without the effect of corrective management action. The actuary would ensure that the disclosure of the corrective management action is sufficiently clear so that users may consider its practicality and adequacy.
- .35 The report would present the financial position of the insurer at each fiscal year-end throughout the forecast period.

Revaluation of the policy liabilities

- .36 Ideally, for the base and each adverse scenario, the insurance contract liabilities and, if applicable, other policy liabilities or reinsurance assets, would be revalued throughout the forecast period.

Frequency and/or timing

- .37 The frequency and/or timing of the report would depend on the urgency of the matters being reported and on the desirability of aligning financial condition testing into the insurer's financial planning cycle and the ORSA process.
- .38 The frequency and/or timing of the actuary's investigation would be adjusted where an adverse change in the insurer's circumstances since the last investigation may be so significant that to delay reporting to the time of the next scheduled investigation would be imprudent. For example, failure to meet the internal target capital ratio(s), or adoption of a radically different business plan, may necessitate the preparation of an immediate report.

2530 Reporting

- .01 In the case of a Canadian insurer, the appointed actuary should report to the board of directors or to an appropriate committee of the board (audit committee, risk committee, etc.) if they so delegate. In the case of a Canadian branch of a foreign insurer, the appointed actuary should report to the chief agent for Canada and may also report to the responsible senior executive in the parent head office. [Effective February 22, 2018]
- .02 In order to give the insurer's senior management an opportunity to react to the results of the investigation, the actuary would discuss the report with the insurer's senior management in advance of its submission to the board of directors or chief agent for Canada.
- .03 The report would be in writing, but an additional oral report that permits questions and discussions is desirable. An interpretative report would be more useful than a statistical report. The actuary would also consider other reporting such as the ORSA report to ensure, where appropriate, the consistency of messages and/or delivery of consolidated ORSA and financial condition testing results.
- .04 The report would be submitted within 12 months following each fiscal year-end.

2540 Opinion by the actuary

- .01 The report should contain an opinion signed by the appointed actuary. [Effective April 15, 2017]
- .02 In this opinion, “future financial condition” has the same meaning as “financial condition.” The actuary may use the words “future financial condition” in order to comply with legislation or regulation in some jurisdictions.

- .03 The wording of the opinion follows: [insert appropriate wording where indicated by square brackets]

“I have completed my investigation of the [future] financial condition of [insurer name] as at [date] in accordance with accepted actuarial practice in Canada.

I have analyzed its forecasted financial positions over an appropriate forecast period under a series of scenarios. As part of my investigation, I have used [the ORSA and its determination of] or [insurer name] internal target capital ratio(s).

[My report includes the identification of corrective management actions that could be taken to mitigate the effect of adverse scenarios threatening [[insurer name] [solvency]] or/and [its ability to operate on a going concern basis]].

In my opinion, the [future] financial condition of the insurer [is satisfactory] or [is satisfactory subject to...] or [is not satisfactory for the following reason(s)...].”

[Montréal, Québec]
[Report date]

[Mary F. Roe]
Fellow, Canadian Institute of Actuaries

- .04 A satisfactory opinion would disclose the action(s) it is subject to for any of the following situations:
- The base scenario projected regulatory capital ratios are maintained or brought back above internal target capital ratios as a result of an existing plan consistent with regulatory expectations.
 - For the base scenario:
 - Regulatory capital ratios are projected to decrease below internal target capital ratio(s) at a period beyond the regulator's monitoring horizon;
 - The insurer has a plan to bring the ratios back above internal targets within a time frame consistent with regulatory expectations; and
 - The appointed actuary is satisfied that such plan is realistic.
 - For going concern scenarios, the appointed actuary is satisfied that corrective management actions can restore the insurer's regulatory capital ratio(s) to above regulatory minimum capital ratio(s) in a manner consistent with regulator's expectations.
 - For solvency scenarios, the appointed actuary is satisfied that corrective management actions under the control of the insurer can restore the insurer's assets to be sufficient to meet its obligations.
- .05 Situations where a satisfactory financial condition is met because of management's routine actions, would not require the opinion to state those actions

