TRANSACTIONS OF SOCIETY OF ACTUARIES
1974 VOL. 26 PT. 2D NO. 76

EXPANDING THE ACTUARY'S HORIZONS IN THE MANAGEMENT OF INVESTMENTS FOR LONG-RANGE RISKS

1. Investment policy under existing conditions.
2. Selection and management of investments.
3. Determination of interest rates for premiums, cash values, dividends, and reserves for fixed benefits.
4. Provision for effect of capital gains and losses on costs or benefits.
5. Matching values of assets against liabilities with respect to guarantees, maturities, call protection, changes in valuation factors, and capital gains and losses.
6. Use of equities to fund benefits.
7. Guarantees under equity-based contracts.
8. Monitoring the investment performance of pension fund trustees.
9. Actuaries in investment banking.

MR. HENRY F. ROOD: When I started my career in 1929, most life insurance companies were simple corporations, issuing mainly whole life and endowment policies and a small amount of term and endowment annuity business. Group insurance—all on a one-year-term basis—was offered by only a handful of companies. A few companies were experimenting with group annuities. Interest rates were stable, and investments were almost wholly in bonds and mortgage loans. The actuary really did not need to be concerned much with investments.

How times have changed! Many life insurance companies today are part of upstream or downstream holding companies where affiliates are operating casualty and title insurance companies, real estate developments, investment advisory and management services, venture capital and other equity plans, separate accounts for pension funds, and with sales personnel handling a variety of sophisticated life and health insurance products together with variable annuities, mutual funds, bond funds, and real estate trusts. In addition, we are operating under more complicated federal tax laws and must live with social security, Medicare, the Securities and Exchange Commission antitrust laws, federal pension requirements, proposals for national health insurance, and generally accepted accounting principles procedures. In addition, we live in a double-digit inflationary period with wildly fluctuating interest rates and a chaotic stock market. The actuary can not perform his work without at least being knowledgeable in the investment world, preferably involved

in the investment strategy of his organization. More and more companies are becoming multinational. This brings on even more problems. Should assets be matched with liabilities? How should we protect against currency devaluation and limitations on the movement of funds or even nationalization of the business? Regulations and laws vary a great deal from country to country. For example, in Great Britain the actuary has greater flexibility in determining liabilities, in many companies there are no guaranteed cash values, and lists of assets are seldom published. Rates of inflation in other countries vary greatly but generally have been much higher than in the United States. As a result, equity-linked contracts are more common, and several countries have indexed bonds and mortgages available for the investor.

In this country I have been impressed with the growing role of the consulting actuary. Traditionally, consulting actuaries concentrated their attention on the liability side of the pension fund balance sheet. Now it is increasingly realized that the actuary's determination of the annual cost of a pension plan—whether insured or trusteed—requires an evaluation of the plan's assets. Selection of a suitable actuarial procedure for valuing the plan's assets has challenged the imagination of consulting actuaries. The recent passage of the pension reform act of 1974 has underlined the importance of this component of a pension plan's actuarial basis. In addition, some actuaries are monitoring the investment performance of pension fund asset managers, and a few are becoming actively involved in the determination of pension fund investment policy and the selection of investment managers.

MR. WILLIAM A. DREHER: For the last half-dozen years, the focus of my personal research and education has been concentrated on economics and the investment of employee benefit funds. I have become convinced that we actuaries must greatly broaden our knowledge in these areas if our clients are to be well served and our professional duties are to be competently performed. The problems of pension fund financial management are not only fascinating but complex. Although difficult and subtle, they are subject to rational analysis, and the mathematical and intellectual disciplines in which actuaries are trained give us a unique opportunity to increase the reach and impact of our profession.

In the next few minutes I would like first to describe what we mean when we use the phrase "investment supervision." My explanation focuses on the requirements for effective management of employee benefit asset pools, but the concepts, as I think you will see reflected in the remarks

by other members of the panel, have equal application to the management of any institutional pool of capital, including a life insurance company portfolio.

Having defined the role of investment supervision, I will identify the participants in the investment supervision process, then describe some of the elements of investment policy for pension and profit-sharing funds, and conclude by describing the interrelationships between the formulation of investment policy and the expected results to be achieved by it and those aspects of the actuarial basis which are keyed to the success of the investment program and the translation of investment results into pension costs.

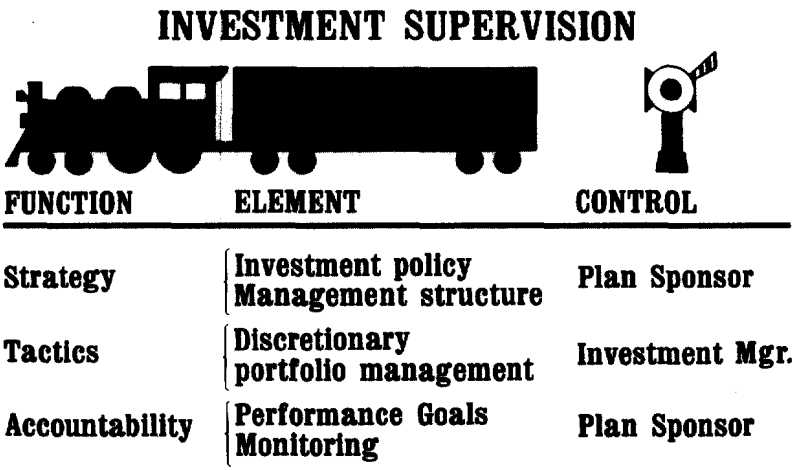

FIG. 1

As illustrated in Figure 1, investment supervision can be described functionally as having three components: strategy, tactics, and accountability. The investment strategy is reflected in the investment policy underlying the management of the pension fund's assets. Having defined an investment policy, one can then make judgments about the management structure. By that phrase we mean the combination or types of investment managers who will be delegated responsibility for implementing parts of the policy. For example, you could have a number of investment managers, each having an unrestricted right to implement the policy. Alternatively, you might have some managers responsible for a stock portfolio and others investing a bond portfolio. Once the management structure has been devised, it is necessary to identify the invest-

ment managers who will be appointed. When this has been done, they should be accorded discretionary authority to implement the policy (or the segment of it for which they have been assigned responsibility). The concluding step in the investment supervision process requires that there be standards of accountability to determine whether the objectives of the policy have been achieved. This requires identification of performance goals and definition of a responsive program for monitoring the achievement of investment results in relation to those goals.

It is our belief that ultimate responsibility for development of investment policy and choice of the management structure falls on the shoulders of the plan sponsor, be it the corporation that has established the fund, a governmental plan's board of trustees, or labor-management trustees who are responsible for the stewardship of a pension fund. We do, however, think that in general it is appropriate to delegate implementation of the policy to professional investment managers.

Some large corporations and governmental retirement systems do have their own investment staffs. In our opinion, the principal business of most corporations is not in the financial area, and it is more suitable to hire responsible professionals for the implementation of policy. Finally, of course, the accountability processes must be governed by the plan sponsors, because only they, with ultimate accountability for results, can make the judgments as to how well the policies have been implemented and how successfully the investment managers have exercised their discretionary responsibility.

Organizing for the management of a pension fund's assets is a major challenge at all times. We are particularly conscious of it today because of the very adverse performance of the stock market over the last two years and the depressing effect of the rising costs of long-term money on bond asset values. Ideally, for large pension funds, a full-time officer should be responsible for coordinating the investment program. The choice of this man and the authority and budget given him to implement his tasks should recognize the relationship of the assets of the pension fund to other assets of the corporation and also reflect the impact of pension fund investment results on the profits of the organization. This individual should have very close communication with the senior financial and executive officers of the company and with its board of directors. Ideally, this individual would be a man with financial orientation but with a substantial awareness and knowledge of employee benefits, employee relations, and compensation matters.

As a practical matter, we have found few examples in industry of people with sufficiently broad-range skills. It therefore seems to us more

feasible in most instances that the responsibility for defining investment policy and spearheading this effort be seen as a task force effort involving senior staff members of the corporation.

Figure 2 illustrates the traditional relationship between the plan sponsor, the investment manager, and the actuary. There has been two-way communication between the plan sponsor and the investment manager and likewise between the plan sponsor and the actuary. This has left an important communications gap. In our view, an investment manager, in

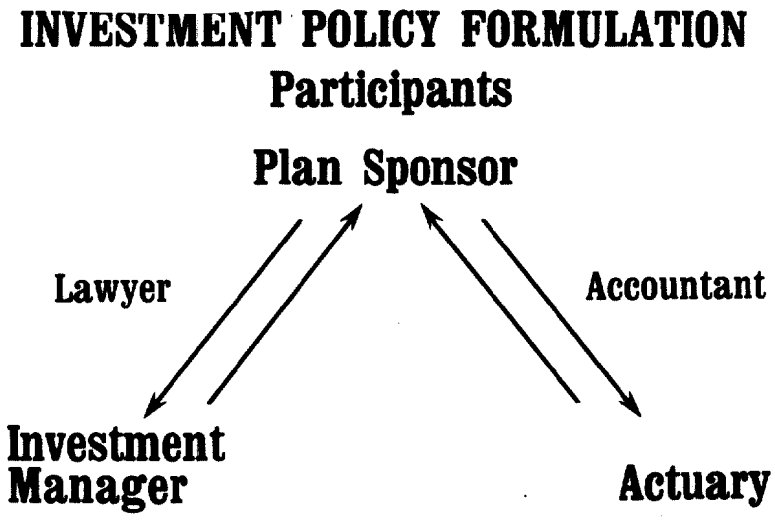

FIG. 2

making his recommendations as to the elements of investment policy and in implementing discretionary responsibility, must have a very considerable awareness of the actuarial aspects of the pension fund and the implications of his investment decisions for the actuarial process. Likewise, we would argue that the selection of an actuarial basis for measuring the liabilities and costs of a pension plan requires a deep awareness of the investment policy and the impact of investment results on current costs and on the eventual attainment of the funding objectives of the retirement plan. The triangle in Figure 3 illustrates the proper roles to be played in the management of the pension fund. At the apex of the triangle, with the principal responsibility, is the plan sponsor; at the two base corners are the other major participants, the actuary and the investment manager. Each must be fully aware of the other's role. To paraphrase Dr. Brans, the renowned Dutch actuary who spoke at the 1960

International Congress in Brussels, these men, the investment manager and the actuary, should each be experts in their own fields *and* practical laymen in the other profession.

Included in this process, but in a subsidiary role, are the lawyer, the accountant, and the economist. The lawyer must be involved, particularly when we view the new requirements in the United States under the pension reform act, by ensuring that legal documents describing the investment policy and the relationships between the plan sponsor and the investment manager are fully descriptive of the roles and responsibilities

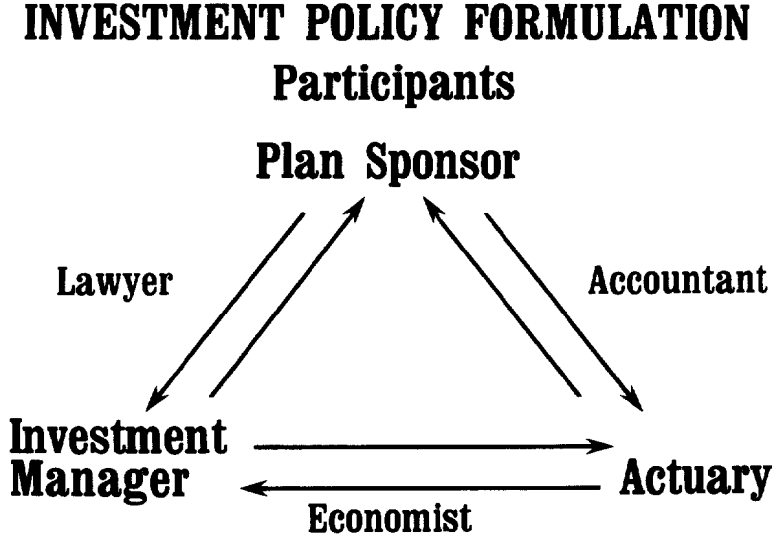

FIG. 3

of each. The accountant, of course, will be a factor, both in terms of audits of pension fund assets and in being satisfied with the accrual of costs on a company's books. The economist will provide invaluable inputs that will assist the investment manager in implementing the investment policy and will be useful to the actuary in choosing those elements of the actuarial basis that are going to be affected by future economic conditions.

Before discussing the key variables in an investment policy, let us go back and review the conventional wisdom of the 1950's and 1960's. It was generally assumed that the pension fund would have an indefinite positive cash flow. It was presumed that, in a viable economy, stable

companies would continue their pension plans and that they could be seen as having nearly perpetual life. It was also comfortable to believe that stocks would always outperform bonds. Because of the very long term character of the pension fund, it was assumed that there was no need to worry about volatility in market values, particularly of stocks. The implication of these four "truths" of that day was that every pension plan could have basically the same investment policy and that this policy could be dominated by common stocks.

The events of the last six years have disproved those convictions. The investment results for extended periods have been remarkably unfavorable. For the past decade, the total return on the Standard and Poor's 500 stock index has been about 1 per cent per year, including reinvestment of dividends; for the same time, bond portfolios have had an average annual return of between 2 and 3 per cent. These results are well beneath the usual range of actuarial assumptions, even before adjusting for the inadequacies of salary-increase factors. We also see a negative premium for the risks being accepted by the equity investors who chose stocks over the bond alternative.

One key element has been missing in much of the thinking that has gone into the formulation of investment policy. It is true that cash flow for most plans will remain substantially positive and that those plans will continue in existence and survive for many decades, but in designing their investment policy it is useful to think of a pension fund as a series of short time segments, where the length of each segment is associated with the stewardship tenure of the responsible corporate executives or retirement plan trustees who will be making decisions during a few years, which may be three, five, or as many as ten. During the period of that committee's or that individual's accountability for the success of the pension fund, policies need to be devised, goals set, and judgments formed. If it is conceded that shorter time periods are the reference points for making practical business judgments, then we have to be far more concerned with short-term volatility of investment portfolios than we were prepared to assume in the past.

We all have virtually limitless tolerance for the up-slope of the volatility curve, but we have a far more limited ability to go beyond the intellectual acceptance of investment volatility and to be comfortable when it is actually happening, because we all have a tendency to be unduly affected by the recent past.

