SESSION 1

SUMMARY OF CURRENT AND FUTURE REGULATORY REQUIREMENTS

(JOINT SESSION)

Valuation Actuary Concept in the United States

MR. JOHN K. BOOTH: The concept of the valuation actuary has been the subject of extensive discussion and study in the United States. In June 1986 the National Association of Insurance Commissioners (NAIC) authorized its Life and Health Technical Actuarial Task Force to undertake a study and overhaul of the Standard Valuation Law that would, among other things, incorporate the concept of the valuation actuary into the valuation system. What is as yet untested is how well the concept will fit into the political environment in the United States. Are there differences between the United States on the one hand, and Canada and the United Kingdom on the other, that will limit the implementation of the concept of the valuation actuary in this country? To answer this question we need to consider both the meaning of the concept of the valuation actuary and the history and philosophy of valuation in the United States.

In its purest form, the concept of the valuation actuary calls for professional judgment to be used in evaluating the risks of an insurance enterprise. By relying on the opinion of a qualified professional who observes current standards of practice instead of rigid statutory formulas, the concept allows for creative expert analysis of complex valuation situations. The valuation actuary gives an opinion on the adequacy of the reserves of a company based on the nature of the risks it has assumed, taking into account the likelihood of multiple future

scenarios and their effects on the obligations of the company to others and the obligations of others to the company. In effect, the valuation actuary is forming a judgment based on a spectrum of degrees of confidence that the company will be able to meet its obligations in the future based on where it is today in terms of the kind and quality of its assets and obligations. This judgment is distilled into an opinion on the adequacy of a company's reserves.

An important part of the concept of the valuation actuary is that he meet qualification and training standards so as to be able to make sound judgments as to the adequacy of reserves. Coupled with this is the need for standards of practice and discipline within the profession to ensure that valuation actuaries live up to their critical responsibilities. If valuation actuaries are to perform the function of alerting others to potential insurance company problems, they must have the respect of company managements, the regulators, and the public. This can be accomplished by having company boards of directors involved more directly in the selection of valuation actuaries and by notifying state regulatory authorities of any appointment or change in a valuation actuary.

A great deal of work has been done in recent years, particularly in the area of risks arising from interest rate changes, to enable actuaries to understand and evaluate better the risks that their companies face. Concurrently, there have been efforts directed toward incorporating the concept of the valuation actuary into the state valuation laws as an additional regulatory tool. The likely success of these efforts will be influenced by the history and politics of insurance regulation in the United States.

The adoption, over a century ago, of the net premium valuation system that is currently used in the United States was accompanied by a months-long controversy between the United Kingdom's most prominent actuaries on the one side and insurance reformer and Massachusetts Insurance Commissioner Elizur Wright on the other. Wright's main point of disagreement with the U.K. actuaries was their use of the present value of future gross premiums in valuation without considering future expenses. In commenting on their method of valuation in his Fifth Annual Report to the Massachusetts Legislature in 1860, Wright said,

> By this gross valuation, it is plain enough, that a young company with well loaded premiums may be made to have a large balance in its favor, without a penny in its treasury! And it is a fact in the history of British Life Assurance, no less certain than curious, that actuaries of some reputation have perpetrated favorable balances in this way, and then knowing them to be fictitious, have dissuaded from division, while the directors, placing full faith in the balance, have proceeded to divide, either in cash so far as actual funds would allow, or by reversionary dividends still further!

From this climate of lack of confidence in the actuary's judgment or in management's ability to be guided by the actuary's advice emerged a valuation system that placed responsibility for the valuation of a life insurance company squarely in the hands of the state regulatory authorities. The actuary was permitted to exercise very little judgment and was responsible principally for matching and multiplying the statutory prescribed valuation factors by the appropriate business-in-force cells.

For the 110 years after the net premium valuation method was first adopted in Massachusetts, interest rates varied within a relatively narrow range. The valuation laws of the various states were updated from time to time for mortality improvements, and minor adjustments of the interest rate used in determining minimum statutory reserves and various other refinements were made, but the laws remained substantially the same. During the 1970s, as

interest rates rose to historic highs and became increasingly more volatile, the valuation laws of the states were amended twice. These events prompted the American Council of Life Insurance (ACLI) to propose changes in the law to make it possible for the statutory minimum valuation standards of interest and mortality to respond automatically and more rapidly to changing economic and demographic conditions.

Although the ACLI proposal adapted the existing valuation structure to rapidly changing conditions, it was not a major reform of valuation practice. In commenting on the proposed 1980 amendments, the Technical Advisory Committee on Dynamic Interest and Related Matters to the NAIC C-4 Life, Accident, and Health Subcommittee stated,

> The ACLI's proposed dynamic law would not change the basic existing legal structure and tradition. As a result of accepting this practical constraint, the proposal neither coordinates valuation of assets with the valuation of liabilities nor expands the professional responsibility of the actuary signing the actuarial statement of opinion. . . . It is the opinion of the Advisory Committee that any proposal should neither restrict nor inhibit pursuit of more fundamental solutions of the valuation-nonforfeiture questions and that such eventual solutions may well incorporate requirements for consideration of asset valuation, reliance on professional or regulatory judgement, and recommendations for revised surplus standards.

The clear message from the Advisory Committee was that the 1980 amendments were only an interim step and that the statutory valuation system that had lasted over 100 years when interest rates were relatively stable was inadequate to measure the risks inherent in a volatile interest rate environment.