2600 Ratemaking: Property and Casualty Insurance

2610 Scope

- .01 Part 1000 applies to work within the scope of this section 2600.
- .02 This section 2600 applies to the derivation of indicated rates for an insurance contract of property and casualty insurance written by an insurer, a reciprocal insurance exchange, or an underwriting syndicate.
- .03 This section 2600 does not apply to the derivation of indicated rates for public personal injury compensation plans covered by the Practice-Specific Standards for Public Personal Injury Compensation Plans.
- .04 This section 2600 applies to the derivation of indicated rates for any entity, such as a residual market mechanism or an advisory organization, which derives indicated rates for an insurance contract to be written by an insurer, regardless of whether or not that entity is itself an insurer.
- .05 This section 2600 applies to the derivation of indicated rates, but not to the recommendation or selection of rates to be charged. The recommended or selected rates may reflect considerations beyond those set forth in this section 2600.
- .06 This section 2600 also applies to the derivation of indicated rates for insurance risks accepted by a property and casualty quasi-insurer, similar to insurance risks accepted under an insurance contract. In this section 2600, “property and casualty quasi-insurer” means an entity that assumes insurance risks that a property and casualty insurer may assume, without having the legal form of an insurer. Examples of property and casualty quasi-insurers include
- Federal or provincial crown corporations or agencies acting in a capacity similar to a property and casualty insurer;
 - Providers of extended warranties; and
 - Self-funding mechanisms, such as those created by members of a professional association, or entities that retain some or all of their property and casualty insurance risk.

2620 Method

- .01 The best estimate present value of cash flows relating to the revenue at the indicated rate should equal the best estimate present value of cash flows relating to the corresponding claim costs and expense costs, plus the present value of a provision for profit, over a specified period of time. [Effective April 15, 2017]

- .02 The actuary should select appropriate methods, techniques, and assumptions recognizing that such elements depend on the circumstances affecting the work and that a variety of actuarial methods may be appropriate to derive an indicated rate. [Effective February 1, 2018]

Data

- .03 The actuary would consider the availability and relevance of subject experience and related experience.

Credibility

- .04 The actuary would consider the blending of information from subject experience with information from one or more sets of related experience to improve the predictive value of estimates.

Changes in circumstances

- .05 The actuary would consider that the subject experience, related experience, and future cash flows may be affected by changes in circumstances that may affect expected claim costs, expense costs, and provision for profit.

.06 Relevant circumstances subject to change may include items that are largely under the control of the entity providing insurance, such as

- Underwriting practice;
- Distribution system;
- Claims handling and case estimate setting practice;
- Reinsurance arrangements;
- Data processing and accounting systems;
- Distribution or type of business written;
- Provisions of the insurance contract(s), when not legislated;
- Premium rates; and
- Rating variables;

as well as items that are largely not under the control of the entity providing insurance, such as

- Legislated coverage or benefits; and
- The economic, social, and legal environments.

Development

.07 The actuary would consider that subject experience and related experience may be subject to development over time.

Trend

.08 The actuary would consider that subject experience and related experience may be subject to trend over time.

Unusual events

.09 The actuary would consider that subject experience and related experience may or may not have been subject to catastrophes, large losses, or other unusual events.

Provision for expense costs

.10 The actuary would determine the provision for expense costs that is appropriate for the period during which the rates are expected to be in effect.

- .11 In selecting a provision for expense costs, the actuary would consider
- The various categories of expense costs that are incurred including, as may be applicable, residual market assessments, statutory assessments, policyholder dividends, and reinsurance costs;
 - That expense costs may not be directly proportional to premium; and
 - That one-time expense costs may need to be amortized.
- .12 The provision for expense costs, or other assumptions that are pertinent to its derivation, may be specified to the actuary under the terms of an appropriate engagement.

