Professional Guidance for Casualty Actuaries in Australia, Canada, United Kingdom & USA

by

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&

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BIOGRAPHIES

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Ian Reynolds was educated at Emmanuel College, Cambridge where he took a degree in Mathematics. Subsequently he took a Master's degree in Statistics at the University of Aberystwyth before qualifying as a Fellow of the Institute of Actuaries in 1968.

He is currently External Examiner for the post-graduate Diploma in Actuarial Statistics at the City University in London.

He has been co-author of two papers to the Institute of Actuaries and is currently a member of their Solvency Working Party. In this role he is presenting a paper with PD Smith to the International Congress of Actuaries in Helsinki in June 1988.

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John Ryan was educated at Queens College Cambridge where he took a degree in Mathematics. He qualified as a Fellow of the Institute of Actuaries in 1968.

He presented papers to the International Congress of Actuaries in Zurich in 1980 and Sydney in 1984 and the Staple Inn Actuarial Society in 1975 and 1986. He qualified as an Associate in 1979.

He has been a member of the Council of the Institute of Actuaries since 1986 and was a member of its General Insurance Committee which Drafted Guidance Note GN12. He is also a Fellow of the Institute of Risk Management and an Associate of the Society of Investment Analysts.

ABSTRACT

Between 1985 and 1987, the professional actuarial bodies in Australia, Canada, United Kingdom and USA have issued or updated guidance notes on actuarial work in property-casualty insurance. The paper reviews the status and authority of the guidance notes. They do not attempt to lay down standards to be followed but describe principles which it is expected the actuary will follow other than in exceptional circumstances. The Draft Statement issued by the Casualty Actuarial Society in December 1986 stands out as the document in which technical principles are discussed.

Each document reflects the environment in which the actuary works and thus there are differences in approach, sometimes quite fundamental. Sections of the paper review the guidance given on:

Data
Policy Liabilities
Claims Liabilities including variability and central or cautious estimates
Discounting
Relationships with other professionals
and Reinsurance

The authors believe that the comparison indicates areas where a more common approach could be achieved and some problem areas which have not yet been fully covered.

It is considered that as a result of this review some re-assessment of professional guidance may still be necessary.

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1. Introduction

A profession distinguishes itself from commercial organisations in the means by which control is exercised over the quality and standard of the services provided by its members. That control is exercised in a number of ways:

- o initial selection of members
- o qualification by examinations set by the profession
- o experience requirements
- o codes of conduct supported by disciplinary procedures
- o guidance on carrying out work.

The most significant of these are the disciplinary procedures although the effect comes more from knowledge of their existence than from the imposition in practice. This is not so say that they are not realistic or strictly enforced, but more that lapses are rare, in large part due to strict entry standards. We will not discuss disciplinary procedures in this paper. Their exact form is less important than their existence.

Professional standards are currently of topical interest. The actuarial professions have responded to closer public interest in professional standards, and to changes in regulation, by issuing or reviewing and strengthening guidance notes to their members on proper professional practices. In this paper we review the guidance issued on property/casualty insurance by the actuarial professional bodies in Australia, Canada, United Kingdom and USA.

The actuary in other, non-English speaking territories, does not in general have professional status. The Dutch actuaries have taken a significant step in creating such a status by issuing a Code of Practice. This is described in a paper to be presented to the International Congress in Finland in June 1988. (See T.J.J. van den Heiligenberg.)

2. Issued Guidance

Below we summarise the notes issued by the professions in each of the four countries under consideration. In particular we consider:

- o the status of the notes - are they issued as final documents or as drafts to be reviewed after a trial period?

- o the authority of the note - the extent to which they are binding on members or in which circumstances may the actuary exercise judgement to depart from the guidance given.

2.1 Australia

In June 1986, the Institute of Actuaries of Australia issued a Practice Note, 'Outstanding Claims in General Insurance'. The note gives guidance to any actuary who

> "estimates outstanding claims liability or advises on outstanding claims provisions".

It states specifically that it

> "does not lay down standards which must be followed by members".

This is a common theme. Actuarial work is scientific according to Karl Popper's requirement (Ref 4) that a scientific hypothesis be testable and falsifiable. Despite the caveats which must accompany many conclusions in actuarial reports, such conclusions are, in time, both testable and falsifiable. Standards are inappropriate for scientific disciplines. Indeed it is where statements are to be made which are non-scientific (using Popper's terminology) that standards are required - in many aspects of accounting and actuarial principles and in the relationships between a professional and his client such non-scientific matters arise and arise properly.