Figure 4 illustrates some of the elements which should go into the formulation of investment policy. I will not attempt to discuss each in detail, but will merely illustrate that these elements are significantly differ-

ent from company to company and from industry to industry, and that these variables should and must have an impact on investment policy. Let me illustrate only one point, namely, the relationship of pension costs to profit margins. In certain industries which have relatively low profit margins and may be heavily cyclical, as, for example, the airlines industry, employee benefit costs are a very substantial fraction of wages and

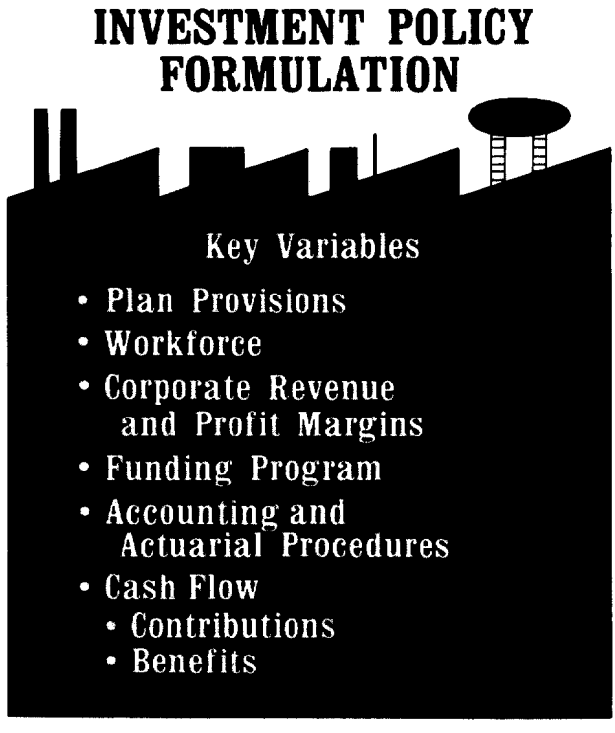

FIG. 4

also of pretax profit margins. The impact of pension costs may be very substantial. In the specific case of the airlines industry, pension costs may be as much as 40 per cent of what one might call "normal" profits. Under those conditions, a pension fund's ability to absorb volatility of pension fund asset values, even after smoothing those values through all available actuarial and accounting techniques, is going to be significantly less than would be the case of a fund in another industry, say the petroleum industry, where the profit margins are wide and employee benefit costs are relatively small as a percentage of those profits.

Figure 5 illustrates the components of the actuarial basis which are affected by the pension fund's investment policy and investment performance, and characterizes the interface between the investment process and the actuarial process. The investment policy and the performance expectations from that policy have a profound effect on pension costs, and they should influence the actuary's choice of an asset valuation method, the investment return assumption, and the procedure for translating experience gains and losses into future pension costs.

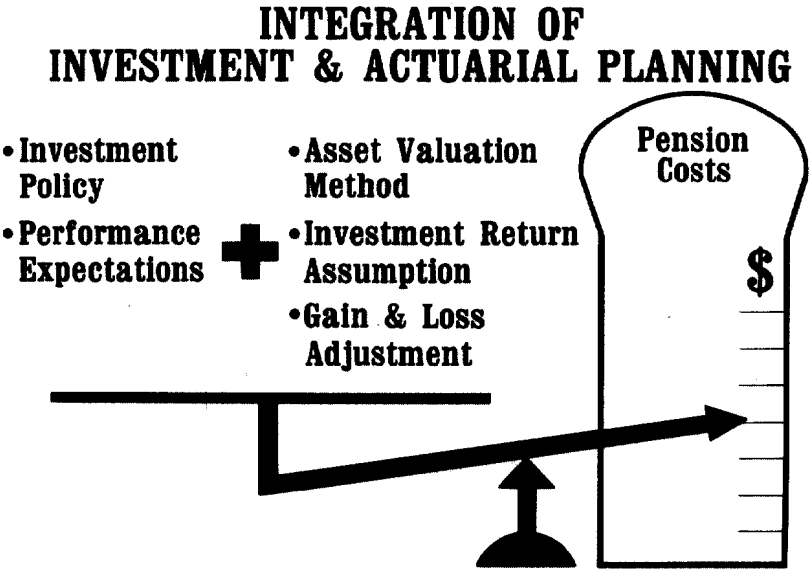

FIG. 5

It is useful to distinguish between the role of the asset valuation method and the role of the investment return assumption. The asset valuation method is taking a retrospective look at past performance. It attempts to dampen out extremes in the volatility of asset values, with the objective of stabilizing pension costs. (The fact that one uses an asset valuation method which tends to smooth out the effects of investment volatility does not diminish the importance of having market-to-market performance calculations of total investment performance for the purpose of monitoring the investment manager's achievement of the plan's goals.)

The investment return assumption is an anticipation of future investment performance. The choice of the investment return assumption should reflect not only the expected performance from the policies which

have been chosen but also the plan sponsor's degree of conservatism in anticipating those results. This to me is going to be one of our problems with the pension reform act, which speaks about the actuary's "best judgment" in the selection of actuarial assumptions. Now I think we will have to introduce another version of the concept of probability when we select a pension plan's actuarial basis. In other words, we have to establish the notion that the actuary may be making his "best estimate" of an investment return assumption which has, let us say, odds of 9 to 1 of being achieved over the next twenty years. If we use the conventional concept of a best estimate as being the median value, we introduce a 50 per cent probability that, over some extended time period, the investment result will not be achieved. If it is not accepted that a plan sponsor's degree of willingness to accept risk in exchange for higher or lower pension costs can influence the actuary's choice of assumptions, the range of our discretion in making judgments for our clients will be greatly narrowed.

The gain and loss adjustment procedure is a vital element in the actuarial basis, all the more so now, because the new law shortens the time period for translating experience gains and losses into modified pension costs. It will be most important, when setting up a pension plan's investment program, to be satisfied that investment volatility, which can produce significant variations in year-to-year pension costs, is understood by and acceptable to plan sponsors. This is one of the reasons why a greater stress on bonds in pension fund portfolios is likely for the next few years.

This brief examination of pension fund investment planning and its links to the actuarial basis has been fragmentary and incomplete, but I hope the central message is clear: the future of a private pension plan depends on the quality and success of its investment program, and the actuary should be a major participant in that activity. This is both a challenge and an opportunity. I hope you will all respond.

MR. ROBERT N. HOUSER: I would like to begin by calling attention to the introduction for our panel discussion as listed in the program booklet. It certainly is a masterpiece of understatement. In a period of (1) double-digit inflation with escalating expenses, (2) extraordinarily high interest rates, (3) depressed stock market, (4) chaotic conditions in the real estate field, and (5) the possibility of recession with severe capital losses, it seems to me the actuary must be more than just well informed on investment matters. He can, I feel, make a real contribution to investment management and at the same time receive significant benefits from his involvement in investment management.

Although I now hold general management responsibilities in my company, the Bankers Life, Des Moines, Iowa, my position on the panel is as former chief actuary of the same company. In that position I served on a seven-member finance committee which has the over-all responsibility for the investment management of our company. We have a long-standing tradition for service of the chief actuary in this capacity. It so happens that in addition to me there are several other F.S.A.'s currently serving on the finance committee. However, these persons are all serving in some capacity other than as actuaries.

To establish our company background, we are a large but not giant-size mutual company with almost $3 billion in assets. We have a heavy stake in the group pension market, with pension funds making up over half our assets. As you know, investment performance is the name of the game in the group pension field. We also have our quota of separate accounts and mutual funds.

I mentioned earlier the importance of investment matters to the actuary. For example, consider pricing. We found that on a typical ordinary life policy a 10 per cent across-the-board increase in expenses could be covered by only a $\frac{1}{3}$ per cent increase in interest rate. Similarly, a 10 per cent increase in mortality could be covered by a $\frac{1}{2}$ per cent increase in interest rate. Obviously then, the rate of investment return is highly significant from a pricing standpoint.

Investments also are highly important to the actuary from a solvency viewpoint. Company solvency depends at least as much on the asset side of the balance sheet as on the liability side. There is strong evidence that life insurance companies that have encountered financial difficulties have usually done so because of investment mismanagement or other asset problems rather than because of inadequate reserves. Thus the actuary concerned with the financial stability of his company must focus on assets as well as liabilities.

There are, I feel, a number of specific contributions that the actuary can bring to investment management. However, he should not make the mistake of considering himself an investment expert. He is not an expert in this field and is unlikely to become one unless he is willing to devote a major part of his time and effort to "boning up" on the subject. Most companies have highly competent investment people who spend their careers studying and working on investment matters. What, then, can the actuary contribute to investment management? I feel that he can

1. Bring in a fresh viewpoint and thus help to overcome the tendency to what I would call "inbreeding" of investment personnel.
2. Raise the tough questions which need to be raised. Actuaries are particularly well suited to this role.

3. Introduce the insurance viewpoint to investment matters. Most investment personnel have little or no contact with the insurance operations of the company and thus give little thought to it.
4. Introduce greater precision into financial calculations. Actuarial familiarity with the mathematics of finance can be of real help in certain areas such as, for example, evaluation of yield under various complicated investment options.
5. Offer advice on and financial evaluation of the tax consequences of various investment alternatives.
6. Introduce the theory of risk evaluation to investment decision-making. "Seat of the pants" decision-making is not good enough.
7. Bring out into the open an awareness of the fact that there are varying degrees of aversion to risk among investment personnel.
8. Help to match investment philosophy with insurance operations. For example, a very conservative investment philosophy would not go hand in hand with an aggressive posture in the group pension field.

Fortunately, the actuary's involvement in investment operations is not a one-way street in which it is all give and no take. I have found that the actuary can benefit greatly from direct involvement in investment management. Some of the benefits are as follows:

1. Better analysis of investment yield rates for rate-making purposes. This is particularly important in the group pension area, where nonparticipating quotes are fine-tuned, on the basis of current yield rates.
2. Better understanding of the slippage between investment closing rates and the rates to be used in the "investment-year interest" family for group pension dividend calculations.
3. Better awareness and understanding of developing investment trends.
4. Better knowledge of investment matters for client-centered actuarial contacts, particularly in the group pension area.
5. More accurate and up-to-date information on what our competitors are doing in the investment area.
6. Better understanding and appreciation of cash-flow problems.
7. Good fundamental training in economics.
8. Contact with the outside business world through detailed analysis of various companies and industries being considered for investments.

To sum up, I consider it important, if not essential, for at least one actuary in each company to become highly informed about investment matters. I know of no better way to do this than to be actively involved in investment management. I believe the actuary not only can make a real contribution in this area but also will himself derive benefits from his investment exposure which will help him do a much better job in carrying out his actuarial responsibilities.

MR. CHARLES M. O'BRIEN:* This topic is one of the main preoccupations of British actuaries. However, this has been the case only fairly recently, and it is instructive to look back a few years, because it helps us to understand the changes which have come about.

Effectively, the actuary in the United Kingdom entered the field of investments with the advent of the Insurance Act of 1908, which in this respect is substantially unaltered today. It required that every assurance company "shall cause an investigation to be made into its financial condition, including a valuation of its liabilities, by an actuary." You will note that the obligation is for the actuary to carry out an investigation of the company's total financial condition, of which a valuation of the liabilities is stated to be only a part.

I have a personal recollection of the attitudes in the United Kingdom only some twelve years ago, when I was an honorary secretary of the Institute of Actuaries. An actuary who was concerned about his company's investment policy came to me, and I remember being very conscious of the fact that I felt I was taking a considerable risk in replying on behalf of the Institute by quoting the foregoing requirement and maintaining that the actuary must necessarily concern himself with the assets as well as the liabilities. Today, particularly in light of events of the last eighteen months or so, all United Kingdom actuaries, including the most conservative, would, I think, concede this point.

If we look back, the reason that the need for the actuary to be involved in investment policy has not been fully understood until recent years is seen to be fairly straightforward. First, it is only in the last half-century, and more particularly since World War II, that investment opportunities in ordinary shares and real estate have been regarded as appropriate for any significant portion of the investments of a life fund. Second, in offices transacting only life assurance business, actuaries always have been closely involved in senior management and hence automatically with investment policy. In companies with both life and nonlife assurance, actuaries have not been so closely involved with investment policy, but the strength of these offices has been such that any close concern with "matching" investments and liabilities effectively was unimportant.

It is useful to remind oneself of the prime objective of investment policy. I define this as the achievement of a near certainty of meeting contractual liabilities with, at the same time, the maximum potential for profit.

* Mr. O'Brien, not a member of the Society, is a Fellow of the Institute of Actuaries and is actuary and manager, Royal National Pension Fund for Nurses, London, England.

Note that one must refer to a "near certainty" and not to absolute certainty. Any life assurance company could be made insolvent by a sudden catastrophic death toll. Equally, having regard to the standard contracts that have been issued and investments that are available, rapid and extreme changes in rates of interest also probably could produce insolvency. Insolvencies on a large scale in industry could cause default on company loans, with the same effect. It follows that the assessment of the ruin probability is largely subjective, as is the level of this probability which one regards as tolerable.

Equally, the main potential for profit from investment policy largely depends on the margins available, because without any margin there is little freedom for investment choice if contractual liabilities are to be met. These margins are primarily the available capital and/or the accumulated profits, including, in the United Kingdom, reserves for future bonus; but they also partly depend on the degree of certainty at which one aims to set the probability of meeting contractual liability.

The lesson of recent times is that the traditional principles are right and must not be forgotten. The probabilities must be set at a near-zero level—premium bases and investment policy must be governed by this requirement.

It is merely restating a truism to say that in transacting life assurance there are three elements: (1) the nature of the contract benefits, including all options; (2) the bases used in calculation of premium rates; and (3) the investment intentions—in the light of the nature and type of investments that are in fact available. These elements are inseparable and interact with one another. Assuming that there are no free reserves, some forms of contracts cannot be matched by any available investments, and there can, therefore, be no safe premium rates other than those calculated at a zero rate of interest. In viewing the three elements, it is, of course, essential to pay regard not only to what is likely but also to what the position will be if the unlikely happens—and, on the whole, the unlikely seems most likely to arise on the asset side.

