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CORPORATE DIVERSIFICATION: EXPERIENCE IN THE UNITED STATES AND CANADA

In recent years a number of life insurance companies have moved into diverse activities. This includes the formation of, or acquisition of, property and casualty insurers, variable annuity companies, mutual fund management companies, banks, finance companies, leasing companies, real estate development companies, television and radio stations, newspapers, software consultants, and other corporate enterprises.

1. What activities are really compatible with the life insurance product? Why?
2. What activities are otherwise compatible with corporate objectives or offer potentially large profit centers? How large? How long does one have to wait for the profits to emerge?
3. What activities can be an excessive drain on corporate earnings and executive manpower?
4. How does the actuary fit into these diversification activities?

MR. SANFORD W. SCOTT, JR.: The list of diversifications shown in the program indicates very strongly that the life insurance industry has moved into the total service area for its clients and also has been analyzing how best to invest surplus for the benefit of policyholders and/or stockholders. The questions which have been posed are ones which management must deal with if they are to do the job entrusted to them. However, I am sure that there are at least as many answers to these questions as there are members of the Society. Thus I suggest that before one can form an intelligent reply, he, and his organization, must set certain goals and objectives which the corporation wishes to attain. Then it is essential to establish guidelines and strategies within which they are committed to operate. Finally, the organization must determine what resources it has in terms of manpower and finances to commit to expansion and/or diversification. Once these decisions are formulated, virtually any enterprise which falls into the predetermined framework is worthy of consideration.

Certainly there is no need to dwell on what is meant by goals and objectives, although a company may have many of them. As is the case with most companies, my company has one primary goal and a multitude of supporting goals and objectives, all of which are quantified. Being a growth stock company, we have set our primary goal in terms of profits in specific amounts at specific times. Within these profit goals are important revenue and return-on-investment goals, or bench marks, that must be

attained if our primary goal is to be achieved. Next, it is essential to establish the guidelines, or strategies, within which the corporation will attempt to play its game. Let me share some of the rules set by my corporation (these are quantified also):

1. There are no "sacred cows" within our organization. We are not so dedicated to a particular portion of our business that we would not consider replacement of it through diversification.
2. Because of the increased risk in launching a new venture, such investment should provide a greater rate of return than that being derived from current activities. This criterion could be offset, however, by a desire to reduce the corporation's dependence on one activity for future profits. Thus, within this guideline, we must consider the balance of revenues and profits between activities, future market potential, and so on.
3. The new venture should be one which provides a continuing source of revenue and profit. A good example of this is life insurance itself, where premiums (revenue) continue over a period of years with commensurate profit being generated over the same time period.
4. If at all possible, we want the new venture to build upon an already established base. This reduces both the initial and ultimate expenses of the new venture and allows it to operate basically on variable expenses, since fixed expenses are borne by current operations.
5. The new venture should complement existing business so that one produces increased activity in another. An example of this is diversification into automobile insurance using the life company's policyholders as a source of business.
6. Diversification is being limited to those areas which provide a service.
7. A basic strategy is to test each venture before entering into it. We were able to test the marketing and profit potential before entering the automobile insurance field.

The availability of resources, finally, will dictate how aggressively an organization can pursue its goals. Resources will determine the following:

1. The degree to which the venture can penetrate the market.
2. The amount of risk capital that can be exposed to a diversification (including the amount that can be lost).
3. Whether the venture will be purchased or started from scratch.
4. The levels of profit that will emerge.
5. The period over which the company can wait for profits to emerge.

These comments indicate that our organization is embarked currently on diversification through the internal route. While this is true, the right external diversification, one which satisfied our profit objectives and resource abilities, would change our position. We are flexible in this matter.

At present, however, internal diversification within service industries appears the more compatible to us.

Within this framework, there are few service organizations which do not qualify as legitimate candidates for diversification. The corporation with which I am affiliated is comprised of life and health insurance companies which market both through agents and by direct response (mail, newspapers, television), a data-processing company, marketing companies, and a property and casualty insurer. We have investigated practically all the profit opportunities shown in the program and may enter into some of these in the relatively near future by either purchase or formation. In addition to those mentioned, I offer the following services for your consideration:

1. Administrative services, including underwriting and claim services. These are technical services which, if provided to several insurers, could result in substantial expense savings which could be translated into increased profits for all parties (users and providers).
2. The above also applies to management and actuarial consultants.
3. Asset management whereby small, medium, and, in certain cases, large companies can merge assets for investment purposes. This should provide greater gross investment yields and lower investment expenses.
4. Creative and advertising services, especially in direct-response marketing, whether the product be insurance or something else.

In summary, I have emphasized those corporate diversifications which are concentrated in the area of services, which I believe to be "really" compatible with the life insurance product. Needless to say, diversification need not be limited to service industries. Any activity which offers profits which equal or exceed the return to be realized from life and health activities must be investigated very seriously for diversification potential, internally or externally. Certainly if retailers can form or purchase insurance carriers, the reverse may be a profitable diversification.

MR. J. CRAIG DAVIDSON: In general, corporate powers and therefore diversification are controlled by the Canadian and British Insurance Companies Act or the Foreign Insurance Companies Act, since the vast bulk of life insurance companies in Canada are federally regulated.

For many years the operations of life companies were narrowly confined to the field of life insurance and annuities. There has been a process of evolution in recent years in which the life companies have gradually received certain extensions of their powers.

In 1964 the act was amended to allow the ownership of real estate companies. The same amendment permitted the ownership of a foreign

life insurance subsidiary, provided that it did not compete with the parent company by selling the same product in the same jurisdiction. Provision was also made for the ownership of general insurance companies such as property and casualty carriers.

In 1960 provision was made for segregated funds, so that, for example, you could invest totally in equities. These would correspond to separate accounts in the United States. This has been a great boon to the Canadian life companies, since they were placed in a highly competitive position for pension fund business which had been flowing to other types of financial institutions.

Of the above changes, investment in real estate companies and segregated funds have been taken advantage of by most companies. Few, if any, have entered the property and casualty field. Foreign life subsidiaries have been established by several of the companies who operate on an international basis. Generally, these have been formed to meet specific problems in the foreign jurisdiction, such as achieving a competitive tax position. Many of these foreign subsidiaries have been established in the United Kingdom.

Segregated funds have been used very extensively by most companies in a wide variety of forms, such as equity-linked insurance contracts (variable life), investment of pension funds, and other supplementary benefits to regular life insurance contracts such as special dividend options.

In 1970 the last major extension of powers was granted, allowing the ownership of a mutual fund subsidiary and subsidiaries which are described as ancillary to insurance operations. The definition of "ancillary to" is prescribed by rules and regulations promulgated by the Federal Department of Insurance. Under the ancillary clause at least one major company has organized a computer subsidiary and another an investment management company.

At present, a committee of the Canadian Life Insurance Association is considering representations which might be made to obtain possible future extensions of powers under the federal act. Many powers which merit serious consideration are those which are currently held by trust companies or the chartered banks. Such powers would include the sale of guaranteed investment certificates, custodian and trustee powers, real estate brokerage, and the like.

With the exception of the provision for segregated funds, the expansion of powers has taken the form of a broadening of the investment powers to allow the ownership of a subsidiary which markets the new service.

Thus diversification requires the establishment of a network of subsidiaries. It is questionable whether this is desirable, and the committee of the Canadian Life Insurance Association is considering a representation that a life company should, in most cases, have the option of offering a service directly or through a subsidiary. There will, of course, be certain instances where the limited liability feature of a subsidiary corporation will be desirable for the protection of the life fund. The investment in any of the extended operations is limited to a small percentage of admitted assets.

The above comments apply equally to stock and mutual companies which are federally registered. However, a stock company can be controlled by a parent company and through the use of this method has much wider opportunities for diversification. There has not been the development of holding company legislation in Canada to parallel that in the United States. Thus the parent and life subsidiary taken as a whole can offer additional services allowed in the charter of the parent company or of any other subsidiary which the parent company may hold. Two examples of this potential are visible in Canada.

1. Empire Life Insurance Company caused an upstream holding company, E-L Financial, Limited, to be created, which company in turn purchased Empire Life by means of a share exchange offer. The upstream holding company is now free of the restrictions of the insurance legislation.
2. Power Corporation is an investment company which controls a number of important Canadian corporations. In the financial services field it controls both Imperial Life Insurance Company and the Investors Group, the largest mutual fund operation in Canada. Power Corporation also controls Great-West Life through share ownership by Investors Group. Montreal Trust Company is controlled through the combined share interests of the companies set out above. Laurentide Finance Company is also owned by Power Corporation. So far, this financial empire has not been drawn together and integrated, but the relationship has been established.

Thus it is clear that a stock company has a distinct advantage over a mutual company from the point of view of diversification. The possibility of creating an upstream holding company for diversification purposes is denied to a mutual company.

I believe that steps should be taken to give mutual companies some parity, possibly by allowing them to form a downstream holding company. Such a company could be capitalized with a percentage of surplus and then be allowed the same freedom presently enjoyed by the parent of a stock life company.

I believe that, as a general principle, the main thrust of a diversifica-

tion program should be in the field of "financial services" in the broad sense of the words, which would include such areas as estate planning, trustee powers, real estate brokerage, and the sale of guaranteed investment certificates. This method of expansion would foster homogeneity in the total operation, and generally a significant part of the necessary expertise would already be available.

However, I would also favor diversification in those new financial areas which involve a spinning-out of existing expertise where this can be accomplished on a financially sound basis with a view to profit and/or improved service to the parent company. Areas that come to mind are travel agencies and medical laboratory services.

Any proposed diversification should be examined to ensure that it will not operate to the detriment of those aspects of existing operations that are highly successful. However, we should strive for controlled diversification in areas where we have the know-how, in order to keep our industry growing and dynamic. By so doing, we might offset further incursions of government into the insurance sphere.

