Final

Final Standards of Practice for the Clear Specification of Accepted Actuarial Practice in the Actuary's Report

Actuarial Standards Board

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1100 INTRODUCTION

1110 DEFINITIONS

.01 Each term set over dotted underlining has the meaning given in this section and has its ordinary meaning otherwise (e.g., external user).

.02 Accepted actuarial practice is the consensus of the actuarial profession on how work should be done. Unless the context requires otherwise, references to accepted actuarial practice refer to accepted actuarial practice for work in Canada. [*pratique actuarielle reconnue*]

.03 Actuarial cost method is a method to allocate the present value of a plan's obligations to time periods, usually in the form of a service cost and an accrued liability. [*méthode d'évaluation actuarielle*]

.04 Actuarial present value method is a method to calculate the lump sum equivalent at a specified date of amounts payable or receivable at other dates as the aggregate of the present values of each of those amounts at the specified date, and taking into account both the time value of money and contingent events. [*méthode de la valeur actuarielle*]

.05 Anti-selection is the tendency of one party in a relationship to exercise options to the detriment of another party when it is to the first party's advantage to do so. [*antisélection*]

.06 Appointed actuary of an entity is an actuary formally appointed by the entity to monitor the financial condition of that entity. [*actuaire désigné*]

.07 Appropriate engagement is one which does not impair the actuary's ability to conform to the rules. [*mandat approprié*]

.08 Benefits liabilities are the liabilities of a plan in respect of claims incurred on or before a calculation date. [*obligations liées aux prestations*]

.09 Best estimate means without bias, neither conservative nor unconservative. [*meilleure estimation*]

.10 Calculation date is the effective date of a calculation; e.g., the balance sheet date in the case of a valuation for financial statements. It usually differs from the report date. [*date de calcul*]

.11 Case estimate at a calculation date is the unpaid amount of one of, or a group of, an insurer's reported claims (perhaps including the amount of claim adjustment expenses), as estimated by a claims professional according to the information available at that date. [*évaluation du dossier*]

.12 Claim adjustment expenses are internal and external expenses in connection with settlement of claims. [*frais de règlement des sinistres*]

.13 Claim liabilities are the portion of policy liabilities in respect of claims incurred on or before the balance sheet date. [*passif des sinistres*]

.14 Contingent event is an event which may or may not happen, or which may happen in more than one way or which may happen at different times. [*éventualité*]

.15 Contribution is a contribution by a participating employer or a plan member to fund a benefits plan. [*cotisation*]

.16 Definitive means permanent and final. [*décision définitive*]

.17 Development of data with respect to a given coverage period is the change in the value of those data from one calculation date to a later date. [*matérialisation*]

.18 Domain of actuarial practice is the measurement of the current financial implications of future contingent events. [*domaine de la pratique actuarielle*]

.19 Early implementation means the implementation of new standards before their effective date. [*mise en œuvre anticipée*]

.20 Earnings-related benefit is a benefit whose amount depends on the recipient's earnings. [*régime salaire de carrière*]

.21 External user is a user who is not an internal user. [*utilisateur externe*]

.22 External user report is a report whose users include an external user. [*rapport destiné à un utilisateur externe*]

.23 Financial condition of an entity at a date is its prospective ability at that date to meet its future obligations, especially obligations to policyholders, members, and those to whom it owes benefits. Financial condition is sometimes called "future financial condition". [*santé financière*]

.24 Financial position of an entity at a date is its financial state as reflected by the amount, nature, and composition of its assets, liabilities, and equity at that date. [*situation financière*]

.25 To fund a plan is to dedicate assets to its future benefits and expenses. Similarly for "funded" and "funding". [*capitaliser*]

.26 Going concern valuation is a valuation which assumes that the entity to which the valuation applies continues indefinitely beyond the calculation date. [*évaluation en continuité*]

.27 Indexed benefit is a benefit whose amount depends on the movement of an index like the Consumer Price Index. [*prestation indexée*]

.28 Insurer includes a fraternal benefit society and the Canadian branch of a foreign insurer, but does not include a public personal injury compensation plan or a government monopoly. [*assureur*]

.29 Internal user is the actuary's client or employer. Internal user and external user are mutually exclusive. [*utilisateur interne*]

.30 Internal user report is a report all of whose users are internal users. [*rapport destiné à un utilisateur interne*]

.31 Margin for adverse deviations is the difference between the assumption for a calculation and the corresponding best estimate assumption. [*marge pour écarts défavorables*]

.32 New standards means new standards, or amendment or rescission of existing standards. [*nouvelles normes*]

.33 Periodic report is a report that is repeated at regular intervals. [*rapport périodique*]

.34 Plan Administrator is the person or entity with overall responsibility for the operation of a benefit plan. [*administrateur d'un régime*]

.35 Policy liabilities in an insurer's balance sheet are the liabilities at the balance sheet date on account of the insurer's policies, including commitments, which are in force at that date or which were in force before that date. [*passif des polices*]

.36 Practice committee means the committee or committees, either standing or ad hoc, to which the Practice Standards Council has assigned responsibility for the practice area which particular new standards affect. [*commission de pratique*]

.37 Premium liabilities are the portion of policy liabilities which are not claim liabilities. [*passif des primes*]

.38 Prescribed means prescribed by these standards. [*prescrit*]

.39 Provision for adverse deviations is the difference between the actual result of a calculation and the corresponding result using best estimate assumptions. [*provision pour écarts défavorables*]

.40 Public personal injury compensation plan means a public plan whose primary purpose is to provide benefits and compensation for personal injuries. The compulsory coverage, monopoly powers, and assured continuity of these plans require the selection of methods and assumptions which differ from those which are appropriate for a comparable benefits plan provided by the private sector or by an insurer. The Canada Pension Plan, the Quebec Pension Plan, and the pension provided by the Federal Old Age Security Act are excluded as their primary purpose is the provision of retirement income. [*régime public d'assurance pour préjudices corporels*]

.41 Recommendation means an italicized recommendation in these standards. Similarly for "recommend". [*recommandation*]

.42 Report is an actuary's oral or written communication to users about his or her work. Similarly for "to report". [*rapport*]

.43 Report date is the date on which the actuary completes the report on his or her work. It usually differs from the calculation date. [*date du rapport*]

.44 Report pursuant to law is a report for which the law requires an actuary's opinion. [*rapport en vertu de la loi*]

.45 Rule means a rule in the Institute's Rules of Professional Conduct. [*règle*]

.46 Scenario is a set of consistent assumptions. [*scénario*]

.47 Service cost is that portion of the present value of a plan's obligations which an actuarial cost method allocates to a time period, excluding any payment for that period in respect of unfunded accrued liability. [*cotisation d'exercice*]

.48 Standard reporting language is standard language for an external user report. [*libellé du rapport type*] 1810

.49 Subsequent event is an event which occurs after a calculation date but before the corresponding report date. [*événement subséquent*]

.50 Use means use by the actuary, usually in the context of use of another person's work. [*utilisation*] 1110.21 1110.29 1810.01

.51 User means an intended user of the actuary's work. [*utilisateur*]

.52 Virtually definitive means to become definitive upon completion of one or more actions which are seen as formalities. [*pratiquement définitive*]

.53 Work means the actuary's work within the domain of actuarial practice and usually includes

acquisition of knowledge of the circumstances of the case,

obtaining sufficient and reliable data,

selection of assumptions and methods,

calculations and examination of the reasonableness of their result,

use of other persons' work,

formulation of opinion and advice,

reporting, and

documentation. [*travail*]

1120 INTERPRETATION

Recommendations

.01 These standards are binding on Fellows, Associates and Affiliates of the Canadian Institute of Actuaries for work in Canada.

.02 The standards consist of recommendations and other guidance.

.03 A recommendation is the highest order of guidance in the standards. Unless there is evidence to the contrary, there is a presumption that a deviation from a recommendation is a deviation from accepted actuarial practice.

.04 Each recommendation is in *italicized text*, followed by its effective date in square brackets.

Other guidance

.05 The other guidance supports and expands upon the recommendations and is in roman text. The other guidance consists of definitions, explanations, examples, and useful practices.

Effective date of recommendations

.06 The effective date is usually unrelated to the report date. A superseded recommendation may continue in effect if work is delayed. The notice of adoption would discuss such a case.

.07 The following four paragraphs (subject to the notice of adoption of new standards in a particular case) describe the application of the effective date to a recommendation in new standards.