A classic example in the United Kingdom market has been the issue of so-called income bonds. A single premium purchased two contracts, one a temporary life annuity and the other a deferred annuity which matured at the termination of the temporary annuity and which provided a cash alternative to the annuity. Because of tax peculiarities, the contract was particularly attractive and did indeed attract very large sums of money, in some cases from small offices transacting few other types of policies. Taken together, the two contracts effectively involved paying interest on the capital during the term of the income bond and repaying the capital at the end of the term. Clearly, investment of the single pre-

mium in a fixed-interest security which provided for repayment of the capital at the required time, and income in the meantime, exactly matched the principal liabilities and would be proof against *any* change in interest rates. Unfortunately, some offices issued these contracts with a cash value of something approaching the total single premium guaranteed at any time. Interest rates rose, competitors offered better terms, and so there was a severe risk of mass surrenders, which no investment could have matched.

It must be conceded immediately that the actuary as such is not an investment expert in the normal sense. Short-term tactics and the choice of individual investments are not matters for the actuary. Strategy, however, is critically his field. At the same time, in the context of solvency, the importance of strategy varies between being essential, if an office has few or no reserves, to the other extreme of being more or less unimportant if the office is in a position of substantial strength, as are many in the United Kingdom. It is perhaps this range that has caused some of the difficulty in the United Kingdom where the number of offices transacting life assurance has changed dramatically. From the beginning of the century until about 1950 the number of offices transacting business was stationary or even slightly declining. In the last twenty years the number has roughly doubled. It follows that there are very wide variations in the reserves of financial strength of different offices. It must, I consider, be accepted that, for a new or young office without substantial reserves, actuarial involvement in investment strategy is essential.

The actuary is also, of course, specially, although not uniquely, qualified to assess the effects of tax on the ultimate return from an investment, having regard to his understanding of the effects of compound interest. This can, incidentally, lead to difficulties. In the United Kingdom it is common for real estate to be let at a fixed rent for a term of years, and during the course of that period rental levels may increase, so that the current return is significantly below what may be expected after the lease falls to be renewed. In this situation surveyors do a form of compound interest calculation which produces a market value—and this is, in fact, the market value, because all surveyors use the same method. Depending on its tax situation, the intrinsic value of such a property to a particular assurance fund can be significantly different.

The achieved performance of total return from a life company's assets is critical to its profitability for both policyholders and shareholders, if there are any. It is, therefore, reasonable to attempt to assess such performance, and this is an area where actuaries have every reason to be both concerned and involved. I know that a great deal of work has been done in this country, much more than in the United Kingdom, but it

seems to me an exceedingly difficult problem because of the various constraints. The assets of a life company are not there to produce the maximum return alone. They are there to provide the maximum return consistent with a near certainty of some minimum return. This latter constraint varies in its intensity with a multiplicity of factors, of which, as is clear from what I have said so far, the free reserves of the office and the nature and term of the existing business are critical elements. To take the extreme case, an office issuing income bonds such as I described earlier, without any guarantees of surrender values and without any reserves, could invest in only one form of security. The alternatives open to it would be merely similar securities but of differing degrees of certainty (for example, government securities, on the one hand, and company loans, on the other), and the only investment decision would be to decide whether the higher yield obtainable from company loans was sufficient to cover the probability of default.

I confess, therefore, that I am doubtful whether any general comparison of investment performance among different assurance companies is feasible except perhaps in the case of offices which transact business solely with benefits linked to investment performance. Even here contracts may be sold with differing emphasis on income or capital growth, and there are difficulties of comparability.

You may know that in the United Kingdom there have been effectively no restrictions on the forms of investment permitted to a company, and indeed it is expected that under regulations currently being drafted the restrictions will remain few, the principal ones being a limitation on cross-investment within a financial group and also on the size of investment in any one security. The result over the last quarter of a century has been a significant increase in investment by assurance companies in ordinary shares and in real estate. Taking the market as a whole, the figures reported at the end of 1973 for assets of long-term funds show the following approximate percentages: ordinary shares, 25 per cent; real estate, 15 per cent; and all other investments, 60 per cent. I should perhaps say that these figures are based on the values shown in company accounts. In a few cases they are market values, but in the majority they represent what we call "book value." This is likely to be something above the original cost to the extent that credit has been taken through the accounts for appreciation above cost. Overall, the totals must be very substantially below market value in the case of real estate and ordinary shares—at least they were at that date! It is, I think, possible that some companies may have departed from theory in having liabilities which are fixed and nonparticipating while holding assets to correspond with these which include proportions of ordinary shares and real estate. To the ex-

tent that this may have been done, the justification is that the office has taken a view as to the likely possible minimum value of, say, its ordinary shares, the corresponding minimum value which could reasonably be placed on its liabilities, and decided that the risk of a worse situation developing is an acceptable one. These implicit assumptions are being put to a severe test today.

The fundamentals go back to the papers read to the Institute of Actuaries first by Kirton and Haynes, subsequently by Redington, and then by Perks and Bayley. In the United Kingdom the concepts underlying these classic papers are universally recognized and accepted by actuaries. In their simplest form, they merely point out the obvious. Assume that there is a liability which falls due in ten years' time and that the available asset to meet this is a fixed-interest security which matures in twenty years' time. Assume further that at a particular valuation rate of interest the two have an equal present value. In ten years' time the asset, then with ten years to run, will have to be sold. If interest rates have fallen below the valuation rate, the asset will realize more than the liability. If interest rates have risen, the reverse is the case and the asset will be insufficient. In contrast, had the asset the same maturity date as the liability, fluctuations in the rate of interest would not affect the relationship between liability and asset. Naturally, the papers expand this very considerably and demonstrate that with an existing portfolio of liabilities and assets, taking into account investment of future premiums, there are patterns of investment which will substantially protect the office against fluctuations in future interest rates. All three papers have been published in the *Journal of the Institute of Actuaries* and are well worth study—whenever it is judged that the long-term rate of interest is about to change by 1 per cent.

The papers, of course, demonstrate the situation by using a theoretical model. Reality is inevitably more complex. Many contracts may have optional benefits, and it will usually be impossible to "match" against more than one of the liabilities. Investments may not be available in sufficient variety. When dealing with participating business, the question becomes one of maintenance of a particular rate of bonus distribution, or its changeover time as interest rates change. The lessons of the papers are, however, basically three:

1. It is possible to so arrange investments in securities, whose value changes with the rate of interest, that an office is substantially protected against future unfavorable movements in the rate of interest.
2. If this is done, the office is correspondingly precluded from benefiting from any future favorable changes in the rate of interest.

3. Any real portfolio of assets and liabilities is so complex that precise matching is impossible, but a matched situation is one from which an office should depart with its eyes open.

Finally, may I emphasize that these remarks have been made in the context of the United Kingdom market, where a company has, effectively, complete freedom as to its premium and valuation bases and no compulsion other than those of the market in respect of cash values or bonuses. I am well aware that these conditions are very different from those in this country; nevertheless the underlying principles are universal.

MR. GEORGE T. WESTWATER: When I started to think about this subject, the first thing that occurred to me was that if actuaries are not in investment management, as they should be, then the new horizon is right in front of them, just outside the doors of their offices, so to speak. After all, the fact that we undertake to accept and invest premiums, with the options exercisable against the company which we write into our contracts, is enough in itself to require that an actuary be concerned that the assets are invested in such a way that the proceeds from them will match the liability outgo as closely as possible in term and amount. Liabilities have always been a matter of concern to actuaries, but assets also demand their attention. I do not say that the investment department has to be staffed by actuaries, although benefits will flow in both directions if some actuaries do work there. What I am saying is that the actuary must be concerned with the asset distribution—the proportions in the various sectors of the portfolio, the maturity and rate structure of the fixed-income sector, and the yield structure in the equities. He must estimate the risk factor involved with different asset distributions in relation to the options he is giving in his policies and, of course, take account of the effect of income tax. Moreover, in the interests of equity to the policyholders and the financial stability of the company, it is imperative that the release and distribution of surplus not be haphazard but be planned, and it cannot be so if the actuary simply leaves the investment of the funds to one of his colleagues and periodically compares the present value of his liabilities with a figure given to him for the value of his assets. He also has to be conscious of the effect that inflation will have on his expense assumptions and on the expectations for profit or dividends by participating policyholders. In this consumerist age he will do well to consider how his company should measure, and perhaps publish evidence of, its investment performance.

In the United Kingdom the involvement of actuaries in investment management is taken for granted. This perhaps is not so to the same extent in Canada, where there may be a tendency to separate the actuarial

and investment functions and actuaries are rarely members of the investment department. The involvement is there, of course, through participation by senior actuaries in management committees and quite often because the president or chief officer is himself an actuary. Taking the nine largest Canadian life assurance companies today, I think I am right in saying that five of the chief officers are actuaries, three are career investment men, and one has come up by the agency route.

The conditions under which investment management is practiced in Canada are quite different from those in the United Kingdom, and I would say that the problem of matching assets and liabilities will be more difficult in Canada than over there. In the United Kingdom there is a highly developed capital market and a wide range of maturities in the gilt-edged sector of it. There is almost complete freedom from restriction in investment and in the choice of bases for valuation of the liabilities. In Canada we have a smaller capital market and a very restricted long-term government bond market. A system of matching must take account not only of the need to cover liabilities on a basis satisfactory to the actuary but also of the need to meet the standards of solvency required for annual statement purposes. I might also add that the cash dividend system of profit distribution and the wide variety of guaranteed options on attractive terms which are available throughout a policy's duration create a need for liquidity and a shortening of liability term which cannot be ignored in any system of matching.

A typical Canadian investment portfolio is heavily weighted in favor of fixed-income instruments, usually mortgages and bonds at the long end of the market. Equity investment is modest in amount and, apart from real estate, normally provides an outlet for free reserves rather than a cover for basic liabilities. I think that we can see the process of matching at work in the relatively high cash flow generated by the annuity method of repaying mortgages and the serial bonds in some municipal financing.

Looking back to 1965, when we were not worrying about inflation, the average portfolio distribution among Canadian offices was 42 per cent in bonds, 41 per cent in mortgages, 9 per cent in equities (of which one-third was in real estate), and the remaining 8 per cent in policy loans, cash, and miscellaneous investments.

Seven years later, in 1972, the inflation rate had doubled. We were not really uncomfortable with it but were conscious of its effects and expecting it to continue. Some change in portfolio distribution had taken place, the average figures having fallen to 36 per cent in bonds and 39 per cent in mortgages and having risen to 14 per cent in equities, of which 5 per cent was in real estate. Policy loans, cash, and so on, took care of the remaining 11 per cent. In the late 1960's, of course, we had the cult of

equity, a good deal of criticism of the rate of investment return from life assurance policies, and an increased drift of the savings dollar to other savings media. I think one can detect investment management's reaction to this in the attempt to secure a better long-term return through increased equity investment, particularly in the ownership of real estate. At that time, too, institutional lenders were trying to secure an equity element with mortgage loans, and there was some decrease in ordinary fixed-interest mortgage lending. The declining popularity of conventional bonds brought a reaction from borrowers in the introduction of extendable or retractable bonds. These have proved quite expensive to the borrowers, but their advantage to the actuary is obvious, in that they provide the means to offer contracts whose terms can compete with those of short-term savings instruments while providing a hedge against changes up or down in the long-term interest rate.

For the last two years we have had rapidly increasing inflation and for some time now have been experiencing the double-digit variety. Such times certainly put the results of past investment management to the test. Has matching been effective in giving protection against the effects of inflation, or has it not? Problems in current investment management also multiply. Inflationary conditions seem to engender a highly critical attitude on the part of the public and of government toward corporate profits. The threat of fiscal action may frustrate business planning and discourage investment in equities, the prospects for which become rather indeterminate, and their attraction as a hedge against inflation disappears. In addition, the low initial yield they provide is incompatible with the inflation of expenses. Rapidly rising interest rates lead borrowers to seek accommodation in the short-term market, and there is a scarcity of longer bond offerings. A general reduction in liquidity leads to an increase in policy loans and to the demand for cash on the surrender or maturity of policies.

In such times it may be wise to shorten the term of the portfolio in order to increase cash reserves and to avoid equities. But as long as a company is writing new business on traditional lines, as long as people have not lost confidence in long-term assurance contracts, the actuary must not forget to protect himself by going long when he can, taking advantage of the high interest rates currently available.

During 1973 the inflation rate increased to $7\frac{1}{2}$ per cent, but the portfolio proportions at the end of that year were to all intents and purposes unchanged. However, I think that a response to the inflationary situation may be seen in the direction new money has been taking in 1974—50 per cent into mortgages, 32 per cent into bonds, 10 per cent into cash and short paper, and 0 per cent into common stocks. Mortgages, of course,

have an appeal because of their stable value for statement purposes. I would assume that some of these bonds are fairly short, but overall there is some evidence that actuaries or investment managers are protecting themselves by going long, and I would expect that, with such signs of deflation as we can see now, there may be a further lengthening of maturities in anticipation of a decline in the long-term rate.

Pension funds are a subject on their own. My experience is all with a life office, and I will only take time to comment on a new development—the investment management of separate pension funds, so called because the fund assets have to be kept entirely separate from the assets covering the general liabilities of the company. The liabilities vary with the market value of the assets, and there is no restriction on amounts invested in different categories, although the normal qualitative tests apply.

I think that the management of separate investment funds has broadened the horizon for life office actuaries and certainly has presented new problems. These funds are subject to constant scrutiny in respect of short-term performance. Figures are produced, and sometimes published in the press, showing rates of total return for three months, six months, a year, and perhaps longer in relation to other funds or to some generally accepted index. The funds are volatile, and they may be moved from one manager to another in response to records of quite short-term growth or lack of it. There is no actuarial liability in the normal sense of the word, and an actuary may be tempted to keep his distance and consider the management of these funds to be a purely investment matter. I think this is wrong. Success in the management of these funds is not a question of cutting a dash in a press release covering a period of a few months or even years; it is a question of providing for benefits to be paid and of meeting the objectives of a pension plan. An actuary can and should advise an employer or the trustees of a plan in the setting up and the periodic modification of a broad investment policy to meet these objectives. He can monitor and explain the relevance, or the irrelevance, of comparisons of performance and can direct attention to the importance of long-term growth rather than immediate return. If the fund is a small one and must therefore form part of a pool, he can examine the investment policy being followed by the pooled fund manager to see whether it is compatible with the age distribution or liability pattern of the pension fund in question. I do not suggest that he should take the lead in formulating policy but he should point out the consequences which will flow from it.