Within our company we have made use of these broadened powers to establish the following:

1. A life subsidiary in one foreign country in which we operate, which was dictated by local insurance laws.
2. Segregated funds for a variety of purposes such as pension fund management and variable life products. These now number nineteen.
3. A mutual fund operation in Canada.
4. A life subsidiary in the United Kingdom to market certain products, not competing with the parent company, where such products enjoy a significant tax advantage compared with the same products marketed through the parent company.
5. A unit trust or mutual fund in the United Kingdom to complement our insurance operations. It should be noted that in the United Kingdom mutual funds, or unit trusts as they are called there, cannot be solicited by our full-time field force as in Canada and the United States.

MR. HOWARD T. COHN: I understand that certain aspects of life insurance in Canada are federally controlled, while others are provincially controlled. Would you explain, and give your opinion of, the Canadian system as compared to the United States system?

MR. DAVIDSON: In Canada the vast bulk of the life insurance business is federally supervised by the superintendent of insurance. His prime concern is to administer the various federal insurance acts, which are heavily oriented toward the question of solvency. The industry has been quite satisfied with federal supervision and believes that this is a more

efficient method than the state supervision in the United States. On the other hand, the provinces are also involved with certain aspects of supervision, since contract law is a provincial matter. Generally, this has worked satisfactorily, since, with the exception of the province of Quebec, the insurance legislation is uniform for all provinces. In Quebec insurance legislation tends to conform to the French Civil Code.

An entirely new dimension of supervision has arisen in Canada with the introduction of variable and equity-linked contracts. In contrast to the situation in the United States, each province has its own securities commission. However, an arrangement has been made whereby, for most types of equity-linked contracts, supervision of the contract terms and conditions is conducted by the provincial departments of insurance. In these cases such contracts have been approved on a highly simplified basis as compared, for example, with the requirements for establishing a mutual fund. In summary, I would say that in Canada supervision is a much less onerous problem than it is in the United States.

MR. ROBERT P. BRADY: The chairman's letter asking me to be on this panel suggested that most speakers would be in favor of diversification and asked that I participate more or less as a devil's advocate against diversification. I am happy to be here to share my views, but I really am representing what I consider to be the good guys, and as far as I am concerned the rest of you are the bad guys and should be given that "devil" nomenclature.

It has been said that my company, Republic National Life, has publicly stated that it is against diversification. I believe that this impression results from a trade journal ad which we ran several years ago in a number of insurance periodicals, entitled "A Straight Line Is Still the Shortest Distance between Two Points." This read in part as follows:

> It is being argued that there are devious routes and short cuts to success in the sale of Life Insurance. Thirty-one years ago we set our sales course on a straight line guided by the philosophy that basic Life Insurance tailored to provide complete family protection, and unadorned by speculative short cuts, is the only way to build an on-going company.
>
> We remain convinced that the average family cannot risk speculation until they have adequate protection and security that is only possible when provided by time-tested Life Insurance that is never exposed to market uncertainties. And we offer the man who shares this belief an unparalleled opportunity for profit and success.

I believe that I have made my position clear; personally I agree with this philosophy. This is not just because I just peeked into one of my

kids' math books to see if they were still teaching that a straight line is the shortest distance. It happens that personally I do agree 100 per cent with this company position.

Diversification within the framework of a life insurance company itself is not something we are against. In fact, we are well diversified, being in the ordinary life, individual health, reinsurance life and health, group life and health, and pension business. The only line we really are not in is the industrial business.

Further, if we consider diversification within the life insurance business itself to include acquisition of business in force, assets, and surplus funds through merger, we have recently been active in that field. In the year 1969 we acquired a company with $4 million of assets and $146 million of insurance in force. At the end of 1970 we acquired a company with $2 million of assets and $52 million of insurance in force. In 1971 we acquired three companies with a total of $106 million of assets and $2 billion of insurance in force.

Our entrance into the various lines of business and into merger activities was not dictated by the publicity we received from entrance into such activities but by the fact that we felt it was the proper time from a financial standpoint to get into these activities. Diversifying into other areas mentioned in the program, namely, property and casualty insurance, banks, finance companies, leasing companies, television and radio stations, newspapers, and so on, is something that I think a life insurance company has no right, reason, or business to do.

When I say that we do not have a right to be in other businesses, I am referring to charter and by-law limitations on the extent of our activities. Also, there are statutory requirements regarding investment limitations as to amount and percentage of assets, surplus, and control of the corporations that we invest in. This is a broad subject, and, regardless of the variations in state laws and charters, there are limitations. Even if there are no statutory limitations, I think that there are moral limitations on the extent to which we can use policyholder and stockholder funds to invest in ventures foreign to the life insurance business.

At this point I might ask what prompted us to become interested in these diversifications. I realize that these subjects are on programs of insurance industry meetings, such as those of the Society of Actuaries, the American Life Convention, and the Life Insurance Association of America, and a great amount of time, money, and research has gone into these activities; but by what right can we use policyholder and stockholder funds for such diverse activities when we are elected to offices by our boards to do specific jobs of running life insurance companies?

If we are a mutual company, what right have the policyholders given us to use their funds for new and untried (at least by us) ventures? If we are successful and make a profit on the ventures, what generation of policyholders will reap the rewards? If we are unsuccessful, what generation of policyholders will pay the cost? If we are a stock company, have our stockholders elected management to run a life insurance company, or to engage in all kinds of other business?

There may be some arguments favoring entry into other activities when we look at the profit margins in life insurance being sold today as compared with those of past years when we had much more loading in our premiums. The life insurance industry is the only industry I know that has not raised prices in the period of terrific inflation that we have had. If we do not have the ability to maintain profit margins in our own field, how can we expect to be the big money-makers in other activities? If we can not make profits in these other activities, what right do we have to get into them?

Do we have reason to believe that we have come to complete fulfillment of purpose in the life insurance business and thus should venture into other fields of endeavor? Just about a year ago the Institute of Life Insurance was running ads in national publications. The first had the caption, "Most people know twice as much about cars as they do about life insurance. Is that smart?" The other ad reads, "Your mother-in-law knows a sports car from a station wagon. Shouldn't you know at least that much about the basic types of life insurance?" Have we fulfilled our obligation to the public to have them properly informed about life insurance? Today our industry has the unresolved problem of providing satisfactory answers to questions by consumers, state and federal officials, and others regarding determination of the cost of insurance. Today our industry cannot agree on a satisfactory manner of showing adjusted earnings of life insurance companies. The LIAMA widows study of a year or two ago indicates that perhaps the life insurance companies have not been performing services as fully as they should. I am not saying that there are any easy answers to these matters.

In my opinioin we are not justified in diversifying into untried areas while so many unresolved problems still exist within our own industry. Moreover, I feel that we do not have the necessary experience, know-how, background or training for such new ventures. Perhaps we should be more mindful of our p's and q's before venturing into the x's and y's.

Although life insurance deals with the unpredictable, there is probably no business more predictable as to income, outgo, profit, and asset ac-

cumulation when projected by properly trained actuaries. Underwriting expertise and rating techniques have been developed to a fine degree for life and health insurance, but they are limited to these areas and not applicable to other businesses.

There are very few subjects in the course of study for the Society of Actuaries examinations that deal with the real business world outside of life and health insurance; most subjects cover very limited specialized topics. Even if we went into "continuing education of the actuary," the subjects would again be limited in scope and would not qualify for diversification. Thus, even if life insurance companies decide upon diversification, it seems to me that those with experience that is better and more well-rounded than that of actuaries would be in a better position to promote diverse activities. The productive learning and formative years of the actuary are spent in limited areas while others are getting a broader education.

If life insurance companies are going to go into other ventures, it seems to me that actuaries should not be the originators of such activities. I realize that this may not be a popular view among my colleagues here, and I realize that many of you have outstanding abilities apart from your actuarial activities. I further realize that the actuarial profession can become boring to the adventurous and energetic person in a democratic society. I am not objecting to individual experimentation and venture into diversification; but to use policyholder and stockholder funds for these projects and to put them in the category of actuarial activities causes me to voice my opposition.

Even those in other than actuarial areas in a life insurance company have limited business experience in the commercial world. For one thing, almost any businessman or corporation (other than an insurance company) borrows money to run a business. Working under the pressure of having to repay loans and plan to borrow again is something insurance company executives are not exposed to in the regular course of business.

As an aside, I can not use the same arguments regarding the entry of consulting actuaries into other fields, but I would bet that there are several who wish they had never gotten into the computer software business.

Banks and finance companies are among the diverse enterprises mentioned in the program. They handle money, and so do insurance companies. They lend money, and so do life insurance companies, but banks and finance companies have collection methods completely different from those of life insurance companies. The whole philosophy of short-term lending by banks is different from that of long-term lending by life in-

surance companies. Life companies make policy loans and hope that they are repaid so that the full face amount will be payable at death, but no legal or aggressive means can be used to collect on policy loans. Life insurance companies send premium notices and hope to collect but have no legal right to collect, as banks do. Thus, although life insurance companies have cash flow somewhat similar to that of banks, the collection experience and methods are entirely different. So what reason do we have to enter the banking or finance company business? A former bank president friend of mine told me how important the collection of loans was to continued success in the banking business. He said that he had learned how important this was, especially now in his unemployed status. How can actuaries or insurance company officials become expert in collections, with so little experience as compared with long-term bank officials?

The life insurance industry has had a stable product. We may come out with a new ratebook every five or ten years and a new plan or two every year, but really not much has changed. In other industries we are accustomed to new models every year. New ingredients, new packages, improved products, replace the old models. We (in insurance) are not accustomed to the "future shock" that other industries have experienced.

During the last decade or two, one of the more prominent areas of diversification within the life insurance industry—at least in terms of premium growth—has been group health insurance. Even though this is in our bailiwick of operations, the life insurance companies' financial experience has left something to be desired. How, then, can we expect to venture into wholly uncharted areas and operate successfully?

Finally, I am concerned about the antitrust and monopoly implications of large life insurance companies' entering other businesses and possibly dominating vast segments of the economy of the country. I am sure that the same is true for other individuals, and it definitely is true for politicians, officeholders, and state and federal regulators. This is a subject in itself, and it will probably be covered by others on this panel.