Alternative arguments against 'standards' are put forward in the Note. These are that continuing theoretical development is taking place in the estimation of outstanding claims liabilities and that it is the available data to a large extent, that determines the most suitable method or methods to use.

Distinctively, the practice note describes the Role of the Actuary. The actuary, acting as a professional actuary, is an adviser and not involved in commercial decisions. The Note is concerned solely with the actuarial responsibility as adviser to his principal who may, of course, also be his employer.

2.2 Canada

The Canadian Institute issued its first draft 'Recommendation for Financial Reporting in September 1985 for a trial period of one year. It was revised as a result of the suggestions made following the experience during that year. The Institute felt that the year had not allowed sufficient testing of the results so the trial period was extended for a further year after which it is hoped that a final version can be issued. Thereafter it is planned that there will be reviews from time to time and the Recommendations will be updated.

The Recommendations apply to actuaries who perform the role of Valuation Actuary for a property - casualty insurance company. Under the Canadian & British Insurance Companies Act 1982, the Foreign Insurance Companies Act, and the relevant provincial statutes, eg. Quebec Bill 75, a valuation actuary's opinion is required in the annual financial statements. Such a statutory role does not exist, yet, in the other countries although it has been introduced in 1985 and 1986 in Italy and Netherlands.

The Canadian Recommendations deal with principles of valuations. The selection of methods used is left to the individual actuary. The reporting should:

> "allow for the member's peers, if his conduct has been challenged, to make a judgement as to whether his conduct was in accordance with good actuarial practice".

The form of the statement by the Valuation Actuary of his "opinion" in the annual financial statements and the government statement is considered in detail. The recommended texts are included in the Appendix.

The texts cover premium liabilities eg. unearned premium reserve, as well as claims liabilities. This follows the requirements of the statutes which followed the precedent of life insurance statutes. Of the other guidance notes, only that of the UK Institute refers to premium liabilities.

The actuary's statutory role, in reporting on outstanding claims liabilities, where it exists, is to provide a key part of the assessment of the financial soundness of the company. Such an assessment is incomplete without consideration of premium liabilities, and, subject to the accounting basis, premium assets such as deferred acquisition costs (DAC). Actuaries could be called upon to give opinions on premium liabilities, so we believe guidance is required in this area as well as in reporting on outstanding claims liabilities.

Canadian actuaries are required to conform to the Recommendations. The text of the Opinions gives added weight to this requirement. However, in:

> "unforeseen circumstances which make them inappropriate the member should consult with the Committee on Property - Casualty Insurance".

The tone of this caveat suggests that its use is expected to be a rare event. Circumstance where it is used can be expected to result in changes or additions to the Recommendations.

2.3 United Kingdom

Actuaries in the United Kingdom continue to be examined in life insurance, pensions, investment and general (property - casualty) insurance. The number of qualified actuaries working in general insurance is increasing rapidly but it still remains a small proportion of the total. Perhaps about 10% have some involvement even if it is not full-time. These actuaries have no statutory responsibilities but the Institute's Council decided in 1987 that a Guidance Note, 'General Insurance Business - Actuarial Reports' (GN12), would assist actuaries working in general insurance and demonstrate a professional basis for their involvement.

The recommendations of GN12 are not obligatory. However, it states:

> "The actuary should not depart from the guidance without having cogent reasons for believing that the circumstances are such that the guidance is not applicable".

The Institute would obviously take it seriously if an actuary departed inadvertently or with insufficient reason, from the guidance.

Guidance is restricted to reports on reserves or the financial soundness of insurance companies. Rate-making is specifically excluded, but as accurate claims reserving is fundamental to rate-making the guidance will assist actuaries involved in setting rates.

GN12 is unique in extending its coverage to reporting on the financial soundness of an insurance company. The word 'solvency' is consciously avoided because of potential confusion between use of that word in regulatory terms and in normal corporate parlance. The guidance is very general. Due consideration should be given to:

(i) expected volume, nature and profitability of new/renewed business;

(ii) fluctuations of all types relating to claims experience;

(iii) fluctuations in and ability to realise asset values; and

(iv) suitability of the reinsurance arrangements

and aspects of a subjective nature including fraud, bad management and the security of reinsurance arrangements.