At about the same time, the Society of Actuaries Committee on Valuation and Related Matters presented a discussion draft entitled "Valuation, Surplus and Related Problems," which suggested a conceptual framework for the balance sheet of an insurance enterprise and the valuation of policy liabilities. It

identified three adverse contingencies, designated as the C-1, C-2, and C-3 risks, that must be provided for in the balance sheet. The C-1 risk relates to asset losses arising from defaults, destruction of assets or other declines in asset value other than changes in market value due solely to changes in the prevailing interest rates. The C-2 risk relates to losses arising from pricing inadequacy. The C-3 risk relates to losses resulting from swings in interest rates.

The discussion draft gave a particularly good exposition of the C-3 risk and the problems the valuation actuary faces in determining to what degree the company is immunized against future interest variation through the matching of future asset and liability cash flows. It pointed to the deficiencies of the current valuation system that assumes only one path for future events, and it suggested the need for professional analysis by a valuation actuary of future cash flows under a variety of interest rate assumptions.

Consideration of the valuation actuary concept was also spurred by the product revolution that started to occur around this time in the life insurance industry and in the financial services marketplace generally. It was felt that it was no longer possible to prescribe specific statutory valuation standards that would be appropriate for all products under all circumstances.

The next significant step in the development of the concept of the valuation actuary was the establishment in December 1983 of the Joint Committee on the Role of the Valuation Actuary in the United States by the boards of the American Academy of Actuaries and the Society of Actuaries. The Joint Commitee was asked to make recommendations concerning the appropriate role

for the valuation actuary in the United States and what is necessary to effect and to support this role.

In its final report published in February 1985, the Joint Committee's first major recommendation was that each state enact a statute requiring the directors of a life insurance company licensed in that state to appoint by resolution a valuation actuary and to inform the appropriate state regulator of that appointment and of any subsequent appointment of a different valuation actuary. Valuation actuaries who are members of the American Academy of Actuaries would be subject to its qualification standards to ensure that they remain knowledgeable concerning current valuation principles and standards of practice. The Joint Committee's second major recommendation was for the establishment of principles underlying the valuation of life insurance companies for solvency and solidity purposes. Initially, these principles would be superimposed upon the existing specific legal solvency requirements. In time, the solvency standards promulgated by statute or regulation would cover only principles, and possibly a minimum standard methodology. The assumptions selected and the associated methods used in making a valuation would be left to the professional judgment of the valuation actuary and would be fully described in his report to management, which would be submitted to regulators on a confidential basis.

The proposed valuation system would envision an actuarial opinion to the effect that reserves make good and sufficient provision for all future obligations on a basis sufficient to cover future reasonable deviations from expected assumptions. The opinion would further state that reserves plus additional internally designated surplus make good and sufficient provision for all future obligations on a basis sufficient to cover future plausible deviations from expected assump-

tions. "Plausible" deviations are assumed to have a much lower probability of occurring than "reasonable" deviations. The amount of internally designated surplus and its determination would be subject to review by regulators but would not be shown separately on the balance sheet.

The Joint Committee also recognized and recommended further work (1) to develop proposed changes in laws and regulations, (2) to continue research on valuation principles, (3) to educate students and practicing actuaries in the principles and standards of the new valuation system, and (4) to develop and codify principles and standards of actuarial practice.

In July 1985 the American Academy of Actuaries released two discussion drafts of proposed Standards for Valuation Actuaries (those who sign statements of actuarial opinion on the NAIC Life and Accident and Health Annual Statement Blank). One contained proposed Qualification Standards for Valuation Actuaries, and the other contained proposed Standards of Practice. Several comments on the drafts expressed concern that the new Standards of Practice would be too expensive, particularly among the smaller companies, in relation to the benefits received for the industry as a whole. Concern was also expressed that the new valuation system could lead to indirect regulatory involvement with surplus levels, which should properly be left to management.

Meanwhile, the valuation actuary concept has already been introduced into the valuation system on a limited basis by the NAIC and a few states. In 1982 New York enacted legislation requiring the opinion of a qualified actuary as a condition for using higher valuation interest rates for certain annuity and guaranteed interest contracts. New York Insurance Department Circular Letter

No. 33 defines "qualified actuary" and contains guidelines that set forth requirements for an actuarial opinion. The guidelines contain very detailed specifications for making tests of future asset and liability cash flows. The letter also notes that the superintendent may disqualify a valuation actuary for violating the law or for fraudulent or dishonest practices.

In 1985 New York further amended its valuation law to encourage more widespread use of the valuation actuary concept. Among other things, the statute specifically requires insurers to hold with respect to annuities, annuity benefits, and guaranteed interest contracts such additional reserves as the valuation actuary deems necessary to make good and sufficient provision for the liabilities.

In December 1983 the NAIC adopted a Universal Life Insurance Model Regulation. Section 10 of the regulation contains requirements relating to interest-indexed universal life insurance policies and specifically requires an opinion of a valuation actuary concerning tests of insurance and investment cash flows arising from the policies and related assets. Adoption of this provision prompted the American Academy of Actuaries to adopt Recommendation 11 and Interpretation 11-A, relating to actuarial opinions for interest-indexed universal life insurance contracts.