We have had a wonderful tradition of providing life insurance protection to the public. We have had great leaders in our industry who have helped to build it to the heights we have attained. I say that we should do everything to maintain this sound tradition and not be lured by the fanfare of diversification when we should be working to make our basic institutions and traditions even better in the future.

MR. FREDERICK S. TOWNSEND, JR.: Reference has been made to a current level of modest profit margins in the life insurance industry. Yet this is a period of high interest rates. What would policyholders and stock-

holders want the managements of mutual and stock companies to do in a period of declining interest rates to fulfill policyholder or stockholder expectations?

MR. BRADY: High interest rates in recent years are one of the main reasons life insurance companies have been able to have the profit margins they have had. Without these high interest rates the profit margins would have been thinner or nonexistent. Life insurance companies do not seem to have anything else working for them to increase profits without increasing premiums—and this they do not seem to be able to do. So how can they expect to be big money-makers in other businesses in which they are not knowledgeable?

MR. TOWNSEND: Is the size of some life insurance companies becoming so large, and their activities so diverse and encompassing, that they should be broken up under antitrust legislation?

MR. BRADY: In my opinion the answer is yes, and I think that there is more and more tendency for others to think this way.

MR. DAVIDSON: If diversification comes, do actuaries have a part to play?

MR. BRADY: I believe that actuaries would have a part to play in any diversification within the life and health insurance business itself. As I mentioned, in diversification outside the life and health business I do not see that actuaries have any more part to play than anyone else.

MR. COHN: The ITT Financial Services Group is composed of twenty-two operating units. In the United States we have several life insurance and property and casualty insurance companies, a variable annuity company, a mutual fund management company, a mass marketing sales organization, and several consumer finance companies. We also have companies that write life as well as property and casualty insurance in Canada, the Bahamas, England, Holland, Germany, and Italy.

Over the past several years ITT has considered adding other types of financial services to the group, such as credit cards, mortgage lending, savings and loan, mortgage insurance, and title insurance. Although some of these services could and still might fit into our long-term objectives, we have not yet moved into any of these fields, because we either were not able to establish their long-term viability or could not find appropriate acquisition candidates or simply have not been able to devote sufficient

time to develop a program. Two areas in which we have a current interest are real estate investment trusts and money management.

We have devoted a great deal of time and effort to the evaluation of various financial service center concepts. Although we are certain that different types of financial service centers will be developed successfully, we are currently concentrating on new products that can be distributed through our existing sales organizations. The one area where we see the greatest opportunity to bring a broad range of financial services to our customers is the medium of payroll deduction for employee groups. Here we see the personal lines of property and casualty insurance as the lead products, and we are working to expand that activity.

In spite of the general tendency to diversify into related financial services, ITT's current attitude is beginning to move away from product diversification and more toward geographic diversification. One reason for this is the intense desire of our management to create the best possible image for ITT in financial services. There is considerable concern about what the reputation of the consumer loan business in this country and the reputation of the mutual fund industry in Europe might impart to that image. However, I would like to be quick to point out that, whereas we are not enthusiastic about the distribution of mutual funds as an independent activity, we are intimately involved with the linking of life insurance to equity products and expect to continue to expand these activities through the development and sale of variable annuities, variable insurance, and combination life insurance/mutual fund packages.

Geographic diversification is where we find the real focus of ITT's current interest. We are convinced that the opportunities for expansion of financial service operations outside the United States are tremendous in view of the growth in population and gross national product of many countries as compared with the United States. We are attempting to put into place the management and facilities which will allow us to adapt many of the newer concepts that are being developed in the United States for the mass marketing and packaging of financial service products in the markets outside the United States. While we realize that we are only one of the many financial institutions involved in the development of these programs in the United States, we believe that we have a unique opportunity to be among the first to bring many of these programs to other markets.

I cannot leave the subject of diversification without commenting on how one goes about managing a diversified group after he has succeeded in putting one together. The basic tool that ITT uses for the management of all of its operations, which, as you know, are greatly diversified both as

to product and geographic location, is the business plan. ITT's management works very hard on the development of detailed business plans for each of its operating units. Once these plans have been completed and accepted by top management, the manager of a company is given carte blanche authority to implement everything that was anticipated in his plan. It is only when the manager finds the need to modify his plan that it is necessary to go back to ITT's management for approval. The implementation of the various plans is monitored by the ITT headquarters staff through a system of monthly reporting which is designed to measure the actual results as they develop against those that were anticipated in the plans. This reporting system, when functioning properly, will quickly identify opportunities as well as problem areas, so that detailed plans can be developed to optimize the opportunities and mitigate the problems. The success of this program is demonstrated by ITT's long-term growth record, which shows improved earnings every quarter for a period of fifty-two quarters. I am happy to report that over the past few years the Financial Services Group has been a major contributor to that growth record.

MR. TOWNSEND: In view of your company's fifty-two consecutive quarters of reported earnings increases, would it be appropriate to ask a question about your accounting techniques?

At present, only realized capital gains are included in your reported net income. If the accounting profession decides that unrealized capital gains must also be included in net income, how would this affect your corporate diversification activity?

MR. COHN: First let me explain that we have been realizing capital gains in accordance with a formula which is intended to recognize the average rate of appreciation in our common stock portfolios over a long period of years. We have argued that ideally this appreciation should be recognized as net income even though it was not actually realized. However, under existing accounting principles, the only way in which such net income can be recognized is by actually realizing the gains. The only way in which an insurance company can justify investment in equities is by assuming sufficient appreciation to offset the differences in yield available from alternate forms of investment. If we were denied the opportunity to count this appreciation as real income, we would be forced to seek other investment media. Similarly, if we were forced to recognize unrealized capital gains on a current-year basis, we would also be forced to seek alternate investment media in view of the corporation's interest in consistent earnings.

MR. TOWNSEND: Under generally accepted accounting principles, life insurance companies will have an opportunity to report financial results on a reserve basis which uses management's interest assumptions. The choice of such assumptions can mold a future pattern of earnings for the life insurance company. Would this tend to make the acquisition of life insurance companies attractive for conglomerate industrial corporations?

MR. COHN: I like to think that the actuarial profession will assume the responsibility for establishing natural reserves on a realistic basis. Once this has been done, the adoption of the new audit guide principles will result in the reporting of life insurance companies' net income on a basis which is compatible with the interest of conglomerates and other commercial organizations. Therefore, I would agree that the new generally accepted accounting principles will make the acquisition of life insurance companies more attractive to these corporations.

MR. DAVID A. WRIGHT: Would you care to comment on the relative profitability of life insurance companies relative to other enterprises under ITT control?

MR. COHN: The studies that we have conducted to compare the profitability of ITT's life insurance companies with other enterprises under ITT's management have shown the life insurance results to be most favorable. In acquiring life insurance companies, our interest has been focused primarily on the price/earnings ratio (to avoid dilution of ITT earnings) and on the anticipated rate of future growth. By adjusting earnings to generally accepted accounting principles, we have been able to acquire companies at satisfactory multiples. In general, the net income growth of our life insurance companies has been in excess of ITT total corporate growth. Special studies have been made from time to time to look at return on investment and other measures of profitability, and in each case the insurance group has compared favorably with other groups.

MR. TOWNSEND: There is probably a limited number of diversification activities that are really compatible with the life insurance product. Most other activities are more compatible with corporate objectives or offer promise of increased profit potential.

The foremost diversification activity which is compatible with the life insurance product is the development of equity products by the life insurance industry. Life insurance companies have formed mutual funds for sale to the public, companion funds as the investment vehicle for

variable annuities, variable annuity subsidiaries, and broker-dealer subsidiaries as the selling vehicle for the equity product.

The purpose of all this activity is to facilitate the sale of equity products, to provide separate vehicles to meet SEC regulations, to provide full financial services, in some cases to market equity products in conjunction with regular life insurance products, and to increase the commission income of the life insurance agent.

A second area of diversification activity, which does not really require the formation of a subsidiary, is financing subsidiaries. Initially such subsidiaries were used to convert annual premium business to monthly premium plans.

More recently a number of financing plans have been used to facilitate the sale of permanent life insurance. Subsidiaries have been formed to handle premium financing on life insurance policies sold in the college market. Other companies have had need for funds on collateralized mutual fund shares to finance the purchase of permanent life insurance. Other companies sell permanent life insurance in conjunction with a high-interest-rate savings plan which the company is financing out of its own pocket.

Finally, some companies specializing in the industrial life insurance market own funeral homes to provide services guaranteed under their respective insurance products.

There appear to be three general categories of diversification activities compatible with corporate objectives. These activities reflect either (1) a corporate desire to provide a full range of services, (2) management decisions made as a result of planning functions, or (3) the spin-off of corporate skills.

In the full-service area, a number of life insurance companies are entering the property and casualty business to provide policyholders with one-stop shopping, to enhance corporate growth, and to increase agent compensation. Within the financial services area, the formation of investment management companies theoretically enables a company to broaden its investment expertise, to manage its own funds more efficiently, and to provide outside services to other investors.

The planning function often results in the formation of additional life insurance subsidiaries for specific corporate purposes. Operating territory is the most obvious example of this situation. The giant companies in the industry which have no life insurance subsidiaries form regional offices to serve their policyholders more efficiently. Some life insurance companies serving both the ordinary and the industrial market carry these lines of business in two different companies. The industrial business is all written

in a regional company, and the ordinary business is written in another company with an entirely different marketing force and direction.

A number of companies have subsidiary life companies in Canada, Australia, and other countries. Many organizations have at least two life insurance companies, one of which is licensed in New York State and one of which is not. The reasons are obvious.

Other, less general reasons for forming life insurance subsidiaries include premium tax advantages, different commission structures due either to insurance laws or to marketing approaches, differences in investment laws among states, the ability to provide management training in subsidiary companies, and in some cases the providing of management incentive through the opportunity to own stock in an affiliated company.