.08 For work related to a fiscal period or periods, a recommendation applies if the first day of the fiscal period is on or after the recommendation's effective date. For example, a recommendation applies

> to work on financial statements if the accounting period of the financial statements begins on or after the recommendation's effective date,
>
> to advice on funding a benefits plan during periods which begin on or after the recommendation's effective date, and
>
> to dynamic capital adequacy testing if the opening day of the related forecasts is on or after the recommendation's effective date.

.09 For work related to an event, a recommendation applies if the date of the event is on or after the recommendation's effective date. For example, a recommendation applies

> to work on the wind-up of a benefits plan if the wind-up is effective on or after the recommendation's effective date, and
>
> to work on the transfer of policies from one insurer to another if the transfer is effective on or after the recommendation's effective date.

.10 For calculation of a capitalized value, a recommendation applies if the calculation date is on or after the recommendation's effective date. Examples are the capitalized value of pension plan benefits for a marriage breakdown or for termination of membership in the plan.

.11 For other work, a recommendation applies if the report date is on or after the recommendation's effective date.

General standards and practice-specific standards

.12 The standards consist of general standards and practice-specific standards. With the exception noted below, the general standards apply to all areas of actuarial practice.

.13 Usually, the intent of the practice-specific standards is to narrow the range of practice considered acceptable under the general standards. For example, the practice-specific standards for selection of a margin for adverse deviations for valuation of the policy liabilities of an insurer narrow the range of practice which would be acceptable under the corresponding general standards.

.14 In exceptional cases, however, the intent of practice-specific standards is to define as acceptable a practice which would *not* be acceptable under the general standards, in which case that intent is specifically noted by words in a practice-specific recommendation like: "*Notwithstanding the general standards, the actuary should…*", followed by a description in roman text for the exception.

Drafting

.15 "Should" is the strongest mandating word in the standards, appearing only in recommendations, often in the expression, "The actuary should…".

.16 "Would" is a suggestive word appearing in the roman text, often in the expression, "The actuary would…", and is less forceful than the mandative "should".

.17 "May" is a permissive word, appearing in both recommendations and the roman text, often in the expression, "The actuary may…" and often with conditions attached. It defines a safe harbour. For example: in Section 1610.01, the recommendation is that "*The actuary may use and take responsibility for another person's work if such actions are justified*." and the roman text describes steps which constitute justification. The actuary who is satisfied that the actions are justified has done all that may be reasonably expected and has therefore complied with accepted actuarial practice, even if the use turns out not to be well-founded. 1610

.18 Repealed

.19 The examples are often simplified and are not all inclusive. 1310

Lay readers of the standards

.20 The standards are drafted as much as possible in ordinary business terminology rather than technical actuarial terminology, so that non-actuaries familiar with business terminology may **understand** them. For example, the standards refer to "policy liabilities" rather than to "reserves" because, in financial reporting, "reserve" means an appropriation of surplus rather than a liability.

1200 APPLICATION

1210 ACCEPTED ACTUARIAL PRACTICE

.01 *The actuary should conform to accepted actuarial practice except when it conflicts with law or the terms of an appropriate engagement. A user of the actuary's work may assume that it is in accordance with accepted actuarial practice except when the actuary reports otherwise.* [Effective December 1, 2002] 1310 1320

.02 The rules and the standards are the only explicit articulation of accepted actuarial practice for work in Canada. Explanation, examples, and other useful guidance may also be found in

new standards, not yet effective but whose early implementation is appropriate,

educational notes,

actuarial principles,

exposure drafts,

historical records, and

Canadian and international actuarial literature.

.03 Their applicability and their relative importance in a particular case is a matter for judgment, but

the rules are the Institute's highest order of guidance,

deviation from the rules is professional misconduct, and 1310 1320

there is a presumption that a deviation from a recommendation is a breach of accepted actuarial practice, so that the onus for justification of that deviation is on the actuary. 1330 1340 1510

.04 Accepted actuarial practice is sometimes called "generally accepted actuarial practice" (for example, in the federal *Insurance Companies Act*) or "generally accepted actuarial principles".

.05 The actuary usually reports having done his or her work in accordance with accepted actuarial practice in Canada, which is the norm and which, in the absence of disclosure of a deviation, is the expectation of users of actuaries' work. The permitted deviations are for conflict with law and with the terms of an appropriate engagement. 1310 1320

1220 EDUCATIONAL NOTES

.01 *The actuary should be familiar with relevant educational notes and other designated educational material.* [Effective December 1, 2002]

.02 Educational notes and other designated educational material describe but do not recommend practice in illustrative situations.

.03 A practice which the notes describe for a situation is not necessarily the only accepted practice for that situation and is not necessarily accepted actuarial practice for a different situation.

.04 The educational notes are intended to illustrate the application (but not necessarily the only application) of the standards, so there should be no conflict between them. By comparison, research papers and task force reports may or may not be in compliance with the standards. In any case, the educational notes are not binding.

1230 SCOPE

.01 *The standards apply to work in Canada*.

.02 *The application of any recommendations beyond their scope should take account of relevant circumstances*. [Effective December 1, 2002]

Work in Canada vs. work in another country

.03 The distinction between work in Canada and work in another country depends primarily on the ultimate purpose of the work. It does not depend on where the actuary lives or where the actuary happens to be when doing the work.

.04 Work in compliance with the laws or customs of a country or a particular region within that country is work in that country. Here are examples for financial reporting, taxation, and litigation:

> If the work relates to financial reporting in accordance with U.S. generally accepted accounting principles, then the work is work in the U.S.A. Thus, a valuation of the liabilities of a pension plan of a Canadian subsidiary of a U.S. multinational for the consolidated financial statements of the multinational is work in the U.S.A.
>
> If the work relates to taxation under the U.S. *Internal Revenue Code*, then the work is work in the U.S.A. Thus, a valuation of the policy liabilities of the U.S. branch of a Canadian insurer for the insurer's U.S. income tax return is work in the U.S.A.
>
> If the work relates to litigation under U.S. law before a U.S. court, then the work is work in the U.S.A. Thus, a report to the lawyer of a Canadian defendant insured by a Canadian insurer on a claim for damages litigated under U.S. law in a U.S. court is work in the U.S.A.

.05 There may be cases when the distinction is not clear; for example, advice to a Canadian insurer on products to be sold outside Canada. In some of those cases, accepted actuarial practice may be the same in both countries, so the distinction does not matter. If the distinction matters, the actuary would, if practical, agree with the user and report on the appropriate practice and, failing agreement, would report the implications of the distinction.

Work outside Canada

.06 The best guidance for work in another country is the accepted actuarial practice for work in that country. This encompasses the formal guidance, analogous to the rules and standards, which the actuarial profession in that country gives to its members. An example is the *Manual of Actuarial Practice* of the Faculty of Actuaries and the Institute of Actuaries in the United Kingdom. If that guidance does not exist or is limited, then these standards may provide useful guidance. The general standards are more likely to provide useful guidance than the practice-specific standards: in either case, however, the actuary would take account of differences between the laws and customs of the other country and those of Canada.

.07 In some cases, the applicability of foreign guidance to Institute members is formal. The Institute has reciprocal agreements with its counterpart professional organizations in certain other countries under which the Institute deems the formal guidance which the counterpart gives to its members to be applicable to Fellow(s), Associate(s) and Affiliate(s) of the Canadian Institute of Actuaries for work in that country. One of the purposes of the International Actuarial Association is to promote such reciprocal agreements.

.08 For example, for work in the U.S.A., Fellows, Associates and Affiliates of the Canadian Institute of Actuaries are bound by

the Code of Professional Conduct of the American Academy of Actuaries,

the Actuarial Standards of Practice and the Actuarial Practice Guidelines of the Actuarial Standards Board, and

the Qualification Standards of the American Academy of Actuaries.

Extension of scope

.09 The standards applicable to a particular situation do not necessarily provide useful guidance in a second, similar situation for which there are no standards. If they do provide useful guidance in the second situation, then the actuary would consider what modification is necessary in order to take account of the difference between the two situations.

.10 If the standards for the first situation are silent about the second situation, and if the actuary's work in the second situation is in accordance with those standards, appropriately modified, then the actuary would so report. If the standards for the first situation specifically exclude the second situation from their scope, and if it is, either by coincidence or convenience, appropriate for the actuary's work in the second situation to be in accordance with a modification of those standards, then the actuary would report the work without reference to those standards.

.11 For example, consider the practice-specific standards which apply to the work of the appointed actuary of an insurer:

> They include standards for valuation of the insurer's policy liabilities. There are no comparable standards if the insurer has no appointed actuary. An actuary may value that insurer's policy liabilities in accordance with the standards applicable to an appointed actuary to the extent permitted by legislation and would so report.
>
> They also include standards for reporting an adverse condition which requires rectification. The standards explicitly exclude an actuary of an insurer who is not an appointed actuary from their scope because that actuary would not have the necessary authority and legal immunity. Extension of the scope of those standards would not be appropriate.