Provision for profit

- .13 An indicated rate would include a provision for profit.
- .14 The provision for profit, or other assumptions that are pertinent to its derivation, may be specified to the actuary under the terms of an appropriate engagement.

Time value of money

- .15 The investment return rate for calculating the present value of cash flows would reflect the expected investment income to be earned on assets that might be acquired with the net cash flows resulting from the revenue at the indicated rate.
- .16 Among various possible sets of such assets the actuary would consider
- Risk-free assets of appropriate duration;
 - Fixed-income assets of appropriate duration; and
 - Assets which are expected to be acquired.
- .17 The actuary would consider the fact that the provision for profit is not independent of the selected investment return rate and its associated uncertainty.

2630 Reporting

- .01 If an external user report is required and the actuary can report without reservation, the actuary's report should include the standard reporting language consisting of the following scope paragraph,

I have derived the indicated rate(s) in accordance with accepted actuarial practice in Canada, on behalf of [entity commissioning the work], for the following insurance category(ies): [name of insurance category(ies)], to be effective Month XX, 20XX for new business and Month XX, 20XX for renewal business. [Effective February 1, 2018]

- .02 If an external user report is required and the actuary cannot report without reservation, the actuary should modify the standard reporting language accordingly. [Effective February 1, 2018]

- .03 An additional opinion paragraph may be included to conform to the requirements of an external user.

2700 Policyholder Dividend Determination

2710 Scope

- .01 Part 1000 applies to work within the scope of this section 2700.
- .02 Section 2700 applies to advice provided on policyholder dividend determination on individual life, annuity, and health policies.

2720 Report on policyholder dividends

- .01 There should be a written report which documents the advice on policyholder dividend determination, and which describes the framework of facts, assumptions, and procedures upon which the advice was based. [Effective April 15, 2017]
- .02 The report should include
 - A description of the process used to determine dividends;
 - The manner in which policy and experience characteristics are reflected in that process; and
 - The methodology used to calculate dividends, including specific factors used to reflect policy and experience characteristics. [Effective April 15, 2017]
- .03 The report should state whether or not the contribution principle has been followed, and, if it has not been followed, the report should describe any deviations and their rationale. [Effective April 15, 2017]

2800 Public Personal Injury Compensation Plans

2810 Scope

- .01 The standards in this section apply to public personal injury compensation plans for both the valuation of insurance contracts and other obligations for financial reporting in accordance with IFRS 17 and the valuation of benefits liabilities for funding purposes.
- .02 Subsection 2820 applies to the valuation of insurance contracts and other obligations for financial reporting in accordance with IFRS 17.
- .03 Subsection 2830 applies to the work and advice an actuary provides with respect to the valuation of benefits liabilities for funding purposes.
- .04 The standards in subsection 2840 provide requirements for a gain and loss analysis resulting from the valuation of insurance contracts and other obligations for financial reporting in accordance with IFRS 17 or the valuation of benefits liabilities for funding purposes.
- .05 The standards in subsection 2850 provide requirements for the sensitivity analysis to be conducted for the valuation of insurance contracts and other obligations for financial reporting in accordance with IFRS 17 or the valuation of benefits liabilities for funding purposes.
- .06 The standards in subsection 2860 replace those in subsection 2230 and provide requirements for reporting on valuation of insurance contracts and other obligations for financial reporting in accordance with IFRS 17 or the valuation of benefits liabilities for funding purposes, including the actuary's opinion, reporting on the gain and loss analysis required under subsection 2840 and reporting of the work related to sensitivity testing required under subsection 2850 resulting from valuations.
- .07 The standards in this section may provide useful guidance for other work of an actuary for a public personal injury compensation plan, such as work on the development of assessment rates or premiums, the costing of insurance contract or policy changes, or work on experience-rating programs.

