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APPOINTED ACTUARIES AROUND THE WORLD

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Brief summary and discussion comparing the role of the appointed actuary in different countries including the following:

- Responsibilities: Reserves or Solvency?
- To whom does the appointed actuary report?
- Who sets the rules/standards?
- Potential personal liabilities
- How well is the system working?

MR. HARRY R. MILLER: In keeping with our title, we have been fortunate to assemble a distinguished panel. Our panelists include Dr. Chang, who currently resides in Singapore. He is a graduate of the National Taiwan University and holds a Ph.D. in mathematics from the University of Cincinnati. He is currently a professor at Nanyang Technological University and serves as the appointed actuary for several companies. He is a Fellow of the Society of Actuaries, the Canadian Institute of Actuaries, the Actuarial Institute of the Republic of China, and the Singapore Insurance Institute. His career spans over 25 years and five countries, in both teaching and industry positions. He has been an advisor to the Ministry of Finance for the Republic of China and a consulting actuary to a number of multinational companies. Dr. Chang truly brings an international perspective to our panel.

Richard Harvey, a past president of the New Zealand Society, is from the U.K., where he has just returned after six years in New Zealand. Richard is a Fellow of the Institute of Actuaries and serves as general manager of finance for the Norwich Union Insurance Group in the U.K. He brings us a fresh look at the U.K. appointed actuary concept.

W. Paul McCrossan is with Eckler Partners in Canada. He is a Fellow of the Society of Actuaries and a Fellow and Past President of the Canadian Institute of Actuaries, and heads the International Federation of Actuarial Associations, formerly the McCrossan Group. He also holds the distinction of being the only actuary to serve as a member of the Canadian Parliament. Paul provides the perspective of someone who has helped write the laws and now must live with those laws.

I'm with the Houston office of Milliman & Robertson. I am a Fellow of the Society of Actuaries and serve as the appointed actuary at four companies in the U.S.

We have divided the panel into three major sections. In the first section, I'll try to provide a brief overview of where the appointed actuary concept is in use around the

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world. In the second section, we'll take a little closer look at the appointed actuary concept in the U.S., Canada, the U.K., and Asia. The third section will allow the audience the chance to join in the discussion, ask any questions you have, and provide any additional comments about the appointed actuary concept in your country.

The panelists were posed several questions to help them put together their presentation. The questions were drafted from a distinctly American viewpoint and reflect many of the issues and concerns we are addressing here in the United States. They include:

- What is the appointed actuary's responsibility to company management, regulators, policyholders, or other audiences?
- Does the appointed actuary provide a solvency opinion or a reserve adequacy opinion?
- Are there any potential personal liabilities?
- What is the relationship between minimum-statutory reserve requirements and the appointed actuary?
- Is the appointed actuary concept working?

First, I have attempted to show where the appointed actuary concept is in use around the world. However, I was unable to find a comprehensive listing of the regulations in all countries. I've pieced together the information from a number of sources and it is likely that I may have missed one or more countries. The countries where I was able to find that the appointed actuary concept is in use includes the United States, the U.K., Canada, Italy, Bermuda, Denmark, Norway, Singapore, Malaysia, Hong Kong, Trinidad, Tobago and Australia. Many Latin American countries have something akin to an appointed actuary concept, although I classify it as being more like the old style actuarial opinions in the U.S. Countries that are considering the appointed actuary concept or are expected to adopt it soon include New Zealand, Poland and Japan. Dr. Chang has also indicated there is growing interest in several of the other Asian countries. I think this list indicates that we in the U.S. are not the only ones dealing with the appointed actuary concept. It already has a long history in places like the U.K. and in some of the Scandinavian countries, and has been in place much longer than in the U.S.

While there is a great diversity of approaches being used for appointed actuaries reflecting cultural differences and local insurance markets, I think there is consistency of the underlying principles. Basically, the appointed actuary is designed to help regulators, users of financial statements, and customers of insurance companies understand a little bit better the true financial position of an insurance company.

In the United States, serious discussions regarding the appointed actuary concept began during the 1980s. It was a hotly debated issue. Many of you attended society meetings where it was a major topic of discussion. Excluding New York Regulation 126, the appointed actuary concept was first applied to the 1992 financial statements.

Implementing the appointed actuary concept in the U.S. requires each state to adopt the standard valuation law and the associated regulations. This is a time-consuming

process and it has taken quite a while. Currently, about half of the states have adopted enabling legislation.

The regulatory environment in the U.S. hasn't been constant since the development of the appointed actuary concept. The failure of several large companies helped prompt an increased focus on the solvency of insurance companies. This has led to the adoption of risk-based capital standards and ongoing discussions relating to the need and advisability of solvency reports.

The appointed actuary in the U.S. is appointed by the board of directors of a company. The appointed actuary can be either an employee or a consultant. Their opinion is provided for both management and the regulators. In addition, the appointed actuary prepares a confidential actuarial memorandum describing the analyses performed. While the actuarial memorandum is prepared for the board of directors and management of the company, it can be reviewed by the regulators. In the U.S., the appointed actuary's opinion only addresses the adequacy of reserves and is not currently designed as a solvency opinion. However, there has been an ongoing debate within the profession as to whether we are in effect, or should be, providing a solvency opinion.

The appointed-actuary concept in the U.S. has not replaced the minimum-reserve standards, but has supplemented them. It is unlikely that U.S. regulators will ever feel comfortable totally eliminating these minimum reserve standards. Personal liability is also a major concern in the United States, given the litigious nature of our society.

With that as a backdrop to the appointed actuary concept around the world, I'd like to introduce Richard Harvey, who will talk about the appointed actuary concept in the U.K.

MR. RICHARD HARVEY: I'd like to point out that I'm not a U.K. appointed actuary. I got back to the U.K. a bit less than a year ago, having worked for some time in New Zealand, where there is very little insurance regulation and, at the moment, no appointed actuary system. During my last two years there as president of the New Zealand Society, we spent some time talking to the regulators and indeed encouraging them to introduce a system based on the U.K. model. Progress was slow and, as far as I am aware, the issue continues to be only at the discussion stage.

Now that I'm back in the U.K., I've had a chance to observe the more recent developments of the appointed actuary system first-hand. My comments are therefore based on those observations, together with some views that I've collected from a number of actuarial colleagues, including appointed actuaries from consulting firms, mutual offices, and composite companies. I'm very grateful for their input, but I must make the usual disclaimer that says that the views expressed today are, of course, entirely my own.

FUNDAMENTALS

I will start with a couple of fundamentals of the U.K. system, the first is that the regime is all about solvency. It's not a question of reserves and their adequacy, but all aspects of the well-being and ongoing well-being of the life office in question. The structure is intended to put a supportive framework around the professional judgment

of the actuary and, in doing so, requires him or her to be aware of all of the business aspects of the company.

There's an old actuarial joke that compares an insurance company to a coal mine. The actuaries are likened to the pit props along the lines. If you have too many of them, you can't get down the mine; but if you have too few, the roof falls in. Under today's regime, like the old-fashioned wooden pit prop, the actuary is required to do a good deal of advance creaking before it collapses. In all reasonable circumstances, he or she is required to creak loudly enough and early enough so that the fault can be rectified with or without the help or intervention of the regulator, before there's any significant danger of collapse. My second fundamental point is that the appointed actuary regime does not extend to general insurance.

SOME HISTORY

There have been three distinct periods in the U.K. of life office insolvencies, the 1860s, 1930s, and the early 1970s. The first of these led to the first of the Insurance Companies Acts. By 1958 the Act stated that an investigation into the financial condition of the office, including evaluation of liabilities, shall be carried out by the actuary.

However, it was not until the insolvencies of the early 1970s that the concept of the appointed actuary was first introduced in the Insurance Companies Act of 1973, and later embodied into the Insurance Companies Act of 1974. That was followed quickly in May of 1975 by the publication by the Institute of Guidance Note (GN)1, which was the first Professional Guidance Note from the Institute on the responsibilities of the appointed actuary. Then the present system has derived by a process of refinement from a fundamental basis that started around 20 years ago.