.12 Application of standards to work outside Canada is always an application beyond their scope, as the standards apply only to work in Canada, but may be appropriate when the local profession provides no guidance.

.13 Extension of the scope of the general standards is more likely to be appropriate than extension of the scope of the practice-specific standards.

1240 ASSOCIATES

.01 "Associate" means a student enrolled pursuant to Section 5 of the Institute's Bylaws.

.02 The Institute does not expect an Associate to take responsibility for work. An Associate doing so, however, is as accountable as an actuary for that work and may not plead limited qualification or inexperience as an extenuating circumstance for a breach of accepted actuarial practice. The standards therefore apply to that Associate, with "Associate" substituted for "actuary", but without any implication that the Associate **is** an actuary.

1800 REPORTING

1810 STANDARD REPORTING LANGUAGE

.01 *The actuary's external user report should incorporate any standard reporting language applicable to the work.* [Effective December 1, 2002]

.02 The practice-specific standards for work describe any applicable standard reporting language.

.03 The purpose of standard reporting language is to simplify the actuary's communication with users by creating a clear, easy to recognize, distinction between the usual situation and the unusual (sometimes problem) situation. The standard reporting language, while abbreviated, acquires precision by the convention that the situation is usual if there is no reservation. Any reservation is disclosed in a special paragraph and described either there or by reference. Standard reporting language is thus similar to the auditor's standard report on financial statements.

.04 The standard reporting language may comprise a complete report; for example, an appointed actuary's report accompanying the financial statements of an insurer. Alternatively, it may be included in a larger report; for example, a report giving advice on funding a pension plan.

.05 Here is the skeletal structure of standard reporting language:

> Addressee, which usually identifies the client or employer.
>
> Scope paragraph, which describes the work and its purpose and says that the work was done in accordance with accepted actuarial practice in Canada in a usual situation, or that it was done in accordance with accepted actuarial practice in Canada "except as described in the following paragraph" in an unusual situation.
>
> Reservations paragraph (omitted in the usual situation), which either compares the particular (unusual) situation to the usual situation or refers to that comparison elsewhere.
>
> Opinion paragraph, which reports the actuary's opinion, without reservation in a usual situation and with reference to the reservations paragraph in an unusual situation. The opinion paragraph either reports the result of the work, which is practical only if the result is short, or references its location.
>
> Identification of the actuary.
>
> Report date.

1820 REPORTING: EXTERNAL USER REPORT

.01 *In an external user report, the actuary should* 1610 1820.06

> *identify the client or employer,*
>
> *describe the work, its purpose, and its users,* 1820.12
>
> *say whether or not the work is in accordance with accepted actuarial practice in Canada and, if not, disclose the deviation from that practice,* 1820.16
>
> *if useful, disclose any unusual application of accepted actuarial practice,* 1820.18
>
> *disclose any aspect of the work for which the actuary does not take responsibility,* 1820.20
>
> *disclose any assumption which is different from assumption of continuance of the status quo and, if practical and useful, disclose the effect of alternative assumptions,*
>
> *in the case of a periodic report, disclose any inconsistency between the methods and assumptions of the current and prior reports,*
>
> *describe any subsequent event which is not taken into account in the work,* 1520
>
> *disclose any reservation,* 1820.23
>
> *express an opinion on the results of the work,* 1820.27
>
> *identify himself or herself and sign the report, and* 1820.29
>
> *date the report.* 1820.30

.02 *Any description or disclosure may be in material referred to in the report and either accompanying the report or plausibly available to users.*

.03 *Subsequently, the actuary should respond to a user's request for explanation except if that is contrary to the terms of the engagement.*

.04 *Subsequently, the actuary should withdraw or amend the report if information comes to hand after the report date which invalidates the report.*

.05 *A duty of confidentiality in an appropriate engagement supersedes any of the foregoing portions of this recommendation with which it conflicts, but does not supersede an actuary's obligations to the Institute, pursuant to the Bylaws or the Rules of Professional Conduct.* [Effective December 1, 2002]

Description and disclosure in general

.06 The range of appropriate reports is relatively narrow for external user reports as compared to that for internal user reports. An external user report is relatively formal and detailed when the actuary does not communicate directly with users or when the interests of an external user and of 1830 the actuary's client or employer do not run together.

.07 Appropriate description and disclosure in a report strike a balance between too little and too much. Too little deprives the user of needed information. Too much may exaggerate the importance of minor matters, imply a diminution of the actuary's responsibility for the work, or make the report hard to read.

.08 The appropriate criterion for description and disclosure is the question: what qualitative and quantitative information best serves the user's understanding and decision-making? The question: "what information does the user want?" is an insufficient criterion because the circumstances of a case may make the actuary aware of information needs of which the user is unaware.

.09 Reporting the sensitivity of the results to variations in assumptions is often useful.

.10 Disclosure need not necessarily be in the report itself except if its importance so warrants or if it cannot be referenced in material available to users. Disclosure in a short report may place undue emphasis on the information disclosed.

.11 An unintended reservation misleads the user if it implies either that there was a deviation from accepted actuarial practice or that the actuary does not take full responsibility for the work. For example:

> Approximation is a usual part of work. Even a moderately complex calculation may involve many approximations. Disclosure of an appropriate approximation may mislead the user by implying that the actuary's work falls short of accepted actuarial practice.
>
> Use of another person's work is also a usual part of work. If the actuary does not take responsibility for the used work, then disclosure is appropriate. Disclosure if the actuary does take responsibility for the used work may mislead the user.
>
> Deviation from a particular recommendation or other guidance in the standards 1510
> when the result of doing so is not material is also a usual part of work and its 1610
> disclosure is undesirable. 1340

The work, its purpose, and its users

.12 Description of the work usually includes the calculation date and the numerical result. If the work is required by law, then citation of the law is useful.

.13 The amount of detail depends mainly on the needs of users. A separate report may be desirable for a particular user (usually a regulator) whose desire for detail significantly exceeds that of other users.

.14 Description of the purpose of the work and its users permits another person to assess its appropriateness to his or her needs and may thereby avoid unintended use of the work.

.15 The users comprise the addressee(s) of the report, and any others explicitly identified in the report.

Accepted actuarial practice

.16 If the work is in accordance with accepted actuarial practice, then a simple statement to that effect is a powerful statement, and reassuring even to a user with a limited understanding of what accepted actuarial practice is. If the work is not in accordance with accepted actuarial practice, then a statement that it is, except for specified deviations, is a concise description.

.17 Any deviation from accepted actuarial practice would result from either conflict with law or conflict with the terms of an appropriate engagement. 1310 1320

.17.1 For work in Canada, the actuary would refer to "accepted actuarial practice in Canada", or use other language of equivalent meaning and clarity.

.17.2 For work outside of Canada, the actuary may choose to refer to

> "accepted actuarial practice in [country]", if the guidance of a foreign jurisdiction has been applied to the work,
>
> "internationally accepted actuarial practice", if the guidance of the International Actuarial Association has been applied to the work, or
>
> "accepted actuarial practice in Canada", if Canadian guidance has been applied to the work because of the absence of applicable foreign guidance.

Unusual application of accepted actuarial practice

.18 The actuary would not usually report a deviation from a particular recommendation or other guidance in the standards as a result of an unusual or unforeseen situation. 1330

.19 If, as is common, accepted actuarial practice for an aspect of the work encompasses a range, then the actuary usually reports the work as in accordance with accepted actuarial practice without drawing particular attention to his or her selection within the range. Disclosure of the selection, and of the reason for selecting it, is appropriate, however, if it is any of the following:

> specified by law or by the actuary's client or employer, 1410
>
> excluded from the accepted range by an exposure draft or by approved, but not yet effective, new standards, 1210
>
> inconsistent with the corresponding assumption of a prior periodic report, 1750
>
> dependent on a special permissive feature in the law for its acceptability, or
>
> unusual or controversial.

Limitation to actuary's responsibility

.20 Any diminution of the actuary's responsibility for the work as a result of an engagement whose terms call for a deviation from accepted actuarial practice would be disclosed. 1320

Disclosure of Assumptions

.21 Disclosure of an assumption includes its description, and, if practical and useful, quantification of alternative assumptions.

Subsequent event not taken into account in the work

.22 An example of a subsequent event not taken into account in the work is a non-retroactive increase in the benefits of a pension plan for which the actuary is advising on funding. The actuary would describe the increase, report that it was not taken into account in the current advice on funding but that it will be taken into account in future advice, and, if useful, quantify its effect, for example by reporting the pro forma effect on the recommended funding if the benefit increase were effective immediately before the calculation date.