The spin-off of corporate skills occurs when the management of a life insurance company believes that it has expertise in a given area which can be used to market services to outside organizations as well as to continue to service the parent company's needs. This has led to the formation of investment management companies, real estate investment trusts, actuarial consultants, software subsidiaries, printing companies, advertising companies, and direct-mail organizations.

Perhaps some new areas will emerge. Life insurance companies are now beginning to experiment with subsidiaries involved in trust company activities, health maintenance organizations, and venture capital subsidiaries.

If there is a fad in the life insurance industry today, it appears to be the rush to channel investments into the real estate area. This involves both continuing real estate activity and development activities. Many companies have made a minor commitment by forming new real estate subsidiaries, sometimes in partnership with outside interests. In these circumstances the initial investment is small, but interest charges on borrowed money and depreciation charges create an initial drain on statutory earnings. Other companies have made a more substantial commitment by purchasing large existing organizations for cash or stock. Such activities either prove of immediate value to a company from an earnings point of view or can cause dilution in earnings per share if real estate sales fall sharply or problems are encountered in the acquired company.

In many organizations a real estate subsidiary has been formed to circumvent investment laws restricting life insurance investment activities in this area. In other cases subsidiaries have been formed to take equity interests in mortgage loans made by the parent life insurance company. Although this latter activity may generate only small earnings

for the parent life insurance company, it can create substantial additional book value in the subsidiary company. The increase in book value may be reflected in increased surplus funds for the parent company. The parent company may even choose to go public with a portion of the subsidiary's stock, creating an even higher carrying value in the parent company.

The real estate activities of some companies are principally confined to the development of a single piece of property. Examples of this would be the development of 3,000 acres of land adjoining the new Dallas-Fort Worth Airport, and Opryland.

A second area of potentially large profits is the property and casualty insurance industry. A company which can control its business through sound underwriting practices or specialize in given markets or utilize efficient marketing techniques can easily double the rate of growth being exhibited in ordinary life premium volume by the life insurance industry today. This is one way for mature, established life insurance companies to accelerate total corporate earnings growth. It is also a way for life insurance companies with a small earnings base to significantly expand their earnings base. Profits can occur almost immediately. However, in most circumstances, the premium base must be established to the point where the expense ratio is reduced to a reasonable level.

Several companies desire to avoid exposure to adverse underwriting cycles in the property and casualty business. Instead of forming a property and casualty insurance company, they have acquired general insurance agencies. These companies participate in the industry by taking commission income and leaving the underwriting risk to other companies.

A fourth area which involves the insurance product is the variable annuity (and variable life) field. Since I am earning my living in an industry which has been accustomed to providing investment advice for 0.25 per cent of mean assets per annum, a prospective management fee of 1.50 per cent on mean assets per annum gives the appearance of a very attractive profit center. Unfortunately, it may take a while for the profits to develop if one is establishing a sales base from a new operation. It is necessary to accumulate a substantial base before management fees offset sales and operating expenses.

There are a number of activities, unrelated to the life insurance product, which are being sought by life insurance companies as diversification activities. Purely from the point of view of growth rate, the most attractive record has been turned in in the area of mobile homes. While your underwriting department may carefully underwrite the resident of mobile home parks, life insurance companies have not been hesitant to provide mobile home financing, insurance against property losses and

financing losses, and the development of mobile home parks. Earnings from these activities have grown sharply, and many companies are finding this an attractive investment area.

Two popular areas for investment which offer a stable source of earnings are investments in banks and in savings and loan institutions and the acquisition of radio and television stations. Ramifications of the Bank Holding Company Act have diminished diversification activity in this area, and the ownership of companies in the communications field cannot be used for related marketing activities.

Two large profit centers which have a more cyclical earnings base include the title insurance field and finance company subsidiaries. Such companies may offer long-term secular growth, but substantial yearly fluctuations may occur.

Miscellaneous ventures include the formation of subsidiaries in mortgage banking, leasing, nursing homes, federal income tax return preparation, and the acquisition of beauty shops, investment brokerages, and newspaper chains.

Certain activities can be an excessive drain on corporate earnings. Not only can acquisitions turn out to be unpleasant, but regular investments can also prove disappointing. For example, in recent years several life insurance companies have acquired ownership of properties by default. These include empty office buildings, hotel and motel chains, orange groves in Florida, and slant wells in Texas.

In the area of direct acquisitions, one company purchased Randolph Computer, which increased the number of total shares outstanding by 10 per cent and cost the company one year's earnings growth. Another company acquired the TSAI Management Company just as developments within the company and the mutual fund industry were turning sour. Another company acquired the Diners Club and subsequently uncovered a number of hidden problems.

To go back to the investment area, sometimes a company's own stock is selling at such a low price that the most favorable diversification activity it can enter into on behalf of stockholders is to repurchase (and possibly retire) some of the company's stock. This could result in accelerated growth in earnings per share in the future.

Sometimes a substantial block of stock in another company may be for sale. This may be either acquired for potential subsequent acquisition of the total company or held for investment purposes. Examples of this include the American General's acquiring substantial blocks of Life and Casualty of Tennessee and California-Western States Life Insurance Company, or Continental Corporation's acquiring a substantial portion

of Franklin Life Insurance Company. This type of investment will penalize net investment income (relative to the assets invested) until the company can be consolidated in earnings or the property is sold and the proceeds reinvested. Resulting proxy fights and lawsuits can also cost time and money. Sometimes blocks of stock are available in noninsurance companies, as in the case of National Life and Accident's acquiring 10 per cent of Ralston Purina.

Even departments within life insurance companies, however, can make decisions which penalize earnings and consume substantial future time. Remember how the life insurance industry was fried in salad oil, and how the life insurance industry was taken for a ride by the Penn Central. Even some underwriting departments must still be recovering from the famous Mullendore case.

How does the actuary fit into these diversification activities? Staff responsibilities may include the examination of potential acquisitions to determine corporate objectives, actions which should be taken after the acquisition is effected, the future anticipated earnings stream, and a desirable purchase price.

If asked to participate from an overview level, the actuary must be concerned with a company's earnings objectives. If corporate activities lie outside as well as inside the insurance industry, the actuary may find it necessary and desirable to develop management skills found in general industry. He may be faced with a corporate desire to generate a certain level of earnings which may have to be derived from sources outside the insurance industry. He may be called upon for recommendations as to how his company's assets can be utilized in a more aggressive manner.

The actuary may participate fully in corporate planning. This may involve constant review and analysis of all member companies within a holding company structure. This, in turn, may require the development of an internal management reporting system. Not only must a series of meaningful management reports be developed, but management down the line within an organization must be brought into the review and planning process. It is probably at this point that the greatest number of actuaries within an organization will gain exposure to management thinking and will participate in the decision process.

MR. HOWARD H. KAYTON: The world of stock life insurance is interlaced with such magnificent terms as mergers, acquisitions, diversification, conglomerates, and even congenerics. Compared with this, life in the traditional mutual life insurance company world often looks drab. The companies may have peaked out at levels below optimum size;

their corporate charter, management, or both may have prevented expansion into other areas where it would have been possible to reduce overhead or field costs; and companies are prevented from acquiring other companies of any substantial size because of the absence of the stock-for-stock acquisition.

Under such circumstances, the management of a mutual life insurance company may have seen no alternative to converting to a stock company. Generally the route of a mutual merger either to achieve substantial size or to acquire new lines of business is disregarded as an impossibility. However, before tossing up the sponge and telling its policyowners that the mutual concept is outdated and cannot exist among the conglomerates (which may actually be a cover for a management that prefers to get involved where the action is: stock options, profit sharing, the policyholders' surplus account, and acquisitions), the management may find that the route of the mutual merger is in fact a very viable alternative.

Our paper (p. 261 of this volume) begins with a section on the unique attributes of a mutual life insurance company. This section is very relevant to the subject at hand, since, in the absence of the profit motive, the mutual must have some other valid reason for diversification. This is true whether it be merger with another mutual life insurance company, merger with a mutual casualty company (when it becomes legal), or entry into noninsurance lines. To substantiate that reason, a company must examine its purpose to determine whether the diversification is in fact compatible with the company's purpose.

In the recent past *mutual* life companies that sold only individual life insurance suddenly found themselves in the health insurance business, the group life and health business, the pension business, the separate account business, the mutual fund business, the software business, the real estate trust business, and, most recently, the casualty insurance business. How can this be reconciled with the basic purpose? Is this just management's way of saying, "When one is competitive with stock companies, one has to be as efficacious as a stock company"?

Probably not! Each of these businesses could be consistent with and supportive of the mutual concept. However, it is important that the mutual company management realize at each diversification whether such ventures are to be on a profit-making basis, in that they will return some icing to spread over the mutual policyholders' cake, or whether each of these ventures is to be on a mutual basis, in which case the newly "iced" cake will have to be split up into even smaller portions.

The mutual company managements in the past had no difficulty in separating the mutual concept for life policyholders from the profit-

making operations of its investment department, which engages in mortgage loan transactions. Note how this concept differs from that under which credit unions operate, where both sides of the operation are profit making, but to a lesser degree than in the case of a typical business transaction. As the world of financial services becomes more diverse, mutual companies will find themselves redefining their ownership several times (each time with the necessary approval of the existing owners). The decisions as to when to diversify on a profit basis, as opposed to a mutual basis, can be answered only by a constant re-evaluation of the purpose of the company and a determination of how best to achieve it.

MR. ROBERT C. TOOKEY: Indeed, one of the reasons for mergers of mutual life companies is diversification. However, as the tale of the two Napoleons indicates, a major hurdle to the merger of mutual companies, as to the merger of stock companies, is to decide who will be Josephine, which board members will step down, and which home office will become a mere regional home office of the merged company.

We would like to emphasize again that the many complex problems attendant on the merger of mutual life companies can be handled with considerable facility with modern high-speed, high-capacity computers. Modeling techniques streamline the calculations, and trial-and-error calculations will isolate the parameters to which financial results are most sensitive. In particular, the problems concerning safety for policyowners and required surplus levels are readily solved through the use of ruin theory.