The problems of multinational companies will depend upon the structure and method of operation of the company concerned. Briefly, and in general, I should say that there will, of course, be differences in the de-

gree of regulation and restriction and differences in the availability of investments according to the country in which one is operating. These may be aggravated by the nationalistic tendencies of the present day, which result in special restrictions on investment that discriminate against foreign investors and also, unfortunately, against their local policyholders. There also will be different systems of taxation.

Matching obviously must be observed as rigorously as possible with respect to currency, and the general principles also will apply having regard to local conditions. If things go well, or, on the other hand, if they go rather badly, there may be a question of transfer of funds in one direction or another. Restrictions on foreign exchange and the cost of operating through the dollar pool are matters that have to be considered.

In the past, in spite of local regulations, companies operating in different jurisdictions have had a fair amount of choice in investment, at least in respect of funds which are surplus to local requirements. Such surplus funds may have been invested wherever the return seemed most favorable, regardless of geographic location. I see this changing. For example, if there is regulation at home as well as abroad, if there is devaluation of one currency relative to another, if falling security values call for an infusion of funds abroad just when there also has to be belt-tightening at home, the situation might be critical. Financial independence and autonomy are likely to be more and more a necessity in each country where business is transacted.

I have referred to nationalism. Perhaps I should also refer to nationalization, the threat of which may have to be considered in certain circumstances. The motive will normally be to enable a government to get its hands on, or at least to control, the huge funds entrusted to life assurance companies by their policyholders. What are called socially desirable or socially productive investments will take priority over the narrower interests of the people to whom the money belongs. This might be achieved by leaving the internal structure of a company intact but assuming a controlling position on the board of directors or, alternatively, by pooling all the funds and creating a huge government conglomerate to do the business of life assurance. I do not know whether there is very much that investment management can do in response to such threats. From an actuary's point of view, it might seem desirable to distribute as much of the surplus as possible to the policyholders whose chances of receiving it in the future would be somewhat reduced. However, this could hardly be done when the threat was imminent, and, if it were done well in advance, it might prove to have been unnecessary and to have weakened the stability of the company.

MR. MALCOLM MURRAY:* I feel that it is very important that an actuary be responsible for the investment division of a life company. In the United Kingdom virtually all the major executive positions, except perhaps that of sales manager and accountant, are held by actuaries. These include not only the positions of actuary and pensions manager but also those of general manager, his deputies, the investment manager, his deputies usually, and the secretary to the company. In many of the internal valuations which are made in companies in the United Kingdom, it is not unusual to value the assets in a manner similar to that employed for valuing the liabilities, namely, a discounting of the future income at an appropriate rate of interest and also discounting future capital payments at the same rate. This discounting would be after applying probability factors and/or estimated fluctuations to the assumed payments. Because of the liabilities which a life assurance company incurs, it is imperative that assets appropriate to these liabilities are purchased, and this will be greatly assisted if the person responsible for the investment policy is, in fact, an actuary who appreciates the other side of the balance sheet and its problems. The actuary is responsible for the company's solvency, and he cannot ensure this by considering only the liabilities. It is my view that since his may be a lone voice in the wilderness, it is insufficient for the actuary to sit on the company's finance committee. Only by having an actuary on the investment side of the business can the actuary's problems on the liabilities side be appreciated and a mutually agreeable policy followed.

I would like to indicate how this works in my own office, which I feel is reasonably representative of companies in the United Kingdom at large. After consultation with his full-time assistants, the investment policy proposed by the investment manager (a Fellow of the Faculty of Actuaries) is submitted to the senior management of the company (90 per cent of whom are probably actuaries) for their approval and then is submitted to the board of directors for approval (where only the general manager, who is a member of the board, is an actuary).

An investment paper is an integral part of the Faculty's examination curriculum, and we assist our students in this respect by bringing them through the investment department where at that stage they are exposed principally to the bond area and, consequently, to general economics. I do not agree with Mr. Houser's assertion that there is no particular reason why actuaries should be good at investment work. The

* Mr. Murray, not a member of the Society, is a Fellow of the Faculty of Actuaries and is assistant general manager and investment manager, The Scottish Life Assurance Company, Edinburgh, Scotland.

chances are that actuaries as a group are probably a much more fertile source for prospective investment managers than any other single group of professional people. As far as I am aware, actuarial examinations are the only professional examinations which, at least in the United Kingdom, incorporate papers on investment topics, and, again in the United Kingdom, many of the outstanding papers on investment work were done by actuaries who were very active members of our Investment Analysts' Society. Virtually every stockbroker of any standing in the United Kingdom has an actuary on its list of partners.

To illustrate the results of the freedom of investment action which exists in the United Kingdom today, my own company's investments at the end of 1973 were approximately as follows: British government fixed-interest securities, 17 per cent; quoted company fixed-interest securities, 11 per cent; mortgages and loans, 12 per cent; cash, 8 per cent; ordinary shares, 26 per cent (of which overseas ordinary shares account for 7 per cent); and property, 26 per cent. By and large, surrender values are not guaranteed, and the fixed-interest portfolio, other than mortgages, is virtually 100 per cent marketable.

I would like to conclude with some comments concerning performance measurement. I believe there is considerable danger of too much stress being placed on the importance of performance. Although I think, as a management tool, it is desirable to monitor a subordinate's actions as a means of delegating responsibility without loss of control, this has the drawback of encouraging the investment manager to structure his portfolio according to the index in order to insure himself against bad performance. Either the manager will reorganize his portfolio after an exceedingly good spell in order to ensure that he retains any profit which he has gained, or else, following a bad experience, he will also structure his portfolio in accordance with the index in order to ensure that this does not happen again. The only real justification for accepting this philosophy is the belief that the performance from a broad range of ordinary shares is an adequate objective for the funds so invested. Once this stage has been reach, I fear that the manager becomes bound in his approach to ordinary shares and will miss either major changes in the overall outlook for common stocks or, alternatively, major structural changes within the group. There are, of course, the more generally recognized dangers of measuring performance over too short a period and of the uninitiated expecting the investment manager to achieve superior performance at all times.

ACCEPTED ACTUARIAL PRACTICES FOR PENSION PLANS

The work of the various pension committees of the Society of Actuaries, the Conference of Actuaries in Public Practice, the American Academy of Actuaries, and the Canadian Institute of Actuaries leading to the development of accepted actuarial principles and practices for pension plans, and the current status of these activities.

CHAIRMAN GEORGE B. SWICK: On May 18, 1973, the Board of Directors of the American Academy of Actuaries authorized the appointment of a new committee. The June Academy *Newsletter* contained the following statement:

A review of past difficulties within the actuarial profession in publishing "accepted actuarial principles" and "guides" for valuation of pension plans made apparent the need for further efforts to achieve these goals. It was suggested that past failures might not be repeated if the questions were to be tackled piecemeal instead of as a single gigantic project. Attention was directed to the headway that has been made in Canada under the aegis of the Canadian Institute of Actuaries. The Board authorized the appointment of a new committee to explore the best method of documenting what constitutes generally accepted principles of actuarial practice as applied to the valuation of pension funds.

Morton D. Miller, president of the Academy, asked me to be the chairman of this committee. At the time, I was chairman of the Committee to Study Pension Problems of the Conference of Actuaries in Public Practice.

In the belief that the assignment was desirable, I accepted the appointment. I had been active in the review of the March, 1973, exposure draft of "Audits of Pension Funds," prepared by the Committee on Health, Welfare and Pension Funds of the American Institute of Certified Public Accountants. Edwin F. Boynton and I presented the position of the Academy to the AICPA committee in San Francisco on May 21, 1973.

Having accepted the appointment as chairman of this new committee, given the name Committee on Actuarial Principles and Practices in Connection with Pension Plans, I reviewed the *Transactions* of the Society of Actuaries beginning with 1961. This was an interesting point at which to begin, as I found two most interesting comments in a discussion on pensions (*TSA*, XIII, D363–D378):

MR. DORRANCE C. BRONSON: It has been suggested by some knowledgeable people that pension actuaries, with the assistance of lawyers and account-

ants, prepare a statement of principles and standards to serve as a guide for actuarial soundness in pension plans. Others have suggested that such standards be set by statute. Whether the criteria for actuarial soundness are established on a voluntary basis or through legislative means, however, the essential problem is that employers, unions, and pension actuaries are not receptive to being put in straitjackets.

The establishment of such criteria would require more unanimity of opinion than I believe can be reached as to the definition of the term "actuarial soundness" itself, as well as its components of actuarial assumptions and funding methods. Even if a majority opinion were worked out, how would the criteria be applied? Would plans not currently meeting standards be discontinued or merely be labeled "unfit"? Might not any practicable minimum be set so low as to not be prudent and might it not be frequently used as a maximum rather than minimum? On the other hand, would stricter standards result in some new plans not being adopted at all?

. . . . . .

MR. JOHN K. DYER, JR.: Several years ago, I prepared a brief dissertation on actuarial soundness in uninsured pension plans. I prefaced my attempted definition of actuarial soundness with a quotation from that famous mathematician Lewis Carroll:

> "When *I* use a word," Humpty Dumpty said, in rather a scornful tone, "it means just what I choose it to mean—neither more nor less."

I never did succeed in defining actuarial soundness but settled for a strictly negative definition offered around that time by an Internal Revenue Service official:

> A plan is considered *not* to be actuarially sound if either the contemplated or actual contributions are so inadequate as to portend early termination or curtailment of the plan, or to make it obvious that the fund will be unable to meet its obligations for the proposed or contemplated benefits as they come due.

. . . . . .

It is my conviction that no generally acceptable criteria for minimum sound funding exist. The problem is one of identifying a condition which is relative rather than absolute [pp. D373–D376].

Many of you will recall that the Society of Actuaries meeting in New Orleans in March, 1972, gave considerable attention to a discussion of actuarial principles and practices for pension plans. We are indebted to James A. Attwood, chairman of the Society Pension Committee, for preparation of a discussion paper used at that meeting. The discussion paper gave some history of this project, which is worthy of note:

> In 1966, the Committee was requested by the Society's Board of Governors to develop a pension plan guide for actuaries somewhat analogous to that used by accountants and other professional groups. *Accounting Research Study No. 8*, which had appeared in 1965 and which led ultimately to *Accounting Principles*

Board Opinion No. 8, raised the question as to whether the actuarial profession should have an actuarial counterpart. Further, several questions had been raised by members as to proper procedures under the Guides to Professional Conduct for actuaries engaged in the valuation of pension plans.

There was a lively discussion of the subject at the 1967 Annual Meeting, with a wide range of opinions expressed as to the form and scope of such a pension plan guide, although there was little dissent as to its potential need or usefulness. This discussion is reported in *TSA*, XVIII, Part II, pages D597–D623.

For the past three years, the Society's Committee has been working closely with a companion Committee of the Conference of Actuaries in Public Practice. There is general agreement of these committees that whatever is accomplished should be done jointly to the extent possible. Further, the Academy of Actuaries is also vitally concerned and every attempt should be made to include the Academy in any eventual sponsorship of a guide.

Since 1966, there have been several drafts and redrafts of various portions of the guide. Periodically the committees have re-examined and re-affirmed the objectives and orientation of the guide as a self-contained, fairly detailed treatise of principles and practices for actuaries practicing in the pension field. Although it would be helpful to students and others, it would not primarily be a textbook for educational purposes.

While a great deal of work has been done on the project, it has not yet been brought to the point of completion. During the six year period since initial conception of the need and scope of the guide many things have happened which have a bearing upon the project—new tax rulings have been issued, increasing attention has been given to pension legislation and several pertinent actuarial papers have been published. In 1968, some members of the Conference and Society committees began to feel that expansion of the Guides to Professional Conduct might more quickly be accomplished than a detailed, separate guide of actuarial principles and practices. Working through the appropriate committees of the two organizations, these members were successful in getting the Conference and the Society to adopt Opinions 3 and 4.

The discussion paper presented four alternatives which were discussed thoroughly at the Society meeting.

A. *Reliance* on professional education and accreditation,
B. *Disclosure*, certification and presentation of pension plan valuation results by amplification of the Guides to Professional Conduct,
C. Statement of generally recognized and accepted actuarial principles and practices for pension plans, including the possibility of standards for pension valuations and a compendium of current actuarial practices,
D. Textbook, either for actuarial students or for pension specialists, or both.

Comments at this New Orleans meeting are contained in *TSA*, XXIV, D45–D143. Additional comments at the Atlantic City regional meeting of 1972 are also contained in *TSA*, XXIV, D385–D402.

A quick review of these discussions will demonstrate clearly the divergency of opinion within the Society on this subject. These opinions cover the entire spectrum from (1) the promulgation of specific guidelines, to (2) reliance on education, to (3) reliance on added disclosure, to (4) complete freedom to make "individual, professional judgments," etc.

All of these comments appear pertinent and well taken. This raises the question, then, as to why I accepted the chairmanship of this Academy committee.

Since I first became an Associate of the Society in 1953, and then became a consulting actuary, a number of significant events have occurred:

1. Establishment of the Conference of Actuaries in Public Practice twenty-five years ago as a result of the supposed unresponsiveness of the Society to meeting the needs of consulting actuaries.
2. Establishment of the American Academy of Actuaries for the original purpose of obtaining a federal charter for the profession, and to coordinate activities within the profession.
3. Establishment of the American Society of Pension Actuaries as a result of the claim that the Society and the Academy are not responsive to the needs of the public.
4. The appearance of *Accounting Principles Board Opinion No. 8*, which defined the term "vested liability"—in my opinion a rather useless figure but perhaps becoming better known than any figure defined by actuaries.
5. Preparation of the draft of the proposed AICPA audit guide, which attempted to place the auditor in a review function with respect to the actuarial balance sheet.
6. Development of computer systems which virtually eliminate the need to understand classic actuarial techniques and which make any good programmer a potential actuary.
7. An apparent trend by a number of actuarial consulting firms toward downgrading actuaries and upgrading consultants.
8. The expected release of rules for charging pension expense under government contracts by the Cost Accounting Standards Board.
9. The inability of actuaries to cope with Equal Employment Opportunity Commission regulations, which seem to be heading toward some form of dictated unisex mortality tables.
10. Problems raised by the city of Sacramento, where three major actuarial firms are unable to resolve their differences in the public arena without assistance from some outside body.
11. Enactment of federal legislation under which we may very well be placed in a straitjacket with respect to the selection of cost methods and assumptions, and certainly under which the selection of "enrolled actuaries" will become a governmental function.