In June 1985 the NAIC adopted a Modified Guaranteed Annuity Regulation, which permits insurers to sell guaranteed annuities where assets backing the contract are held in a separate account and cash values are subject to a market value adjustment formula. The new model calls for the opinion of the valuation actuary that assets in the separate account are adequate to provide all future

benefits that are guaranteed. (Subsequently, in June 1986 the NAIC adopted a Modified Guaranteed Life Insurance Regulation which calls for a similar opinion of a valuation actuary.)

At its December 1985 meeting, the NAIC considered a recommendation from its Life and Health Actuarial Task Force that the NAIC adopt an actuarial guideline, developed by a special advisory committee, that would define expectations relating to the actuarial opinion in the current NAIC annual statement. The proposed guideline would appear in the NAIC Financial Condition Examiners' Handbook, which is used as a guide for insurance department examinations of insurers. It would describe the kind of actuarial report to management that should be prepared by the valuation actuary to support the actuarial opinion in the NAIC annual statement. Among other things, the actuarial report would mention the extent to which future insurance and investment cash flows under a range of future interest rate scenarios were considered in forming the opinion for interest-sensitive products.

At that December meeting, the ACLI asked for deferral of action in order to enable a more studied consideration of the proposal. The ACLI statement also indicated that concern had been expressed by some member companies about the relatively high cost, particularly for smaller companies, that would be involved in attempting to comply with the proposal, especially in view of the lack of established guides and procedures for compliance with a number of its requirements. The NAIC decided to delay the implementation of a major part of the proposal, as well as to refer it to two of its task forces to consider its inclusion in the examiners' handbook for 1986 and in the annual statement for 1987. In the spring of 1986, the NAIC further modified the proposal so that it

would be entirely contained in the examiners' handbook without being a part of the annual statement, and so that the actuary's report would be prepared not for management, but when required by an insurance regulator.

In light of the steady progress made so far in moving the concept of the valuation actuary forward, one might easily conclude that it will be only a matter of time until it is incorporated into the process of regulating life insurance companies in the United States. However, there are a number of important practical and political obstacles in insurance regulation in this country that may prevent the concept of the valuation actuary from going as far as it has in Canada or the United Kingdom.

Foremost among these is the fact that there is no national insurance regulatory authority. To adopt the concept of the valuation actuary as a part of the NAIC Standard Valuation Law and the valuation laws of the fifty states, the District of Columbia, and Puerto Rico would require nearly unanimous support from the insurance industry, insurance regulators, and actuaries. Because the amount of resources devoted to the supervision of insurance varies from state to state, some state regulators might be reluctant to allow something as important as the solvency of a company and the safety of its policyholders to be left to the judgment of a valuation actuary who is subject to supervision by the company's state of domicile. However, if every state in which a company does business were to exercise supervision over the valuation actuary, this might lead to more conflict and confusion over valuation questions than is the case today with nearly identical valuation laws in the states.

Elizur Wright's lack of confidence in the performance of company valuation actuaries of his day led to the development of a regulatory structure that spells out in detail how an actuary shall calculate reserves, leaving little to the judgment of the valuation actuary. New York's proposed regulations to implement the 1985 changes in its valuation law, which was to encourage more widespread use of the concept of the valuation actuary, suggest that even if the concept is adopted, state regulators may restrict substantial areas of actuarial judgment. Is it possible that as the concept of the valuation actuary evolves in the United States, it will become merely a much more complex form of the old reserve-factor approach to valuation? Will it become just a set of specifications of all the various paths and scenarios that the actuary must test and leave no room for creative judgment? Would actuaries in the United States want the concept to evolve in this way?

More than any other nation on earth, we are a litigation-prone society. Faced with the possibility of malpractice suits if reserves prove to be inadequate or if a company fails for some other reason, many actuaries and their managements might prefer the present valuation system or a modification of the concept of the valuation actuary that leaves little to professional judgment. If regulators were to specify in great detail the various scenarios and analyses that should be pursued by a valuation actuary in establishing the adequacy of reserves, this would give actuaries and their managements a safe harbor where they could ride out the storms from the lawsuit crisis.

The passage of the 1984 Deficit Reduction Act placed a new burden on the statutory valuation system by making minimum statutory reserves the basis for determining a life insurance company's taxable income. This provision of the

1984 tax act means that any changes made in the valuation law have an impact not only on solvency requirements, but also on federal income taxes. This brings obvious political complications. If incorporation of the concept of the valuation actuary into the valuation laws once again leaves the determination of minimum adequate reserves to the judgment of the valuation actuary, would the taxing authorities be willing to have taxes based on decisions of individual actuaries? In view of the differences within the insurance industry on the subject of life insurance company taxation, would the stock companies be willing to have mutual company taxes set by decisions made by mutual company valuation actuaries and vice versa?

Another important hurdle for the concept of the valuation actuary to overcome is whether it is perceived as infringing on company management's right to manage and take business risks. Significant opposition within the industry to the concept on this ground would make it difficult for it to be adopted by the NAIC and the various states. Initially, some envisioned the concept as involving the valuation actuary in overseeing and reporting to regulators on the adequacy of a company's surplus and the likelihood that its future business plans would be successful, but this view lacks broad support within the actuarial and business communities. As the concept of the valuation actuary evolves, some may view it as a necessary regulatory brake on reckless competition. Others may conclude that it is something that would encroach on their right to experiment and develop new and attractive products. Whether or not there is a significant difference of opinion on these points will become evident when we see what concept is ultimately proposed to the NAIC for adoption. One thing that should concern everyone in the life insurance business is that the regulatory authorities not adopt a concept of the valuation actuary that would put this industry at a

competitive disadvantage with respect to other providers of financial services and their products.