CORPORATE MODELS AND CORPORATE PLANNING

What types of corporate models have been developed? How have they been constructed? How useful have they been? What changes in technique have been introduced as a result of experience with these models? How are these models now being used for short-term planning? For long-term planning? How are cash flow and investment performance introduced in these models?

What other techniques are used for corporate planning? What have been the results of long-range planning?

MR. WILLIAM A. ALLISON: My discussion can be broken down into three parts. First, I will describe two corporate models which were developed in the mid 1960's by my company for our individual insurance line of business. Second, I will review the changes that have taken place in these models since they were developed and how changing circumstances have dictated a different approach to the solution of today's planning problems. Finally, I will discuss some of the results of long-range planning from my company's point of view.

The first corporate model, which we called the "agency manpower model," generated for each year of the corporate planning period the new-business premium income for the company from individual life insurance. These new-business premium income figures resulted, of course, from the efforts of the agency organization and depended upon four major elements: (1) the size of the present agency force; (2) the turnover rate among agents; (3) the average production, which was based on volume, new premiums, or some other suitable measure per agent; and (4) the number of recruits to be hired during the period of the projection.

The second corporate model, which we called the "premium income model," projected the financial results of the particular new-business production pattern generated by the agency manpower model. Output from this model took the form of an income and outgo statement. On the income side were actual premiums received and investment income. Outgo included claims, surrenders, dividends, expenses, commissions, reserve increase, and the contribution to surplus. Input to this model was fairly extensive but consisted largely of information which should be readily available from other sources. Without going into detail, the input to the model consisted of ten major elements, which can be summarized conveniently as new business, product mix, and normal asset share.

These two models formed the backbone of the mathematical projections of individual life insurance in our company in the middle and late

1960's and enabled many different assumptions to be tested before one set was selected and used in the corporate plan. Although the basic job of the agency manpower model was to project the individual life insurance new-business production emerging during the planning period, it did serve two additional important purposes. First, it highlighted the need for, and the effect of, an improvement in agent selection and, consequently, an improvement in agent termination rates. Second, as a result of the desire for lower agent termination rates and an increased size in field force, it highlighted the need for a managerial development program to produce the required number of recruiters and managers to ensure that the improvements in agent selection and retention could be realized.

The premium income model was developed to permit the capability of examining, on several different assumptions, the financial impact of $1 million of new-business premium income going into the model and to permit comparison of the financial effects of different growth plans. At the time of its development, the company was anxious to grow but wanted to be aware of the financial impact of the several different growth patterns it could follow.

Since the development of these two models, the importance of the particular problems they were designed to solve has diminished, and the questions that are being asked today require a different approach—one which these original models are not capable of handling. As a simple example, the company is currently going through a phase in which a significant proportion of the full-time agency force is aged 50 or over. Consequently, there is a need to recognize the increasing impact of death and retirement on the full-time agency force. In other words, an age factor should be included in the agency manpower model to make it effective in today's environment.

The premium income model, as I have described it, dealt with new business only; there was no facility for existing business in force. Some efforts were made to introduce the capability of handling in-force business, but, in the end, we turned to an alternative approach—one which also overcame the deficiency of the premium income model in handling only a limited range of ages and plans.

Our present approach is to take an actual sample of policies from our individual insurance master file. We input some appropriate assumptions with regard to mortality and business termination rates and project the sample to the end of the planning period. The size of the sample taken varies, depending upon the area or type of business under examination, but it averages 15 per cent. This sampling approach has proved to be very useful for projecting our existing business without any change in the

assumptions. However, it can take a long time to run on the computer and has to be completely updated each time there is a system change.

For purposes of developing our new-business projections, the actual new business of the previous year is subdivided into its four main component parts of term insurance, permanent insurance, savings plans, and variable products. The preceding year's new business, analyzed in this way, then forms the basis for new-business projections during the planning period. As a result of these changes in technique, the premium income model is now used less as a corporate model for planning purposes; its uses are of a supplemental nature—for example, where it is desired to gauge quickly the effect of different assumptions, particularly where new business is concerned. Thus it is particularly useful for comparing agency contracts or variations in commissions and expenses arising from changes in the mix of business.

For long-term planning purposes, we make two extreme projections, one with a series of "high" assumptions—high interest rates, high expenses, high lapses, high sales, and so on—and the other with a corresponding series of "low" assumptions. In the long term we would expect to be somewhere in between the two extreme projections but find it useful to see the limits within which we can expect to operate over the planning period. For the plan itself we take a specific set of assumptions appropriate to the economic and marketing forecasts and other factors relevant to the planning period.

Before I turn to discussion of the results of long-range planning, I would like to make a brief comment on cash flow and investment performance in the corporate planning process in my company. Cash-flow forecasts are prepared from the corporate model results but are not an integral part of any of the models. We find it very difficult to prepare reliable cash-flow forecasts for any time span of much less than a year. In the group insurance part of our operations we feel that the answer may well lie in better management of our actual cash flow rather than in further attempts to improve our cash-flow forecasting.

Investment performance, also, is not part of our corporate models. On the basis of predictions prepared by our investment experts, forecast interest rates are introduced. However, investment performance standards are not included, except to the extent that there may be a conscious modification of the expected future interest rates to reflect planned or expected improvement in the investment performance. It is worth noting, however, that one of the first results of the use of our corporate models was a recognition of the importance of investment performance in the financial results of the company. A small improvement in investment

performance could produce a very significant increase in the company's earnings and far outweigh the possible increase in earnings resulting from proportionate improvements in the other major elements contributing to the financial results of the company.

What have been the results of long-range planning and the development of these corporate models? The corporate models were very useful exercises in making everyone aware of what our business was all about and of the interaction of the different elements. This educational feature of the corporate models justified the costs of their development, even if, in the long run, the models themselves did not do everything that would have been desired. The models also helped to identify major areas of concern to the company without directly contributing to the solution of any of these concerns. Three examples which come to mind are the problems of expense control, cash-flow forecasting, and investment performance.

One result of long-range planning has been an awareness of profitability as a goal at all levels of the company. Previously, the sales side of the house would think in terms of growth only; the administration side would think in terms of providing the best possible service, without regard to the constraint of profitability. There is now an increasing faith in the reliability of the plans and in the planning process. This allows decisions to be made with confidence, based on the results of our long-range plans.

There is also a new appreciation of the effects of the changing nature of our business. One example of an extreme case was the impact of a government health program in Canada. The consequent loss of this major segment of our business required us to redistribute, over the remaining portion of our business, the contribution that this part had made to general company overhead expenses. In addition, we were forced to reconsider the remaining health market and the appropriate marketing organization to operate in it. There are other examples of the changing nature of our business and our increasing ability to recognize its impact on the company's operations. One is the shift away from premium and deposit pension plans to segregated funds where the only opportunity to make or lose money is in the investment management fee charged. Second is the advent of mutual funds and the introduction of variable insurance products. All of these changes make it imperative that there be an understanding of the nature of our business; long-range planning has done this.

Another result of long-range planning has been the awareness of a need to develop a balance between expense spending forecasts and the expense loads that are available in the premium rate. One of the early results of the use of our corporate models was a concerted effort to control and reduce expenses. After the initial drive to reduce expense rates, an expense

control and budgeting program was maintained as a major element in our corporate planning process. However, we now look to the future to examine what spending plans can be accommodated within the expense loadings and fees that are anticipated as a result of our marketing plans.

Finally, the major result of long-range planning probably can be expressed in terms of the number of individuals in the company who have been exposed directly to the planning process and have contributed significantly to the development of our company's plan. As I have tried to illustrate in my discussion on the agency manpower model and the premium income model, we have not remained content with the tools which were developed but rather have continued to develop and use new and different tools to meet the changing nature of the problems which we face.

MR. JAMES LEE LEWIS, JR.: Actuaries have been interested in the corporate model dream for many years. To some actuaries asset shares and model offices are corporate models; to others a corporate model means much more. For example, New York Life's corporate model, as described in *TSA*, XXI, D132, consists of thirty-five submodels.

In May, 1971, the Life Office Management Association (LOMA) published its Systems and Procedures Report No. 10, *A Framework for a Life Insurance Corporate Model* (the "Framework Report"), which was the product of a project undertaken by LOMA's Management Research Techniques Committee.[1] As chairman of that project I enjoyed working with committee members of several disciplines. Actuaries, operations researchers, planners, and other life insurance company representatives all contributed. We obtained the co-operation of George W. Gershefski, an international corporate model expert, who is sometimes called the father of modern corporate models. The Gershefski preface to the report is of special interest.