Reservations

.23 A report with reservation may be undesirable but is unavoidable in the following examples:

> The actuary was obliged to use the work of another person and has doubts about the appropriateness of so doing. 1610
>
> The actuary was obliged to use insufficient or unreliable data. 1530
>
> There was an undue limitation to the scope of the actuary's work. For example, the time, information, or resources contemplated by the terms of the engagement did not materialize. 1410
>
> There is an unresolved conflict of interest. Rule 5 permits the actuary who has a conflict of interest to perform professional services if stated conditions are met. In reporting in such a case, it is good practice to note the conflict and confirm that the conditions are met. If, as a result of an apparent but not actual conflict, a user might doubt the actuary's objectivity, then it is useful to report why the conflict is not real. There is no conflict of interest, however, merely because a user and the actuary's client or employer have conflicting interests.

.24 The actuary would report any remedy, underway or expected, to the problem causing the reservation.

.25 A serious reservation may call for consultation with another actuary or legal advice. 1130.06

.26 Barring explicit disclosure to the contrary in the report, the user is entitled to assume that 1610

> the work is in accordance with accepted actuarial practice and no reservation is required,

the actuary takes responsibility for all of the work, and

if a periodic report, then the method is the same as that in the prior report and the assumptions are consistent with those in the prior report. 1750

Opinion

.27 In giving an opinion, the actuary would begin with "In my opinion,..." which is a signal that he or she is giving a formal, professional opinion on a matter within the domain of actuarial practice. The actuary would add appropriate qualification when giving an opinion on a matter outside that domain but on which he or she is able to comment. For example:

> "The valuation of Mrs. Smith's life interest in Mr. Smith's estate, and the residual value, both depend on the future value of the residential property which makes up the bulk of that estate. An assumption about future real estate values for any given property is outside the domain of actuarial practice but, in my opinion, it is reasonable to assume that property values will generally continue to increase over time at the same rate as inflation."

.28 It may be better to disclose an assumption selected by the client or mandated by law without giving an opinion on it; for example:

> "On your [lawyer-client's] instruction, I assume that the career path of the [injured high school student] is to complete her high school education and then to obtain an undergraduate university degree."

Identification

.29 For work in Canada, the actuary would usually identify himself or herself simply as "Fellow, Canadian Institute of Actuaries" (or "FCIA" if users recognize the abbreviation), especially when Fellowship in the CIA is required or expected for the work. To add additional identification, such as

the actuary's relationship with the client or employer (e.g., "Vice-President and Actuary" or "Consulting Actuary"), or

the actuary's other professional qualification (e.g., "Fellow of the Casualty Actuarial Society")

may be appropriate but may create confusion about the actuary's qualification to sign the report and about the standards governing the work, and may diminish the standing of the Institute.

Report date

.30 In reporting an opinion, the actuary would consider all available information up to the report date, including subsequent events if the report date is after the calculation date.

.31 The report date would usually be the date at which the actuary has substantially completed the work. The remaining effort may include peer review, typing and photocopying the report, and compilation of documentation.

.32 The date the actuary signs and delivers the report would be as soon thereafter as practical. If there is an unavoidably long delay, however, then the actuary would consider any additional subsequent events which would result from a current report date. 1110 1520

Withdrawal or amendment of a report

.33 After the report date, the actuary has no obligation to seek additional information which, if known at the report date, would have affected the report, but, if additional information comes to hand, would consider if it invalidates the report. Additional information invalidates the report if it

> reveals a data defect or a calculation error,
>
> provides additional information about the entity which is the subject of the report as that entity was at the calculation date,
>
> retroactively makes that entity a different entity at the calculation date, or
>
> makes that entity a different entity after the calculation date and a purpose of the work was to report on the entity as it would be as a result of the information.

.34 That additional information consists of both external information and internal discovery of an error in the work. Its classification is similar to the classification of subsequent events. That is, if the additional information were a subsequent event, and if it would have to be taken into account in the data, methods, or assumptions for the work, then it invalidates the report. It does not invalidate the report if it makes the entity which is the subject of the report a different entity after the calculation date and a purpose of the work is to report on the entity as it was at the calculation date; for example, if the additional information changes the outlook for the entity which would lead the actuary to select different assumptions at the next calculation date for a periodic report. 1520

.35 If the actuary withdraws or amends a report, then he or she would seek agreement with the client or employer on the notification to be given to users and on the preparation of an amended or replacement report in cases where there is no legal requirement to do so. Failing such agreement, the actuary would consider seeking legal advice on the discharge of his or her responsibilities, taking consideration of the fact that, to the extent practical and useful, all users should so be informed.

.39 The actuary would value the policy liabilities so that, in the aggregate, they and the other policy-related items in the balance sheet take account of the time value of money.

.40 In some cases, applicable regulation requires policy liabilities to be valued without taking account of the time value of money; i.e., to be valued as the sum of, rather than the present value of, the cash flow after the balance sheet date. For such a case, the actuary would make a dual valuation of policy liabilities:

A in accordance with accepted actuarial practice, and

B in accordance with accepted actuarial practice but not taking account of the time value of money, with the provision for adverse deviations appropriately reduced.

.41 If A is acceptable under the applicable regulation (which would usually be the case if A is greater than or equal to B), then the actuary would report A without reservation on account of the regulation.

.42 If A is not acceptable under the applicable regulation (which would usually be the case if A is less than B), then the actuary would report B with reservation. 1310 1820.23

Margin for adverse deviations

.43 The margin for adverse deviations reflects the degree of uncertainty of the best estimate assumption. This uncertainty results from the risk of misestimation of and deterioration from the best estimate assumption. The potential for misestimation is greater when the past experience has been more volatile and hence would justify a greater margin. However, the margin for adverse deviations would be based on a forward-looking assessment of the expected experience and would not act as a mechanism to absorb changes in observed experience, such as changes caused by statistical fluctuations.

2140 REPORTING

.01 *The actuary's report should describe*

the valuation and presentation of policy liabilities for the insurer's balance sheet and income statement,

the actuary's opinion on the appropriateness of those liabilities and on the fairness of their presentation, and

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.

.02 *If*

the financial statements (or their accompanying management discussion and analysis) describe the actuary's role in their preparation, and

the actuary can report without reservation,

then the actuary's report should conform to the standard reporting language, consisting of 1810 2140.17

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.

.03 *If not, the actuary should modify the standard reporting language to report with reservation.* [Effective January 1, 2003]

Accounting in the balance sheet

.04 The amount of the policy liabilities is usually the largest amount in the balance sheet, so that its itemisation is desirable.

.05 The reference to "policy liabilities" in the standard reporting language is adequate if

the notes to the financial statements or their accompanying management discussion and analysis verbally define "policy liabilities", or

the balance sheet presents their total amount as a separate item.

Accounting in the income statement

.06 The standard reporting language implies that the income statement accounts for the total change in the policy liabilities during the accounting period. That accounting is direct in the case of a life insurer's actuarial liabilities, whose change is presented as a separate item in the income statement. That accounting is indirect in the case of other policy liabilities, because their change is not separately presented, but is included within other items in the income statement. For example, the item, incurred claims, equals

claims and claim expenses paid during the accounting period, plus

claim liabilities (which are part of the policy liabilities) at the end of the accounting period, minus

claim liabilities at the beginning of the accounting period.

Disclosure of unusual situations

.07 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 is a signal to the reader of the financial statements that there is, or is not, fair presentation.

.08 In an unusual situation, fair presentation may require explanation of an item which 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 income and capital. Failing such explanation, the actuary would provide it by a reservation in reporting.

.09 The question, "Will explanation enhance the user's understanding of the insurer's financial position?" may help the actuary to identify such a situation. Unusual situations may include

> capital appropriated on the actuary's advice,
>
> off-balance-sheet obligations, for example, contingent policy liabilities in connection with market conduct,
>
> restatement of items for preceding accounting periods,
>
> the impracticality of restating any items which are reported in current period financial statements and which were reported inconsistently in preceding period financial statements, 1750.05
>
> inconsistency among accounting periods, 1750.05 2140.11
>
> an unusual relationship between the items in current period financial statements and the expected corresponding items in future period financial statements,
>
> a change in the method of valuation which does not have an effect in the current accounting period but which is expected to have an effect in future accounting periods,
>
> allocation of expense or investment income to a participating account (if reported in the financial statements) other than in accordance with the method approved by the actuary and the insurer's board of directors,
>
> a subsequent event, and 1520
>
> a difference between the insurer's present practice and that which the actuary assumed in valuing the policy liabilities.