One group that has recently become very vocal on the subject of the valuation actuary is the chief executive officers (CEOs) of smaller companies. At an ACLI Smaller Companies Forum held in May 1986, strong objections on the basis of cost were voiced to extending the valuation actuary concept to smaller companies. Below a certain size, the cost of hiring a consulting actuary to run sophisticated tests of the matching of future asset and liability cash flows looms as a major charge against a company's gain from operations. If the CEOs of smaller companies are concerned about the potential impact of any future cash flows, they are concerned about the future cash flows from their companies to consulting valuation actuaries. Smaller companies in the United States are a political force to be reckoned with in any effort to obtain adoption of the concept of the valuation actuary.

In November 1985 the ACLI board of directors approved a recommendation of the ACLI-HIAA Joint Task Force on Insolvency Prevention that "the concept of a 'valuation actuary' should be supported as an important contribution toward developing means to reasonably assure solvency of companies and a special Task Force should be created to study this concept in more detail." The special ACLI task force addressed the issue from a management perspective and from the standpoint of the industry's and a company's relationship with the regulatory authorities. Its objective was to recommend a course of action that would enhance the prospects that the concept of the valuation actuary would develop in a form that the industry could support.

After several meetings during 1985 and 1986, the ACLI task force presented the following recommendation to the ACLI board of directors in September 1986:

1. The ACLI generally support the strengthening of the role of the valuation actuary, by the profession and through regulatory requirements, to the extent that such strengthening does not infringe on proper management prerogatives or generate costs that are out of line with potential benefits.

2. The ACLI support regulatory requirements that would require life insurance company boards of directors to either appoint, or to designate someone to appoint, a qualified actuary who is an employee of the company or someone hired by the company to perform the duties of valuation actuary.

3. The ACLI support regulatory requirements that the valuation actuary make a public statement of actuarial opinion as to the adequacy of the reserves of a life insurance company.

4. The ACLI oppose any regulatory requirements that the valuation actuary report on the adequacy of surplus.

5. The ACLI not oppose any reasonable regulatory requirements for the valuation actuary to test a minimum number of specified possible future scenarios in developing a statement of actuarial opinion on the adequacy of life insurance company reserves.

The ACLI's position with respect to the concept of the valuation actuary is based on an understanding that the concept would include the following conditions:

1. The regulatory authorities would be no more involved in the oversight of company surplus levels than they are at the present time.

2. There should be appropriate exceptions from testing requirements for products where the valuation actuary demonstrates that the volume of business or the nature of the risk indicates such testing is not warranted.

3. The development and imposition of standards of practice for determining the methodology and techniques used in developing an actuarial opinion should be determined by the profession.

This concept of the valuation actuary is one that would contribute toward reducing insolvencies among life insurance companies without interfering with proper management prerogatives. It might also help to avoid redundant statutory reserve requirements. It should be understood that the concept of the valuation actuary is no panacea for all of the conditions or circumstances that contribute to life insurance company insolvencies. Rather, for those items affecting solvency that can be evaluated by actuarial means, its purpose is to assign responsibility to qualified valuation actuaries who will exercise their best professional judgments to determine the adequacy of life insurance company reserves.

The ACLI board of directors held an extended discussion of the report of the ACLI Task Force on the Valuation Actuary on September 4, 1986, and on the following day the board adopted the task force's report. During the discussion it was noted that since actuarial techniques do not yet exist for determining what is an appropriate amount of surplus, regulators should not require this as part of a valuation actuary's opinion. Similarly, the lack of an accepted methodology for taking the quality of assets into account in forming an actuarial opinion on the adequacy of reserves means that this, too, should not be a required part of the opinion before appropriate techniques are developed.

Considerable discussion revolved around the issue of the cost effectiveness of the valuation actuary for smaller companies. The chairman of the ACLI Committee on Smaller Company Involvement had conducted a survey of a sample of companies with less than $250 million in assets, and all respondents agreed that there should be some relief for them from the cost burden of the valuation actuary. About half of these companies had gains from operations of less than $300,000. If the cost of having a valuation actuary were $20,000 or more, this would be a significant part of a smaller company's bottom-line profits. It was pointed out that several years ago CPA audits were introduced in order to reduce insolvencies, but they have neither reduced insolvencies nor cut back on the expense of state insurance department examinations. Another costly requirement for a smaller company is the valuation certificate that must be obtained from the state insurance department. If there are continuing additions to regulatory burdens that increase the cost of doing business for smaller companies, how will these smaller companies be able to survive? In considering the impact of these costs, one should also consider the fact that if a small company were to become insolvent, the impact on the industry at large through

the guarantee funds would be minuscule. There was agreement among the ACLI board that if the concept of the valuation actuary is implemented, there should be some specific provisions made to lower the cost of regulation to the smaller companies.

During the board's discussion of the valuation actuary's relationship to management, it was pointed out that only someone involved in the day-to-day operations of a company would be capable of doing the necessary work of the valuation actuary in giving an opinion. The board envisioned the valuation actuary as not being in a position to function as an outside independent auditor, but rather as serving a role comparable to that of a chief internal auditor who has access to the highest level of management within the company.