2820 Valuation of Insurance Contracts and Other Obligations for Financial Reporting

- .01 The actuary should follow the requirements under Sections 2100, 2200, and 2300 based on the accounting policies adopted by the public personal injury compensation plan for financial reporting under IFRS 17. [Effective January 1, 2023]
- .02 Notwithstanding paragraph 2820.01 above, the actuary should follow the reporting requirements under subsection 2860 in lieu of those prescribed in subsection 2230. [Effective January 1, 2023]

2830 Valuation of Benefits Liabilities for Funding Purposes

- .01 This subsection 2830 applies to the work and advice an actuary provides under the terms of an appropriate engagement for purposes of the funding of a public personal injury compensation plan.
- .02 Sections 2100, 2200 other than subsection 2230, and section 2300 apply to the work under this subsection with the exceptions and variations as noted below.

2831 Circumstances Affecting the Work

- .01 The actuary's work on the valuation of the benefits liabilities or other items for the purpose of providing input into its funding arrangements should take into account the circumstances affecting the work. [Effective January 1, 2023]
- .02 For the purposes of subsection 2830, the circumstances affecting the work would include:
- Terms of the relevant statute and regulations;
 - Relevant policies and practices of the public personal injury compensation plan; and
 - Terms of an appropriate engagement under which the work is being performed.
- .03 The terms of an appropriate engagement would define the role of the actuary and the purpose of the work. The work of the actuary may be limited to the valuation of the benefits liabilities, or the work may also include advice on the funding of the public personal injury compensation plan, its financial position, and any other actuarial item required under the terms of an appropriate engagement.

- .04 The terms of an appropriate engagement may specify applicable policies of the public personal injury compensation plan relevant to the work of the actuary. These policies may include a funding policy, operational policies and practices, and an investment policy.
- .05 Significant terms of an appropriate engagement may stipulate one or more of:
- Use of a specified asset value or method of asset valuation;
 - The treatment of self-insured employers;
 - The conditions considered in the liability for potential future occupational disease claims; and
 - Depending on the circumstances affecting the work, treatment of definitive amendments and other pending changes.
- .06 Objectives of funding specified by the terms of an appropriate engagement may include, but are not limited to, a specific funding target, the security of benefits, a principle of equity among various groups of employers or various groups of individuals or among generations, or a funding approach for occupational disease claims.
- .07 The purpose of the work may influence one or more of:
- The assumptions chosen for the valuation, including the discount rate;
 - The methods used in the valuation; and
 - The provision for adverse deviations included in the valuation, if any.
- .08 The actuary would consider the plan's funding and investment policies.
- .09 For the purposes of subsection 2830:
- New injury costs refers to the actuarial present value of benefits payable by the plan in respect of all new injuries incurred in a period, whether reported or not, including a provision for the incurred exposure to long latency occupational diseases during the same period, where appropriate.
 - Required revenue is an estimate of the amount necessary to fund the plan including new injury costs, plan administrative expenses, and any revenue adjustment required by the plan's funding policy to respond to its financial position.

- .10 A funding valuation may be completed to determine any or all of the following:
- The plan's financial position under the funding valuation basis;
 - An estimate of new injury costs for periods following the calculation date;
 - An estimate of required revenue for periods following the calculation date; and
 - The sufficiency of proposed premium or assessment rates.

2832 Economic Assumptions

- .01 The economic assumptions chosen for the valuation should be consistent with the plan's funding and investment policies. [Effective January 1, 2023]
- .02 The economic assumptions that are needed would depend on the nature of the benefits that are being valued, and may vary by year. Generally, the needed economic assumptions would include a discount rate and various inflation rate assumptions such as general inflation, wage inflation, and health care inflation.
- .03 The economic assumptions chosen for the valuation would be internally consistent. In particular, the chosen assumptions would generally be appropriate for a similar time horizon. For example, a long-term investment rate of return assumption would generally not be combined with an inflation assumption based on short-term expectations. Similarly, the valuation would generally not mix assumptions based on current market prices (e.g., market-implied inflation expectation) with those not based on current prices.
- .04 When determining a best estimate assumption for the expected rate of investment return, the actuary would take into account the expected investment return on the assets of the public personal injury compensation plan at the calculation date and the expected investment policy after that date.
- .05 In establishing the assumption for the expected rate of investment return, the actuary would assume that there would be no additional returns achieved, net of investment expenses, from an active investment management strategy compared to a passive investment management strategy except to the extent that the actuary has reason to believe, based on relevant supporting data, that such additional returns will be consistently and reliably earned over the long term.
- .06 The expected investment expenses would depend on the investment policy of the plan, the types of investments held and projected to be held in the future, and the nature of investment operations.