KEY ELEMENTS

The regulatory basis is one of building blocks—the basic legislation is contained in the Insurance Companies Act of 1982, the Act providing the underlying authority for regulations, which then extended and codified the principles of the Act. But most importantly, the Institute provides extensive professional guidance, two sections of which, GN1 and GN8, specifically relate to the duties of the appointed actuary and are mandatory.

As an example, and a useful one of this building-block approach, is the position of the appointed actuary himself. Section 96 of the 1982 Basic Act simply describes the term actuary as meaning "an actuary possessing the prescribed qualification." Then in the regulations, in Section 28, the prescribed qualification includes fellowship with the Institute of Actuaries or Faculty of Actuaries and a minimum age of 30 years. However, the Institute then set out the requirements for an appointed-actuary certification, as follows:

- Fellow of the Institute (Fellows of the faculty should apply to the faculty)
- Minimum age of 30 years
- Up-to-date, continuing professional development (CPD) with two-thirds of the formal requirement, i.e. ten hours, to be on subjects relevant to the role of the appointed actuary
- Appropriate practical experience
- Attendance at a professionalism course (for recent qualifiers)

- No adverse disciplinary tribunal finding
- Appropriate person (similar to the 'fit and proper' requirement for insurance company directors)

The actuary, as I said, must hold the current certificate before he or she can accept an appointment; but the actuary is appointed and remunerated by the company and is responsible to the board of that company. So it's the directors who are responsible for the well-being and overall solvency of the company. In addition, the appointed actuary has responsibilities and obligations to the Department of Trade and Industry, which is a supervisory body, by reason of his or her statutory duties. In fact, there's a three-way relationship between the board of a company, the appointed actuary, and the Department of Trade and Industry.

In fact, I should extend that further and say that there's a fourth player in this relationship, and that's what we call the Government Actuaries Department (GAD), which is the permanent provider of professional actuarial advice to the regulator, the Department of Trade and Industry (DTI). The GAD does not have a direct regulatory authority over insurance companies or their actuaries, although the regulations do provide for routine contact for the clarification of points contained in the company's returns to the DTI.

This is an apparently complicated structure, but it's brought about some important benefits. The Government Actuaries Department has been able to develop, with insurance companies and with appointed actuaries, a close cooperation and open relationship, to some extent encouraged by the fact that it is not the formal regulator. There is, for example, a permanent, joint actuarial working party between the Government Actuaries Department and the Institute, which includes a number of appointed actuaries and provides a very valuable means of two-way communication between the practitioners and those responsible for the regulation.

Indeed it may seem somewhat convoluted, but if the Government Actuaries Department is able to advise appointed actuaries of what it will be advising the Department of Trade and Industry as, for example, an acceptable basis for resilience testing, then that's very useful information to the appointed actuaries and provides a very pragmatic way of establishing sensible practice.

However, I'd like to address what I think is at the very heart of the structure and that is the duty of the appointed actuary, which is set out in Guidance Note No. 1, Section 3.2, and that duty is to advise the company as soon as he or she thinks that: (1) a course of action is proposed to be followed by that company, or (2) a situation has arisen, perhaps outside the control of the company, which creates a material risk that the long-term fund may be insufficient to cover its liabilities.

If the company then persists in the course of action or, alternatively, fails to remedy the situation and does not report this fact to the Department of Trade and Industry, then the actuary must advise the DTI after so informing the company.

This clause, I think, is the equivalent of an actuarial nuclear deterrent. It's impossible to determine how its existence has shaped the relationship between appointed actuary and company board. Undoubtedly it means the board must listen, and indeed

listen very carefully, to the views of the appointed actuary. It would be impossible to say how many times the awareness of this responsibility has caused a board to change its policy or direction. The extent to which an actuary may have had to remind a board of his duty would vary greatly depending on the individual actuary and the individual board.

All those to whom I have spoken agree that relationships are actually shaped by this requirement and that, in practice, it does work. I'd also like to highlight one or two particular aspects of the U.K. appointed actuary's responsibilities.

FURTHER RESPONSIBILITIES

Because the appointed actuary is fundamentally concerned with the solvency of the company, there's no limit to the overall extent of his or her interest in the business of the company or in the external or internal affects on factors that might have a direct impact on that company. The Guidance Notes set out a list of obvious major areas of concern including premium rates, investment policies, guarantees, options, marketing plans, and reinsurance arrangements. You can let your mind run through them all. But given the all-encompassing nature of the responsibility, these can only ever be illustrative.

Although the Insurance Companies Act requires financial investigations to be carried out only at specific intervals, the Professional Guidance Notes make it clear that the appointed actuary's duty is to take all reasonable steps to insure that he or she is at all times satisfied as to the solvency of the company. This "all-times responsibility" means that consulting actuaries in particular, acting as appointed actuaries, need to set out a formal basis with their client by which they are to be kept informed of the particular events and, indeed, they may need to modify that basis after they've completed a particular investigation.

CURRENT DEVELOPMENTS

This is by no means an exhaustive list, but it seemed to me to be the principle areas where the system is currently changing and developing.

The first point I want to raise is policyholders' reasonable expectations. The Guidance Notes require an actuary, when assessing the liabilities of long-term business of a company, to have regard for policyholders' reasonable expectations. In times of falling bonus rates, like right now, it's natural to have a fairly high profile for this item. It has been extensively explored by the Institute's working party, who published a report in 1990. There have since been a series of reports, regular discussions, and professional seminars; in my view, as far as the profession is concerned, the topic has been thoroughly discussed.

However, I think the actuary has an ongoing and potentially increasing duty in the context of educating and informing the board, the policyholders and, perhaps most particularly, the potential policyholders. This responsibility regarding expectations, requires the actuary to be careful when preparing or reviewing marketing literature and when assessing the maneuvering ability on company policy. In its simplest form it means that contractual and noncontractual liabilities must be considered in all circumstances.

My second point concerns dynamic solvency testing. Neither the regulation nor the professional guidelines currently lay down any basis for dynamic solvency testing, although there is a common basis for resilience testing based on the advice of the government actuary to the Department of Trade and Industry. An actuarial working party on the subject of dynamic solvency testing has just released its interim report, which also includes the question of providing a financial condition report to the management of the company. It's perhaps reasonable to expect that the results of that working party might find their way into a draft professional guideline sometime during 1995.

My next point, good business practice, really stems from the fact that the appointed actuary is increasingly being used as the policeman of good behavior. It's not strictly related to his duty in respect to the solvency of the company; but wherever sensible, professional judgment requires an issue that cannot easily be codified be taken into account. For example, the actuary must approve the "with-profits" guide required by our Financial Services Act and certify the formula for calculating the new reductions for expenses and commission.

A number of these duties, as you can see, relate very directly to the question of policyholders' reasonable expectations. It's generally felt that it's sensible and appropriate that they should also fall to the actuary. Indeed, it's being suggested by one of those to whom I spoke that the increased use of an actuary in such circumstances is really a vote of confidence by the regulators in the appointed actuary system.

GENERAL INSURANCE

As far as I'm aware, all significant general insurance companies use actuaries within their claims assessment, pricing, and general financial control and management. The U.K. appointed actuary system for life insurance is now relatively mature and it would seem natural for future regulation of general insurance to consider the merits of adopting a similar basis.

LIFE INSURANCE PROFIT RECOGNITION

It's a difficult subject and it's currently being considered by a wide range of working parties coming from actuarial, accounting, and insurance industry backgrounds. Again, it's not strictly related to the job of the appointed actuary in respect to solvency, but it's difficult to see an issue such as this, which requires so much actuarial judgment, not finishing up with significant responsibilities for the appointed actuary.

The present debate in the U.K. is being fueled by two significant drivers. The first one is the European Community (EC) regulations. They are about to require—and I've written down here the first of January, 1995, but I think it's actually December 23, 1994—that all insurance company accounts provide a true and fair view. I think in North American terminology, present fairly or fairly present, would be the equivalent. There's a lot of disagreement, but there is general agreement that the valuation basis appropriate to satisfy statutory and professional requirements in respect to solvency does not provide a true and fair view of a life company's profits. The second driver is the desire by shareholders to understand, be better informed, and even to take account of the profitability of a life company in any one year.