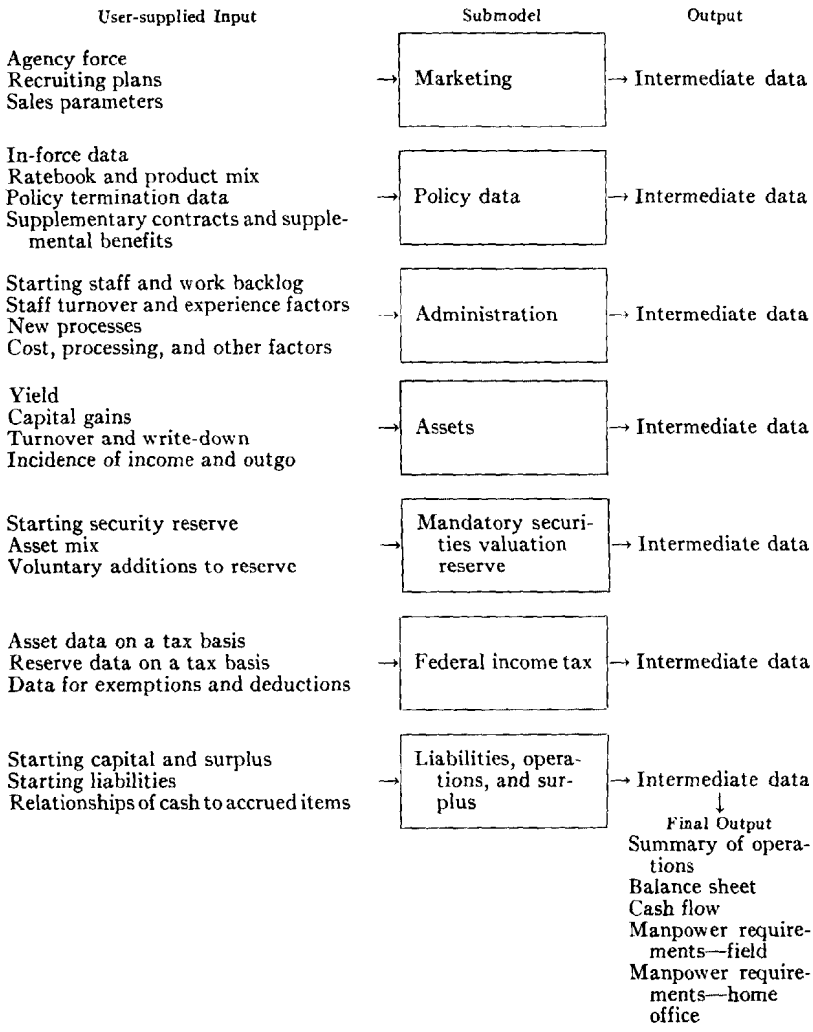
The objective of the LOMA Framework Report was to stimulate interest in corporate modeling by providing the framework by which a corporate model might be developed to project annual statement results. These results would be based on a specified set of assumed operational and planning decisions and environmental factors. In order to simulate the operations of a life insurance company, a building-block approach was

[1] Other related LOMA reports are *Creating a Corporate Plan for a Life Insurance Company—a Case Study* (LOMA Financial Planning and Control Report No. 17 [July, 1970]) (film also available) and *Introduction to Management Science* (LOMA Systems and Procedures Report No. 11 [September, 1971]). The glossary of technical terms in the latter report is especially helpful.

used. The building blocks (submodels) and major items of input and output are shown in Chart I. Chart I is taken from chapter 8 of the Framework Report. Incidentally, chapter 8 is the best place to begin a reading of this report, since it gives a bird's eye view of the entire model.

In addition to the seven submodels, consideration was given to en-

CHART I



SOURCE: *A Framework for a Life Insurance Corporate Model* (LOMA Systems and Procedures Report No. 10 [May, 1971]), chap. 8.

vironmental factors, to the interfaces between submodels, and to a management submodel. Also, two new submodels have been completed since the report was published. They are an accident and health submodel and a group and pensions marketing submodel.

Although no company, to my knowledge, has computerized the Framework Report as it is, several companies have used certain submodels, such as the marketing submodel, to check their existing models. Also, several companies recently have begun to develop their own corporate models. The report has been discussed at the 1971 LOMA Systems Forum, the 1971 annual meeting of LOMA, several actuarial club meetings, and the 1972 conference of the Insurance Accounting and Statistical Association. Measured against its purpose, which was to stimulate interest in corporate modeling by providing a framework for a corporate model, the report has been quite successful.

MR. JOE B. PHARR: The following comments, which are based upon consulting actuarial experience, primarily with small- to medium-sized companies, are presented as an introductory and general overview. The models discussed are computerized and based on expected values, as contrasted with the alternative of using simulation techniques.

CORPORATE MODELS: TYPES AND CONSTRUCTION

Two types of model projections are used: (1) a sales and manpower model applicable to marketing and market planning and (2) a financial projection model which may use the input from the marketing model as a basis for modeling financial statements.

SALES AND MANPOWER MODEL

The sales and manpower model has three basic outputs: (1) a manpower projection, (2) a sales projection in terms of premium revenue or amounts of insurance, and (3) a production profile by plan of insurance, issue age, and mode of premium payment. The sales projection, in the form of amounts of insurance, provides the expected new-business input to a financial projection. The manpower model is designed to project up to ten years, each projection being made on a calendar-year basis.

From (1) sales manpower recruited each year, (2) sales force size at the end of each calendar year, and (3) sales in each calendar year, the user of the sales and manpower model defines one and the model computer program then determines the remaining two. Two interesting options which lend flexibility to the projections are the placing of a maximum size sales force limitation on model projections and the limiting of the amount of sales in any one calendar year.

The computer program is designed to utilize up to four types of sales manpower. Examples of these are general agents, personal producing general agents,

full-time writing agents, brokers, part-time agents, and branch managers. If there are any specialized types of marketing manpower applicable to a particular company, the flexibility of the program permits considerable variation.

Input information for each of the types of sales manpower applicable to a particular company include the following: the initial size of the sales force, survival rates, sales per man (by length of service classification) in the form of either annualized premiums or amounts of insurance, a sales mix profile by plan/issue age/mode of premium payment/sales by length of service class, and one of the previously mentioned assumptions—sales manpower recruited, size of sales force, or sales during a year.

Other features of the sales manpower model include sales in terms of either premium dollars or amounts of insurance, sufficient flexibility to permit the use of standard tables (with respect to survival rates, for example) or tailor-made tables applicable to the company, and production rate variations by type of sales manpower.

FINANCIAL PROJECTION MODEL

The output of the financial projection model consists of an insurance exhibit similar to page 15 of the Annual Statement, earnings statements or gains from operations, capital funds projections, and a value of future profits on the business in force. The earnings statement follows the format of the Annual Statement and shows premium revenue on a cash plus increase in gross deferred basis, reserve increases either on a mean reserve basis for ordinary insurance or on a midyear basis for industrial insurance, and increase in loading (if any) on gross deferred premiums. Reinsurance premiums are offset against premium revenue, and reserves on business reinsured are also offset against reserve increases. Death benefits are shown net of reinsurance.

The financial projection model was constructed as a by-product or continuation of a typical or traditional profit analysis system which consists of asset shares and Anderson-type book profits. This profit analysis system is based on typical actuarial assumptions with respect to mortality, lapse, interest, and expense which are used on a per policy, per thousand of insurance, per cent of commissions, and per cent of premium basis separately by first-year and renewal. In other words, the annual premium/policy year/per unit of issue or in-force data are changed to a calendar year/mode of premium payment/dollar figure/annual statement accrual accounting basis.

The model-office projection is based on expected values as compared with an alternative of grouping actual in-force data by plan and issue age and then projecting these data or using simulation techniques. The projection system starts with the current picture for renewal business in force as of the beginning of the projection, but distributed by year of issue. Future new-business sales are assumed to occur in the years predicted by the sales and manpower projection. In essence, the financial projection model then begins with a current position with respect to capital and surplus funds, statutory or adjusted reserves, and amount of insurance in force by year of issue. The amount of insurance in force by year

of issue is distributed by the appropriate plan of insurance, issue age, and mode of premium, with each of these assumptions variable by any particular calendar year of issue.

Another feature of the model-office or financial projection system which may be of interest is the ability to skew first-year lapse patterns on a monthly basis by any preselected pattern. For example, on a monthly mode of premium payment, the model can reflect the fact that more than half the lapses which take place in the first policy year actually occur during the first six months following the date of policy issue. For new companies, which are not expected to operate within the allowable expenses generated from the unit expense assumptions used in profit testing or asset share calculations, the model-office projection allows as an input item a line under general insurance expenses which is denoted "excess general insurance expenses." These are general insurance expenses, primarily due to overhead, which are in excess of those generated by applying unit expense assumptions to in-force and new-business parameters. This excess item is calculated by comparing expected expenses with general insurance expenses from a new company's budget.

The financial projection program is generally limited to projections of either ordinary or industrial life insurance, although it is also possible to project certain minor lines of business, such as accidental death benefit.

USES OF THE CORPORATE MODEL

The financial projection model has been used much more extensively than the sales and manpower model. Specific uses of the model include projections of an entire company's financial statements for periods of between three and ten years into the future; studies of the financial impact with respect to statutory earnings of entries into new or experimental lines of business; studies of the financial impact on earnings of issuing a very competitive whole life contract where, because of competitive pressures and deficiency reserves, it may be better to reserve on a net level reserve basis; studies of additional statutory surplus drain from significant increases in new business; and demonstrations to life insurance company boards of directors that the lack of statutory earnings on a typical mix of business issued in a given calendar year is to be generally expected. The financial model-office projection allows for a transformation from somewhat abstract actuarial assumptions with respect to interest, mortality, lapse, and expenses into actual dollar figures which management can understand and follow (since the figures are in the familiar format of the Annual Statement's gain from operations) and can use to compare with actual results from operations. The projection also has caused management to re-evaluate plans when the projections, based on what appear to be reasonable assumptions, either call for unreasonable amounts of man-

power, show statutory insolvency very soon after commencement of operation, or demonstrate levels of premiums which may be "too" competitive.

CHANGES IN TECHNIQUE

On the basis of experience with these computerized models, the following guidelines may be helpful with respect to changes in technique or used as general principles in designing a model.

It is strongly suggested that programs be designed to avoid any undue complexities. In the long run it would probably be desirable to look for as many simplifications in projection techniques as are feasible while still maintaining reasonable ranges of accuracy. For example, projections by mode of premium seem to be relatively uniform after the first few policy years. Differences in lapse characteristics by mode of premium, as well as the differences in premium revenue, are most significant during the early policy years. Hence consideration might be given to reflecting differences in mode of premium only during the first few policy years.

Consideration might be given to the choice of simulation techniques as opposed to use of expected value projections. However, a number of discussions with people who have used simulation techniques in projections indicate results which are less than optimum. It is probably much more difficult and time-consuming to use the simulation techniques. It also appears to be much more expensive in terms of time to make the projections on a routine basis with these techniques.

In developing any model-office projections, strong consideration should be given to building the computerized projections in modules. Some of the more important modules are investment yields and/or assets, marketing (similar to the sales and manpower projection model discussed above), a separate model for projecting earnings, a federal income tax model, and an expense model which might include allowances for inflation and/or the reflection of possible savings from greater use of computers.