.10 An example of the last item is the actuary's assumption of a policy for setting dividend scales which differs from the insurer's current policy. The actuary would not, however, report the assumption of a dividend **scale** which is in accordance with an unchanged dividend **policy**. The same applies to a difference between current and assumed policy for setting non-guaranteed cash value scales and premium rates for adjustable policies.

Consistency among accounting periods

.11 Financial statements usually report results for one or more preceding accounting periods in addition to those for the current period. Meaningful comparability requires the financial statement items for the various periods to be consistent through the restatement of preceding period items if they were inconsistently reported in the preceding period financial statements. A less desirable alternative to restatement is disclosure of the inconsistency.

.12 A change in the method of valuation creates an inconsistency. If a change in the assumptions 1750
for valuation reflects a change in the expected outlook, then it does not create an inconsistency although, if its effect is major, then fair presentation may require its disclosure.

.13 A change in assumptions which results from the application of new standards may create an inconsistency.

Communication with the auditor

.14 Communication with the auditor is desirable at various stages of the actuary's work. These include

- use of work in accordance with the CIA/CICA *Joint Policy Statement*, 1630
- the drafting of common features in the auditor's report and actuary's report, 1520
- the drafting of a report with reservations,
- the presentation of the policy liabilities, and
- the treatment of subsequent events.

Description of the actuary's role

.15 The actuary would report a description of his or her role in the preparation of the insurer's financial statements only if the financial statements or their accompanying management discussion and analysis do not provide that description.

.16 Here is an illustrative description:

"The Appointed Actuary is

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

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

required to provide an opinion on the appropriateness of the policy liabilities at the balance sheet date to meet all policyholder obligations of [the Company]. The work to form that opinion includes an examination of the sufficiency and reliability of policy data and an analysis of the ability of the assets to support the policy liabilities; and

required each year to analyse the financial condition of the company and prepare a report for the [Board of Directors]. The analysis tests the capital adequacy of the company until [31 December xxxx] under adverse economic and business conditions."

Standard reporting language

.17 Here is the standard reporting language:

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] balance sheet at [31 December XXXX] and their change in the statement of income for the year then ended in accordance with accepted actuarial practice in Canada, including selection of appropriate assumptions and methods.

In my opinion, the amount of policy liabilities makes appropriate provision for all policyholder obligations and the [consolidated] financial statements fairly present the results of the valuation. 1820.29

[Montréal, Québec] [Mary F. Roe]
[Report date] Fellow, Canadian Institute of Actuaries

.18 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.

.19 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 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. 1520 1820.30

Reservations in reporting

.20 The examples which follow are illustrative. 1820.25

Quasi-insurer

.21 Here is an example of a report for a quasi-insurer:

> I have valued the outstanding claim liabilities of [the Professional Indemnity Plan] for its balance sheet at [31 December XXXX] in accordance with accepted actuarial practice in Canada, including selection of appropriate assumptions and methods.
>
> As explained in Note [XX], the [Plan's] liabilities are not fully funded.
>
> In my opinion, and having regard for Note [XX], the amount of policy liabilities makes appropriate provision for all of the [Plan's] outstanding claims and the financial statements fairly present the results of the valuation.

Note [XX] would quantify and describe the actuary's assumptions with respect to the asset shortfall, describe the plan, if any, for its funding, and explain its implications for the financial security of participants and claimants.

New appointment

.22 A newly appointed 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 policy liabilities of [the Company] for its [consolidated] balance sheet at [31 December XXXX] and, except as noted in the following paragraph, their change in the statement of income for the year then ended in accordance with accepted actuarial practice in Canada, including selection of appropriate assumptions and methods.
>
> I became the [appointed actuary] during the year and was unable to confirm the appropriateness of the valuation for the preceding year. 1610
>
> In my opinion, the amount of policy liabilities makes appropriate provision for all policyholder obligations and the [consolidated] 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 a more serious reservation. 1640

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:

> As explained in Note [XX], the method of valuation for the current year differs from that for the preceding year. In my opinion, except for that lack of consistency, the amount of policy liabilities makes appropriate provision for all policyholder obligations and the [consolidated] financial statements fairly present the results of the valuation.

.25 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 equity at the beginning of the preceding year.

Valuation does not take account of time value of money

.26 If a regulation that policy liabilities be valued without taking account of the time value of money requires a reservation, then the actuary would modify the standard reporting language as follows:

> I have valued the policy liabilities of [the Company] for its [consolidated] balance sheet at [31 December xxxx] and their change in the statement of income for the year then ended in accordance with accepted actuarial practice in Canada, including the selection of appropriate assumptions and methods, except as described in the following paragraph.
>
> In accepted actuarial practice in Canada, the valuation of policy liabilities reflects the time value of money. Pursuant to the authority granted by the *Insurance Companies Act*, the Superintendent of Financial Institutions has directed that the valuation of some policy liabilities not reflect the time value of money. My valuation complies with that directive.
>
> In my opinion, the amount of policy liabilities makes appropriate provision for all policyholder obligations, except as noted in the previous paragraph, and the [consolidated] financial statements fairly present the results of the valuation.

Takeover of insurer with poor records

.27 If the insurer took over another insurer with poor records, then the actuary would modify the standard reporting language as follows:

> I have valued the policy liabilities of [the Company] for its [consolidated] balance sheet at [31 December XXXX] and their change in the statement of income for the year then ended in accordance with accepted actuarial practice in Canada, including selection of appropriate assumptions and methods, except as described in the following paragraph.
>
> During the year, [the Company] took over the assets, liabilities, and policies of [WWW Insurer], whose policy records are, in my opinion, unreliable. [The Company] is making but has not completed the necessary improvements. My valuation with respect to the policies taken over from [WWW Insurer] is therefore uncertain. Their policy liabilities comprise [N]% of the total policy liabilities at [31 December XXXX].
>
> In my opinion, except for the reservation in the previous paragraph, the amount of policy liabilities makes appropriate provision for all policyholder obligations and the [consolidated] financial statements fairly present the results of the valuation.

Liabilities greater than those calculated by the actuary

.28 If the financial statements of an insurer report policy liabilities which are greater than those calculated and reported by the actuary, and if the notes to those financial statements do not provide sufficient disclosure of the rationale for the greater liabilities, then the actuary would report as follows:

> I have valued the policy liabilities of [the Company] for its [consolidated] balance sheet at [31 December XXXX] and their change in the statement of income for the year then ended in accordance with accepted actuarial practice in Canada, including selection of appropriate assumptions and methods, except as described in the following paragraph.
>
> In my valuation, the amount of the policy liabilities is $[X]. The corresponding amount in the [consolidated] financial statements is $[Y].
>
> In my opinion, the amount of policy liabilities of $[X] makes appropriate provision for all policyholder obligations and, except as described in the preceding paragraph, the [consolidated] financial statements fairly present the result of the valuation.

2550 OPINION

.01 *The report should contain an opinion signed by the actuary. The purpose of the opinion is to report on the financial condition of the insurer.* [Effective January 1, 2003]

.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 annual investigation of the [future] financial condition of [company name] as at [date] in accordance with accepted actuarial practice in Canada.
>
> I have analyzed the forecasted financial positions of the company during the [number] year forecast period under a series of scenarios. A description of these scenarios and their impact on the company is included within this report.
>
> The analysis incorporates assumptions relating to business growth, investments, [mortality, morbidity, claims frequency, capital injections, other policy-related experience] and other internal and external conditions during the forecast period as well as potential management responses to various plausible adverse scenarios. The most significant assumptions are described within this report.
>
> In my opinion, the [future] financial condition of the company [is satisfactory under these assumptions or is not satisfactory for the following reason(s)…].

[Montréal, Québec]	[Mary F. Roe]
[Report date]	Fellow, Canadian Institute of Actuaries

3500 ACCOUNTING FOR PENSION COSTS

.01 The standards in this section apply to advice on accounting for a plan's costs and obligations in the employer's or the plan's financial statements. 1410

.02 *If called for by the engagement, the actuary should select methods and assumptions for the valuation of assets and liabilities that are appropriate to the basis of accounting in the employer's or plan's financial statements, as applicable.*

.03 *The assumptions which the actuary selects should be best estimate assumptions.*

.04 *With respect to the assumptions, the actuary should report one of the following*

> *the preparers of the financial statements have selected the assumptions and the actuary expresses no opinion on them,*
>
> *the preparers of the financial statements have selected the assumptions and they are, or are not, in accordance with accepted actuarial practice in Canada, or*
>
> *the actuary has selected the assumptions and they are in accordance with accepted actuarial practice in Canada.* [Effective December 1, 2002]

.05 The actuary would reflect the accounting standards specified by the terms of the engagement. 1720 1710
For work in Canada, the CICA Handbook and other CICA guidance would usually be specified. 1750
In particular, if the actuary is aware at the time of preparation of the report of any subsequent 1730.07 1730.19
event that makes the entity a different entity after the calculation date, the actuary would report 1740
an estimate of the financial effect of such subsequent event, or in the rare circumstance that it is 3200.04 3300
impractical to make such an estimate, include a statement to that effect. 1410

.06 If the preparers of the financial statements select the assumptions and they are not in accordance with accepted actuarial practice, Rule 6 may apply. That is so whether or not the actuary expresses an opinion on the assumptions.