- .07 The actuary may adopt an assumption for the expected rate of investment return that varies depending on the part of the public personal injury compensation plan being valued and the assets backing the liabilities in that part.
- .08 The economic assumptions need not be a flat rate but may vary from period to period.

2833 Margins for Adverse Deviations

- .01 The actuary should only include margins for adverse deviations when the circumstances affecting the work require such margins. A non-zero margin should be sufficient, without being excessive, and should have the effect of increasing the benefits liabilities or reducing the reported value of the offsetting assets, the computation of which falls within the scope of the work of the actuary. In addition, the provision resulting from the application of all margins for adverse deviations should be appropriate in the aggregate. [Effective January 1, 2023]
- .02 If the actuary is required by legislation, regulation, or the funding policy of the plan to use a margin for adverse deviations that is outside the range that the actuary considers appropriate, the actuary should use such an imposed assumption, subject to the disclosure requirements under subsection 2860. [Effective January 1, 2023]
- .03 The actuary's decision with respect to margin for adverse deviations may reflect considerations such as
- Funding policy of the public personal injury compensation plan;
 - Relative importance placed on the balancing of competing interests compared to the achievement of full funding;
 - Underlying adaptability of the plan to changes in financial position;
 - Legislative requirements regarding margins;
 - Intergenerational equity among employers and other groups;
 - Level of uncertainty inherent in the assumptions;
 - Level of reliability or credibility of the data or historical information upon which the assumptions are based;
 - Asset/liability mismatch risk;
 - Propensity for ad hoc changes to be made to plan conditions; and
 - Legislative or other restrictions on the ability to mitigate past losses.

- .04 Examples of situations where the circumstances affecting the work might require a best estimate calculation include
- Legislation governing the plan may require a best estimate calculation; or
 - The plan's funding policy may recognize the monopoly nature of the plan and place a high priority on equity among generations, employers, and other groups.

2840 Gain and Loss Analysis

- .01 For each of the valuation for financial reporting purposes under subsection 2820 and valuation for funding purposes under subsection 2830, the actuary should conduct a gain and loss analysis, including a comparison of actual and expected experience for the period between the prior calculation date and the current calculation date. [Effective January 1, 2023]
- .02 The actuary should also conduct a reconciliation of the surplus or deficit position of the plan, provided that such reconciliation is in accordance with the terms of an appropriate engagement. [Effective January 1, 2023]
- .03 The actuary's analysis would include all material gains and losses. At a minimum, the actuary's gain and loss analysis would consider the impact of any significant changes to the assumptions or methods used, any significant changes to the benefits or policies of the plan, legislative changes, investment returns on the plan's assets different from the assumed basis (if reconciling the surplus or deficit position of the plan), and any other areas where the difference between actual and expected experience is significant.
- .04 The actuary would report a change in assumption if the current assumption differs nominally from the corresponding prior assumption, unless the change in the nominal amount results from the application of the same calculation method. For example, if certain rates used in the valuation are based on historical claims experience and calculated using the same averaging formula, the difference in assumed rates between the calculation date and the prior calculation date would not normally be considered as a change in assumptions. Nevertheless, the actuary may choose to disclose the effect of the updated rate assumption on the valuation results.