Now, while the statutory valuation basis will determine the amount of profit that may be released from the life fund in a particular year, an alternative basis for disclosing a true and fair view of the profits must be adopted. Whether in the long run this will be one of the widely discussed current alternatives, imbedded values across margins on services and profits, or even the minimum change to a modified statutory basis, that remains to be seen. I think this question is one of the most interesting and challenging facing the U.K. actuaries.

In conclusion, I'd like to say that the U.K.-appointed-actuary system has been in place for 20 years, during which time it's been progressively refined. All of those to whom I spoke, together with my own observations, suggest the system is working effectively and that the constructive tension between the actuary, the board, and the Department of Trade and Industry as regulator provides a very practical framework under which professional judgment can be brought to bear on a myriad of complex products and indeed of complex company structures. There are some important developments ahead, but the system is both robust and flexible enough to deal with these.

MR. W. PAUL McCROSSAN: I'm going to cover the appointed actuary in Canada, which has been in force since June 1992, and which has been rather freely adopted from the United Kingdom model. During the presentation, I'm going to quote extensively from the legislation and from the professional standards, because they are short and sweet. The whole appointed actuary duties in the legislation takes up about two-and-a-half pages, so it's very pungent indeed.

The issues I will cover include:

- Who can become an appointed actuary and how do you become one?
- What routine duties the actuaries have annually and what nonroutine duties are put on the appointed actuary?
- When is the appointed actuary obliged to have the reports completed?
- What legal rights and protections are imbedded in the Act? Canada may be the only country that has actual, statutory legal protection for the appointed actuary.
- What is the current appointed actuary's opinion and how will it change in two years?
- What triggers a whistle-blowing report, which is known in the act as a report to officers and ultimately to regulators?
- A small philosophical discussion on the role of the appointed actuary in Canada of balancing the responsibilities to regulators and management.

The act provides that in order to become an appointed actuary you must be a fellow of the Canadian Institute of Actuaries (CIA). The code of the CIA further adds that you cannot take an assignment unless you're reasonably qualified. The appointed actuary is appointed by the board of directors and, if there is any vacancy, the superintendent of financial institutions must be notified immediately by the board of directors. The former appointed actuary must write the directors and the superintendent of financial institutions of the reason and circumstances of his or her departure unless, of course, the actuary has died on the job. The act says that the report should not just state the known reasons, but should also include the opinion of the appointed actuary as to what led to his or her departure. This document has legal

privilege. That is, it cannot be used in a court of law against the appointed actuary. Similarly, there's a professional requirement in the CIA that any potential, newly appointed actuary must request and receive a statement from the old appointed actuary before accepting an appointment.

There are a number of items in the act that are routine annual items. The first is an annual valuation. The entire evaluation section of the act consists of one sentence. Actually, I think there's a second in there, but there are no prescribed minimum valuation bases. It simply states that a valuation shall be conducted "in accordance with generally accepted actuarial practice, with such changes as may be determined by the superintendent and any additional directions that may be made by the superintendent."

So it's quite clear that the superintendent has the hammer. The superintendent can prescribe anything, but it's also fair to note that the superintendent has not, to the best of my knowledge, prescribed anything yet. So the entire judgment as to what's an appropriate valuation is left in the hands of the CIA and generally accepted actuarial practice. The standard applies for both life insurers and general insurers, or what's known in the States as property/casualty insurers.

The second statutory duty is to put a report in the company's published financial statements indicating "whether, in the actuary's opinion, the annual statement fairly presents the results of the valuation."

The third annual statutory duty is to perform dynamic solvency testing, which is expressed as "to report in accordance with generally accepted actuarial practice . . . on the financial position of the company and . . . the expected future financial condition of the company." That is, where is it likely to go? This report is now compulsory for all life companies and is being introduced for property/casualty companies.

The fourth duty of the appointed actuary is to provide signed reports to both the Office of the Superintendent of Financial Institutions and the National Policyholder Compensation Corporation on the minimum continuing capital and surplus requirements. This year this explicitly contains provisions for all off-balance-sheet liabilities, such as derivatives, guarantees to subsidiaries, and so on. So they all have to be enumerated, accounted for and evaluated.

The fifth duty in Canada states that both stock and mutual companies can issue both participating and nonparticipating business. Since both can write both types of business, there is a requirement that the actuary report "to the directors on the fairness and equitableness of the method used by the company to allocate its investment income, losses and expenses, including taxes, to a participating account."

This is obviously to stop a stock company from skimming off profits through expense allocation, because there are general restrictions on profits taken from a participating fund. These items include accrued capital gains or losses, whether or not realized.

The second statutory obligation is to report "whether, in the actuary's opinion, the dividend bonus or other benefit is in accordance with the dividend or bonus policy of the company."

As you might expect, the board of directors must adopt not a dividend scale—that is, a detailed calculation—but must adopt a dividend policy indicating how they're going to go about setting dividends and bonuses. Then the actuary must report on whether the actual bonuses are in conformity with that policy.

Then there are nonroutine tasks. The first nonroutine item is the right to information. You'll see this is a very wide-sweeping power. The appointed actuary has the power to request "the present or former directors, officers, employees or representatives of the company, to the extent they're reasonably able to do so, to give access to all records and provide information and explanations that are, in the opinion of the actuary, necessary to enable the actuary to perform the duties of the actuary." That is, the actuary can compel officers, directors and employees to provide explanations and anyone who gives such information or explanations has legal immunity as a result of being compelled by the appointed actuary to provide the information.

The second nonroutine duty has to do with the whistle-blowing aspect. "The appointed actuary shall report in writing to the chief executive officer, the chief financial officer, and the directors of the company any matters that have come to the actuary's attention, that in the actuary's opinion have material adverse effects on the future financial condition of the company and require rectification."

Much the same as the U.K., the actuary is supposed to be continually monitoring the situation and, if they see any proposed action or anything has actually happened, they are obliged to write this report.

Of course, the company may or may not act on the report, so the second paragraph then says, "Where in the opinion of the actuary, suitable action is not being taken to rectify the matters, the actuary shall forthwith send a copy of the report to the superintendent and advise the directors that the actuary has done so." So there's no need to go directly to the superintendent and indeed, if the matter is cleared up by the company, the actuary need never go to the superintendent.

However, it's fair to say that the auditors are very interested in these things and, at least where I am the appointed actuary now, the auditors routinely ask as part of the annual audit, "Have you written any of these letters in the last year? If so, why and what happened?" I suspect that the auditors I deal with aren't the only auditors asking these questions.

The third nonroutine duty, and this may seem that the actuary is moving well into the prerogative of management, is that payments to shareholders in the form of dividends cannot be made if, in the opinion of the appointed actuary, they would "materially affect the company's ability to continue to comply with its dividend or bonus policy or maintain the level or rates of dividends or bonuses." That is, policyholders come first, before shareholders.

Obviously if you have a dividend policy that dynamically changes, that gives you far more comfort than a narrow dividend scale, with just factors in it. Because if you just had a dividend scale, you could never change the scale and continue to pay shareholder dividends.

There's a whole host of reports the actuary has to issue in Canada and the timing is very short. All federal insurance companies are on a calendar year, fiscal year basis, and the actuary's valuation must be completed in essentially eight weeks. So the report must be filed by February 28. Also at the same time, the risk-based-capital report needs to be filed with the regulator, although with the Compensation Corporation there is an additional month.

The actuary's report on the fairness of the financial presentation must be filed with the board at least 21 days prior to the annual general meeting. The actuary is also required to send an extensive compliance report to the CIA by April 15 indicating that he can demonstrate that all of the assumptions are explicit and can be justified by either internal company experience or industry experience, and so on. At least the first couple of years I filled this out, I sweated blood trying to satisfy myself that I could answer yes to the questions, because answering no to the questions means I'm going to be charged with professional misconduct.