3600 REPORTING: EXTERNAL USER REPORT

.01 *In the case of an external user report on work which includes a valuation of assets and liabilities, the actuary should summarize the result of the valuation and should*

> *describe the source and verification of data with respect to members, plan provisions, and assets, and the date at which they were compiled,*
>
> *describe the data with respect to members,*
>
> *describe the plan's provisions, including the identification of any expected amendment that has been valued,*
>
> *disclose subsequent events, whether or not the events are taken into account in the work, and, if there are no subsequent events, include a statement to that effect,*
>
> *describe the method and assumptions for valuation of the liabilities, and*
>
> *describe the method to value the assets, disclose their value, and, if available, their market value and their value in the plan's financial statements, and provide an explanation of any differences among them.* 1820.02

.02 If the valuation includes no provision for adverse deviations, the actuary should say so and say why.

.03 *If the report gives advice on funding, then the actuary should*

> *describe the actuarial cost method in the case of a going concern valuation and the method to value benefits in the case of a wind-up valuation,*
>
> *if recommending contributions, describe their determination between the calculation date and the next calculation date,*
>
> *if contributions are fixed, either*
>
> > *report that the contributions are adequate to fund the plan, or*
> >
> > *report the required increase in contributions, the required reduction in benefits, or the combination thereof that will address the funding shortfall,*

except where

the plan is a "designated plan" that has as members only persons "connected" with the employer (as those two terms are defined in the Income Tax Regulations), and

the sole purpose of the valuation is to determine the maximum contributions permitted under the Income Tax Act,

disclose the amount of funding needed in accordance with accepted actuarial practice if reporting lower funding for a registered plan in accordance with law or the terms of the engagement,

name the next calculation date,

disclose any pending but definitive or virtually definitive amendment, the funding of which has been deferred beyond the next calculation date,

in the case of a going concern valuation, describe and quantify the gains and losses between the prior calculation date and the calculation date,

disclose the financial position of the plan if it were to be wound up on the calculation date, unless the plan does not define the benefits payable upon wind-up, in which case the actuary should include a statement to that effect, and

if the report gives advice on funding, the description of assumptions should include the rationale for the selection of each assumption that is material to such advice.

.04 *If the report gives advice on accounting, the actuary should*

describe the actuarial cost method,

describe the method and period selected in connection with any amortization of pension costs,

if the valuation is an extrapolation of an earlier valuation, describe the method and any assumptions for, and the period of, the extrapolation,

state whether or not the valuation conforms with the accounting standards specified by the terms of the engagement, and

either opine that the assumptions used are, or are not, in accordance with accepted actuarial practice in Canada, or state that the actuary expresses no such 1820
opinion.

.05 *The report should be sufficiently detailed to enable another actuary to examine the reasonableness of the valuation.*

Statements of Opinion

.06 *If the report gives advice on funding, the actuary should provide the following four statements of opinion, all in the same section of the report and in the following order:*

1. *a statement as to data, which should usually be as follows: "In my/our opinion, the data on which the valuation is based are sufficient and reliable for the purpose of the valuation.";* 1530
2. *a statement as to assumptions, which should usually be as follows: "In my/our opinion, the assumptions are, in aggregate, appropriate for the purpose(s) of ....";* 1730
3. *a statement as to methods, which should usually be as follows: "In my/our opinion, the methods employed in the valuation are appropriate for the purpose(s) of ...."; and*
4. *a statement as to conformation, which should be as follows: "This report has been prepared, and my/our opinions given, in accordance with accepted actuarial practice in Canada."* [Effective December 1, 2002]

.07 Where different statements of opinion apply in respect of different purposes of the valuation, the above requirements may be modified but would be followed to the extent practicable.

.08 While a separate statement as to assumptions would generally be included in respect of each purpose of the valuation, the statements as to assumptions may be combined where the statements do not differ between some or all of the valuation's purposes. The report would clearly indicate which statement as to assumptions applies to each of the valuation's purposes.

.09 While a separate statement as to methods would generally be included in respect of each purpose of the valuation, the statements as to methods may be combined where the statements do not differ between some or all of the valuation's purposes. The report would clearly indicate which statement as to methods applies to each of the valuation's purposes.

Data

.10 The description of verification of data would include a description of the main tests of the data's sufficiency and reliability and of any assumptions in respect of insufficient or unreliable data.

Assumptions

.11 The description of assumptions would include a description of each nominal change to the assumptions of the prior valuation and a quantification of their aggregate effect. However, if a plan amendment prompts the actuary to change the assumptions, the actuary may report the combined effect of the amendment and the resultant change in assumptions. 1510.13 1750

Methods

.12 The description of the method to value the assets would include a description of any change to the method of the prior valuation and a quantification of the effect of the change.

.13 The description of the actuarial cost method would include a description of any change to the method of the prior valuation and a quantification of the effect of the change.

.14 For a funding valuation, the description of the actuarial cost method would include a description of

> the effect of the selected actuarial cost method on the security of benefits and on the pattern of future contributions,
>
> the options with respect to any shortfall or excess of assets over liabilities, and
>
> any anticipated or deferred funding, any taking account of imminent wind-up and, in the case of anticipated or deferred funding, a quantification of its financial effect on the value of benefits and on the pattern of future contributions.

3700 WIND-UP, HYPOTHETICAL WIND-UP, OR SOLVENCY VALUATION

3710 SCOPE

.01 The standards in this section 3700 apply to the valuation of a pension plan registered under the *Income Tax Act* which is being wound-up, fully or partially, actually or hypothetically, including a solvency valuation. The standards in sections 3100 through 3600 also apply.

.02 This section is not intended to prescribe the manner in which

the assets would be allocated between jurisdictions in the case of wind-up of a pension plan covering members in several jurisdictions,

final benefit entitlements would be determined,

contributions to a pension benefits guarantee fund would be determined,

funding obligations would be determined, or

assets would be allocated between the employer and the members or between the members themselves.

.03 Rather, those issues would be determined in accordance with law or the plan provisions, or an entity empowered thereunder to make that determination. It may, however, be appropriate to use the results of the valuation to address one or more of those issues, or to disclose their resolution in the report.

3720 WIND-UP VALUATION

Assumptions and methods

.01 *The selected assumptions should*

be best estimate assumptions,

be determined as at the cut-off date,

in respect of benefit entitlements that are expected to be settled by purchase of annuities, reflect single premium annuity rates, and

in respect of benefit entitlements that are expected to be settled by lump sum transfer, reflect the recommendations respecting capitalized values.

.02 *The actuary should either*

select and report an explicit assumption regarding the expenses of wind-up and offset the resulting expense provision against the plan's assets, or

justify the expectation that expenses will not be paid from the plan's assets.

.03 *The actuary should take subsequent events up to the cut-off date into account. The actuary should report an undertaking to produce a later report if the actuary expects that a later report date would reveal additional subsequent events.*

.04 *The plan's assets should be valued at liquidation value.*

Reporting

.05 *If the report is preliminary, then the actuary should report that the financial position at settlement may differ from that reported. If the report is final and there has been a preliminary report, then the actuary should explain the differences between the reported financial positions.*

.06 *The actuary should report*

the wind-up date, the calculation date, the cut-off date, and the report date,

a description of the events precipitating the wind-up that affect the terms of the wind-up, the benefit entitlements, or the valuation results,

if the actuary relies upon written direction concerning unclear or contentious issues,

each issue on which the actuary relies on written direction,

the identity and basis of authority of the person providing such written direction, and

the written direction relied upon or, where appropriate, a summary thereof,

the determination and amount of any claims to a pension benefit guarantee fund,

the amount of any claims to a trustee in bankruptcy,

either the detailed individual membership data or an offer to provide them on request to the employer, the plan administrator, or the regulator, *any amendments made since the last valuation report which affect the distribution of assets or benefit entitlements,*

assumptions made about missing data,

where the plan participant has a choice which he/she has not yet made between a transfer value and insuring his/her benefits, the assumptions made regarding such choice,

a description of the post-wind-up contingencies which affect benefit entitlements,

any benefits that have been insured,

if applicable, the method to allocate assets among classes of liabilities, the method to distribute surplus, the justification of those methods, and their effect,

a summary of the assets by major category,

the actuary's role in calculating capitalized values, the standards for their calculation, and an opinion on whether their calculation is in accordance with accepted actuarial practice in Canada,

whether a recalculation of the value of benefit entitlements is required at settlement, and

the sensitivity of the valuation results to the plan's investment policy and to market conditions between the report date and the settlement date. [Effective December 1, 2002]

Dates

.07 The wind-up date is the date of termination of the pension plan as determined by law, the plan provisions, the regulator, or the plan administrator, usually in that order of priority.