GN12 is unique also in setting out possible different briefs under which the actuary produces his report. Guidance is not subsequently given as to how the actuary's analysis and report should differ when:

- recommending the level of outstanding claims reserves
- providing an independent check on reserves for management:
- reporting for supervisors on the financial strength of a company
- using only external data.

The note states that:

> "where appropriate, reports should indicate the sensitivity of the estimates to variations from the stated assumptions".

It also allows point estimates or ranges of acceptability but does not consider the circumstances in which the point estimate should be a mean value and those where it should include a margin. However in describing reserve levels, the actuary should:

> "bear in mind that when he uses the word 'adequate' this is likely to imply "with margins for caution", whereas the same may not apply where words such as 'prudent' or 'sufficient' are used".

The actuary is instructed to take account of the accounting framework in which the company he advises operates. The Association of British Insurers (ABI) has issued a Statement of Recommended Practice (SORP). This has been developed as an alternative to the issue of a SSAP (Statement of Standard Accounting Practice) by the Accounting Standards Board. Though prepared by the ABI, the SORP had substantial input from auditors and accountants. The Institute of Actuaries commented on drafts and individual actuaries, as members of insurance company managements provided input though not as professionals.

This instruction reflects London Market practice and other frameworks. London is, of course, an international centre and so its participants are exposed to differing standards in various parts of the world. Furthermore there is the three-year funding approach as well as annual accounting. Thus this point has more relevance here than in many other parts of the world.

2.4 United States

Members of the Casualty Actuarial Society will be familiar with the two guidance notes which they need follow. For completeness we describe them as we have done for other territories. The considerations of the Interim Actuarial Standards Board (IASB) are also developing a framework within which the actuary will be constrained.

The American Academy of Actuaries issued Interpretation 8-B Adequacy of Reserves in 1978 and a revised version was issued for comment in 1985. Subsequently the revision was deferred pending completion of the studies of IASB in particular on discounting. Interpretation 8-B provides guidance for the rendering of opinions as to the "good and sufficient" claims provision as specified in NAIC instructions. As such it deals only with loss (claims) and loss expense reserves. The use of several methods of analysis is expected with actuarial judgement applied to select the estimate to be used.

It is expected that such a judgement may often result in a conservative estimate. The degree of conservatism chosen will reflect the actuary's confidence in the estimate, the inherent variability of conditions affecting future claims payments and the insurer's responsibilities to policyholders and claimants. It must be presumed that shareholders can look after their own interests. This approach to conservatism obviously reflects the purpose of the particular actuarial work for which guidance is being given, ie. "good and sufficient" reserves.

The revised version included comments on the approach to discounting but specifically stated that it was not designed to approve or disapprove of the concept of discounting.

The Casualty Actuarial Society prepared and issued in December 1986 a discussion draft of a revised 'Statement of Principles Regarding Property and Casualty Loss and Loss Adjustment Expense Liabilities'. The nature of this Statement is different from the others considered in this paper in that the guidelines are more technical than professional. The principles will apply in each context in which reserves are estimated. This contrasts with the English GN12 which stresses the different contexts in which the actuary may be reporting with the implication that the methods and results may be different, but does not spell out the underlying principles.

3. Definitions and Terminology

It is essential that an actuary's report is able to be understood by its recipients. The Institute of Actuaries in GN12 is very clear.

> "There is no universally accepted terminology used within general insurance and the actuary must draft his report so that the words used leave no room for misunderstanding on the part of those likely to place reliance upon it".

This may also reflect the worldwide nature of the London Market.

The Casualty Actuarial Society and Canadian Institute have a different approach. Each guidance incorporates sections entitled 'definitions'. It is unclear whether the Canadian Recommendations incorporate definitions as advice to the actuary or for assistance in reading the document but the latter seems the more likely interpretation. The CAS does intend that the definitions will help clarify usage and lead to a common terminology.

The usage by other professions of terms commonly used by actuaries but with different interpretations is likely to remain with us. The accountants use 'provisions' and 'reserves' in a technical sense. Whilst the EEC has now stated that insurance companies can use these two words interchangeably despite the distinction made by accountants, and to support them, by United Kingdom corporate law. It would still be helpful for actuaries to use the word 'provision' where they now use 'reserve' so as to avoid confusion with accountants and auditors. In the CAS Principles, a solitary "provision" - for future development on known claims - appears among the "reserves".