My concept of the American Academy of Actuaries is as a body to justify actuaries' existence to society. Certainly my concept of the function of Walter Grace's Academy Pension Committee and our Committee on Actuarial Principles and Practices is primarily as public relations. This was stated clearly in the letter accompanying our first exposure draft: "In preparing this proposed Recommendation, the Committee has attempted to develop material which will be helpful to actuaries in dealing with non-actuaries, as well as giving guidance to actuaries in the preparation of calculations of actuarial present values."

Those appointed to our Academy committee agreed unanimously that some form of principles, practices, guidelines, or whatever you wish to call them is essential to the profession. The original committee, of which I was chairman, consisted of Messrs. Preston C. Bassett, James F. A. Biggs, Edwin F. Boynton, William A. Dreher, Jack M. Elkin, Walter L. Grace, Blackburn H. Hazlehurst, Howard A. Hennington, and J. Darrison Sillesky.

The feeling of our committee was that the pension committees of the Society and the Conference made a serious error in attempting to cover the entire pension field in one document. Our feeling was, and is, that we would deal with one subject at a time.

Thus far we have given consideration to three areas. The first consideration was the exposure draft dealing with present values. Our feeling was that this would form a basis upon which we could build a series of Recommendations which would be helpful to members of the profession. The reactions of the membership have been most helpful and informative. There is no question but that we will have to go through at least one more exposure draft on this subject.

Second, the issues raised by the controversy with respect to the retirement plan of the city of Sacramento have led us to give consideration to the problems of inflation. We had hoped to deal with somewhat less controversial subjects at the beginning, but it has become necessary to face up to this most difficult subject at an early date.

Third, we have done some preliminary work on actuarial report content. This subject will, of course, be most important in relation to the new Employee Retirement Income Security Act.

In my report to the Board of the Academy on October 6, I was quite candid in reviewing the comments on our first exposure draft. I believe these comments fell into five basic areas. A sixth area was the subject of a reaction from the accounting profession.

1. *The exposure draft does not present any significant actuarial principles and practices.* We were well aware of this and were attempting to get a basic

document upon which we could build a series of subsequent Recommendations.

2. *References to actuarial cost methods were insufficient.*
3. *The restatement of present practices will stifle the development of new ideas and procedures.* This is a most valued comment, and we intend to add specific reference to the desirability of encouraging new ideas and techniques.
4. *There is substantial evidence of a lack of research.* This is also a most valid criticism, and we have requested the Board of the Academy to give consideration to the development of such capability.
5. There was criticism of the specified approach for computing the present value of accrued benefits under an active plan. Suffice it to say that this will be substantially revised in our next exposure draft.
6. Finally, the accountants complained of our suggesting the identification of accountants who may have audited data and/or assets valuations. These references will be omitted from our next draft.

We believe that the first and second comments are not serious, and can be dealt with adequately. It is amazing how little material on this subject exists in the *Transactions*.

In summary, the Board of the Academy, at its meeting on October 6, agreed to the continuation of our committee and will give consideration to the problems of adequate research. The Board also approved the following addition to Opinion A-4 of the Guides to Professional Conduct:

4. It is the opinion of the Committee that Guides 4(*a*), (*b*), and (*c*), as amplified by this Opinion A-4, require that the actuary take into consideration the published Recommendations of the Academy's Committee on Actuarial Principles and Practices in Connection with Pension Plans. An actuary who uses principles or practices which deviate materially from such Recommendations must be prepared to support his particular use of such principles or practices and should include in his report appropriate and explicit information with respect to such deviation. It is intended that such Recommendations, together with this Opinion A-4, constitute what shall be known as Generally Accepted Actuarial Principles and Practices relating to pension plans to the extent that actuarial principles and practices have been promulgated by the Academy; and, if there has not been such promulgation, the actuary must be guided by the sound principles established by precedents or common usage within the profession.

We do intend to continue our activities, and we hope sincerely that our efforts eventually will merit, and receive, the wholehearted support of all actuaries dealing with pension plans. This certainly is our goal, and I can assure you that considerable energy is being expended in this direction.

MR. THOMAS P. BLEAKNEY: On August 9, 1974, the American Academy of Actuaries released its exposure draft recommendation regarding determination of actuarial present values under pension plans. The exposure draft was prepared by the Academy's Committee on Actuarial Principles and Practices in Connection with Pension Plans.

Nearly fifty comments were received from members of the Academy regarding the exposure draft. In most instances the ideas will be reflected in the revised exposure draft that will be sent out in the near future. Most of the comments fall into a few categories.

There was one rather severe suggestion that we "junk the whole project." Balancing this was an expression of " 'modified rapture' that the Academy is finally attending to . . . an important piece of unfinished business: codifying actuarial principles and practices."

Some comments expressed concern that we did not include sufficient detail regarding some of the topics included. In this respect the committee had intended to make it clear that the original document was meant as a skeleton which is expected to be fleshed out with more information on actuarial assumptions, reports, and so on.

There were substantial and varied objections to the section of the report dealing with the present value of accrued benefits. This section will be receiving substantial attention in the revisions that the committee is preparing.

Another widely held objection to the exposure draft was its emphasis on traditional actuarial cost methods. Typical of the reactions was one which stated that "the traditional actuarial valuation techniques are the ones that should be challenged." Concern also was expressed that the emphasis on traditional actuarial methods might stifle new techniques.

The nomenclature used to classify cost methods in the exposure draft came in for its criticism. This is a continuing problem resulting from the development of the profession without sufficient attention to the nearly randomly evolving terms and phrases.

There were differences of opinion among those who commented regarding the use of the one-year-term cost method. For example, one recommended "that the Committee leave this . . . out completely. To condone this practice of using one-year-term costing methods on ancillary benefits . . . is to condone a practice which might *not* be appropriate on a large case but *might* be appropriate on a small case." On the other hand, one respondent indicated that in his experience the one-year-term cost method has been used in cases where "the cost is not minor—perhaps 15 to 20 per cent of the cost of the normal retirement benefit—but the method still seemed appropriate . . . the crucial criterion should be

whether the *difference* in cost results between the one-year-term method and the alternative method is material, and not whether the *total* cost under the one-year-term method is material or not."

Several other editorial and other comments were made in various areas. There was a feeling that the comments should deal more closely with the effects of the new federal legislation. Concern was expressed regarding the comments in the exposure draft that actuaries should be prepared to weigh the effects of alternative approaches where the approaches used are not conventional. Some additional actuarial assumptions were proposed to be added to the list contained in the original draft. An expanded discussion of the valuation of assets was called for.

Finally, significantly different points of view were expressed regarding the rigidity of the standards to be established in the document. On the one hand were comments such as, "The time has come for the Academy to provide much more positive guidelines for pension valuations, so as to narrow the range of results . . . something more specific than the present draft is required—something that will emphasize the need for a single, clear-cut valuation basis and a certificate under which the actuary takes full responsibility as a professional man." On the other side of the argument, one person commented that he was "particularly impressed with the fact that the committee has *not* attempted to develop standards which must be rigidly followed." Another similar comment was: "I am somewhat concerned . . . that the future drafts mentioned in this draft will become too definitive and explicit. This could change pension field practitioners of actuarial science into automatons if carried to an extreme."

These and the other comments, which the committee sincerely appreciated receiving, are being included in its deliberations for the preparation of a second exposure draft in this area.

MR. HOWARD H. HENNINGTON: My part in this discussion is to outline some aspects of the controversy arising with respect to actuarial calculations for the Sacramento, California, city employees pension plan. This matter was referred to the Academy of Actuaries Committee on Actuarial Principles and Practices in Connection with Pension Plans. As a result, the committee has undertaken the preparation of recommendations on the recognition of inflation in actuarial calculations for pension plans.

The Sacramento city employees pension plan is a contributory plan with equal employee and employer contributions. The pension benefits

are based on final average salary, and benefits are adjusted after retirement to recognize changes in the consumer price index. An actuarial report prepared for the city of Sacramento in 1969 involved no recognition of inflation in the salary scale used to project pension benefits. Furthermore, there was only a limited recognition of the cost-of-living adjustments after retirement. A second actuarial report in 1973 by another actuarial firm introduced a significant recognition of inflation in both the salary scale and the cost-of-living adjustments after retirement. As would be expected, the second report produced significantly higher costs. It was very difficult for all parties involved to accept the recommendation of such a drastic increase in contributions to the pension plan. As a result, other actuaries were asked to review the actuarial procedures, and this review still persists with the recent engagement of another actuarial firm for a thorough independent review.

The facts at issue were reported in *The Actuary* of April, 1974, and the American Academy of Actuaries *Newsletter* in the June and September, 1974, issues.

The city of Sacramento referred the whole subject to the Society of Actuaries and the Academy of Actuaries, requesting positive comment from these organizations. The city of Sacramento expressed the thought that the involvement of the professional organizations was necessary "if there is to be reasonable confidence placed in consulting actuaries." The city not only was concerned with its own problem but also wanted to prevent the recurrence of similar controversy elsewhere.

After the referral to the Society of Actuaries and the Academy of Actuaries, the Academy Committee on Actuarial Principles and Practices in Connection with Pension Plans was requested to provide "as clear a guideline as that Committee finds that it can make" on how to deal with inflation in this type of pension plan. The Academy committee responded in May, 1974, acknowledging the seriousness of the situation. The committee felt that it did not have the capacity to deal with specifics of particular actuarial reports because that would seem to involve elaborate proceedings analogous to judicial proceedings with briefs and arguments. The Academy committee did feel that it was appropriate for it to develop a recommendation on the subject of inflation and how inflation should be recognized in actuarial costs and calculations. If such a recommendation is developed, it would be released to the membership as an exposure draft in the same way that the first exposure draft on the subject of actuarial present values was released to the Academy membership earlier this year.

While the exposure draft on inflation is still under consideration by

our committee, it may be suitable to state our tentative conclusions as follows:

1. The actuary should not ignore inflation in the pension cost calculation.
2. The preferred actuarial approach is an explicit recognition of inflation in each of the actuarial assumptions involved.
3. A less satisfactory approach may still be acceptable if the actuary uses an implicit recognition of inflation. Such an implicit recognition might, for example, involve offsetting reductions in both the interest rate and the salary scale assumed. If the implicit approach is used, the actuary should disclose his opinion on the degree of inflation that has been implicitly recognized.

As you can well recognize, the subject of the proper recognition of inflation is difficult because of the long-term aspect of pension plans and the question of the degree to which short-term effects should be recognized. Our committee will continue to work on this subject with the hope of releasing something to the membership as soon as possible.

MR. M. DAVID R. BROWN: I would like to describe some of our efforts in Canada to deal with matters related to actuarial principles and practices for pension plans. In order to do that, I will have to say a few words about what is required from pension plan sponsors under various laws in Canada and the role of the actuary in meeting certain of those requirements.

I think it is worth taking a moment to consider the terms "principles" and "practices." One thing which the actuarial profession has done in Canada recently is to develop a recommended form of actuarial certificate for pension plans. This certificate concludes by saying that, in the opinion of the actuary signing the certificate, the results of his calculations are based upon assumptions that are adequate and appropriate and that the methods employed are consistent with the sound principles established by precedents or common usage within the profession. If that language sounds a bit familiar, it is because we lifted it directly from Guide 2(*b*) of the Guides to Professional Conduct of both the Canadian Institute and the Society of Actuaries.

We have discovered, since developing this certificate, that at least some actuaries are uncomfortable about having to sign something which is supposed to be based on actuarial principles, their argument being that there is really no such thing as an actuarial principle, only a body of practices which now have some status of acceptance through common usage and precedent. As a Canadian who has spent some time trying to deal with some of these matters in our country and is now observing similar efforts in the United States, I think I must disagree with this contention that there are no actuarial principles. A principle to me is something

which applies universally, and it seems to me that we can discern a number of things which do apply equally to the somewhat different problems we are trying to solve in the two countries. The fact that we can identify some things which have applicability in two countries falls considerably short of establishing their universality but is at least an indication of possible universality. Because of differences both in the customary practices and in the legislative approach taken by the two countries, there will be corresponding differences in the ways in which these principles are applied to develop generally accepted actuarial practices in the two countries. The really important part of the process, however, is the development of a clear statement of the principles on which recommended or acceptable practices are founded. For reasons which I am about to explain, we have done very little so far in Canada to develop such a statement of principles, but the need now is recognized, and we will have to tackle the problem in the very near future. The work done to date in this area by the Academy Committee on Principles and Practices, and its continuing efforts, are of great interest to us, and I would hope that in our parallel efforts in Canada we will benefit from cooperation and consultation with you in the United States.

For employer pension plans in Canada which operate on a tax-sheltered basis (and that means practically all of them) employer contributions are tax-deductible under two separate paragraphs of the Federal Income Tax Act. One provides deductibility for current-service contributions and the other for past-service contributions. The deductibility of current-service contributions is controlled through an arbitrary dollar limitation, currently $2,500 per year per employee. There are no such limits on past-service contributions, but, in order to qualify them for deductibility, the employer must provide an actuarial certificate stating that the pension fund needs to be augmented by a stated amount. The certificate must be signed by a Fellow of the Canadian Institute of Actuaries, unless the past-service benefits are being funded through an individual insurance contract or a group deferred annuity contract. Once the Department of National Revenue approves the past-service liability amount, the employer can pay all or any portion of the amount during a particular tax year and deduct it from his taxable income.