.08 The calculation date for the plan's financial position is usually the wind-up date. The calculation of the benefit entitlements would not be affected by the choice of the calculation date.

.09 The cut-off date is the date up to which subsequent events would be recognized in the valuation.

.10 For a particular member,

the date of calculation of benefit entitlement depends on the circumstances of the wind-up, the terms of the plan, and the law, and may be the date of termination of employment, the date of termination of membership, the wind-up date, or another date, and

the settlement date is the date of settlement of his or her benefit entitlement.

Nature of wind-ups

.11 The purpose of a wind-up valuation may be to determine, or to provide the basis for determining

- the financial position of the plan,
- the total value of the benefit entitlements of all plan members prior to taking account of the financial position of the plan,
- any required additional funding,
- the amounts and methods of settlement of benefit entitlements, including any adjustment required due to a wind-up deficit, or
- the amount and method of distribution of a wind-up surplus.

.12 Plan wind-up is complex and may take a long time. Months and sometimes years elapse between the wind-up date and the settlement date. Delay creates difficulties which may require a series of reports by the actuary. Since the financial position of the plan determines whether benefit entitlements can be settled in full, the reflection of subsequent events in each report is critical.

.13 For example, between the wind-up date and the settlement date

- the wind-up liabilities will fluctuate if there are fluctuations in interest rates and annuity prices, and
- the surplus will fluctuate if there are fluctuations in interest rates and the assets and liabilities are not matched.

.14 The actuary would usually report the value of the benefit entitlements of all plan members and the financial position of the plan. That report would be filed with the regulator for approval. After that approval, the plan administrator would settle the benefit entitlements.

.15 The actuary may prepare or may be required to prepare a final report after settlement of all benefit entitlements. Such report, if any, would document the distribution of the plan's assets by describing those entitlements and their settlement.

Data

.16 The data are the responsibility of the plan administrator. The actuary would, however, report on the sufficiency and reliability of the data, including specifically the capitalized values included in the valuation whether or not the plan administrator was the calculator thereof.

.17 The finality of wind-up calls for the actuary to obtain precise data. The actuary may, in rare
circumstances, include contingency reserves in the wind-up valuation of the pension plan with
respect to missing plan members, if the actuary has reason to believe that additional members still 1340
have benefit entitlements under the pension plan but their membership information is missing.

.18 The reported membership data would include details of the amount and terms of payment of each member's benefits.

Use of another person's work

.19 Some aspects of plan wind-up may be unclear or contentious. Examples are

interpretation of the law,

the determination of the wind-up date,

the members, former members or recently terminated members to be included in the wind-up,

whether or not to assume salary increases in determining benefit entitlements,

eligibility for plant closure benefits and permanent lay-off benefits,

eligibility for benefits payable only with the consent of the employer or plan administrator,

the liquidation value of the plan's assets,

the method to allocate the plan's assets among members,

the allocation of surplus between the employer and the members, and

whether or not wind-up expenses are to be paid from the plan's assets.

.20 To decide those aspects, the actuary may rely upon written direction from another person with the necessary knowledge, such as legal counsel or the employer, or the necessary authority, such 1610 as a regulator or the plan administrator. The actuary would consider any issues of confidentiality or privilege that may arise.

Settlement methods

.21 Examples of settlement methods are:

Determine the capitalized value at the wind-up date and then accumulate the result to the settlement date using the interest rate underlying the capitalized value calculation. This method is often required by law.

Determine the capitalized value at the settlement date based on the benefit entitlements at the wind-up date, but with assumptions for capitalized values at the settlement date.

Determine the percentage of the plan's assets payable at the wind-up date to each member based on the pro rata value of the member's benefit entitlements to the value of all benefit entitlements. The member's percentage is then multiplied by the actual value of the plan's assets at the settlement date. This method is sometimes referred to as the "unitization" method.

.22 Under these and other methods, adjustment would be made for benefit payments and/or contributions between the wind-up date and the settlement date.

.23 Accepted actuarial practice provides no guidance on selection of the settlement method. The actuary may rely upon written direction on its selection from the plan administrator or the regulator.

Assumptions

.24 The best estimate assumptions selected would be chosen so as not to distort, favourably or unfavourably, the value of any member's, or former member's, benefit entitlement relative to others.

.25 If a bona fide annuity quotation is unavailable, the actuary may substitute an adjusted capitalized value based on the recommendations for capitalized values. The adjustment would be made in order to more closely approximate an annuity premium by, for example,

> removing the monthly lag in economic indices in the prescribed assumptions for capitalized values,
>
> adjusting the prescribed assumptions to reflect recent historical differences between capitalized values and annuity premium rates, or
>
> adjusting for any commissions payable.

.26 If future benefits depend on continued employment (e.g., the plan is terminating but employment is not), the actuary would consider reflecting contingencies such as future salary increases and termination of employment.

.27 If the plan provides special early retirement allowances that may be reduced if the member has employment income during their term, then the wind-up valuation requires assumptions regarding the likelihood and the amount of the member's future employment income. To extrapolate the plan's historical experience as a going concern is not necessarily appropriate in selecting those assumptions. 1730.18

.28 Wind-up expenses usually include

> fees related to the actuarial wind-up report,
>
> fees imposed by a pension supervisory authority,
>
> legal fees,
>
> administration expenses, and
>
> custodial and investment management expenses.

.29 The actuary would net wind-up expenses against the plan's assets in calculating the ratio of assets to liabilities as a measure of financial security of the benefit entitlements. However, an exception may be made for future custodial and investment management expenses, which may 3720.31
be netted against future investment return in the treatment of subsequent events.

Benefit entitlements

.30 Post-wind-up contingencies may affect benefit entitlements. Examples are

member election of optional forms of benefits,

salary increases, and

change in marital status.

Subsequent events

.31 In contrast to a going concern valuation, in a wind-up valuation all subsequent events would ideally be reflected. This ensures that the financial position of the plan is presented as fairly as possible as of the report date. However, it is impossible to recognize subsequent events right up to the report date. Accordingly, the actuary would select a cut-off date which is close to the report date.

.32 The actuary would ascertain that no subsequent events have occurred between the cut-off date and the report date that would significantly change the plan's financial position, otherwise the actuary would select a later cut-off date. For clarity, a subsequent event may be material yet not be so significant as to require selection of a later cut-off date.

.33 It may be appropriate to have more than one cut-off date. For example, the actuary may select one cut-off date for the active membership data and another cut-off date for the inactive membership data.

.34 Common subsequent events are

contributions,

expenses paid from the plan's assets,

the actual investment return on the plan's assets,

a change in annuity purchase rates,

a change in assumptions for the calculation of capitalized values,

data corrections, 1520.13

deaths of members, and

elections of optional forms of benefits by members.

.35 An accepted practice for taking account of subsequent events is to determine the liabilities as of the cut-off date and then discount such liabilities back to the calculation date at an interest rate equal to the rate of investment return, net of investment expenses, earned on the assets between the calculation date and the cut-off date. The assets would be determined at the calculation date, but adjusted for the subsequent events (such as contributions and non-investment expenses) which affect assets.

.36 There may be situations where, due to law or practical considerations, subsequent events are not recognized, at least in a preliminary report. Current examples of such situations relate to certain reports submitted to the regulator of the Ontario Pension Benefits Guarantee Fund and to reports submitted to the Québec regulator. In such reports, the effect of subsequent events may be quantified in an approximate manner provided that the financial position of the plan as indicated in the valuation report does not have a direct bearing on the members' eventual settlement. Where the effect of subsequent events is provided in a later report, it may be practical in that report to use a calculation date corresponding to the cut-off date.

3730 PARTIAL WIND-UP VALUATION

.01 A partial wind-up occurs when a subset of the members terminates membership in circumstances which require wind-up with respect to those members. Such wind-up does not apply to the continuing members, although it may be necessary for legal or other reasons to also value the benefits of the continuing members.