2850 Sensitivity Analysis

- .01 For each of the valuation for financial reporting purposes under subsection 2820 and valuation for funding purposes under subsection 2830, the actuary should perform sensitivity testing of adverse scenarios, to illustrate and aid the understanding of the effect of adverse changes to assumptions. [Effective January 1, 2023]
- .02 The adverse scenarios that the actuary tests should include at least:
- A decrease of 100 basis points in the gross discount rate used for the valuation; and
 - An increase of 100 basis points in the assumed general rate of inflation while maintaining the gross discount rate at the value used in the underlying valuation. [Effective January 1, 2023]
- .03 The actuary should consider other scenarios that, in the actuary's judgment, represent plausible material risks to which the plan may be exposed, and provide sensitivity testing of those scenarios where appropriate given the circumstances affecting the work. [Effective January 1, 2023]
- .04 When selecting the assumptions and scenarios for sensitivity testing, the actuary would consider the circumstances affecting the work, and would select those assumptions that have a material impact on the benefits liabilities. The actuary may consider testing integrated sensitivity scenarios; for example, the effect of a deep and prolonged recession.
- .05 The actuary may also perform sensitivity testing of favourable scenarios.

2860 Reporting

- .01 For each of the valuation for financial reporting purposes under subsection 2820 and valuation for funding purposes under subsection 2830, the actuary should prepare a report in accordance with the circumstances affecting the work. [Effective January 1, 2023]
- .02 If the actuary can report without reservation, then the actuary's report should conform to the standard reporting language. Otherwise, the actuary should modify the standard reporting language to report with reservation. [Effective January 1, 2023]

.03 An external user report on the work pursuant to subsection 2820 should:

- When the insurance contract liabilities and other obligations disclosed in the financial statements are different than the benefits liabilities calculated under subsection 2830 for funding purposes, the actuary should so state, explain the reason for the difference and provide the effect on the funding level reported in the financial statements;
- Where included in the measurement of insurance contract liabilities, the actuary should disclose the present value of future premium adjustments comprised in the assessment of the fulfillment cash flows for financial reporting purposes, including the underlying methodology and assumptions; and
- Describe the actuary's role in the preparation of the public personal injury compensation plan's financial statements if that role is not described in those statements or their accompanying management discussion and analysis. [Effective January 1, 2023]

.04 An external user report on work pursuant to subsection 2830 should:

- When the benefits liabilities calculated for funding purposes are different than the insurance contract liabilities and other obligations calculated under subsection 2820 for financial reporting purposes, the actuary should so state, explain the reason for the difference and provide the effect on the funding level reported for funding purposes;
- Report the aggregate provision for adverse deviations included in the benefits liabilities or state that there is no provision for adverse deviations where that is the case; and
- Disclose any imposed margins that the actuary has used in accordance with paragraph 2833.02 that, in the opinion of the actuary, are outside of the appropriate range and also disclose the reason and the financial impact. [Effective January 1, 2023]

- .05 The actuary's report on work pursuant to section 2800 should also
- Describe any significant terms of the appropriate engagement that are material to the actuary's work, including the purpose of the work;
 - State the calculation date and the prior calculation date;
 - Identify, and where applicable, conform to, the legislation or other authority under which the work is completed;
 - Describe the sources of data, benefit provisions, and policies used in the work, and any limitations thereon;
 - Summarize the data used for the valuation, the data tests conducted to assess the accuracy and completeness of the data used in the work, issues regarding insufficient or unreliable data, and any assumptions and methods used in respect of insufficient or unreliable data;
 - Describe the plan's benefits, significant policies, and relevant administration practices, including the identification of any amendments made since the prior calculation date, and the effect of such amendment on the benefits liabilities;
 - Disclose the measurement approach used;
 - Describe the assumptions and methods used to calculate the benefits liabilities;
 - Summarize the insurance contracts and other obligations or benefits liabilities, as may be applicable;
 - Describe the treatment of insurance contracts and other obligations or benefit liabilities for self-insured employers, as may be applicable;
 - Describe the treatment of the liabilities for occupational disease claims;
 - Describe and quantify the gains and losses between the prior calculation date and the current calculation date, and provide an analysis and explanation of the significant gain and loss items;
 - If required by the terms of an appropriate engagement, provide an opinion on the sufficiency of proposed premium or assessment rates; and
 - If the the terms of an appropriate engagement do not include a request to report the results of the sensitivity testing that was completed, be accompanied by a separate report for the management of the public personal injury compensation plan that does include such sensitivity testing results. [Effective January 1, 2023]