The dynamic-solvency-testing report must be given at least once each financial year. The custom that is emerging is that the report would be done in the latter half of the year. You completed it as of February 28 and usually would meet with the board of directors in the fall to discuss the future financial condition, and this involves scenario testing. There are about ten recommended scenarios—new business going up and down, interest rates going up and down, expenses, lapses, morbidity, and all that sort of thing—but the actuary is required to test anything that essentially is material. They could be shifts in currency rates or, if you have a large derivative exposure, shifts in interest rates and things like that.

The equity and fairness report to the board must be made annually. The report on ceasing to become an appointed actuary should be available within 15 days of ceasing to be the appointed actuary. Of course, the nonroutine report to officers should be made as soon as you become aware of matters with materially adverse effects on the future financial condition of the company which require rectification.

The appointed actuary and the company employees in Canada have been given substantial legal protection. First, I mentioned that the appointed actuary has the right to compel information and explanations, so someone who gives that could potentially be sued by the company and therefore the Parliament has provided that "a person who, in good faith, makes any oral or written communication to the appointed actuary shall not be liable in any civil action arising from having made that communication."

So they have complete legal immunity in the civil sense. This obviously takes away a lot of the fears of litigation that might arise in the U.S. environment.

Second, the actuary is required to make reports on why he or she left and required to make these whistle-blowing reports, and so the Parliament of Canada has provided completely immunity from any civil damages as a result of discharging your duty as an appointed actuary. "The appointed actuary or former actuary who, in good faith, makes an oral or written statement shall not be liable in any civil action seeking indemnifications for damages attributable to the actuary or former actuary having made the statement or report."

That's very widespread protection. You can understand that the words "in good faith" are not trivial words, but an example indicates what can happen. Your company could sue you, but you could go for a declaratory judgment right away seeking to dismiss the suit, unless they can establish as a prima facie case that you have not acted in good faith in discharging your obligations.

This has two ramifications. The first is that the only way you can avail yourself of the legal protection is to act in good faith. If you're required to state in your opinion why you were dismissed and you don't, you give up your legal protection. The only way you can get legal protection is by disclosing everything. If you disclose everything, you have complete legal protection.

Second, "any other written or oral statement or report made by the appointed actuary under this Act has qualified privilege."

For those of you who aren't lawyers, the highest level of legal privilege is absolute privilege. This is the privilege, for example, that congressmen or parliamentarians have in Parliament. They can't be found guilty of treason or sued for anything they say in Parliament. A lawyer/client relationship generally has absolute privilege.

The next-highest level of legal protection is qualified privilege. It makes it very difficult to take any action against any appointed actuary who's acting in good faith. Again the key words are that qualified privilege implies the concept of one's acting in good faith; that is, that you can't do something maliciously nor with the intent to damage. You have to be acting in good faith in order to have legal protection. You'll see that the Parliament of Canada has given very strong legal protection to the actuaries and the employees.

In light of the situation in the U.S., it's interesting to note that the government initially opposed this legal protection. In fact, the Canadian Bar Association sent a brief to the Parliament that pointed out that if you were going to give the actuary these responsibilities, you must give them freedom from being sued by lawyers; otherwise they would be in a terrible legal position. It was, in fact, the National Lawyers Association who came to Parliament and said, "We understand you want to impose these responsibilities on actuaries. For goodness sake, give them protection against lawyers if you're going to give them that responsibility."

The standard wording of the opinion that the appointed actuary has to give states, "I have valued the policy liabilities in the company's balance sheet and their increase in its statement for the year then ended in accordance with accepted actuarial practice. In my opinion, the valuation is appropriate" (that's a professional term of art meaning neither too conservative nor too liberal) "and the financial statements fairly present its results."

The opinion is going to change, or is proposed to change, in 1995. The last paragraph has changed or will change to, "I have valued the policy liabilities in the Company's balance sheet . . . and their increase in its statement for the year then ended and I have examined its financial condition in accordance with accepted actuarial practice. In my opinion, the valuation is appropriate. The financial statements fairly present its results and the company's financial condition is satisfactory."

That is, I've looked into the future and I don't see an imminent insolvency, or I don't see a serious financial condition which requires rectification. It's going beyond stating where you are now. Starting in 1995, the appointed actuary is going to have to give an opinion about the future financial condition of the company.

The professional standards provide for qualifications to the appointed actuary's opinion, just as accountants do. The examples of qualifications that could be in the opinion are:

- That the current dividends are not sustainable
- The company needs more capital
- The company needs more capital and has a plan to raise it
- The company took over another company that was not financially sound and had poor records, and you really can't say that the data you're working on are up to the normal standards that you would apply.

Obviously there are things that the professional standards say are not covered by the actuary's opinion, such as catastrophes, widespread property destruction not coverable by normal reinsurance, epidemic, unexpected tax or legislation changes, unforeseeable failure of major investments, runaway inflation, war, major mortality or morbidity changes, or major changes in management practices. The CIA standards state, "It is not appropriate for the actuary to suppress any unfavorable result of his or her examination of the company's financial condition, even if publication of the result produces a 'run on the bank.'"

The thought behind that may be interesting. That is, as long as the company is in business it's taking on new policyholders. If there is a serious financial condition existing in the company, it really is unfair to continue to take on new policyholders without letting them know of the existence of that condition. To the best of my knowledge, none of these reports have been issued that have this particular statement in it. But it's there in the professional guidelines and you can be charged with professional misconduct and obviously lose your Fellow of the Canadian Institute of Actuaries (FCIA) designation if you try to suppress something on the basis that it's being done to stop a run on the bank.

Let me go to the whistle-blowing report, because it's very much the same conditions as in the U.K. "An appointed actuary should take all reasonable steps to be currently apprised of what a report on the current financial position and expected future financial condition to the board would indicate. If such a report would indicate the need for corrective action to insure a satisfactory condition, then a report to the officers and directors should be made. To be satisfied, the appointed actuary should be able at any time to provide an unqualified opinion as would be published in the company's financial statement."

Finally, I described the actuarial teeter-totter, meaning how does the actuary balance his or her role in terms of being a member of the management team and being accountable to the public? There has been considerable debate and discussion in the United States, particularly by John Harding and Steve Radcliffe—should the appointed actuary be primarily a management officer and part of the management team, or should the appointed actuary have outside responsibilities?

If the actuary is solely a part of management, then it seems to me that the regulator and/or the public should ask for an independent counterweight at the other end of the teeter-totter. If the actuary argues that the responsibilities in a particular country should be as part of the company team, then it seems to me that they're putting themselves in the position of an internal auditor of the company who performs a valuable role for the company; but common business practice demands that there has to be an external auditor as well.

With the government and with the Canadian Institute of Chartered Accountants, we do not require independence. The requirement of the appointed actuary in Canada is that the appointed actuary be objective; that is, that they straddle the fulcrum of the teeter-totter and try to balance the roles in the middle. For anyone in their youth who tried to stand in the middle of a teeter-totter, you remember how tricky this was and how easy it was to fall off the teeter-totter.

Nevertheless the model in Canada for the appointed actuary is that the criterion is to straddle the middle and stand at the fulcrum; and the standard that should be applied to the appointed actuary is that he or she is acting objectively.

DR. CHIU C. CHANG: The appointed actuary concept has quickly spread to Asian countries. This should not be surprising. The failure of life insurance companies in Western countries is very scary, and the governments of Asian countries have become quite progressive, especially those of newly industrializing and democratizing countries.

Although there are only three countries that have formally passed the law to adopt the appointed actuary concept, most of the other countries have been working toward the adoption of this concept. Hong Kong has followed the U.K.'s model very strictly, so my presentation on Hong Kong, in some sense, is an exception to other Asian countries. Singapore has essentially adopted the Canadian model; also Malaysia is somewhere in between the British and Canadian model, but much closer to the Canadian model.

We will review both the traditional and enhanced roles of the actuary; highlights of legislation that initiated the appointed actuary concept; the potential differences in implementing the appointed actuary concept between Asian and Western countries; the appointed actuary and the statutory valuation standard; practical applications of the appointed actuary concept in Asia; activities in Japan's move towards the appointed actuary concept; and the difficulties which some of the Asian countries have encountered in their process of adopting the concept.

TRADITIONAL ROLE OF THE ACTUARY

Most insurance laws in Asian countries prescribe the role of the actuary as being responsible for determining premium rates, designing insurance products, valuing policyholder reserves, and deciding on surplus distribution to participating policyholders.