.02 The laws regarding partial wind-ups vary by jurisdiction. As a result, their application can cause a partial wind-up to range from an insignificant change in the plan to something similar to a total wind-up.

.03 The standards for a partial wind-up are the same as the standards for a "full" wind-up. Their application may be easier, however, when the partial wind-up applies to relatively few members. For example,

> the standard of materiality for determination of benefit entitlements may be less rigorous for continuing members than for those to whom the partial wind-up applies, and
>
> the standards for reporting may be abbreviated; for example, the reporting of immaterial wind-up expenses is unnecessary.

4230 ASSUMPTIONS

.01 *The actuary's assumptions to calculate the capitalized value of amounts payable in respect of an individual should be best estimate assumptions unless there is a reason for biased assumptions. Except where the assumption is required by law, the actuary should report any such reason and the resulting bias.*

.02 *The actuary should ensure that any assumptions selected by the client are plausible, taking account of applicable law, and that they do not conflict with prescribed assumptions.*

.03 *In reporting, the actuary should identify which assumptions have been selected by the client.* [Effective January 1, 2004]

.04 Where there is insufficient data to support a particular assumption regarding a contingency incorporated in the model, the actuary may present results based on high and low estimates.

.05 Requirement by law is a satisfactory reason for using a biased assumption.

.06 If facts needed to make an appropriate assumption are lacking, then the actuary may report values for a helpful range of described assumptions.

4240 APPLICATION OF LAW

.01 In a situation where statute or case law specifies a method or assumption to be adopted in an actuarial evidence calculation, a broad interpretation of accepted actuarial practice is applied, so that in most such situations the statute or case law specification is within the range of accepted actuarial practice.

.02 If the actuary were unsure as to whether such a specification is accepted actuarial practice, he or she would consult with the chair of the Committee on Actuarial Evidence. 1310.01

4250 REPORTING: EXTERNAL USER REPORT

.01 Here is model text if the actuary reports without reservation: 1610.02

> I have determined the capitalized value of those aspects of the pecuniary damages described herein and prepared this report in accordance with accepted actuarial practice in Canada. It is my opinion that the assumptions and methods I have taken responsibility for are appropriate in the circumstances of this case and for the purpose of this report.
>
> Respectfully submitted,
>
> [actuary]
> Fellow, Canadian Institute of Actuaries

4340 Reporting: External User Report

.01 Here is model text if the actuary reports without reservation with regard to marriage breakdown:

> I have determined the capitalized value of the pension benefits and prepared this report in accordance with accepted actuarial practice in Canada, for purposes of settlement of a division of pension benefits resulting from marriage breakdown under the [Family Law Act] of [province]. In my opinion, the capitalized values are appropriate for this purpose.
>
> Respectfully submitted,
>
> [actuary]
> Fellow, Canadian Institute of Actuaries

6500 ACCOUNTING

.01 The standards in this section apply to advice on accounting for a plan's costs and obligations in the plan sponsor's or the plan's financial statements.

.02 *If called for by the engagement, the actuary should select methods and assumptions for the valuation of assets and liabilities that are appropriate to the basis of accounting in the plan sponsor's or plan's financial statements, as applicable.*

.03 *The assumptions that the actuary selects should be best estimate assumptions.*

.04 *With respect to the assumptions, the actuary should report one or more of the following:*

> *the preparers of the financial statements have selected the assumptions and the actuary expresses no opinion on them,*
>
> *the preparers of the financial statements have selected the assumptions and they are, or are not, in accordance with accepted actuarial practice in Canada, or*
>
> *the actuary has selected the assumptions and they are in accordance with accepted actuarial practice in Canada.* [Effective June 1, 2005]

.05 The actuary would reflect the accounting standards specified by the terms of the engagement. For work in Canada, the Canadian Institute of Chartered Accountants (CICA) Handbook and other CICA guidance usually would be specified. In particular, if the actuary is aware at the time of preparation of the report of any subsequent event that makes the entity a different entity after the calculation date, the actuary would report an estimate of the financial effect of such subsequent event, or in the rare circumstance that it is impractical to make such an estimate, include a statement to that effect.

.06 If the preparers of the financial statements select the assumptions and they are not in accordance with accepted actuarial practice, Rule 6 may apply. That is so whether or not the actuary expresses an opinion on the assumptions.

.07 The actuary may use prior valuation results along with an extrapolation technique, rather than conduct a new valuation. If the prior valuation date is three or more years earlier than the current valuation date, the actuary would not usually extrapolate from prior valuation results. 1510.06-.07

6600 REPORTING: EXTERNAL USER REPORT

.01 *In the case of an external user report on work that includes a valuation of assets (which may be zero) and liabilities, the actuary should summarize the result of the valuation and should describe*

the source and verification of data with respect to members, plan provisions, and assets, and the date at which they were compiled,

the data with respect to members,

the plan's provisions, including cost-sharing provisions and the identification of any expected amendment that has been valued,

the method and assumptions for valuation of the liabilities,

the data used to determine initial claims costs, and

the method to value the assets, their value, and, if available, their market value and their value in the plan's financial statements, and an explanation of any differences among them.

.02 *If the valuation includes no provision for adverse deviations, the actuary should say so and say why.*

.03 *If the report gives advice on funding, then the actuary should*

if recommending contributions, then describe their determination between the calculation date and the next calculation date,

if contributions are fixed, either

report that the contributions are adequate to fund the plan, or

report the required increase in contributions, the required reduction in benefits, or the combination thereof that will address the funding shortfall,

name the next calculation date,

disclose any pending but definitive or virtually definitive amendment, the funding of which has been deferred beyond the next calculation date, and

describe and quantify the gains and losses between the prior calculation date and the calculation date.

.04 *If the report gives advice on accounting, then the actuary should*

describe the method and period selected in connection with any amortization of benefit costs,

if the valuation is an extrapolation of an earlier valuation, then describe the method and any assumptions for, and the period of, the extrapolation,

state whether or not the valuation is in conformity with the accounting standards specified by the terms of the engagement, and

provide the disclosures required under paragraph 6500.04.

.05 *The report should be sufficiently detailed to enable another actuary to examine the reasonableness of the valuation.*

Statements of Opinion

.06 *If the report gives advice on funding, then the actuary should provide the following four statements of opinion, all in the same section of the report and in the following order:*

1. *a statement as to data, which should usually be as follows: "In my/our opinion, the data on which the valuation is based are sufficient and reliable for the purpose of the evaluation.",*
2. *a statement as to assumptions, which should usually be as follows: "In my/our opinion, the assumptions are, in aggregate, appropriate for the purpose(s) of…",*
3. *a statement as to methods, which should usually be as follows: "In my/our opinion, the methods employed in the valuation are appropriate for the purpose(s) of…", and*
4. *a statement as to conformity, which should be as follows: "This report has been prepared, and my/our opinions given, in accordance with accepted actuarial practice in Canada."* [Effective June 1, 2005]

.07 Where different statements of opinion apply in respect of different purposes of the valuation, the above requirements may be modified but would be followed to the extent practicable.

.08 While a separate statement as to assumptions would generally be included in respect of each purpose of the valuation, the statements as to assumptions may be combined where the statements do not differ among some or all of the valuation's purposes. The report would clearly indicate which statement as to assumptions applies to each of the valuation's purposes.

.09 While a separate statement as to methods would generally be included in respect of each purpose of the valuation, the statements as to methods may be combined where the statements do not differ among some or all of the valuation's purposes. The report would clearly indicate which statement as to methods applies to each of the valuation's purposes.

Data

.10 The description of verification of data would include a description of the main tests of the data's sufficiency and reliability and of any assumptions made in respect of insufficient or unreliable data.

Assumptions

.11 The description of assumptions would include a description of each nominal change to the assumptions of the prior valuation and a quantification of its aggregate effect. However, if a plan amendment prompts the actuary to change the assumptions, the actuary may report the combined effect of the amendment and the resultant change in assumptions.

Methods

.12 The description of the method to value the assets would include a description of any change to the method of the prior valuation and a quantification of the effect of the change.

.13 The description of the actuarial cost method would include a description of any change to the method of the prior valuation and a quantification of the effect of the change.

.14 For a funding valuation, the description of the actuarial cost method would include a description of

> the effect of the selected actuarial cost method on the security of benefits and on the pattern of future contributions,
>
> the options with respect to any shortfall or excess of assets over liabilities, and
>
> any anticipated or deferred funding, and a quantification of its financial effect on the value of benefits and on the pattern of future contributions.