Concern was expressed by members of the board as to whether or not establishing the concept of the valuation actuary would really have a significant impact in preventing future insolvencies. Unfortunately, not enough historical experience is available to serve as a useful guide as to how the concept of the valuation actuary might work to prevent insolvencies in the future.

The ACLI board did indicate its willingness to try the concept of the valuation actuary as defined in the report of the ACLI task force by passing a resolution adopting the task force's report. The resolution acknowledged that the recommendations in the report are appropriate for the present, but put the ACLI on record as encouraging the actuarial profession to develop accepted methodology and techniques for taking quality-of-asset information into account in determining the adequacy of reserves. The resolution also contained an understanding that the ACLI would make every effort to obtain relief for

companies from existing regulatory functions that would be made unneeded by the activities of the valuation actuary. Such relief would be particularly important for smaller companies, for whom the costs of a valuation actuary would prove substantial.

With the major industry trade association and substantial elements of the actuarial profession in support of moving ahead with the concept of a valuation actuary, it remains to be seen how far the regulatory authorities will go in advancing this concept. The state of New York already held a hearing on September 25, 1986 that would essentially require companies to initiate the concept of the valuation actuary in determining reserves for guaranteed interest contracts and annuities. The concept is introduced on top of the traditional valuation structure of specified minimum statutory reserves. That is, a company would hold the greater of the reserves determined under the two approaches. However, if a company did not obtain the opinion of a qualified valuation actuary, it would be forced to increase its minimum statutory reserves by 15 to 20 percent. Plans are already under way to extend this regulatory approach to some forms of life insurance next year.

The length and detail of New York's proposed requirements regulating the work of valuation actuaries are suggestive of that state's historical approach to regulating field and home office expenses of companies licensed to do business in the state. However, there is one important difference. Whereas reinsurers not licensed in New York but authorized as reinsurers in the state are not subject to the expense limitation laws and regulations, all reinsurers that assume reinsurance from any company licensed in New York would have to meet New York's valuation actuary requirements. With respect to the great bulk of life

insurers writing business or doing a reinsurance business in the United States, New York will have effectively preempted the field for determining who is qualified to be a valuation actuary and what the valuation actuary must do. Therefore, is there anything left for the NAIC or the other states to do?

We might expect that companies not having business ties in New York may encourage their regulators and the NAIC to adopt the concept of the valuation actuary in a less restrictive form to allow more freedom for actuarial judgment. If a few key states in addition to New York were to adopt the concept of the valuation actuary and were to extend it extraterritorially to all companies licensed to do business or authorized to do a reinsurance business in their states, this would effectively implement the concept of the valuation actuary throughout the entire United States. It would be highly desirable that any NAIC model requirements not be in conflict with those of New York and that states adhere to the NAIC model in the interests of uniformity and reciprocity. If local politics were to cause a number of states to adopt incompatible requirements for the work of the valuation actuary, this could be quite expensive for the industry and could result in a regulatory straitjacket that would make it very difficult to compete against other financial institutions.

How far can the concept of the valuation actuary go in the United States? We may see the concept adopted by a number of key states in some form or other, and possibly by the NAIC as a model. Its extension to many states may, as in the case of other NAIC models, be somewhat spotty. However, such an extension may not be necessary if those states that do adopt the concept apply it extraterritorially. Interest in adopting the concept might be boosted if it were accompanied by the elimination of redundant statutory minimum reserves.

However, these minimum requirements are inextricably entwined with the determination of life insurance companies' federal income tax. Much will depend upon how far the proposed concept departs from what the life insurance industry has agreed it can support and how much opposition the concept generates from those who feel that it stifles their ability to compete in the financial services marketplace. If the concept of the valuation actuary is adopted, it may well turn out to be, as in New York, just another layer of more or less inflexible regulation superimposed upon the present rigid valuation system.

Summary of Canadian or CIA Viewpoint

MR. ROBERT M. HAMMOND: In Canada, a requirement for the appointment of a "valuation actuary" has been in existence in federal insurance legislation for close to ten years. Consequently, I thought it would be of interest to describe the history relating to the Canadian requirement and to explain the existing statutory provisions. Then, from my perspective as a regulator, I plan to comment briefly on how the existing requirements are working and how they are likely to change.

In 1977 the federal insurance legislation in Canada was amended in two important ways. First, the rules concerning valuation of assets and accounting for securities transactions were significantly modified. Second, the provisions relating to the calculation of actuarial reserves were completely revised.

I think it is extremely important to mention that one of the important objectives of the 1977 amendments, including those relating to actuarial reserves, was to try to produce a single financial statement that would meet the needs of shareholders, policyholders, auditors, and regulatory authorities alike. Many of us in Canada tend to forget that this was one of the major priorities behind the 1977 amendments. Although the revised statement for life insurance companies resulting from the 1977 amendments cannot be described as one that is prepared in accordance with Generally Accepted Accounting Principles (GAAP), it certainly brought accounting for Canadian life insurance companies closer to what is considered GAAP for other types of corporations. There is currently more pressure again in Canada to produce GAAP statements for life insurance companies. However, I for one continue to hope that we will be able to stick

with the goal of achieving one statement and one set of reserves that will meet the needs of all interested parties.