The use of 'loss' or 'claim' may be clarified. A distinction can be made between the cost to the policyholder or claimant, which can validly be described as his loss and the cost to the insurer which is the payment under a claim.

The section on Definitions in the CAS Principles is to be welcomed. In particular, the distinction between 'development' of known claims and 'emergence' of unreported claims is helpful.

4. Data

The availability of data to the actuary and its worth are referred to by each professional body. Three distinct features are covered, to differing degrees in each document. They are:

1) The additional care needed if the data is inadequate, inaccurate or cannot properly be checked (Australia).

2) Correct interpretation of the data supplied.

3) Homogeneity versus credibility.

Both 1) and 2) are assisted if the actuary is:

> "conversant with the general characteristics of the insurance portfolio and familiar with the administration and accounting of the company's claims policies". (US and Canada)

There can be no complaint with this as general advice but it is not always practical or possible to obtain all the preferred information and suitable caveats then need to be included in a report. It would be helpful if the professional guidance covered the form and wording of such caveats. It is not helpful - indeed may prove to injurious - for the guidance to state:

> "Data should meet requirements for the proper evaluation of reserves". (US)

or

> "It is the member's responsibility to assure that the necessary data for the establishment of the proper liabilities is available". (Canada)

Admittedly guidance in both these cases is restricted to specific reserving exercises for which the company will be keen to see that the actuary can complete his calculations and report and where statutory forms may be prescribed. For many briefs received by an actuary this may not be the case. To take account of cases where data may not be fully available:

> "It would be normal practice for the actuary to consider and, where appropriate, comment on the nature and accuracy of the data and steps taken to verify the accuracy of the data". (UK)

Otherwise the actuary may find that a prima facie case of professional misconduct is made if he attempts to interpret the available, but inadequate or insufficient data. The case to answer is that he has not followed proper professional practice as set out in issued professional guidelines.

The CAS principles - and the Canadian recommendations which are based thereon - attend to the relationship between homogeneity of the experience groups analysed and the credibility of the sub-groups analysed. Each situation is to be considered afresh in balancing the considerations of homogeneity and the amount of data in each grouping and it may be necessary to use external information such as industry aggregates.

The guidance issued by each of the professional bodies avoids consideration of specific methods of estimation. The data available may be one of the over-riding reasons for the choice of a particular method.

5. Policy Liabilities

The actuary does not normally have a statutory role in respect of policy liabilities, ie. unearned premium reserves or unexpired risk reserves. In Canada the actuary's report does cover policy liabilities and the recommendations incorporate corresponding advice. The UK Institute's GN12 refers to Unexpired Risk Reserves which it defines to be the sum of:

- o the unearned premium reserve (UPR)
- o an additional amount of unexpired risks not covered by the UPR.

The latter item is described in the Canadian Recommendations as the premium deficiency. The UPR should normally be a standard accounting calculation subject to the conventions used for Deferred Acquisition Costs. As such it may be an inappropriate measure of the liability. Where underwriting losses can be borne profitably because of the interest income obtained on a long-tail claims distribution, a UPR calculated proportionately to time on risk will be insufficient to cover future losses. In these circumstances a premium deficiency reserve is necessary but:

> "this may be reduced in accordance with the guiding accounting principles by anticipating future investment income in the outstanding claims and unearned premium reserves". (UK)

This proviso appears acceptable to auditors in the UK as many companies have not shown an addition to UPR calculated on a proportionate basis despite large underwriting losses.

The pattern of risk over the policy life is affected by:

- o seasonality
- o trends in claim frequency and severity
- o the nature of the risk.

The Canadian Recommendations require evaluation of seasonality and the concentration of unearned exposure in the first half of calendar year, for annual policies. Trends affect the incidence of risk over the policy duration (UK) and need to be applied to past and current claim ratios to evaluate the claim level for the unexpired portion of the policies in force (Canada). However the most significant impact may come from the changes in average premium level (Canada) or reinsurance protection where adjustment to current conditions and retention may be necessary.

Longer-term policies cause particular problems. Extended Warranty for white/brown goods over a four or five year period has an increasing incidence of claim which can be modelled by a standardised procedure such as the Rule of 78 or by more specific patterns derived from past data. Mortgage Indemnity insurance has a reverse pattern with risk declining from an early peak to a level which reflects the catastrophe potential. Varied patterns may occur with more complicated policies such as the retro-rated Worker's Compensation covers which flourished until recently in Australia.