A typical insurance act would entrust the actuary with the following tasks:

- The actuary conducts an annual actuarial investigation into the financial condition of the life business. This involves basically a valuation of the policyholder reserves.
- The actuary approves the premium rates for new products introduced. The actuary certifies that the premium rates charged are adequate.
- The actuary approves the distribution of surplus to participating policyholders and shareholders.

The traditional role has increasingly been viewed as rather limited and inadequate in view of the great volatility of the economic and financial environment and the great concern over the financial solvency of the insurance business. To enable the actuary to better ensure the financial solvency of a life insurance company, most regulators believe it is necessary to strengthen the actuary's position and enlarge his or her role. The actuary's position needs be strengthened so that he or she is able and willing to be objective in carrying out their work.

ENHANCED ROLE OF THE ACTUARY

In those Asian countries that have adopted the appointed actuary concept, Hong Kong, Singapore, and Malaysia, the enhanced role of the actuary, in a typical legislation, may be briefly described as follows. Each life insurer must appoint, subject to the appropriate regulatory authority's approval, an appointed actuary to:

- Perform an annual statutory valuation of policyholder reserves
- Ensure that premium rates are adequate at all times
- Ensure that the distribution of surplus to policyholders is fair and equitable
- Assist management in adopting a suitable investment policy, recognizing the nature of policyholder liabilities
- Prepare projections of the company's financial condition
- Alert management of events that have material, adverse financial impact and recommend corrective measures
- Report to the Authority if management does not take actions as recommended within a reasonable period of time.

To enable the appointed actuary to perform the above duties, the appointed actuary must have access to all records, accounts, and documents, and should also have direct access to the Board of Directors. The details of the legislation are highlighted as follows.

APPOINTMENT

Every life insurer must designate a person to be its appointed actuary. To qualify for the appointed actuary position, a person must:

- Be a qualified actuary as defined in the Insurance Act
- Have the training and experience relevant to the position
- Have at least one year of relevant experience in a responsible position within the country
- Be a person of good character and integrity
- Preferably reside in the country.

Notwithstanding these requirements, the Authority may approve, as it deems fit, a person as being suitable for appointment as an appointed actuary. The appointment is made by the Board of Directors and is subject to the Authority's approval.

It is incumbent upon the appointed actuary to consult his or her predecessor to determine whether there are professional reasons for not accepting the appointment. The appointed actuary should also bear in mind that there are certain obligations to the Authority, whose functions are aimed at the protection of policyholders' interest. The actuary should familiarize himself with the Insurance Act and regulations before accepting the appointment.

The Board of Directors must notify the Authority when the appointment is terminated. The notification should include the reason for the termination. A separate notification should be given by the former appointed actuary to the Authority, indicating his reason for the termination. The Board of Directors must appoint a new appointed actuary no longer than six months after the termination of the previous appointed actuary.

STATUTORY VALUATION

The appointed actuary must ensure that the policyholder reserves are adequate and are not less than that based on the statutory-minimum-valuation basis. Meeting the minimum reserve requirements is not enough. The actuary must use professional judgment when determining the valuation methods and assumptions to help ensure that the reserves are adequate.

PREMIUM RATES

The appointed actuary is responsible for the adequacy of premium rates at all times. Before a new product is introduced, the actuary should test the viability of the premium rates and the illustrated bonus scale. For the in-force portfolios, the appointed actuary should conduct periodic experience studies to test the suitability of the pricing assumptions used. For example, is the anticipated investment return realistic? Is the assumed lapse rate realistic? Are the expenses in line with expectation? Any inadequacy in the premium rates or bonus scale should be corrected at the earliest possible time. Because of the long-term nature of the business and the typical structure of the bonus, a 30-year projection may be necessary when testing the supportability of the bonus scale.

SURPLUS DISTRIBUTION

Before giving approval of the distribution of surplus, the appointed actuary should satisfy himself that the distribution is fair and equitable to all parties concerned. In particular, he should take into account: the statutory requirements; equity between policyholders and shareholders; and equity among different generations of policyholders.

The appointed actuary should take into account the impact of new business on surplus. For example, if the surplus arising during the year is diminished due to the growth of business, then the appointed actuary should decide how much of the new business is to be supported by capital, and how much by surplus. The appointed actuary should demonstrate to the Authority how he has satisfied that the distribution is fair to the policyholders.

INVESTMENT POLICY

In choosing appropriate assumptions for determining premium rates and policyholder reserves, the appointed actuary must recognize the assets invested in and their likely long-term yield. The company, in determining its investment policy and making investment decisions, must recognize the nature and terms of its liabilities to policyholders. The appointed actuary should assist management in this regard.

SOLVENCY TESTING

Life insurance is a long-term business, affected by many factors outside the company's control. Therefore, the appointed actuary should perform financial projections of the assets, liabilities, and cash flow of the life insurance fund to test the sensitivity of fund solvency to adverse future experience. Additional reserves above and beyond those required by the minimum standard should be maintained to safeguard the fund's solvency against possible, future adverse experience.

The purpose of these projections is to assess the financial strength of the company to withstand adverse experience. Gross premiums with explicit assumptions (including future business growth) should be used. In addition, in order to quantify the minimum reserves required, statutory valuation based upon net premium should also be calculated.

A projection period of five years is recommended. Given the complexity of the business, a projection beyond five years may not be meaningful. A period shorter than five years is not sufficient to detect an emerging trend in the financial results.

The testing should include a baseline scenario based upon "best guess" assumptions, and additional scenarios to quantify the impact of plausible deviations from the best guess assumptions. At the minimum, the scenarios should reflect the following factors: new business growth; mortality or morbidity experience; investment experience; and expenses and policy-lapse experience.

REPORT TO MANAGEMENT

The appointed actuary should report to management any event that, in his or her opinion, has a material, adverse impact on the financial position of the company. Such an event may affect either the assets or liabilities or both. Recommended corrective measures should be indicated in the report. Any such report to management should be presented by the appointed actuary to the board of directors at the following board meeting.

REPORT TO THE REGULATORY

If no action is taken by management within a reasonable period of time following a report from the appointed actuary as described above, and the adverse situation persists, then the appointed actuary should notify the Authority. The appointed actuary should notify the directors that he has done so.

In addition, the appointed actuary should provide an annual report to the Authority. The purpose of the report is to: provide a qualitative summary of the company's business and experience during the year; comment on the fund solvency under various scenarios; summarize the valuation results; and document the methods and assumptions adopted in the valuation.

The report (without the solvency projections) should be submitted within three months after the close of the year. The solvency projections should be submitted within six months after the close of the year.

REPORT TO THE DIRECTORS

The appointed actuary should report in person to the board of directors of the company at least once a year on the financial position of the company, including the current value of the company's capital, surplus and liabilities and the expected future financial condition of the company.

ACCESS TO INFORMATION

The appointed actuary should have a right of access at all times to all records, accounts, and documents of the company that relate to his or her duties. The actuary may request from the directors and officers of the company any information and explanations he or she deems necessary. This is almost identical to the Canadian model.

FOREIGN COMPANIES

For branch operations of foreign companies, these requirements only apply to the operations in this country. Furthermore the reports to "management" and "board of directors" referred to above should be made to an individual or individuals designated by the board of directors. Any additional solvency margin deemed appropriate in the opinion of the appointed actuary must be kept in this country.

POTENTIAL DIFFERENCES IN IMPLEMENTING THE APPOINTED ACTUARY CONCEPT IN ASIAN AND WESTERN COUNTRIES

Although the appointed actuary concept as enacted in Asian countries is generally modeled after that of Western countries, there could be potential differences in actually implementing the law due to cultural and legal differences and the difference in the development of the insurance business between Asian and Western countries. The following will outline examples.