The 1977 amendments enshrined the concept of the valuation actuary in the legislation. The valuation actuary of an active company must be a Fellow of the Canadian Institute of Actuaries (FCIA). In the interests of giving the valuation actuary some independence, the legislation requires that he be appointed by a resolution of the board of directors. Moreover, a copy of the resolution relating to the appointment must be filed with the superintendent of insurance. In practice, when the valuation actuary changes, the superintendent writes to both the company and the former valuation actuary to inquire about the circumstances that occasioned the resignation. Specifically, we are interested to know if the resignation resulted from any conflict or disagreement respecting the actuarial valuation.

For some time now, Canadian life insurance companies have been required to appoint an independent auditor who must submit an annual report stating whether or not the financial statements su mitted to the superintendent fairly present the company's operating results and financial position. In the interests of trying to clarify the respective responsibilities of the independent auditor and the valuation actuary, the legislation stipulates that the auditor, in giving the required opinion, may accept the actuarial reserves determined by the valuation actuary in accordance with the requirements of the legislation.

I mentioned that one of the main objectives of the 1977 amendments was to try to facilitate the preparation of one financial statement that would meet the needs of all parties. There is no formal requirement in the legislation that the

financial statement prepared for policyholders and shareholders be identical to the statement filed with the superintendent. However, interestingly enough, there is a requirement that the actuarial reserves reported in any statements released to policyholders or to shareholders be identical to those reported in the statement filed with the superintendent.

Turning to the calculation of the reserves, the 1977 amendments provided much more flexibility than in the past in regard to the deferral of acquisition expenses and the choice of valuation assumptions. In choosing valuation assumptions concerning mortality, interest, morbidity, lapse rates, etc., the valuation actuary must use assumptions that, in his opinion are appropriate to the circumstances of the company and the policies in force. The assumptions must also be acceptable to the superintendent. However, in practice, what amounts to a veto power by the superintendent has been very rarely used. Differences of opinion regarding the appropriateness of valuation assumptions are usually resolved through discussion.

The deferral of acquisition expenses is accomplished through a reserving method prescribed by the legislation, which has come to be known as the 1978 Canadian Method. The method permits the deferral of acquisition expenses equal to the lesser of 150 percent of the net level annual premium and the amount that, in the valuation actuary's opinion, represents the cost incurred by the company in connection with the issuance of the policy.

However, when setting the valuation premium, the valuation actuary must also be satisfied that the margin between the gross premium and the valuation premium is sufficient to provide for future administrative expenses and to enable

the company to meet its dividend expectations on the current scale or the current scale modified as described in the valuation actuary's report.

The legislation stipulates that the annual statement required to be filed with the superintendent by life insurance companies must be accompanied by a report from the company's valuation actuary. The legislation also stipulates that the report must specify the nature of any prospective changes in the dividend scales taken into account, the aggregate of the negative reserves and cash value deficiencies calculated on a policy-by-policy basis, and any other information concerning the calculation of the reserves required by the superintendent.

The report from the valuation actuary must also contain a certification by the valuation actuary to the effect that (1) the assumptions used in calculating the reserves are appropriate to the circumstances of the company and policies in force, (2) the valuation method used produces reserves not less than that required by law (that is, the 1978 Canadian Method), and (3) the reserves make good and sufficient provision for all unmatured obligations under the terms of the policies.

Although the federal insurance legislation was amended in 1977, the new valuation provisions did not take effect until the valuations required as of December 31, 1978. Consequently, we have now received valuation reports for eight years, 1978 through 1985. Although we do have some problems and concerns that I will describe later, by and large the federal Department of Insurance is reasonably satisfied with the results of the new valuation system. In this respect, I want to acknowledge the contribution of the Canadian Institute of Actuaries (CIA). Soon after the new provisions came into force, the Institute

issued a series of recommendations for insurance company financial reporting. Members of the Institute not complying with the recommendations are subject to disciplinary procedures. The recommendations have been most helpful to us in administering the valuation provisions. However, this does not mean that we think the recommendations are perfect as they are. As I will mention later, we think they should be expanded and strengthened in some areas.

Turning to the administration of the valuation requirements, we have found it desirable to issue an annual memorandum to valuation actuaries concerning the information that we expect to see in the reports. Generally, there is no standard format. However, to illustrate the type of report we expect to receive, I will summarize some of the more important instructions in our most recent memorandum to valuation actuaries:

1. The report should be subdivided by major classes of business: for example, life, participating; life, nonparticipating; and accident and sickness.

2. Within each of these major classes, the report should be further subdivided by blocks: for example, individual, life and annuities; and group, life and annuities.

3. For each block of business, the report should identify the following: nature of product; volume and reserves on a gross and net basis; method of computation, including verification of gross premium adequacy; assumptions concerning mortality, interest, lapse, expense, renewal, conversion, etc; and summary of acquisition and

administrative expenses. The memorandum asks that the information be particularly detailed for new products.

4. The report should contain a justification of the appropriateness of each valuation assumption having a significant effect on the actuarial liabilities. In the case of interest rates, the justification should be based on quality of assets and not just on current yields. When interest rates are high by historical standards, new money interest assumptions should provide for a significant decrease in interest rates over the next few years.

5. Where significantly different valuation interest rates are used for different blocks of business, the report should include a commentary on procedures used to match assets and liabilities both by duration and yield.

6. Whenever practicable, valuation reports should justify mortality assumptions by reference to actual company studies.

7. All changes in assumptions or methods should be disclosed.

In addition, the memorandum to valuation actuaries includes special instructions concerning the valuation of universal life, flexible premium deferred annuities, term to 100 policies without nonforfeiture values (lapse-supported policies), renewable term business with step-rated premiums, and reinsured policies.