.06 Where the terms of an appropriate engagement require the actuary to provide information on the plan's financial position for funding purposes or cost of new injuries for rate setting purposes, the actuary should:

- Describe the sources of information on the plan's assets;
- Describe the plan's assets, including their market value, the assumptions and methods used to value the assets, and a summary of the assets by major category;
- Report the financial position for funding at the calculation date;
- Describe the determination of new injury costs or required revenue (all components separately) for periods following the calculation date; and
- Report the estimate of new injury costs or required revenue (total and all components separately) for a specified period following the calculation date and disclose the amount that constitutes the portion of new accident costs attributable to the incurred exposure to long latency occupational diseases during the same period, where applicable. [Effective January 1, 2023]

.07 An external user report would be sufficiently detailed to enable another actuary to examine the reasonableness of the valuation.

.08 The descriptions and estimates required in an external user report may be satisfied by reference to another report provided the actuary is satisfied that the work presented in that report is appropriate. For instance, the liability estimate for potential future occupational disease claims or future administrative expenses may be based on a previous study of the plan's experience that is updated periodically. The details underlying these estimates could be incorporated by referencing the last study on which they are based rather than incorporating that material directly into the valuation report. Similarly, a report prepared for one purpose (e.g., funding) may reference material in a report prepared for another purpose (e.g., financial reporting) where appropriate.

.09 An internal user report may appropriately abbreviate the reporting requirements for an external user report. The degree of abbreviation would take into consideration the circumstances affecting the work and the intended audience.

.10 The actuary's advice on funding may describe a range for required revenue including disclosure of any premium rate adjustment resulting from the application of the funding policy or expected new injury costs. Funding requirements may be expressed in dollars or as a percentage of assessable payroll.

Disclosure of Unusual Situations

- .11 The items that the actuary values for the financial statements may be misleading if the financial statements do not present them fairly. The actuary's report signals to the reader of the financial statements that there is, or is not, fair presentation.
- .12 In an unusual situation, fair presentation may require explanation of an item that the actuary values for the financial statements. Usually, the notes to the financial statements would provide that explanation, including, where appropriate, disclosure of the situation's effect on the financial statements. In the absence of such explanation, the actuary would provide it by a reservation in reporting.
- .13 The question, "Will an explanation enhance the user's understanding of the public personal injury compensation plans financial position or performance?" may help the actuary to identify such a situation. Unusual situations may include:
- Any significant changes to the relevant statute, strategic direction, or management policy, or any significant appeal decision that would likely change management policy or practice, since the prior calculation date and the consequent effect on the benefits liabilities;
 - Any pending definitive or virtually definitive amendment, policy change, or change to administration practice, confirm whether or not such amendment or change has been reflected in the insurance contracts and other obligations or benefits liabilities;
 - Subsequent events of which the actuary is aware, whether or not the events are taken into account in the work, or, if there are no significant events of which the actuary is aware, include a statement to that effect;
 - A major change in coverage status from self-insured to premium paying or vice versa and the actual or expected impact on the financial position and financial performance; and
 - The circumstances affecting the work may result in a deviation from accepted actuarial practice in Canada. For example, the applicable legislation or the terms of the engagement may require that the actuary use a margin for adverse deviations that is outside the range that the actuary considers appropriate, or require that the actuary exclude the benefits liabilities in respect of certain claims, such as occupational disease claims. In such case, the actuary would disclose such deviation in the report.

Consistency across financial reporting periods

- .14 Financial statements usually present results for one or more preceding financial reporting periods in comparison to those for the current period. Meaningful comparability requires the financial statement items for the various periods to be consistent, which can be achieved by the restatement of preceding period items that were previously reported on a basis which was inconsistent with that for the current period. A less desirable alternative to restatement is disclosure of the inconsistency.
- .15 A change in the method of valuation creates an inconsistency. A change in the assumptions for valuation reflecting a change in the expected outlook does not constitute an inconsistency although, if its effect is material, then fair presentation would require its disclosure.
- .16 A change in assumptions that results from the application of new standards may create an inconsistency.