In addition to compliance with the Federal Income Tax Act, about 85 per cent of the plans in Canada are subject to pension benefits legislation at the provincial level. Certain categories of employment (banking, transportation, communications) fall under federal jurisdiction, and the federal government has legislation that is the counterpart of legislation in the provinces for this purpose. This pension benefits legislation is more or less uniform and is in effect in four of the ten provinces, including the

two largest. Its main purposes are to provide mandatory standards of vesting and funding and to regulate the investments of pension fund assets. An actuarial certificate is required at least triennially, signed by a Fellow of the Canadian Institute of Actuaries and giving the rule for determining the normal cost, stating the amount of unfunded liability and the annual payment to liquidate the unfunded liability over the maximum periods prescribed by regulations under the legislation. There are two classes of unfunded liability. The first is an "initial unfunded liability" which is the unfunded amount on the latest of the effective date of plan, date of the legislation, or date of an amendment to the plan creating new unfunded liabilities. The maximum funding period for initial unfunded liabilities was initially twenty-five years and is being phased down to fifteen years. All other unfunded liabilities are classed as "experience deficiencies" which must be funded over not more than five years.

The people responsible for administering the federal tax law and also those who administer the pension benefits legislation have given the actuary a considerable degree of latitude in determining the amounts which he certifies to them. Rather than attempting to prescribe in any detail what assumptions he must use or what methods he must follow, they have tended to rely on the requirement that he be a qualified professional. This reliance by government on our professional competence perhaps explains, in part, why we have been so slow to make any codification of actuarial principles and practices. As long as we were in a position where whatever we might say would be accepted as long as it was one of us saying it, there was a natural reluctance to embark on the formidable task of developing a statement or code of principles and practices.

However, several developments in the past few years have indicated that we will not be able to postpone the task much longer. First, some of the people who administer the pension benefits legislation made it clear to the Canadian Institute of Actuaries that they were not satisfied with the form and content of some actuarial reports they received and that the actuarial certificate was, in some cases, such a weak expression as to be almost meaningless. I should mention here that reliance by the regulators on the actuary has been so great that there are no prescribed forms of actuarial report and no prescribed language for the actuarial certificate. Our response was first to develop an Opinion under the Guides to Professional Conduct which would be a counterpart to Opinion S-4/A-4 of the Society and the Academy, an Opinion on actuarial principles and practices in connection with pension plans. After considerable debate and consideration of alternative approaches, we concluded by adopting Opinion 4 of the other bodies almost verbatim. This Opinion includes, among other things, a statement of the elements which should be included in an

actuarial report, and we asked the pension regulators to advise the Canadian Institute of any reports which they received which they thought fell short in this respect. The Institute could then deal with any such cases as a question of professional conduct. Opinion 4 was adopted by the council in December, 1973, and there have been no professional conduct cases in connection with it so far.

Our response to the problem of some actuaries submitting weak certificates has been to develop a recommended form of strong certificate. The essential ingredient is a requirement that the actuary give as his opinion, first, that the data he has used are sufficient and reliable; second, that the assumptions are adequate and appropriate; and, third, that the methods are consistent with sound principles established by precedents or common usage within the actuarial profession. It no longer is sufficient for an actuary merely to certify that if he uses the data in Appendix A and the assumptions and methods given in Appendix B, then he arrives at such-and-such a result. This is no more than a statement that he has used the right formulas and factors for a given method and set of assumptions (which may have been dictated by the client or by other advisers of the client) and then has done the arithmetic correctly. We think he should be required to go further and express his professional opinion as to the sufficiency and reliability of the data, the adequacy and appropriateness of the assumptions, and the soundness of the methods. Where he is not satisfied in any of these areas, he should qualify his opinion accordingly.

It is one thing to prescribe what the actuary should say in his certificate; it is another matter to decide what principles and practices he should follow in doing the work which leads to that certificate. How far does he need to go, for example, in satisfying himself about the sufficiency and reliability of the data? It appears that the procedures which a competent auditor would follow in answering such a question go well beyond what many actuaries normally would do. Similarly, what principles should guide the actuary in selecting assumptions to ensure that they are adequate and appropriate? Perhaps in one sense an easier area to deal with is actuarial cost methods. The choices are relatively limited and well known, the problem being to decide which one is best suited to a particular plan, how to handle a change from one method to another for a particular plan, and when or whether the actuary should adopt different methods for valuations of the same plan for different purposes.

As I have indicated, we in Canada only now are coming to grips with these questions. We will need to do so soon, if only to maintain the role of the actuaries in the regulatory process. We also are being pressured by the investment community for more uniformity of the standards used in

accounting for pension costs and disclosure of liabilities in published financial statements. Both the leading Canadian financial journals have raised this question in recent weeks, and the actuarial and accounting professions will soon have to address themselves to it. There is little doubt in my mind that the actuaries can meet this challenge only by the development of a statement of principles and practices which has the support of practicing members of the profession and which is understood and recognized by the various elements of the public which we serve.

MR. PRESTON C. BASSETT: The Committee on Pensions of the Society of Actuaries has asked me to report on the results of a meeting we had last Sunday, during which your committee's exposure draft was discussed. Of the thirteen members of our committee, eleven attended this meeting.

The Committee on Pensions does not feel at this time that it should take an official position on the exposure draft. We assume that when a final report is prepared and submitted to the Academy Board, it will be forwarded to the Board of the Society, who will then refer it to our committee for recommendations. However, we feel that the committee chaired by Mr. Swick would appreciate informal comments by our committee at this time.

Three issues in particular received our attention. The first of these issues concerned the section covering the determination of accrued benefits. We want it on record that we do not agree with the way this determination is proposed. However, we were informed that this section will be rewritten because there has been general criticism of the proposal. Therefore, we did not discuss this item further.

The second item we discussed was the use of various actuarial cost methods. The committee feels that we could take a much stronger position on the use of the accrued benefit or unit cost method of valuation. There was a feeling that this method may not be appropriate for pension plans where the benefits are based on final average pay or for pension plans of the offset type. Further, the committee agreed that this method of funding should be used with caution on other types of plans as well. When this method of funding is being used, the actuary may be expected to explain the particular reasons for its use. For example, it would be justified if the plan were being funded under a group annuity contract. Following the procedures set forth elsewhere in the exposure draft, it might be desirable to require that, if the accrued benefit cost method is used, the effect should be measured against one of the projected benefit cost methods of funding. Finally, we realize, from a practical point of view, that if the committee states that the accrued benefit cost method

is not appropriate for certain types of plans, there will have to be a transition period.

The third topic was definitions of terms. We believe that this topic is probably a function of the American Academy of Actuaries, but our committee is willing to undertake a project in this area if it is agreeable to the Academy. We believe that there are serious conflicts existing in actuarial and other literature. The authors of the Employee Retirement Income Security Act and *APB Opinion No. 8*, the Cost Accounting Standards Board, and others have prepared definitions on their own which properly should be prepared by an actuary, and a standard set of definitions or glossary of terms should be made available to everyone.

Our committee wants to go on record as supporting the work of the Committee on Actuarial Principles and Practices, and urges them to go forward on this most difficult assignment.

MR. HOWARD YOUNG: I suggest that perhaps we should give more comprehensive consideration to the effect of our practices concerning inflation. During this annual meeting we have been told of the substantial threat that inflation poses to our economy. We have also been told that, as actuaries, we should take a broader view of the implications of our techniques, products, and services.

Therefore, it seems to me that we should investigate whether arrangements which anticipate and prefund for future inflation may, by increasing current costs, be a contributing factor to current inflation. In other words, there may be some increase in the cost of current goods and services due to an expectation of future inflation. Proposals to index various items to reflect inflation after it occurs are often criticized as a possible cause of continuing an inflationary trend. If that is possibly correct, what is the effect of arrangements which increase costs beforehand in anticipation of inflation?

I am not suggesting that our procedures should ignore the cost implications of any benefits which will adjust to future inflation. Rather, I suggest that we may have to re-examine the possible implications of the arrangements and the resulting procedures to see whether we may be contributing to, instead of helping to solve, the problem.

MR. EDWARD H. FRIEND: I would like to join Mr. Bassett in offering congratulations, on behalf of the profession, to the committee which has been working on actuarial principles and practices for pension plans on the occasion of the development of the committee's initial exposure draft. It is clear that a considerable amount of work and thought has gone into

this effort, and the profession is indebted to the committee for its dedication.

As the committee moves to its second draft and to further consideration of the problem which it faces, I would propose that consideration be given to three particular matters which I believe to be extremely important:

1. The committee should avoid the implication that certain actuarial principles and practices are "accepted" regardless of the circumstances.
2. The words "material deviation" should be defined.
3. The committee should distinguish between the requirement of "disclosure" and that of "qualification," since "qualification" implies the need for quantification, whereas "disclosure" would seem not to do so.

MR. ROBERT J. MYERS: Mr. Hennington has stated that implicit assumptions to recognize inflation are less preferable than explicit ones. In general, I agree with this view, but there are certain instances where the opposite situation is the case.

The law underlying some retirement systems for state and local government employees specifically prescribes the valuation interest rate. Under such circumstances, it is essential that the assumptions as to the future trend of salaries should be consistent with the valuation interest rate, so that the implicit approach is used. Accordingly, any interest gains will merely offset the losses from using too low a salary scale, as well as provide a margin for adjusting benefits in course of payment for changes in the cost of living (assuming, of course, that the valuation interest rate is less than the rate actually earned). In other words, the game plan is that the actuary allows the legislature to make the first move—that is, setting the valuation interest rate. He then adjusts the earnings assumptions so that they will be consistent therewith.

I trust that the committee will consider this matter when it takes up the question of implicit versus explicit assumptions in the recognition of inflation.

MR. SHEPHERD M. HOLCOMBE: I think it is important in this regard to recognize that when the investment return and salary scales include a provision for inflation, the higher investment return, including inflation on after-retirement costs, can produce a substantial saving. However, if inflation continues at high levels, it must be recognized that the plan sponsor will be forced, either through negotiations or by social pressure, to provide some increase in benefits after retirement to parallel the cost-of-living increases. The apparent savings from the high investment may really not develop because of these required cost-of-living increases.

TRANSITION PROBLEMS FACING A LIFE INSURER ACQUIRING A PROPERTY AND CASUALTY INSURANCE COMPANY

1. What considerations have prompted this expansion into the property and casualty field by life companies?
   a) What benefits for life policyholders or shareholders are anticipated, in return for this use of their funds?
   b) What other opportunities for corporate growth and improved marketing strength are perceived?
   c) Is this really the right time for such a move?
2. What are the major problems for life companies beginning a property and casualty program in the 1970's—regulatory constraints, effectively competing in established markets, finding qualified field management and technical personnel, educating top management?
3. What results have been achieved to date by these life companies?
   a) Are initial objectives for entering the property and casualty field being accomplished?
   b) Have anticipated gains from this line of business changed as a result of experience to date?
   c) Have any side effects on sales of traditional products been observed?

CHAIRMAN J. EDWIN MATZ: Before introducing the first panelist, I would like to start by offering a few speculative remarks on the question, What started this expansion into the property and casualty field?

One answer, heard frequently, is that life companies entered the property and casualty field to provide a broader earnings base for their field representatives. Certainly the problem of maintaining and improving field compensation levels has been both difficult and supremely important, so the validity of this motive for entering a previously alien field has been forcefully and cogently defended. As a matter of fact, an observant bystander might speculate that it does not matter much whether the property and casualty venture is financially self-supporting, provided that it contributes satisfactorily to field income. Any such conclusion is likely to be quickly disavowed. Supporters of the venture customarily claim that the casualty operation will contribute a flow of earnings to the parent company and will aid that company by making its broader range of products and services more appealing to buyers.

There is also the lofty belief that it is a social duty for life companies

to take this step. In our increasingly hazardous and litigious world casualty insurance needs are rapidly outrunning the risk-taking capacity of traditional carriers. In the private sector, only the life companies can bring an adequate new pool of capital into the field. Of course, there is none so eager as the altruistic volunteer. Having reasoned thus far, we can see very clearly that application of our vast resources of financial, technical, and administrative capacity across the entire field of risk—or ruin—theory was almost inevitably our destiny.

On the sidelines there are always skeptics, those who scoff at statements of high purpose. They point to the wave of diversification and conglomeration that has swept through American industry in the past several decades, and they conclude that life insurance companies and banks, being rather stodgy, are late in beginning to pursue a fad that already has been discredited substantially in other commercial fields.

MR. CHARLES C. HEWITT, JR.:* I would like to discuss the problems faced by a life insurer entering the property and liability insurance business by forming its own company. My company was formed by our parent, Metropolitan Life, as a wholly owned subsidiary of a downstream holding company. We are chartered in Delaware but have our administrative offices in Providence, Rhode Island. We began operations in New York City in the fall of 1972, moved to Providence in September, 1973, and began selling private passenger automobile insurance in the states of Connecticut and Rhode Island simultaneously on May 1, 1974.

Early next year we hope to be writing in the northern tier of New England states and expect to include homeowners' insurance in addition to the auto coverages as part of our life agents' portfolio. Eventually we intend to become a full multiple-line property and liability insurer operating in the commercial as well as the personal lines. However, for the present our principal effort is to provide Metropolitan's life agents with the casualty products that they most need to improve their sales efforts and hence their income. We are involved in the acceptance of reinsurance from our parent and by participation in a limited number of pools. However, we have no desire to become involved with our casualty personnel in the reinsurance business except on a most modest basis. To date, sales and marketing efforts have exceeded initial expectations, and shortly we will receive our ten thousandth bound application.

* Mr. Hewitt, not a member of the Society, is a Fellow and ex-president of the Casualty Actuarial Society and is vice-president and actuary of Metropolitan Property and Liability Insurance Company.

CONSIDERATIONS PROMPTING ENTRY BY LIFE COMPANIES

If life insurance companies and their subsidiaries are combined with property and liability companies and their subsidiaries in a single ranking based upon premium volume, I believe that only one of the top ten organizations so ranked is not operating in both branches of insurance. While premium volume is not a completely fair measure of size as between life and casualty insurers, I know of no other basis for comparison that is any more reasonable. Nevertheless, if all but one of the top ten insurers are multiline, the question as to considerations prompting expansion by a life company into the property and liability field may be somewhat academic, although still of sufficient interest to form a "launching pad" for this discussion.

It is not likely that any life insurance company makes the decision to enter the casualty business, by whatever means, solely as an investment opportunity. Benefits to be found for policyholders or stockholders must come from other sources, such as (1) improved agent retention resulting from the additional income derived from new products in the agent's portfolio and (2) economics obtainable from joint operation of certain key functions—computer hardware and/or software, field sales management, investment, accounting, and the like.