The department receives approximately 150 reports from valuation actuaries on an annual basis. It is not unusual for reports to exceed 100 pages in length, so, as you can understand, a considerable volume of paper is built up.

Public disclosure of information contained in the reports of the valuation actuaries is governed by the federal Access to Information Act. This Act prohibits disclosure of information that a company supplies to a government organization on a confidential basis and that is consistently treated by the company as being confidential. Also prohibited is the disclosure of any information that might cause a company financial loss or competitive disadvantage. Consequently, most of the information included in the valuation actuaries' reports would not likely be the sort which could be disclosed under the Access to Information Act. Interestingly enough, we have received very few requests for disclosure of the information.

However, in addition to a report from its valuation actuary, a life insurance company must include in its annual statement a table showing, for major blocks of business, amounts in force and reserves and the valuation assumptions used in calculating the reserves. This information is available to the public.

Under the Canadian insurance law, annual financial statements are required to be filed with the department by March 1 (March 15 in the case of reinsurers). The licenses of all life insurance companies expire on March 31 and by that date we must formulate our recommendations to the minister concerning license renewals.

Of course, it is impossible for us to review all 150 reports in detail during the month of March. What we do is assign a priority rating to each company based on a quick analysis of the financial statements (for example, surplus levels and trends) previous on-site examination findings, concerns relating to previous valuation reports, information about the introduction of new products, etc. The actuarial reports for companies with a number one priority are reviewed in detail by two members of our actuarial staff prior to a recommendation's being made to the minister concerning license renewal.

The remaining reports are reviewed throughout the year. I should mention that the review process is time-consuming and requires the attention of experienced actuarial staff. As I mentioned, reports frequently exceed 100 pages in length. Since they are mostly verbal, it is often difficult to interpret the implications of the methods and assumptions without resorting to test calculations.

The review of the actuarial reports carried out at the department's headquarters is supplemented by work done by two actuaries who are now part of our examination team that carries out on-site head office inspections of life insurance companies. The actuaries on the examination team concentrate on areas that the department's headquarters actuarial staff find difficult to pursue. For example, they may concentrate on a company's asset/liability matching procedure and the operations and contents of reinsurance agreements. In addition, they benefit from personal contact with the valuation actuary and the actuarial staff.

I am satisfied that we do a good job of monitoring compliance with statutory valuation requirements and catching valuation problems that could threaten

solvency. However, as in most supervisory agencies, resources are limited, and we have to apply them where we think they are most necessary. As a consequence, we are not in a position to review all actuarial reports as carefully as we would like and in the detail that many actuaries think we do. For example, it has been suggested by some that the department should take responsibility for enforcing CIA recommendations concerning valuation. We do not see this as our role, nor do we have the resources to fill this mandate. I should emphasize, however, that when we note any major deviations from the CIA recommendations, we bring them to the attention of the actuary concerned, and subsequently to the CIA if our concerns are not resolved.

How has the system been working? As I indicated earlier, reasonably well. This does not mean, however, that we do not have our concerns. We have a number.

As the Canadians in the audience will know, we became very concerned in 1984 about the ultimate lapse rates being assumed in the valuation of new term to 100 plans that do not provide any nonforfeiture values. The valuation results for these products are very sensitive to the lapse assumptions, and, in our view, some valuation actuaries were assuming lapse rates that were too high given that no actual lapse experience with this type of product had yet developed.

As a consequence, we contacted the CIA and indicated that if the actuarial profession were not willing to establish standards concerning lapse assumptions, the Department of Insurance would. To its credit, the CIA responded very quickly and developed the concept of technique papers. For specific topics, technique papers expand on the more general recommendations for insurance company financial reporting and establish standards of practice. The first

valuation technique paper produced by the CIA dealt with the valuation of lapse-supported products. We were well satisfied with its content and have indicated that we expect all valuation actuaries to adhere to it.

In my capacity as superintendent, I am certainly ready, if necessary, to impose standards concerning valuation assumptions by using my statutory right to reject assumptions that I consider to be unacceptable. However, I would much prefer that the actuarial profession itself develop a consensus concerning appropriate professional standards for valuation assumptions and other related matters. Consequently, I welcome the technique paper initiative taken by the CIA and look forward to seeing further papers on a number of subjects. One has already been produced on the valuation of renewable term insurance, another subject that was giving us some cause for concern, and more are in the works.

When I refer to the paper on renewable term products, I am reminded of two other aspects of the valuation process that cause us some worry because they both relate to this type of business. The first is reinsurance. Reinsurance agreements have been arranged in Canada over the past years in terms that are making it more profitable to reinsure business than to retain it. The tangled web of cash flows resulting from the commissions, allowances experience rating, and exchanged reserves makes for a very difficult valuation problem. One wonders if the reserves held by the direct writer, together with those held by the reinsurer, are, in aggregate, sufficient to support the business.

The second worry concerning renewable term products relates to premium deficiencies. The 1977 amendments require a premium deficiency reserve to be established when the calculated valuation premium for a policy exceeds the gross

premium. Because premium rates for renewable term products are so competitive, premium deficiency reserves are particularly significant for this type of business. We are monitoring this situation very carefully, particularly for companies that reinsure renewable term business, because, as I just mentioned, reinsurance arrangements are so complex it is sometimes difficult to follow who is doing what. We are doing our own work on methods for dealing with these issues, and the CIA is also developing technique papers. Consequently, I believe there will be important developments in this area in the future.