These also contain a feature about which only very general guidance is given - unbooked or pipeline premiums. GN12 reflects a reluctance within the industry to acknowledge such assets, which should be treated consistently with the approach to claims.

> "Consideration should be given to the prudence of ignoring unbooked premiums".

Where account is taken of unbooked premiums, it is likely to be as a (hidden) deduction in the calculation of claims reserves. The Canadian Recommendations are more forceful.

> "The member must estimate both the policy liabilities and premiums to come from these in force but not yet recorded transactions".

Whether premium development should be shown as an asset or a negative liability is a matter for accounting standards. For the actuary it is a figure which cannot be ignored in adjustable classes, ocean marine, retro-rated cover and reinsurance. Such an asset may also be of importance where the actuary is required only to assess the outstanding claims liability. Without allowance for the unbooked premium, the claims liability will be overstated in cases where the liability has been set and premium development does not add to the risk level.

The SORP issued by the ABI considers "in detail" the accounting treatment of funded business, primarily ocean marine and reinsurance. The use of an insurance fund rather than the separate assessment of policy and claims liabilities is a convenient accounting practice where information is scarce or delayed as to claims experience or the amount of premium written. It is normally accompanied by the accounting convention of deferring any release of profit until the second or third year of account. For the actuary, that lack of information can cause problems which need to be overcome if comment is required on the adequacy of the fund. Such a task can only be performed by separate assessment of the policy and claims liabilities as GN12 states. That can be done for open year funds by:

"(i) establishing a model of the expected emergence of premiums, claims, commission and expenses in the open years or of the development of claim ratio patterns;

(ii) take adverse divergences from this model as the additional amount required to support the open year fund".

6. <u>Claims Liabilities</u>

Each of the guidance notes considers the assessment of claims liabilities. Their importance is shown by the list of purposes for which they are used that is included in the Australian note.

- premium rate setting
- underwriting
- experience rate adjustments
- claim management
- assessment of levies for statutory funds
- liability transfers
- assessment of the value of an insurer
- assessment of solvency
- financial control
- as a basis for the outstanding claims provisions in an insurer's balance sheet.

The US and Canadian documents are broadly similar which one would expect as the latter followed the former in preparation. The key issues discussed, excluding data and discounting which we consider in separate sections, are:

(i) the variability and uncertainty inherent in the estimation process;

(ii) the use of central or cautious estimates, or a range;

(iii) the choice of method or methods of calculation.

(iv) a comparison of outcome with estimates.

(v) reporting the effect of changes in bases or assumptions.

Variability and Uncertainty

The Australian Practice note goes furthest in its analysis of uncertainty, listing five separate components:

- o model error
- o parameter error within the model
- o undetected data errors
- o future economic and environmental conditions
- o future claims fluctuations.

It is the actuary's task to respond to uncertainty, both as a technical matter and in the presentation of results. This will generally require the use of one or more of:

- o statistical analysis
- o sensitivity analysis
- o analysis of different scenarios
- o judgement.

Central or Cautious Estimate

Uncertainty and variability may make it difficult for the actuary to arrive at a single central estimate. GN12 allows reports to include estimates or ranges of acceptability without indicating the circumstances in which one or other approach should be adopted. The Australians expect that:

> "It is usually the responsibility of the actuary to provide a single central estimate".

American and Canadian actuaries envisage an estimate and

> "the degree of conservatism is a matter of actuarial judgement

which depends upon the following factors: (Canada)

1. The member's confidence in the expected development pattern.

2. The quality and depth of historical data on the basis of which the reserve is evaluated.

3. The statistical fluctuations affecting ultimate claim frequency and severity.

4. The inflation rate (implicitly or explicitly) assumed in the valuation.

5. The interest rate used to determine the present value of claim and policy liability.

6. The time period over which the liabilities will be paid.

7. The effect of any proclaimed legislation on outstanding claims.

8. The effect of any recent Court decisions.

9. The historical accuracy of the valuation methodology used in the current statement year.

Some further development of guidance is necessary in this very important area. One approach would be to refer to different possible briefs to the actuary and, for each, indicate the need for a central or a cautious estimate or a range of acceptability.