Projections are also feasible from a grouping of actual in-force files or by projecting the entire in-force file on a seriatim basis.

OTHER TECHNIQUES

Other techniques for corporate projections make feasible a projection of earnings (only) directly from the annual statement. The technique is one of projecting the future earnings where the earnings projections are not separated into premium and investment revenue, benefits, reserve increases, expenses, and so on. This technique works especially well for mature companies and/or companies which are continuing to write new business on a basis consistent with the past.

Basic sources of earnings in a life insurance company may be described as investment income on capital funds, excess investment income over the interest assumptions used to calculate reserves, and profit margins inherent in the revenue structure.

Starting with the earnings of the company, either on a statutory basis for a relatively mature company or on a generally accepted accounting principles basis, reductions may be made for excess investment income on reserves and for investment income on capital funds. This leaves residual earnings which, when related to premium revenue, give a measure of profit margins inherent in a company's premium structure. Hopefully, these residual earnings show a relatively constant relationship to premium revenue over a period of years.

Once a reasonable ratio of residual earnings to premium revenue is established (adjusted by expense considerations for a relatively new company or a company writing significant amounts of new business), the problem reduces to a projection of premium revenue—application of the ratio of inherent (residual) earnings to revenue to predict future earnings before adjustment for investment income on capital funds and before adjustment for excess investment income on reserves.

This projection technique requires some modification for use with relatively young companies, or a mature company for that matter, where there are significant variations in new business from year to year. The technique is, as previously pointed out, applicable to earnings on both a statutory and a generally accepted accounting principles basis.

MR. RAYMOND J. NACIN: My remarks will pertain to the usefulness of the computerized corporate model in the planning process. At Maccabees Mutual the planning process is one of setting corporate and departmental goals and objectives consistent with our stated corporate purpose, developing strategies and operational plans that allow us to achieve these targets, and measuring our progress toward these targets.

One of our applications of a corporate model is the testing of the impact of a particular strategy on gain from operations, surplus, and federal income tax. It enables us to do the following:

1. Test our stated corporate objectives to determine whether they are reasonable over a long period of time. Normally, when a set of objectives is modeled over a fifteen- to twenty-year period, any unreasonableness will show up.
2. Run the coming year's corporate goals into the model, observe the impact they will have, and make any necessary adjustments.
3. Test the impact of changes in lapse and mortality rates on our results.
4. View the after-tax results of a particular investment.

5. Test the cost and the impact of new financing or compensation contracts for agents and general agents.
6. Test the impact of a new product or line of business.

In all these cases we are trying to answer questions of the "what if" type. The model enables us to observe the relative changes resulting from the different actions. These various actions can be tested under a number of different sets of assumptions; we then use these results in choosing a proper course of action.

The corporate model also gives us a better understanding of the basic variables involved in a particular projection. For example, the agency model may determine that a low level of production is the result of poor retention rather than low production per man. Therefore, we would implement strategies that we feel will improve retention.

Since the model-building process requires us to quantify our assumptions, we will be able to follow or track the progress under these assumptions as time passes. Industry figures are also available for a number of these assumptions, enabling us to determine how we are doing relative to the other companies and, hence, how much room there is for improvement.

The corporate model is also useful in the education of actuarial and nonactuarial people. They are compelled to think in terms of the basic factors that influence their results. A federal income tax model may show an investment vice-president under what circumstances one investment will be more attractive than another after taxes. We can also demonstrate that the company does pay a tax on what are commonly called tax-exempt investments.

A corporate model supplies us with the additional information needed to do a better job of planning and thereby to obtain the results we desire.

THE ECONOMY AND FEDERAL POLICY

1. What are the major features and objectives of the new economic policy (NEP), and how do they affect insurance companies and employee benefit plans?
2. How well has the economy performed in meeting the objectives of this policy? What have been the results to date, and what is expected in the near future?
3. What are the implications of this policy with respect to the following?
   a) Impact of price controls on financial results of insurance companies.
   b) Impact of price controls on medical care costs.
   c) Developments which place a responsibility on insurers to monitor the charges of health care providers.
   d) Impact of wage controls on employee benefit plans.
   e) Problems of insurers and consultants arising from wage and price controls.
4. What is the outlook for continued controls on wages and prices, and what will this mean to insurance companies and consultants?

DR. J. ROBERT FERRARI:* As background for this discussion, let us go back to 1971, before controls, and review the events that lead to the sweeping actions known as the new economic policy (NEP). There were many, of course, but I would like to emphasize the following four:

1. The economic recovery from the 1969–70 recession was still discouragingly slow in the summer of 1971, and unemployment remained at a recession rate of over 6 per cent, pointing to the need for a more stimulative monetary and fiscal policy.
2. A continuing high rate of wage increases and, perhaps more important, stubborn inflation expectations threatened to cut short the very modest improvement in prices which was a lagged response to the recession.[1]
3. Our foreign trade balance continued to deteriorate in 1971, and, as dollars piled up overseas, we were faced with a confidence crisis with respect to the international position of the dollar.
4. There appeared to be a remarkably strong public sentiment for some kind of direct government intervention to control wages and prices despite the administration's long-standing philosophy to the contrary.

* Dr. Ferrari, not a member of the Society, is chief economist and director of investment research, Prudential Insurance Company.

[1] Economists speak informally of an "economic discomfort index," obtained by adding the unemployment and inflation rates. In the period immediately preceding August 15, 1971, this index was roughly 10½–11 per cent (6 per cent unemployment, 4½–5 per cent inflation), which was the highest since the Korean war inflation of 1951 and contrasts with a relatively comfortable 6½ per cent average index from 1962 to 1967.

It was these developments primarily that precipitated the bold steps of August 15. I stress the word "bold" because the President did have the option of presenting a modest program including the appointment of a wage-price review board accompanied by a plea for voluntary restraint. Instead he opted for a compulsory wage-price freeze, which maximized the psychological impact on inflation expectations and provided at least 90 days during which anticipatory price increases could be avoided while a more flexible program was being structured. The freeze was accompanied by a package of tax reductions which was aimed at promoting faster growth and improving employment. Borrowing a medical phrase from a recent talk by economist Walter Heller to describe the third and probably the boldest aspect of the NEP, the severing of the umbilical cord between gold and the dollar moderated the absolute hemorrhage of funds overseas. This de facto devaluation of the dollar proved to be the right medicine even if not a total cure.

Eventually the freeze gave way to the so-called Phase 2, and I would now like to concentrate on these domestic wage and price controls, leaving to one side for the moment the international aspects of our problems. As you know, the basic thrust for price and wage control in Phase 2 was and is through the Price Commission and the Pay Board.

The Price Commission set as its target a rate of inflation, annualized, of 2–3 per cent by the end of calendar year 1972. This was to be accomplished with a flexible program that would not impede natural economic forces and would require only a small organization and a minimum of bureaucracy and regulations. In line with these objectives, the standards set by the Price Commission limited price increases in two ways:

1. Price increases at the company level could take place only if they were justified by increases in allowable costs, such cost increases being reduced for productivity gains.
2. Such price increases would be allowed only to the point where, as a result, a company's profit margin, that is, profits as a percentage of sales, did not exceed those of the best two out of three last fiscal years ending before August 15, 1971.

The complement to the Price Commission is the Pay Board, which is interested in determining allowable wage increases. The Pay Board had a number of sticky issues to contend with, related to retroactive, deferred, and catch-up wage increases, all of which concerned either equity or the sanctity of bargained contracts. In addition to these issues, the Pay Board established the general standard of a $5\frac{1}{2}$ per cent increase in

wages based on 3 per cent for productivity gains plus a 2½ per cent cost-of-living adjustment.

How successful has the controls program been? This is a complicated question that is hard to unravel. As you know, there has been considerable rhetoric and appraisal of the NEP since its first anniversary two months ago—and the commentary has been quite disparate. Politically, the consensus appears to be that the President scored a victory, and I tend to agree, but that is an economist's political value judgment.

On the economic side, where I feel more comfortable, one can present a mixed bag of statistics and interpretations. For example, price increases were artifically low during the freeze but also artifically high during the so-called postfreeze "bulge," so I feel that you have to look at the period since August 15 as a whole. The consumer price index has been running at about a 3 per cent annual rate since the freeze as opposed to about 4½ per cent in 1971 before controls, a distinct improvement. On the other hand, wholesale prices, which are frequently a precursor of consumer price movements, are now up about 4¼ per cent since the start of the NEP, which is actually higher than in the year before controls. The most disappointing price news has concerned food prices, which more than anything else have blemished the credibility of Phase 2. Food prices rose at a rate of 9 per cent in Phase 2 and about 5 per cent during the whole control program, compared with 4.4 per cent before the freeze.

Another favorable sign is that, while the rise of wages has slowed during the NEP, the rise of over-all prices has slowed even more. This means that the "real" spendable wages of production workers, that is, earnings adjusted for inflation to arrive at real purchasing power, have risen at about a 4½ per cent rate over the whole control period, after rising only 2 per cent in the six months before the program and having been virtually constant from 1965 to 1970.

Without presenting more statistics, let me contend that there is considerable evidence that the economy has been in a fairly strong recovery, and price and wage increases have moderated during the controls program. Personally, I feel that the NEP has made at least some contribution to dampening wage-push inflation, but I would also maintain that it is impossible to say exactly how much this contribution has been. For one thing, natural economic forces have been working in the same direction as controls in reducing inflation. As is normal in an economic recovery, the fuller utilization of both plant and manpower has led to improved output per man-hour, and such productivity gains ease the wage push on profits and prices. Even before the NEP was announced, some economists,

myself included, were forecasting a deceleration in the rate of inflation because the cyclical setting prior to August 15, 1971, promised productivity improvements.