Another example of an area of concern is mortality assumptions, particularly for nonsmoker and never-smoked plans. While we recognize that there have been significant improvements in mortality, we are concerned that some valuation actuaries may be overly optimistic about the mortality of certain select groups, such as those who claim to have never smoked, particularly when no significant experience for such groups has yet been accumulated. In one case, the valuation actuary was using a non-smoker mortality rate as low as 35 percent of the CIA 69-75 table. However, on the basis of discussions, the actuary agreed to change the assumption without my having to use my veto power.

We have also been concerned about interest rate assumptions, particularly long-term ultimate rates. In a number of cases, we have found the assumptions to be too high. Again, in most of these cases, we have been able to resolve our differences with valuation actuaries through discussions. However, the frequency with which concerns about mortality and interest rate assumptions are arising leads me to believe that there may be merit in the CIA's developing certain standards for these assumptions, just as it did for lapse rates in connection with the valuation of lapse-supported products.

Some of the valuation approaches to the so-called adjustable products are also causing us some concern. We are pleased that the CIA is developing a technique paper on this subject.

An area that we think needs much more attention in many valuation reports is the question of matching. In many cases, we are concerned about the lack of information provided on the assets used to justify valuation interest rate assumptions. More and more, we intend to press for better information on the matching process and techniques that have been used, both with respect to duration of maturities and yield. We will also be looking for comments with respect to the likely impact on a company's financial position of a precipitous and material fluctuation in new money interest rates.

Although all of these points that I have mentioned give us some cause for concern, I do not think that they are sufficiently serious or incapable of correction that I would be justified in saying that the 1977 valuation system is not working reasonably well. Almost all actuaries have used methods and techniques that have been completely acceptable to us. Nevertheless, I will be looking to the CIA to continue its initiatives to establish standards in the areas that I have described. As I have indicated, if the profession does not continue with these initiatives, the legislators and regulators will be forced to develop the standards themselves in the legislation. As both an actuary and a regulator, I would very much regret this. Legislated rules inevitably become rigid and inflexible. Professional standards, even though specific and enforceable, can evolve more easily to accommodate new developments and actuarial techniques.

What about the future? There is no doubt that the margins in actuarial reserves have narrowed considerably since the implementation of the 1977 system. Moreover, the ratio of free capital and surplus to liabilities for most life companies operating in Canada has also declined. These events, together with the failure of several trust, loan, and property and casualty insurance companies and two banks, have led the government to introduce a bill in Parliament that will give the minister the right to make regulations prescribing minimum continuing capital and surplus requirements for life insurance companies. Such requirements exist now in Canada for banks and for trust, loan and property and casualty insurance companies. Life insurance companies are competing directly now with trust and loan companies for term savings business. In fact, the contracts being offered by life insurance companies, although called deferred annuities, differ little from term deposit instruments issued by trust and loan companies. The argument is therefore made that life companies should be subject to the same capital and surplus requirements for this business as are the trust and loan companies.

The bill is still being considered by Parliament. The legislation has the support of the Canadian life insurance industry in the context of its efforts to develop an industry-financed and industry-operated compensation scheme to compensate policyholders for losses within certain limits in the event their life insurance company fails. Consequently, I see no reason why the legislation will not be enacted. The Department of Insurance is currently collaborating with the Canadian Life and Health Insurance Association and the CIA in refining a proposal for determining minimum continuing capital and surplus requirements that was prepared on our behalf by Dr. Alan Brender, a member of the Society of Actuaries. Much more will be said about this proposal in a later discussion.

Some people have suggested that with the introduction of minimum continuing capital and surplus requirements for life insurance companies, we will no longer be as concerned as we once were about the adequacy of actuarial reserves. I can assure you that this is not the case. There will certainly be no decrease in monitoring of compliance with the statutory valuation requirements. We will continue to press concerns of the type that I have described to you with individual valuation actuaries and the profession at large through the CIA.

What about changes in the statutory valuation requirements? There seems to be some support from both the CIA and the Canadian Institute of Chartered Accountants for enshrining in the legislation what has come to be known as the policy premium method. In simplified terms, the reserve under the policy premium method is the difference between the present value of future contractual obligations and expenses and the present value of future gross premiums. The method certainly has its advantages. However, as a regulator, I currently have some reservations about its use as a minimum acceptable statutory reserve method of reasons such as the potential for front-ending of future profits and the unlimited deferral of acquisition expenses. Dialogue with the CIA and the Canadian Institute of Chartered Accountants will continue, and, of course, more will be said about the policy premium method at a later session. However, as I have already mentioned, I certainly believe that we should strive to reach agreement on a reserving method that will be suitable for both statutory and non-statutory reporting.

One last development in Canada relating to the role of the valuation actuary may be of interest to you. A special committee of the CIA on the role of the valuation actuary has recommended that this role be broadened in three ways:

1. The valuation actuary's formal opinion should encompass the ability of the company to meet its future obligations with respect to both existing business and anticipated future new business.

2. The monitoring by the valuation actuary of the financial situation of the company should be redefined as continuous and ongoing.

3. The valuation actuary should report to the company's board of directors at least annually and more often when required by developing circumstances.

As a regulator, I would certainly welcome this assumption of increased responsibilities on the part of the profession. However, it remains to be seen whether the profession will be willing to accept these increased responsibilities.