FIXED VERSUS FLEXIBLE VALUATION STANDARDS

Currently, the regulations in Asian countries prescribe fixed valuation standards by specifying the valuation method, valuation mortality table, and valuation interest rate. It is expected that this fixed valuation standard approach will be continued into the period when the appointed actuary is adopted in the law. As examples, those countries that have passed the appointed actuary legislations have continued their fixed valuation standard laws. However, under the appointed actuary legislations, meeting the fixed valuation standard alone does not absolve an appointed actuary from exercising professional judgment and responsibilities in determining reserves that are adequate to meet all future liabilities to policyholders.

In contrast, some Western countries, such as the U.K., had been under the flexible valuation standard even before the introduction of the appointed actuary concept. Since the adoption of the appointed actuary regulation in Western countries, the flexible valuation standard has become a more acceptable and potentially prevailing standard.

RESPONSIBILITIES RESERVES OR SOLVENCY

In those Asian countries that have passed the appointed actuary regulations, it appears that the appointed actuary's responsibilities are more in reserve adequacy than solvency, with the possible exception of Hong Kong, which has followed the U.K. model. Although some legislations do prescribe solvency tests, these tests seem more along the line of ensuring the adequacy of reserves. Please note that, in this regard, some legislations do require that the appointed actuary must consider all external factors outside the control of the insurer that could lead to insolvency. In reviewing the causes for the failure of insurance companies in North America and Europe, we feel that these causes do not generally apply to insurers currently in Asia. This may be in further support of the view that the responsibilities of the appointed actuary in Asia, at least for now, may be more in reserve adequacy than solvency. This view may be in contrast to the general view that the appointed actuary's responsibilities in Western countries, especially the U.K., are more in the insurer's solvency, with the clear exception of the U.S.

POTENTIAL PERSONAL LIABILITIES

Based on the legislations, it is not clear whether an appointed actuary may incur personal liabilities. Asian countries in general are less litigious than Western countries. Assuming an insurer becomes insolvent, if all parties involved know that they cannot have recourse to the appointed actuary for resolving the known insolvency problem, they will probably not pursue the actuary further. In particular, if the actuary carries no liability insurance to cover his professional duties, the chance for those parties involved to pursue the actuary becomes even slimmer. On the other hand, if the actuary does carry professional liability insurance, then the opposite will be true, but only to the limit of his liability coverage. In general, in the case of no liability insurance, the potentially most serious penalty to the actuary may be the loss of his professional society membership, and thus his qualifications to practice. This is in sharp contrast to the potential losses in terms of both personal liabilities and professional society membership that may befall the appointed actuary in Western countries.

ETHICAL AND PROFESSIONAL STANDARDS

The concept of strict ethics and high professional standards in Asian countries may not be as strong or deeply rooted as in Western countries. Very few actuarial organizations in Asia are truly professional societies. This means that most actuarial organizations in Asian countries exist more for social than professional purposes. To uphold the strict ethics and high professional standards of the actuarial profession in Asian countries really depends, to a considerable degree, on those appointed actuaries' membership in the professional actuarial societies in the Western countries. These actuaries are qualified for their positions by virtue of the membership in the Western professional societies and are governed by the ethical and professional standards of those societies.

LIFE INSURER VERSUS GENERAL INSURER

Currently in those Asian countries that have passed the appointed actuary legislation, the appointed actuary concept applies to life insurance business only. It is expected that those countries in Asia that are working towards the appointed actuary concept will, when they adopt the concept, also apply the concept to the life insurance business only. On the other hand, Canada's appointed actuary regulation apples to both life and general insurance businesses. Judging from all the activities related to

the appointed actuary system in the U.S., the system will be more likely applicable to both life and general insurance businesses. It is also believed that the U.K. will eventually extend its appointed actuary concept to general business as well. If anything, it appears that the appointed actuary concept is more likely applicable to both life and general insurance businesses in Western countries than in Asia. If Japan follows the U.S. and Canadian models in its new course of insurance business (discussed later in this manuscript), it might be the only Asian country that will apply the appointed actuary concept to both life and general insurance businesses.

EQUITY BETWEEN POLICYHOLDERS AND SHAREHOLDERS

In Asian countries, realized capital gains have not generally been considered as part of investment income but rather, as an adjustment to surplus. Even if they are treated as part of investment income, the market value and book value used to determine the capital gain may not represent the true market and book values. In either case, realized capital gains have not been reflected appropriately in the income statement.

With growth in equity-type investments and the enormous capital appreciation associated with them, it has become difficult to justify any treatment that does not reflect capital gain as part of investment return.

These treatments of realized capital gains in Asian countries are clearly in favor of shareholders. They are inequitable to policyholders and cannot maintain equity between policyholders and shareholders. This is in sharp contrast to Western countries, where realized capital gains are reflected directly in the income statement as part of the investment income.

EQUITY AMONG DIFFERENT GENERATIONS OF POLICYHOLDERS

In Asian countries, unrealized capital gains have not been considered as part of investment income. It is well known that the amount of unrealized capital gains from real estate and stocks is enormous in a number of Asian countries. These assets were invested years ago in the then-low-yielding shares and the lowly priced real estate, with the idea of capital gain. If the capital gains are not recognized in some way before the disposal of the assets, which could be many years away, then the investment income can clearly become depressed and inequity can well occur between generations of policyholders. This is in clear contrast to some Western countries, where unrealized capital gains are recognized on some formula basis for income-statement purposes. We note that the exclusion of unrealized capital gains from the income statement is an additional reason for inequitable treatment of policyholders, because the unrealized gain is probably reflected in stock prices; but for participating policyholders, the deferment of income from unrealized capital gains can represent a permanent loss. We further note that even if only realized capital gains are recognized as distributable in Asian countries, equity between generations of policyholders may not be achieved because realized gains may arise in an irregular fashion and may not emerge until after the termination of many policies, which were entitled to the gains.

NEW BUSINESS

Based on the annual growth rate of Asian insurance business versus that in Western countries in the recent past, it is clear that the growth rate in Asia has been significantly higher. Therefore, the new business strain has been more serious for Asian

companies. One of the appointed actuary's responsibilities is to evaluate the impact of new business on surplus. For example, the appointed actuary should decide how much of the new business is to be supported by capital, and how much by surplus. If the realized and unrealized capital gains are not appropriately recognized in the financial statement, it can be expected that an enormous amount of hidden surplus will thus be created. As a result, the appointed actuary in Asia will have difficulties in discharging this responsibility.

INVESTMENT POLICY

In Asian countries, the proportion of investment-type insurance products, such as variable, universal, or unit-linked life policies, is very small. Therefore, the segregated accounts, if any, are negligible. Most insurers use a general account approach for investment purposes. Compared with life insurers in Western countries, Asian life insurers invest higher proportions of their assets in real estate and stocks, and significantly lower proportion in bonds. Due to continuing economic growth, the investment returns from real estate and stocks have been great. In addition, we note that in Asia, both high-yield bonds and derivative securities have not generally been utilized as an investment vehicle by insurance companies. This is primarily due to the lack of competition in investment-type products, which are almost nonexistent, and so no high-yield bonds are needed; and the use of derivative securities in the investment management of insurance funds in general and pension funds in particular has yet to be accepted.

This indicates that the appointed actuary in Asia, as compared to his or her counterparts in Western countries, will have an easier time in discharging his responsibility to help management formulate a suitable investment policy.

RELATIONS AMONG THE APPOINTED ACTUARY, BOARD OF DIRECTORS AND REGULATING AUTHORITY

The appointed actuary legislations in Asia are very new. It is not known yet what kind of relations among the appointed actuary, Board of Directors and regulating authority will emerge generally. As compared to Western countries, one can make the following observations.

1. For solvency testing, Asian countries tend to specify the projection period. Although different scenarios must be used in the testing, a fixed period is simpler, more uniform, and conceivably less disputable.
2. The various appointed actuary reports to management, the board of directors and the authority will most likely be consistent and treated as private and confidential, with the possible exception of the routine annual report to the authority.
3. In the unlikely situation of an unusual circumstance where an unsatisfactory or qualified opinion is expected, it is most likely that all parties involved will work out a way to remedy the situation so as to render an unqualified opinion by the actuary. The end result is good for all parties, including the consuming public.
4. No matter how difficult or serious a problem may be, all parties involved will try their best to reach a harmonic resolution. Any legal action to resolve a problem is considered the last resort.