Choice of Methods

Each actuarial body agrees that the choice of method is the responsibility of the actuary. The suitability of particular methods depends to a great extent on the data (Australia) which may indicate a report period or accident period strategy (US, Canada). The UK gives guidance on the points to be considered in selecting a method including the effect of single large or catastrophe claims, cyclical or temporary trends and a changing mix of business. Only the CAS makes it clear that:

> "Ordinarily the actuary will examine the indications of more than one method before arriving at his evaluation"

adding that more analysis is required for lines of business with low claims frequency combined with high severity.

7. Discounting

The discounting of claims reserves is an intensely political topic. Although actuaries believe that discounted reserves produces a more informative picture of revenue profit (see Abbott, Clarke & Treen and Lowe) the regulatory authorities fear that they weaken a company's strength and soundness. It is trite to say that the immediate effect of discounting changes nothing substantial in a company. The assets and liabilities are exactly the same as they were before. What can be different is management's response to greater apparent profitability and more apparent capital with which to support expansion.

The US Tax Reform Act brought discounting into tax calculations for property-casualty insurers. In other countries the tax authorities have not been able to do so yet but they are moving in that direction. Insurance companies in the United Kingdom are particularly sensitive to this threat. It may not be surprising therefore that the various Institutes, sensitive to the interests of their members, have been diplomatic, in the comments on discounting they have included in professional guidance notes.

For example:

American Academy of Actuaries: "This Interpretation is not designed either by intent or effect, to approve or disapprove the concept of reserve discounting".

Casualty Actuarial Society: "There are circumstances where loss reserves are stated on a present value basis".

Institute of Actuaries: "The report should state clearly whether reserves are arrived at after discounting, either explicitly or implicitly and if explicitly the rate of interest used".

Canadian Institute: "When the member is establishing a present value provision for the claims liability or policy liability, the following guidelines should be used".

The Australian Institute is more positive. Section 3(b) states "such an estimate (central) should be aggregate of the discounted values of the estimated future payments".

We can appreciate the conflicting pressures that have led to this equivocation on discounting. Whilst there is no clear common view, it is right that professional standards and guidance should be broad enough to encompass all acceptable approaches. The issue of discounting however highlights a point that is not covered in any of the guidance. For the choice between discounted or undiscounted reserves affects not only the balance sheet but also the revenue account. Clearly it also depends on to whom the report is addressed. The conflicts between supervisors and tax authorities arise because the former are concerned with balance sheet strength - though it is becoming more and more questioned whether is the correct approach - and the latter with revenue account profit.

Inevitably there is a dividing line to be drawn between guidance on professional standards and on professional techniques. Not surprisingly in view of the different recommendations, the guidance on discounting is well away from the dividing line. The interest rate chosen is to:

> "take account of the nature and value of the investments"; and

> "consider (1) current and expected rates of return on assets, and (2) expected cash flow from assets (US)."

Only the Canadian Recommendations raise the need to take account of the investment tax rate. One might conclude that the Australian Institute favours discounting at gross rates of interest and the Canadian Institute at net rates. As investment tax rates may differ from those applied to the underwriting result, in particular where a part of the investment return is obtained as capital appreciation, and discounting will change the declared revenue account profit, this is an area where guidance is needed, albeit only of a very general nature.

8. Relationships with other Professionals

Professional guidance cannot be restricted to the way in which the actuary carries out his own work. It needs to cover also the communications with the principal and his other professional advisors, accountants, lawyers, claims experts, etc.

Specific guidance in the claims reserving area only covers dealings with other actuaries parenthetically though the bodies have guidance on these points as part of their general code of conduct. The Canadian Institute has prepared the Recommendations because:

> "it is desirable that determination and disclosure should be in a form which permits the member's peers, if his conduct has been challenged, to make a judgement as to whether his conduct was in accordance with good actuarial practice".

It is desirable that this should be achieved. However there are other circumstances which are likely to be much more numerous, where an actuary will be asked to review or redo the work of a fellow actuary or give a second opinion. We consider this last area to be one which may give rise to most concern within the profession. The professional standards to be followed in these circumstances are likely to be contained in more general guidance or codes of conduct issued to members of professional bodies. If so, the guidance notes considered here should cross-refer to the profession's other standards. Otherwise the notes themselves should cover the issues involved.

The Canadian recommendations include a separate reference to other actuaries. In section 2.02 referring to data availability and reliability it is stated that:

> "In the case of reinsurance assumed the actuary for the primary company is an excellent source of information."