Metropolitan Property and Liability (MPL) was formed largely for the purpose of upgrading the agency force by reducing agents' terminations. Other benefits were hoped for but were clearly secondary in arriving at the final decision to "go casualty."

Sublimated in corporate thinking was undoubtedly the imminence of two, perhaps three, developments on the sociopolitical horizon: (1) national health insurance, with its implied threat to premium volume of life insurers in the accident and health business; (2) no-fault auto insurance, with its inevitable shift of claim settlement from a liability (or fault) basis to a first-party (or accident and health) basis; and (3) "true" group auto insurance.

There are, of course, reinsurance opportunities galore for companies in fire and casualty insurance that are not open to life insurers, and these will be touched upon later in this discussion.

In the matter of timing, I suspect it is "later than you think." For example, one of the first and major problems faced by a life insurer is the training and licensing of life agents to write property and liability insurance. Local fire and casualty agents' associations do not welcome large life insurers with open arms. In Rhode Island they tracked our entry on a day-by-day basis and even ran a cram session, charging a fee, to brief Rhode Island agents on our entire rating and classification plan. Some

state legislative activity has already indicated a stiffening of educational requirements for agents' licensing; more may be anticipated. It is not unreasonable to assume that some state insurance departments will look askance at the possibility of a flood of new fire and casualty agents.

On a short-term basis, there is the problem of state-by-state adoption of no-fault auto laws. For example, Prupac had the misfortune to select Illinois as a starting point in the year in which a new no-fault law took effect and then was declared unconstitutional by court decision. This meant that all auto insurers—old and new—had geared themselves up for handling a totally new system and then had to reverse themselves. This was a very costly and disconcerting process. However, it is very hard to fault Prupac on this matter.

Property and liability companies also have a greater capability for investment in equity securities than do life companies. However, the timing of entry into the casualty field to take full advantage of possible gains in the stock market certainly was not two years ago when MPL got started. Fortunately for us, our investment people did not put us heavily into common stocks, and the period during which we have been in business has been a good time to put "new money" into bonds or short-term paper.

PROBLEMS IN THE 1970'S

I have already alluded to some of the sociopolitical problems affecting entry into the property and liability field in the seventies. Let us take a constructive look at some of the business problems. At MPL we have found that good management people are available if you know the right places to look for them. We have benefited from our parent by receiving some of their most able managers to blend with the selection we have obtained from among the recognizably well-run property and liability insurance companies. No matter how far removed you are from the arena of casualty insurance, you must be aware of the marketing revolution that has taken place in the personal lines in our field since the end of World War II. Companies operating through the traditional agency system have lost a substantial market share to the so-called independents, most of whom operate through exclusive agents. The competitive edge of these independents has translated into a live-wire, knowledgeable management group generally more adaptable to customer-oriented programs than to agent-oriented methods. Any successful casualty insurer ultimately finds itself overstocked with such individuals, and the most restive of these prospects normally are ready to make a move when they see a good opportunity.

The biggest initial problem—after finding and hiring good managers—

is the training and licensing of the life agency force. Metropolitan has 20,000-plus, and training is a gigantic job—easily our biggest effort to date. We have developed our own training staff and our own training material, and our results have been excellent both from the licensing standpoint and from the dollar-payoff standpoint of sales. As we expand—and we hope to commence selling in California, New York, and Massachusetts in 1975—we face different challenges in each new state. New York, for example, requires agents to receive training in an established school (five-year requirement). Massachusetts, as anybody in the auto insurance business will tell you, has its own policies, forms, rating and classification plans, and statistical procedures, and all policies have a common anniversary date—January 1. So we have to retrain the trainers for Massachusetts and make sure the agency force is ready before the once-a-year selling season begins.

The problem of company licensing, at least with a parent like Metropolitan, is not nearly as great as the problem of agent licensing. MPL is already licensed to do business in forty states. Some of the remaining states require a seasoning period in the home state—in our case, Delaware—before issuing a license.

The question of competing in established markets depends on goals. It is not likely that either Prupac or MPL will match the applications-per-agent-per-month activity of State Farm or Allstate for a long time to come. On the other hand, State Farm has about 11,000 agents and Allstate about 8,500, whereas both Pru and Met have over 20,000. One is reminded of the old joke, "Why do black horses eat more than white horses?" The answer is, "Because there are more of the black horses." Other important determinants are the degree to which field management becomes involved in the auto and homeowners' selling and the extent to which field management becomes protective about diverting any portion of agent time from selling "life."

From a pricing standpoint, large life insurers with exclusive agency forces should be able to match the expense ratios of large auto insurance direct writers over the long pull. The two basic questions are: (1) How rapidly can start-up costs be absorbed and leveled to the same point as existing casualty insurers? and (2) Can underwriting selection and claim handling produce the seasoned book of business already available to long-time property-liability writers? Even to the outside observer it is clear that Prupac has had its problems with start-up costs. At MPL we view this area cautiously for the immediate future. On the other hand, underwriting results so far for new companies have not been all that bad—particularly in the homeowners' market. Furthermore, there are even

some advantages to being the "new kid on the block." If there is a major shift in auto insurance from third-party (liability) claim handling to first-party claim handling, long-time auto writers may be overstaffed with lawyers in their claim departments and with claim adjusters more oriented to contention than to quick and easy settlement. Auto underwriters trained to select the good liability risk may not be able to adapt readily to picking good no-fault risks—there are pitfalls in this area.

Intracompany relationship between life-oriented management and casualty-oriented management is a Pandora's box that I would rather not open myself. There are many pluses, but, if I were to discuss them, the minuses would stand out.

RESULTS TO DATE

MPL has not been selling and servicing our auto business long enough to yield any conclusive indications as to results, and we are not even in the homeowners' business as yet.

At this instant in time it looks as if we were adding about $22 per week to the agent's income on the basis of new-business commissions alone. If, however, we remember that he will also receive service commissions as long as both he and the customer are with Metropolitan, it is possible to put a present value on the total result of his auto activity. Allowing for policyholder terminations, inflation, and lower rate of service commission, and discounting future commissions to the present, a ten-year forecast seems to indicate an addition to income of about $70 per week, or about $3,500 per year. I am told by my life colleagues at Metropolitan that this kind of contribution to agent income will produce significantly favorable results in terms of agent retention.

In addition, we seem to be doing several other things right. We have a quarterly billing cycle, and our premiums are quoted and billed on a quarter-annual basis. We are now into our first billing period after the receipt of the "app," and one preliminary study indicates lapse rates that should annualize out to less than 15 per cent. In our opinion this would be more than satisfactory. Also, we have simplified our classification plan and reduced the number of discounts to be calculated during the agent's quoting process. With a limited number of packages of coverages, limits, and deductibles, we were able to use a slide rule which has held auto application rating errors down to about 5 per cent—a phenomenal result if it continues to hold.

Claim frequencies are normal for new business, or slightly higher, but it is too soon for us to picture what our ultimate mix of business will be. We know that we are insuring a higher-than-normal percentage of young

drivers, but this is to be expected for a new insurer, and our pricing was geared to this possibility. Claim severities—remember that we have partial losses in the fire and casualty business—have not matured sufficiently to compare with expectations.

Finally, financial results in relation to expectations depend on many things. It is risky to have told you even this much about early results, because I may have to eat my words, but at least this provides some kind of feel for how things are going.

MR. ROY R. ANDERSON: My experience has been just the opposite of the subject we are discussing, because Allstate was a property and casualty company that entered the life business a couple of years before I joined it. However, most of my time with Allstate has been devoted to the property and casualty insurance business, and especially the auto insurance line, so I can give you some ideas on the problems you would find in entering these lines.

At the outset, one might ask whether anyone in his right mind would enter the property and casualty business under today's conditions. If you think that overstates the seriousness of the problems confronting these lines of business, then I urge that you read carefully a special report that has just appeared in the October 23 issue of *Best's Insurance News Digest*. This report deals with the financial results of the property and casualty business for the first six months of 1974 and with what has happened, and is happening, to the capital and surplus positions of the companies. The *Best's* article describes the business as being in a state of crisis, caused by the covergence of four factors: excessive competition in recent years for commercial business, double-digit inflation on loss costs, inadequate rate levels, and the sharp decline in the securities markets.

I shall give you an example of how grave the situation is. Charlie Hewitt referred to the top ten multiple-line companies in terms of total premium volume. If these ten companies had to convert their entire investment portfolios to today's market values, some of them would be insolvent.

Now that I have whetted your appetite for entering the property and casualty business, I shall discuss question 2 on the program outline. The problems listed are almost themselves an answer to the question. However, I will offer a few brief comments on each of them.

With respect to "regulatory constraints," actuaries who have had experience in filing with state insurance departments the policy forms or premium rates for life insurance or accident and health have little conception of the difficulties that can be encountered in many states in ob-

taining needed rate increases in the property and casualty lines—and especially in the private passenger auto insurance line. The consumerist movement has reached its fullest flower in the cases of some insurance commissioners who take great pride in making public their opposition to and disapproval of rate increases that have been filed by auto insurance companies. In view of the state of crisis in which the property and casualty business now finds itself, it is to be hoped that insurance commissioners will begin to take a more statesmanlike view as to the pricing needs of the business.

With respect to "competing in established markets," I would make the rather obvious observation that, for all practical purposes, each customer can buy only one auto insurance policy and one homeowners' insurance policy. Further, persons who are new to the auto insurance market are not usually the best of risks, whether they are persons who have moved into a new state and are new to the area or are young people who have recently learned to drive. Therefore, companies entering these lines will have to take the good business away from some company that already has it on its books.

As to "finding qualified . . . technical personnel," you will find that there are relatively few property and casualty actuaries who have had much actual experience in the pricing of automobile and homeowners' policies. Over the years, most of the pricing of these lines has been done by the various rating bureaus. Very few property and casualty insurance companies have the type of actuarial staff with which most life insurance companies are familiar.

Now we come to the very interesting subject that is listed as "educating top management." This wording would seem to imply that the managements of life companies are a little backward when it comes to understanding the property and casualty lines. By way of "education," I shall touch on just three major issues on which you and your top management will have to reach judgments and which will impinge on the property and casualty business in the future, especially the major line, auto insurance: (1) national health insurance, (2) no-fault auto insurance, and (3) group auto—and, perhaps, group homeowners' insurance.

What happens to national health insurance clearly will have a great impact on the auto line. There is no question but that a solution would have to be reached so as to avoid the present situation, where duplicate payments can be made for auto accident injuries—that is, under both auto insurance and health insurance. Either national health or auto insurance would become primary.

If a national health program were to become primary, then all the pre-

mium volume that now relates to the costs of medical care would be lost by the auto insurance business. However, the alternative might not be an unmixed blessing for the auto companies, that is, a national health program where the auto insurance business would be primary. What would probably happen in this case is that the federal program would handle the claim but would then subrogate against the auto insurance carriers. This subrogation could occur on one of two bases, depending on the status of no-fault: either for *all* medical expenses related to auto accidents on a no-fault basis or for only such expenses as are incurred by an injured victim who has a valid claim under an auto liability policy. (Incidentally, the latter basis is used by the provincial health plans in Canada.) Thus, if auto insurance were to remain primary to national health, the auto insurance companies would then retain the medical expense premium volume, but they could find themselves saddled with loss costs for medical expenses that would be subject to extreme rates of inflation—and for which auto insurance premium rate increases might be very hard to obtain. Thus national health insurance has us on the horns of a dilemma. Personally, I do not think we are going to see any form of *comprehensive* national health insurance program enacted in the next few years, although Medicare and Medicaid may be expanded. For one thing, Congress will be devoting its attention increasingly to problems related to inflation. Of all the rates of inflation, those pertaining to medical care costs are among the highest. Thanks to Medicare and Medicaid, Congress knows that even higher rates of inflation would result from a comprehensive national health insurance program, unless such a program involved direct control of the medical profession. Such control would have to reach both the way in which medicine is practiced and the income enjoyed by the medical profession, and we are a long way from such drastic action. In addition, the great majority of the public is satisfied with the present system of health care and is not really interested in socialized medicine. Even *without* national health insurance, however, we still have the question as to which should be primary, auto insurance or group health insurance. At this forum we cannot cover all the pros and cons for each side.

On the subject of no-fault auto insurance, this has to be one of the most complicated and misunderstood subjects that confront the insurance business today. There is not even agreement as to what the expression "no-fault" means. At this forum, I will not attempt to comment on all the issues involved in no-fault. But I will leave one thought with you: there is one thing above all else that has made no-fault, whatever the term means, popular with the public and with the general press—no-fault has been identified with a reduction in the cost of auto insurance. Acade-

micians and staff members of legislative committees may wax eloquent about the concepts of tort law and the reparations systems for the seriously injured, but the public is interested in premium reductions. Their legislators understand this, because many no-fault laws have been enacted with legislated rate cuts and rate moratoriums, regardless of whether the specific new law warranted any decrease and regardless of the adequacy of the rate level that existed in the state when the law was passed.

There are now about twenty-four states that have enacted a no-fault law—depending on what your definition of a no-fault law is. At least in the case of the major states, no two of the laws are alike, and some of them vary tremendously. Tooling up for these state no-fault laws has been a major challenge for my company. If your life company does enter the auto insurance line, you will have little time for philosophical discussions on the social issues of no-fault. You will have your hands full with the practical problems of handling the laws that have already been passed —and those new ones that will be added in the future.

Another possibility is federal no-fault legislation; I do not expect such a law to be enacted, even though the Senate passed S. 354. The real appeal of no-fault is price savings, and the experience under some no-fault laws is now coming in. Substantial rate increases are needed in such no-fault states as Florida and New Jersey. Some of the legislated rate reductions were not justified. Even where reductions were justified by no-fault, the amount of the reduction has been inundated by the inflation in loss costs.

Now a word about group auto—and I have heard much nonsense concerning this subject over the past few years. I have heard persons with experience in the auto line say that this business could be handled by the group companies. I have heard those in the group life and health business say that they should be tooling up to take on auto insurance, especially when we have no-fault auto on a national basis. However, I have yet to meet the person who has had actual experience both in group life and health and in private passenger auto say that the auto line can be handled effectively on a "true group" basis.