APPOINTED ACTUARY AND STATUTORY VALUATION STANDARD

The fixed valuation standard has been widely used among countries, especially in Asian countries where, to our best knowledge, it has been used in every country except possibly Hong Kong. Under it, the regulator specifies valuation mortality/ morbidity tables, valuation interest rate and valuation methods. Critics have blamed the fixed valuation standard in the U.S. regulation for the failures of Baldwin-United, Executive Life, and First Capital in the following two ways: it has created the apathy on the part of valuation actuaries, i.e., the actuaries have unduly relied solely on the fixed and outdated valuation standard; and it has led people to believe that there is something sacred about guarantees. But a guarantee is no better than how well it has been matched.

Moreover, it is believed that fixed valuation standards not only slow down product change and adaptation, but also impose unnecessary expenses on the consumer. The current reserve situations in those countries that have set fixed standards create prohibitive expenses in redundant reserve requirements. In summary, fixed valuation standards do more harm than good to the consumer.

Under a flexible valuation standard, the regulator does not specify valuation assumptions and methods. It is the actuary's responsibility to select the assumptions and methods. The U.K. and now Canada are the notable examples for using the flexible approach. In fact, the British insurance industry has managed for over two hundred years without reserve standards, without cash-value requirements, nor loan requirements, nor loan-interest-rate requirements. The policyholders in the U.K. are believed to have achieved a 30% better rate of return on their money over the last 40 years than the policyholders in those countries that have imposed fixed requirements. This shows that fixed standard is an expensive protection.

Reserves should be the professional responsibility of actuaries. Adequate reserves should be required by law, but the adequacy should be left to the professional competence of actuaries. All detailed regulations of reserves should therefore be eliminated. This is especially true with the appointed actuary concept, because the fixed valuation standard is believed to be inherently inconsistent with the concept.

In those countries that have passed the appointed actuary legislation but still have fixed-minimum-reserve requirements, they generally add a rule that states, in effect, that meeting the minimum requirements does not absolve the actuary from exercising professional judgment when selecting appropriate methods and assumptions. However, this clearly seems redundant.

PRACTICAL APPLICATION OF THE APPOINTED ACTUARY CONCEPT IN ASIA

This practical application of the appointed actuary concept or legislation is believed to work in many Asian countries. For an easy explanation, we will use Hong Kong as an example. In what follows, one could simply replace Hong Kong with another Asian country that either has passed the appointed actuary legislation or may adopt the concept in the future.

If the Hong Kong appointed actuary is an FFA or FIA, and is the appointed actuary of a U.K. insurance branch operating in Hong Kong, then he or she will already be subject to Guidance Note 1 (GN1, the rules governing all U.K. appointed actuaries).

Therefore, as long as the Hong Kong appointed actuary complies with GN1, and is satisfied that the reasonable expectation of Hong Kong resident policyholders are being appropriately taken into account, as required under Professional Standard 1 (PS1, the rules governing Hong Kong appointed actuaries), then it is likely that in so doing, he will also have complied with PS1.

If the Hong Kong appointed actuary is an FIAA and the Hong Kong appointed actuary of an Australian insurer operating in Hong Kong as a branch, then that appointed actuary will already be subject to Professional Standard 1 of the IAA and its Guidance Note on the Hong Kong appointed actuary. Therefore, as long as the Hong Kong appointed actuary complies with these standards, and is satisfied that the reasonable expectations of Hong Kong resident policyholders are being appropriately taken into account, as required under PS1, then it is likely, in so doing, he will also have complied with PS1.

If the Hong Kong appointed actuary is an FCIA and also the Hong Kong appointed actuary of a Canadian insurer operating in Hong Kong as a branch, then that appointed actuary will already be subject to professional standards for the Hong Kong appointed actuary issued by the CIA. Therefore, as long as the Hong Kong appointed actuary complies with these standards, and is satisfied that the reasonable expectations of Hong Kong resident policyholders are being appropriately taken into account, as required under PS1, then it is likely, in so doing, he will also have complied with PS1.

An appointed actuary in Hong Kong who is not one of those referred to in the above three paragraphs, but whose duties include the certification of financial statements or reserves as required by statute or by regulatory authority outside of Hong Kong, should not assume that he has automatically complied with all the requirements of PS1, even if such duties are discharged with reference to insurance business, which includes long-term business carried on in Hong Kong. That the professional or other rules to which he is subjected when carrying out such duties are different or less demanding than the requirements of PS1, does not reduce his obligation to meet these requirements as a Hong Kong appointed actuary.

It should be stressed that the FFAs, FIAs, FIAAs and FCIAs referred to in the above paragraphs are already subject to professional standards applicable to an appointed actuary under "the Hong Kong appointed actuary system." An FIA, for example, who is not already subject to such standards, would accordingly not be included in 6.1 but would fall under 6.4. Equally, a Fellow of the Society of Actuaries who is the "valuation actuary" of his U.S. company, which has a branch in Hong Kong, would fall under 6.4, not because he is an FSA, but because he would not, in his capacity, be subject to professional standards applicable to the "appointed actuary system."

A Hong Kong appointed actuary may not be a full-time employee of the insurer, but an external consultant. The responsibilities of the Hong Kong appointed actuary in such circumstances are no less than those of any other Hong Kong appointed actuary. He must take steps to overcome the practical difficulties raised by his not being an in-house, full-time employee, and make it clear to his prospective principal, before accepting the appointment, the absolute necessity that all PS1 requirements are met.

ACTIVITIES IN JAPAN TOWARDS ADOPTION OF THE APPOINTED ACTUARY CONCEPT

Although Japan has not adopted the appointed actuary concept yet, there have been many activities performed that are clearly either well within the appointed actuary concept or closely related to the concept. We shall start with the Insurance Council report of June 17, 1992, which was titled "The New Course of Insurance Business." This is the major document that has been used to develop the new, insurance business law.

Chapter 2, Section 3 of the report is titled "Insurance Accounting and Disclosure." Here are the most important points from the section.

RISK MANAGEMENT SYSTEMS

Traditionally, insurance companies depend primarily on their statutory policy reserves and unrealized capital gains from their equity investment to cope with risks. In today's environment, it is insufficient to rely on these alone to prepare for unexpected or uncertain risks, such as asset management and foreign exchange risks, which have been increasing. Therefore, it is necessary for insurance companies to strengthen their solvency in excess of statutory policy reserves in order to deal with increasing risks. This concept of solvency margin will be used as the comprehensive risk management system for Japanese insurers and as a new regulatory benchmark to monitor and regulate insurance companies.

In reference to risk-based capital (RBC) in the U.S., Minimum Continuing Capital and Surplus Requirement in Canada, and the Solvency Margin standard in the EC, Japan has conducted quantitative analysis of risks faced by insurance companies. As a result, the solvency margin standard will be a ratio, which is the total of capital and surplus (numerator) divided by risk-based capital or risk exposure (denominator). Methods will be developed so as to adjust elements of capitalization that compose solvency margin, and to calculate risk weight for each asset and liability.

The solvency margin of stock companies can be considered the same as "capitalization in a broad sense," which includes conditional reserves classified in the liability account, unrealized capital gains on stocks, as well as capital accounts. This concept of "capitalization in a broad sense" has been used as the capital adequacy requirement for Japanese banks. Since mutual insurers cannot have capitalization in the same sense as stock companies, it is necessary for them to strengthen their "financial base for the operation of business" to ensure their solvency margin.

Note: as of this writing, the subject of RBC has nearly been completed.

POLICY RESERVES

In today's operating environment of ever-increasing risks, it is necessary to preserve the solvency of life insurance companies synthetically, by taking care of not only the valuation method, but also actuarial assumptions and the level of solvency margin.

Although it is considered appropriate to introduce the concept of a standard valuation method that sets up a standard level of reserves, it is also considered appropriate to grant flexibility in terms of the valuation method and actuarial assumptions used, with the net level premium method designated as the standard method. Along with these,

it is considered necessary to legislate the chief actuary's authority and responsibility, and verification of policy reserves.