Considerable care needs to be exercised in following this advice. The actuary of the reinsured company is likely to have information of value but it is not clear that commercially or professionally he can always justify passing it to the reinsurer, indeed it may be damaging. The actuary of the reinsurer retains the responsibility for the accuracy of the data he uses.

Accountants are the professionals with whom actuaries have the most frequent relationships. These have not always been clear cut but as accounting standards have been developed and the different and compatible roles of the two professions have been clarified, relationships have improved. The guidance notes reflect this. The Canadian recommendations took account of comments made by the accountants. A member is advised to file a copy of his report with the auditor who will report on the published financial statements.

The Institute's GN12 states that:

> "Where appropriate recognition should be given to the guiding accounting principles."

The CAS principles acknowledge that reports to shareholders and securities regulators are governed by generally accepted accounting principles (GAAP). Conversely, accountants in developing standards and principles which apply to insurance companies (and pension funds) should take account of actuarial views and knowledge. In the United Kingdom, the Accounting Standards Board has accepted the special needs of insurance companies and welcomed the issue by the Association of British Insurers (ABI) of a Statement of Recommended Practice (SORP). Within the ABI there was input from both actuaries and accountants and both professional bodies were approached for comment on early draft versions.

Actuaries' dealings with other professionals, claims and investment experts, can often be related to obtaining and verifying data and assumptions but in any event, it should be:

> "normal practice to report on the extent of the reliance on other professionals."

9. Reinsurance

Reinsurance provides the actuary with some of his most intractable problems. Net data are distorted by changes in net retention or because inflation changes the effective retention. Reinsurance security is not certain, which creates an additional problem.

Whilst gross figures are undistorted by reinsurance and may or may not be published, the net liability of the company always appears in its financial statements. The Canadian Institute recommends that:

> "The member should perform his calculations on a gross and net basis whenever the ceded outstanding claims are material."

The gross calculations may not be essential. As the UK Institute points out:

> "Where the gross account is protected by excess of loss reinsurance, the actuary might feel more confident about the net position than the gross."

The tail of the claims amount (severity) distribution has the least credibility, so if it is covered by reliable reinsurance a net estimate of claims liability will have more credibility than the gross estimate. In practice it is common for reinsurance programmes to change over time. If this is the case the net data may be less homogeneous than the gross data and thus the gross estimate of claims liability may have the greater credibility. This means that the individual actuary has to use his judgement as to the most appropriate approach.

The need to consider the recoverability of reinsurance is referred to in each guidance document. The practical difficulties in so doing are not to be underestimated but actuary can comment on the:

> "nature and spread of the reinsurance arrangements". (UK)

However more serious problems may arise if he has doubts about recoverability, as his doubts need to be expressed in a form which does not expose him to criticism from the reinsurer whose security he downgrades.

Three of the guidance documents refer to reinsurance. Australia is the exception. None give it the priority which we believe is necessary though we are aware that this view may reflect the nature of our experience. Professional guidance should not wait upon technical standards but development of broad data bases and the adoption of some of the newer statistical techniques for small samples would make it easier to set out more specific professional guidance about reinsurance.

Appendix

Recommended Text for a Valuation Actuary's Opinion

The full texts of the valuation actuary's opinion included in the Canadian 'Recommendations for Financial Reporting for Property & Casualty Insurance Companies' are set out below:

1. Financial statements which do not involve consolidation of a foreign insurance subsidiary.

Report of the Property-Casualty Valuation Actuary

(i) the valuation conforms to the Recommendations for Property-Casualty Insurance Company Financial Reporting of the Canadian Institute of Actuaries;

(ii) the amount of the policy and claims liabilities makes proper provision for the future payments under the company's policies;

(iii) a proper charge on account of those liabilities has been made in the income statement.

2. Financial statements where there is a consolidated foreign insurance subsidiary.

Report of the Valuation Actuary

(i) the amount of the policy and claims liabilities makes proper provision for future payments under the company's policies;

(ii) a proper charge on account of those liabilities has been made in the consolidated income statement.

3. Government statements which do not involve consolidation of a foreign insurance subsidiary.

Report on the Property-Casualty Valuation Actuary

(i) the valuation conforms to the Recommendations for Property-Casualty Insurance Company Financial Reporting of the Canadian Institute of Actuaries;

(ii) the amount of the policy and claims liabilities makes proper provision for the future payments under the company's policies.