Let me offer a few reasons why I see little future for group auto—especially for group life and health companies:

1. The opportunity of the individual employee to antiselect against group auto would be substantially greater than exists under group life or health, because of the great variations in potential loss costs among employees—with the variations depending on the personal choices of the individual employees.
2. A substantial employer contribution would be necessary, and this is not going to happen because (*a*) the federal income tax law is not going to be

changed so as to make an employer's contribution for auto insurance nontaxable to employees and (*b*), in the years ahead, employers will not be able to undertake the additional burden of the costs of auto insurance as the costs of their present employee benefit and social security programs skyrocket upward.

3. We will not see a federal no-fault law which would eliminate tort completely, so group life companies will be reluctant to provide coverage for auto liability.

In these few minutes I have tried to touch on some of the more obvious issues that would be of interest to you as you reviewed the problems that would confront you in entering the property and casualty business. There are others less obvious but of considerable importance: for example, property pools to handle catastrophic losses or marginal risks; the expansion of automobile assigned-risk plans and the Canadian facility type of approach to the nonstandard auto market; the rating of territories in the central cities; the growing capacity problem; and many others.

As you can see, things are a little tough in the property and casualty business. However, my experience in this business has been that the tougher the environment, the better the opportunity for the well-managed company to succeed. So the years ahead look tough, interesting, and fruitful—as long as you know the business well.

CHAIRMAN MATZ: John Hancock entered the property and casualty business in April, 1971, via an affiliation with Sentry Insurance, a mutual company. Under our agreement with Sentry, John Hancock agents (both district and general agency) become agents of Sentry and sell the Sentry personal lines—automobile, homeowners', boats, and mobile homes. John Hancock formed a subsidiary, Hanseco Insurance Company, which reinsures 100 per cent of the business written by John Hancock agents in Sentry. John Hancock provided the initial capital for Hanseco ($5 million). Since that time Hancock has provided additional capital, and Sentry has exercised its option under the agreement to invest in the subsidiary (John Hancock now owns 83.3 per cent of the stock, and Sentry owns 16.7 per cent).

The Hanseco project began as a pilot program in Indiana and Ohio in July, 1971. By the end of 1971, 400 agents had been licensed and began writing business in December. In May, 1972, it was decided to begin expansion into other states, and seven states and 800 agents were added during that year. As of August 31, 1974, there were forty-five states in the program, with 4,500 licensed agents. States in which entry will be complete in 1975 are New York, New Jersey, Rhode Island, and Louisi-

ana. We have no plans for Alaska. On completion of the licensing program, we expect to have approximately 6,000 agents, which is in line with our original projections. The writing of property and casualty insurance is voluntary for the John Hancock agents, who are required to have a minimum of six months of service before entering the program.

During 1974 we expect to write $10 million of premium. This production will be about six months behind our original projection. This lag is due to the decision to run the pilot program for almost one year before expanding.

By the end of 1974, we will have paid $1,750,000 in commissions to our agents. Considering the gradual buildup of the number of agents in the program, we feel that we are accomplishing one of the basic reasons for our entrance into the property and casualty insurance business—providing additional income for our agents.

The loss ratio in 1973 on the property and casualty insurance was 84.3 per cent. Our claim experience is not as good as we would like; however, it reflects the inexperience of our agents, a "new book of business" with relatively little renewal business, and the fact that large segments of our agents' markets are in metropolitan areas where all companies experience higher losses. We are encouraged by the fact that losses on renewal business are closer to Sentry's experience. Until all agents are in the program and have had an opportunity to build their renewals, we anticipate higher than average loss ratios.

In December, 1972, Hanseco began reinsuring all of John Hancock's group long-term disability business. This was an expansion of the activities of Hanseco and has provided underwriting profits in that line.

We anticipate cumulative losses for Hanseco of nearly $4 million by the end of 1974. While we are not happy to report losses, this is on target with our original projections. If our future operations continue as planned, we will expect to show profits in 1978.

MR. LEROY J. SIMON:* There are so many complex facets to the involvement of a life insurer in the property and casualty reinsurance business that one scarcely knows where to begin or how to limit the topic. This presentation will consider some of the pros and cons of entering the field, the principal approaches that seem feasible, and some of the hurdles and pitfalls.

* Mr. Simon, not a member of the Society, is a Fellow and ex-president of the Casualty Actuarial Society and is senior vice-president of the Prudential Reinsurance Company.

A life company should *not* go into the property and casualty reinsurance business because it is an easy way to make money quickly. It is a sophisticated business that is fiercely competitive, with a great deal of freedom to make your own mistakes or to follow an unsuspecting competitor down the road to certain loss. Conversely, if one is willing to do all the research, study, planning, interviewing, building, and just plain hard work that make any enterprise successful, then it is possible to be successful in reinsurance also.

First, note that reinsurance is of little, if any, direct benefit to the marketing forces of the life company. There may be some indirect benefit to the group representatives in having a knowledgeable reinsurance staff to refer to when clients ask unusual casualty questions, but it will rarely help on a direct sale of group business.

Second, note that the money put to use in providing underwriting backup for reinsurance does not result in an expenditure of these funds—it is just a commitment of funds in the form of an investment. There are some restrictions on how the reinsurance company invests its funds, but with careful planning and coordination this will not make a significant difference in the way the parent would have invested the money had the reinsurer not been formed. Hence it is fair to view the reinsurance enterprise as another risk-taking use of the same surplus that the parent would have needed for the basic life operations anyway. Further, this risk-taking venture is largely independent and noncumulative with the basic insurance and investment risks of the parent.

There are, of course, some reasons for not going into this business, and they must be faced realistically. There are times when reinsurers are hit very, very hard by large catastrophes. Thus, if one has a small surplus or an overwhelming need to produce an operating profit during each accounting period or even during each year, this is a poor business to enter. Wide swings in the results are typical, and the market situation makes it quite difficult to enter, later cut back, then push production and so forth. Stability and continuity are hallmarks of the successful professional reinsurers. Newcomers must match this if they are to survive.

Let us turn now to four different methods of involvement in reinsurance. These are not mutually exclusive, but at times they conflict in such a manner that a company may utilize only one method in a given narrow area of operations, although it might use all methods throughout the total company. The first method is through syndicates and pools. Here the primary insurers (and often reinsurers) have found a market need which has unusual characteristics, such as nuclear, petrochemical, or railroad risks, and it is found to be practical to band together to create

the underwriting capacity. The companies hire a manager, set underwriting policy, and generally keep fairly close control over the operation. New members are admitted from time to time depending on the need.

The second method of operating a reinsurance business is through joining one or more underwriting agencies. Here a manager has set himself up in business (oftentimes in a special category of business) and has first sold his method of operation to a number of companies who provide the underwriting capacity. He then goes out and sells reinsurance to clients and supposedly just sits back and deposits the money each quarter. Some are successful, but when the manager is responsible for underwriting while his remuneration is a function of sales, there are many conflicting situations in which such a system does not work satisfactorily.

The third method of market entry into reinsurance is through the reinsurance broker or intermediary. These are specialists and are quite distinct from the primary insurance broker. Thus, reinsurance does not act as support for the brokers with whom many life companies deal. The reinsurance broker deals with the primary company and attempts to mold a package of terms, conditions, and rates which are satisfactory to both parties. Often he finds it necessary, and almost always it is to his advantage, to parcel out small pieces of each contract among a large number of reinsurers until he has placed 100 per cent of the cover. Brokers prefer to have a reinsurer who will deal only through the broking market, and they will argue that the reinsurer will not see a fair cross-section of the business that they control unless he agrees to this. The reinsurer will argue that if the broker does not show him a certain piece of business, the company is then free to approach that client itself, and, of course, if a broker is showing only the more difficult pieces of business, he must recognize that the reinsurer will underwrite very strictly on him.

Each of the three methods mentioned is easily seen as requiring little or no initial start-up cost for marketing. (Obviously, there are other start-up costs for underwriting, processing, systems design, collections, and so forth.) The fourth method of entering the field is through your own marketing force of salaried account executives who will call directly on the primary insurers. The largest professional reinsurers in the United States from the premium volume standpoint operate exclusively this way and are completely convinced of its efficiency. It is more difficult and costly to start this way, but such a method eliminates one of the "filters" through which information must flow en route to the reinsurance underwriter from the basic source.

Our choice of operating mode has been a mixture of both brokered and direct accounts, on the basis of being willing to do business on the method

that the client considers best for him. We are also involved actively in pools but do not support underwriting agencies except under very special circumstances.

There are some markedly different aspects to property and casualty reinsurance for a life insurance management to understand, in addition to those mentioned thus far. Foremost is the fact that we decline seven out of nine pieces of business that are submitted. Upon hearing this, my life friends (and particularly the agency people) are aghast. Their first reaction is to question our sanity, but then they focus on our economics by asking how much it costs us when we have to decline a case. This is a surprising question, because most of us property-casualty people never think in terms of the costs associated with producing and underwriting business only to turn it down. Actually, the cost of declination is considered minuscule when compared to the cost of just one significant loss. Some underwriters try to avoid being caught with a major loss by just taking small pieces of a lot of business—then no one piece can hurt too much. The marginal or untalented underwriter can live for some time this way but must move on before it is found out that the company is slowly being drained of strength by the plethora of moderate-sized losses. Our philosophy is summarized in our dictum that "2 per cent of a bad deal is a bad deal." However, it takes a very mature management to understand this philosophy and live with it when a really significant loss occasionally strikes. It appears that a confident and capable mutual life insurance company management, working closely with a board of directors that is kept well informed at all times, is capable of making such a philosophy succeed.

A corollary to the high declination ratio is that life company managements are not accustomed to the fact that production figures can be altered drastically by a simple alteration in the declination ratio. Therefore, annual projections of premium volume are useful and even necessary guides in planning but cannot be used as budgets or goals because they can always be exceeded—unfortunately at the cost of deteriorating quality of business.

The final major lesson to learn is that "What you see is what you get" definitely does not apply to reinsurance. There is an event happening at this instant—a doctor operating, a product being manufactured, an architect drawing a plan—that will produce an injury to a person or a large group of people. It may not result in damage for months, it may not be reported to the primary company for many months, it may not be recognized as being big enough or serious enough to involve the reinsurer for years, and it may not be litigated to conclusion for many years. If you

really want to know how you did in 1974, wait until 1982 and you will have a reasonable amount of confidence (but still not certainty) in your statement. Note that we are not discussing the mere passage of time to reach a conclusion of the process; we are talking about a narrowing of the extremely large range of uncertainty through the passage of time to a more reasonable range of uncertainty with which the predictor has to cope. The difficulty in dealing with this phenomenon is not unique to any one part of our business—we only wish that our primary casualty companies, and even more so our reinsurance colleagues, could appreciate and deal with the problem more realistically.

In conclusion, the new entrant to this property and casualty reinsurance field should bring money, bring capacity, bring a long-range viewpoint, but, most of all, bring a profit motivation backed by talented people and hard work.

MR. JOHN C. ANGLE: Charlie Hewitt mentioned the contribution to agents' incomes being realized from Metropolitan's property and liability writings. Can anyone else here comment on his company's results in this area?

MR. STEPHEN F. KRAYSLER: After a reasonable buildup period, property and casualty writings by Hancock agents are adding $17 or $18 of additional commission per week at our present level of one policy per man per month. Based on an "optimistic" production level grading to four policies per man per month, this additional income could rise to around $55–$60 in the near future, ultimately reaching $68–$72 per week. Currently our applications have been split about evenly between auto and homeowners' coverages. The projection of each of our personal lines includes the assumption that we will be writing more auto than homeowners' insurance in the future.

I would like to know the average number of property and casualty applications produced each month by the agents of some other companies.

MR. HEWITT: Our monthly production has been about three applications per agent, and this is for auto coverage only. We experienced some offsetting drop in life commissions during the periods when agents were involved in training for property and casualty sales; once trained, however, our agents regained this lost ground in life sales and now seem to be increasing their life production.

MR. JACK T. KVERNLAND: Prudential agents licensed to sell property and casualty coverages, and that includes 90 per cent of our agents

who have at least one year of service, are producing an average of three applications per agent per month. Several other comments about Prudential's experience may be of interest:

1. One of our reasons for entering the direct property and casualty field was that a single agent for life, health, auto, and homeowners' insurance seemed to be important to the public. This was also seen as a potential additional source of return on invested capital and as providing new and interesting opportunities for Prudential's employees.
2. Most of our property and casualty sales activity results from younger agents working in average-size agencies. We accept no brokerage business. Our property and casualty volume for 1974 will be about $50 million of written premium.
3. Our choice of Illinois as the initial state for property and casualty sales was based on ease of licensing agents.
4. Our starting expenses have been very heavy, and we do not expect to have underwriting gains until 1981. Investment return should produce an overall profit by 1978.

MR. FRANK J. BUSH: Could the panelists comment on any special problems associated with claim servicing? I would also like to hear whether any of the companies represented here that are new to the property and casualty field have had difficulties with state regulatory authorities because of their early operating losses in this line.

MR. ANDERSON: With automobile coverage, insured losses can arise anywhere in Canada or the United States, and in many cases the loss will occur somewhere other than near the insured's residence. It is very important in these situations to quickly verify the existence and scope of coverage and to get claim service personnel on hand. Disasters present another type of difficult claim situation for homeowner and auto insurers, because, suddenly, a large number of claims from a small area have to be processed in a hurry. An insurer's response to these situations is a very important determinant of its reputation with the buying public; the implications for marketing, and especially holding renewal business, are obvious. The established companies have the systems and personnel necessary to meet these problems.

MR. HEWITT: I would like to add that a single line of insurance, such as auto policies or homeowners' policies, gives rise to many different types of claims. The skills required for proper handling of personal injury claims have little in common with the skills required to correctly settle property damage claims for auto body work. As a result, specialization

in claim servicing is quite common in the property and casualty field. The new carrier must have competent personnel on hand to settle the full range of claims that can arise.

MR. FRANK E. GUASCHI:* Mr. Simon mentioned, in general terms, the problems of incurred but not reported claims and long delays before the reinsurer even hears of its involvement in claim situations. In my company's property and casualty reinsuring experience, this claim reporting lag is such that 13 per cent of our claims do not surface until the sixth year after the event.

* Mr. Guaschi, not a member of the Society, is a Fellow of the Institute of Actuaries and is deputy manager of the Mercantile and General Reinsurance Company, Ltd.