Communication with the auditor

- .17 Communication with the auditor is desirable at various stages of the actuary's work. These include
- Use of work in accordance with the Joint Policy Statement;
 - The drafting of common features in the auditor's report and actuary's report;
 - The drafting of a report with reservations;
 - The presentation of the insurance contracts liabilities and other obligations; and
 - The treatment of subsequent events.

Standard reporting language

.18 The standard reporting language is as follows:

Actuary's Report

An external user report for work pursuant to Subsections 2820 and 2830 should provide the following six statements of [opinion](#), all in the same section of the respective report:

- A statement regarding [data](#), which would usually be, “In my opinion, the data on which the valuation is based are sufficient and reliable for the purpose of the valuation.”;
- A statement regarding assumptions, which would usually be, “In my opinion, the assumptions are appropriate for the purpose of the valuation.”;
- A statement regarding methods, which would usually be, “In my opinion, the methods employed in the valuation are appropriate for the purpose of the valuation.”;
- A statement regarding conformation, which should be, “This report has been prepared, and my opinions given, in accordance with accepted actuarial practice in Canada.”; and
- For valuations under subsection 2820, include a statement regarding appropriateness, which would usually be, “In my opinion, the [amount of insurance contracts liabilities] make appropriate provision for all personal injury compensation obligations given the plan’s accounting.”; or
- For valuations under subsection 2830, include a statement regarding appropriateness, which would usually be, “In my opinion the [amount of benefits liabilities and estimated funding requirements] make appropriate provision for all personal injury compensation obligations given the plan’s funding policy.”. [Effective January 1, 2023]

.19 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.

.20 An auditor's report usually accompanies the financial statements. Uniformity of common features in the two reports will avoid confusion to readers of the financial statements. Those common features include

- Addressees: Usually, the actuary addresses the report to the Board of Directors.
- Years referenced: Usually, the actuary's report refers only to the current year, even though financial statements usually present results for both the current and prior years.
- Report date: If the two reports have the same date, then they would take account of the same subsequent events.

Reservations in reporting

.21 The examples that follow are illustrative and not exhaustive.

New appointment

.22 A new actuary who is unable to use the predecessor actuary's work, but who has no reason to doubt its appropriateness, would modify the standard reporting language as follows:

I have valued the insurance contracts liabilities of [the PPICP] for its financial statements at [31 December xxxx] and, except as noted in the following paragraph, their change in the statement of financial performance for the year then ended in accordance with accepted actuarial practice in Canada, including selection of appropriate assumptions and methods.

The insurance contracts liabilities at [31 December xxxx-1] were valued by another actuary who expressed a favourable opinion without reservation, as to their appropriateness.

In my opinion, the amount of insurance contracts liabilities, is appropriate and the financial statements fairly present the results of the valuation.
For the reason stated in the previous paragraph, I am unable to say whether or not those results are consistent with those for the preceding year.

.23 If the actuary doubts the appropriateness of the predecessor actuary's work as a result of a review of it, then the actuary would consider additional disclosure about the reasons underlying the reservation.

Impracticality of restatement

- .24 The actuary would, if necessary, restate the preceding year valuation to be consistent with the current year valuation. If it is not practical to restate the preceding year valuation, then the actuary would modify the opinion paragraph in the standard reporting language as follows:

In my opinion, the amount of insurance contract liabilities is appropriate. As explained in Note [XX], the method of valuation for the current year is inconsistent with that for the previous year. Except for that lack of consistency, in my opinion the financial statements fairly present the results of the valuation.

Note [XX] would usually explain the change in the basis of valuation, explain the impracticality of applying the new basis retroactively, and disclose the effect of the change on the opening financial position at the end of the preceding year.