In the process of verification, the chief actuary is allowed to value policy reserves more or less than the standard valuation reserves, using professional judgment, taking into account the level of solvency margin. The chief actuary is required to submit reports to supervisory authorities for confirmation and also to the stockholders' meetings.

As of this writing, there is a general agreement between Japanese actuaries and the Ministry of Finance that the appointed actuary concept will be introduced following the U.S. and Canadian model in the near future, probably within several years.

REVIEW OF THE INCOME-GAIN-TO-DIVIDEND PRINCIPLE AND TREATMENT OF UNREALIZED CAPITAL GAIN

In today's highly developed investment environment, it is necessary to make asset management more total-return oriented. Thus it is necessary to review the existing formula for calculating policyholder dividends, by taking into account both realized and unrealized capital gains.

To ensure equity in dividend distribution among policyholders, it is appropriate to introduce the asset-share method, which determines, for each class of policies, its contribution to assets over the policy years. Thus it is appropriate:

1. To determine the policyholder's contribution to the formation of unrealized capital gains on stocks and investment returns as a policyholder's share of assets
2. To regard the distribution of dividends to policyholders as a settlement of asset shares
3. To complete the distribution to policyholders by the final settlement based on the asset shares at the termination of a policy.

It is considered necessary to adopt the equitable and proper policyholder dividend system, which promotes distribution of the total investment return, including the capital gains. It is believed that the introduction of the asset-share method, the application of segmentation accounting and separate accounts, and the reinforcement of the disclosure system would make it possible to distribute dividends in an equitable and proper manner.

As of this writing, the asset-share methodologies used for testing adequacy and equity of dividend scale are the current focus of consideration by the industry.

INTRODUCTION AND USE OF SEGMENTATION ACCOUNTING AND SEPARATE ACCOUNTS

Here are the reasons why introduction and use of segmentation accounting and separate accounts should be promoted:

1. It secures equity and transparency of dividend distribution among policyholders.
2. It helps prevent cross subsidization among lines of business.
3. It helps promote business efficiency.
4. It promotes consistency between investment strategy and product features, thereby improving asset and liability management.

In order to prepare for the introduction and use of segmentation accounting and separate accounts, it is imperative to set up a reasonable and fair standard of allocating operating expenses and establish a segmentation accounting model. Both the standard for allocating operating expenses and the segmentation accounting model have now been established.

It is considered appropriate for each insurance company to make use of segmentation accounting for the income statement and unrealized capital gains on stocks in accordance with the allocation standard and segmentation accounting model. It is also considered appropriate for nonlife insurance companies to introduce segmentation accounting for the new business of savings-type products that have been included in the general account.

FUTURE OUTLOOK

As we can see from above, the Japanese insurance industry has engaged in a number of activities that are in the right direction towards modernization. The current agenda for the industry is that once they complete the asset-share methodologies for testing adequacy and equity of dividend scale, they will focus on the appointed actuary concept and solvency testing. As of this writing, there has not been any attempt on the specifications for testing methodologies.

DIFFICULTIES IN ADOPTING THE APPOINTED ACTUARY CONCEPT IN SOME ASIAN COUNTRIES

Some Asian countries, which have been investigating the feasibility of adopting the appointed actuary concept, have encountered some difficulties. They are summarized in the following sections.

PROBLEMS DUE TO EXISTING LEGAL CONSTRAINTS

The existing law and regulations of some countries such as Taiwan, prohibit the government from recognizing membership in foreign professional societies. In addition, professional qualifications must be certified through examinations conducted by their government's central examination bureau, which is ranked even higher than a ministerial department.

In reality, the whole country may not have enough fully qualified actuaries and academicians specializing in actuarial science and related fields to conduct all of the actuarial examinations. Thus, it is very unlikely, if not impossible, for the government to conduct a credible and internationally acceptable series of actuarial examinations. Also, based on past experience in these countries, it usually takes a long time, if not years, to have existing law or regulations changed.

ETHICAL AND PROFESSIONAL STANDARDS

Although some of these countries have been conducting actuarial examinations through their national actuarial organizations, the regulating authorities in these countries may not have great confidence in the professional standard of the examinations generally, and the ethical standard particularly. The lack of confidence in both the ethical and professional standards on the part of the regulating authority is one of the most serious problems encountered in any attempt to adopt the appointed actuary concept.

MOST FEASIBLE SOLUTION

Taking into consideration all the difficulties and problems encountered and the importance of the role of the appointed actuary, I believe that the most feasible solution is to amend the existing law and regulations so that they will recognize membership in foreign professional societies. Just as Hong Kong, Singapore, and Malaysia, where the appointed actuary legislations have all been passed, the most feasible and effective way to implement the appointed actuary concept is to recognize and approve truly qualified actuaries from internationally recognized actuarial organizations, regardless of nationality or the country of origin.

MR. ALLEN SEELEY: I'm a Fellow of the Casualty Actuarial Society; therefore, I am not an appointed actuary. I'd like to address this question to the panel as a whole. I can't help but think that maybe it would be a good idea for regulations to require that the appointed actuary not be a full-time employee of the company that's being investigated. I'm wondering if you think that there would be an increase in objectivity and a decrease in any potential conflicts of interest?

MR. McCROSSAN: I am an outside actuary and the consultants in my firm are the appointed actuary for about 40 Canadian insurers. The advantage of being an inside actuary, it seems to me, are overwhelming in terms of access to information; therefore I think the Canadian Institute favors continuing to allow inside actuaries to serve as appointed actuaries, provided that they have the professional responsibilities to adequately serve the public. We and the legislators try to get at the objectivity issue by strict professional standards and by statutory duties.

If the profession is unwilling to accept the responsibilities or the legislators are unwilling to legislate it, then I think that the balance would swing towards an outside appointed actuary. The other thing I should mention is that auditors in Canada are now quite routinely hiring outside, external actuaries to do an audit of the appointed actuary's work—an audit of a one- or two-day review of work. We also perform 10 or 20 of these types of reviews a year.

In this type of review, we sit down with the auditors, ask questions to make sure that the auditor understands what the appointed actuary has done, and satisfy ourselves that it's in conformity with the professional standards.

MR. HARVEY: Just as an add-on to the basic question and to the remarks that Paul has made, which clearly I think would reflect the view of most in the U.K., the advantage of being inside would appear to be very strong. As long as the system is seen to be working well, then there would be little pressure to move towards an outside actuarial audit.

There is a slightly supplementary debate going on concerning at what level within the company it is appropriate to position the appointed actuary. Clearly, if you start at the very top and say how would you feel about an appointed actuary who was managing director and a substantial shareholder, then you can start with a level of, shall we say, total discomfort and work your way down. I think, and this is a personal observation, I note a slight tendency for the appointed actuary to be moving down the hierarchical structure, which in my personal view would not be one that I welcome. I think the reasons companies get themselves into difficulties more often

relate to strategic decisions, investment policy, marketing thrusts, or poorly thought-out takeovers and ventures, which are direct executive level responsibilities rather than technical mistakes. However, the debate is ongoing and is a subset really of your inside/outside actuary question.

MR. CHANG: In Asian countries, there are very few fully qualified actuaries with sufficient experience to be an appointed actuary. If we eliminate in-house actuaries, I think there will be practical difficulty in finding enough qualified appointed actuaries to handle this job.

FROM THE FLOOR: Paul, you mentioned that there was a compliance report that went to the profession as opposed to the supervisor. I was intrigued with that, because that's the only part in which it appears the profession is involved apart from the professional standards. Can you clarify that a little more?

MR. McCROSSAN: The compliance report is very extensive. I can certainly get a blank to anyone who is interested in it. It would run 15 to 20 pages. Basically, it goes over each line of business, asking you whether you have considered specific explicit assumptions, to what extent you've checked the data, and so on. That must be filed with the profession, and it's a professional offense not to file that statement.

As you may recall from my talk, the only requirement is that you file statements in accordance with generally accepted actuarial practice, which is defined in the legislation as the practice of the CIA. In order to protect the CIA's franchise as a self-regulating profession, we feel that we must go out to the members and ask them very detailed questions. These questions are asked of actuaries of life, property and casualty (P&C), and fraternal companies.