With all this as background, let me sum up the economic arguments by giving the NEP at least a passing grade to date. The controls have done some, but probably not much, harm and at least some, if not much, good. They certainly have been more successful than the skeptics expected. However, the longer controls remain in effect the more likely they are to cause the distortions that controls opponents have feared all along.

What is the outlook for Phase 2 or Phase 3 or Phase 4? This is a particularly tough question because it depends on the economic outlook for the next year and beyond, the heavy calendar of union wage negotiations coming up in 1973, the amount of inflationary bias inherent in the United States economy, political decisions regarding fiscal and monetary policy, and a host of other factors, including some that may not now be foreseen. Let me try to forecast some possible outcomes for the controls program.

I start with the proposition that the current controls structure was intended and designed to be a temporary program, and hence we can expect it, at least in its present form, to end. The relevant question is, when? At least five dates appear to be critical bench marks for the timing of this decision. The first is November 7, since some commentators earlier in the year conjectured that the controls would end before election day. This now appears to have a very low probability. The next date is December 31, since the price goal was to have inflation down to 2–3 per cent by year end. Recent consumer price behavior has been falling within the 2–3 per cent range, and if this proves more than just a temporary flirtation, the administration might grasp the opportunity to bow out gracefully. If it does not, decontrol could be announced in mid-January in connection with the budget message containing the federal spending and taxing plans for the fiscal year beginning in mid-1973. The size of the budget deficit has very definite implications for controls. If this dual announcement proves to be too much for one day, then the next important date is April 30, 1973, when the Economic Stabilization Act granting controls power to the President expires. If controls are then still in effect, it would seem to be an inopportune time to remove them, because within the following few months a number of major labor contracts will expire and have to be renegotiated. These include such important and pattern-setting negotiations as those of the teamsters in July and the auto workers in September. The last critical date I will mention is sometime next fall (assuming that there will not be a protracted auto strike) after all the big contracts have been negotiated, when it might be argued that the

program has outlived its usefulness as far as restraining cost-push inflation is concerned.

I have given you a number of possibilities, but about all we can do is to place probability estimates on them. It does not appear that the administration as yet has a comprehensive decontrol plan worked out, but I do feel that it would like to keep the controls on during the 1973 labor bargaining sessions. As in the case of currency devaluations, I expect the government to deny any decontrol decisions right up to the day they are announced.

In addition to the question of timing, there is also uncertainty surrounding the form that decontrol will take. Again a wide range of alternatives is possible. For example, we could see a process of selective decontrol either industry by industry or by freeing retailers and keeping reins on manufacturers, or it is possible to exempt more businesses on the basis of the number of employees or amount of annual sales. This would get down to controlling only the largest and most visible companies and labor unions, a program advocated by John Kenneth Galbraith. Another option is to move to a system of nonmandatory guidelines with some form of wage and price review board or commission to act as a national conscience with respect to inflation and to publicize reasonable guidelines and violations of them. This has been proposed by Arthur Okun, among others. Of course, we can also go back to the "free" market existing prior to controls.

For planning purposes I think it makes a lot of sense to assume that the present controls, or some form of activist government wage-price intervention, will be in effect during most if not all of 1973. If this turns out to be wrong, then at least you will be pleasantly surprised.

Looking beyond 1973, what can we expect? There is a body of opinion that, with the decisions of August 15, 1971, we now have a new economic ball game, although no one can really say exactly what the future ground rules will be.

This school emphasizes the characteristics of our mixed society in which political values dictate a full-employment commitment, inordinate attention is placed on consumption, and social and environmental programs tend to grow faster than our willingness to meet their costs. These forces, it is argued, create an increasing inflationary bias which is being institutionalized and which cannot be attacked effectively solely with fiscal and monetary policies that reduce aggregate demand and induce unemployment. This scenario suggests the need for new tools and new institutions as part of a long-term economic stabilization program, presumably some form of continuing controls. The problem that I have

with this line of argument, which can be a persuasive one, is that I cannot visualize a new anti-inflation institution or effort that is likely to be successful without strong federal fiscal and monetary disciplines to control the resurgence of excess demand. The historical evidence is very convincing that controls or voluntary restraints eventually break down under demand-pull inflationary pressures. Previous controls experience in the United States, Canada, and the United Kingdom and other European countries has shown that, even with an army of policemen, economic forces and human ingenuity will reassert themselves. Loopholes are found and subterfuges are created. In short, there appears to have been no case either here or abroad in which controls have had continuous success, and it appears generally that these policies break down when total demand is excessive.

While our controls program may have been timed appropriately and registered some temporary successes, the biggest argument for eventually getting rid of controls as a long-run feature of our economy is the tendency for the public and the politicians to view them as substitutes for responsible fiscal and monetary policy. To do so is to ignore the basic laws of economics, and that always results in trouble.

MR. JAMES A. ATWOOD: In discussing the impact of wage-price controls on insurance companies, I should like to limit my remarks to influences which are peculiar to, or particularly relevant for, the insurance business. Obviously the insurance industry is a very large employer, an employer whose principal expenses are salary-related. Wage controls therefore affect us significantly, but all employers are similarly affected. Further, insurance companies are major participants in the investment business, which is influenced by economic controls, but all large investors experience similar influence.

If we focus our attention on the insurance business per se, then we can single out two major areas of concern: (1) the sale of new employee benefits and (2) the pricing of health insurance. Unlike the controls imposed at the time of the Korean war, the NEP treats the cost of employee benefits as a part of wages and subject to wage controls. Largely because of the influence of Congress, the limitations on employee benefits are not as tight as the administration originally wanted. Small employers are generally exempt, and there is a separate 0.7 per cent allowance for permissible increases in employee benefit costs, but even the cost of increased benefits generated by salary increases, promotions, or seniority in accordance with the provisions of existing plans must be counted within such limitation. Costs of benefit increases may exceed the provision for

permissible increases, but this must generally be done at the expense of direct wage increases and within the limits for such increases. All this means that there is competition between increases in wage dollars and increases in fringe benefits in the decisions which must be made by employers, or by the parties in collective bargaining.

Has the NEP in fact inhibited the sale of new group business? This question is difficult to answer unambiguously, because obviously the sale of group business is influenced by many factors aside from the NEP.

In order to guard against giving too parochial a view, I surveyed the seven largest group-writing companies. Needless to say, not all these companies are having the same experience. One of my respondents quite rightly pointed out that, in trying to respond to this question, we were dealing with "what might have been." Our answers are therefore to a considerable degree judgmental and even impressionistic. In a few months we will be able to compare 1972 results with 1971, but we will never know how 1972 would have been in the absence of wage controls.

Here are the replies of the various companies as to the impact of the wage-control program on 1972 sales:

Transfer cases without change in benefits are not directly affected by the wage controls. The level of such activity, therefore, continues high, particularly among small- and medium-sized accounts which are shopped because of increasing costs or dissatisfaction with service. Jumbo cases, on the other hand, generally appear disinclined to move around in the current climate.

When it comes to plan improvements, there has been a lessening of interest. The addition of new coverages—dental, survivor income, thrift plans—has diminished. Big employers have made fewer improvements in existing benefit plans not mandated by bargaining. Some unions, when faced with a choice, have opted for wage dollars rather than benefits.

We seem to see, in a word, considerable sales *activity*, principally in transfer business, but with some falling off of sales *results*.

No real effect on new case sales. Case count is up. Volume is up. But it is largely transfer business. Existing plans are not being improved as much as formerly; extension business is down one-third, both in number and volume.

Have not been able to detect any significant impact of wage-price controls on the sale of new group business for either insurance or pensions. Also, we do not see any slowing down in activity with respect to quotation or plan changes in either the insurance or the pension field. While we have not been able to observe objectively any impact, our marketing people generally have the opinion that the wage-price controls have had a modest effect, particularly for pension plans and in marketing areas involving the sale of new and expensive benefits.

New small group (under 60 lives) business has not been affected. However, in larger-size market we have noticed a slowing down of sales activity during 1972 as compared to 1971. There is a more cautious and conservative approach by unions and employers in revising or adding new group coverages. This, in some instances, has slowed the production of revision business. This has contributed to a decided trend of more "employee-pay-all" plans and decidedly less employer contributions.

No apparent effect. New case production will exceed 1971 in all categories—both new-name accounts and in-force accounts. There has been some slowing in the establishment of new pension plans, but new business from pension plan changes to existing cases is up over last year.

Little 1972 impact on new-name group insurance. Some impact on new-name pension cases and on insurance plan changes and additional coverages. A definite slowdown in our existing case pension business expectations.

In summary, the wage controls appear to have had modest to little effect on new case sales but some effect on sales and extensions to existing cases. Overall, business is off somewhat from 1971, but not too much.

One consequence of reduced sales is a reduction in income for those whose earnings vary directly with production. This would include not only agents and brokers, who, theoretically at least, have the alternative of seeking greater individual sales to make up for less corporate dollar business, but also group field men on bonuses or other incentive compensation who typically depend entirely on the corporate dollar. A protracted period of economic controls could make a career in group insurance and pensions less attractive to young people.

Another consequence of conducting a group business in the wage-price control environment is the heightened competition in case transfer situations. When some sources of business are closed off or diminished, there may be a natural tendency or temptation to strive all the harder for the sources which are still available.

On the price side, as I mentioned before, health insurance is the major concern. The theory of the NEP is that inflation of medical and hospital costs will be slowed; therefore, prices need to reflect the slower rate of increase. Specifically, inflation trend factors used in setting prospective rates had to be reduced to five-eighths of the prefreeze level. In addition, the element of the rate intended to cover certain expenses may be increased by no more than $2\frac{1}{2}$ per cent.

Is it working? Here too it is difficult to arrive at a clear-cut yes-or-no answer. First of all, on the "yes" side, the rate of increase in hospital prices has slowed very considerably. The annual rate has been about 58

per cent of the prefreeze rate, which comes surprisingly close to the five-eighths trend factor allowance under Phase 2. But there are clouds on the horizon. Hospital operating expenses have been going up at a much greater rate than hospital prices. Recent statistics show that expenses per adjusted patient-day have been increasing at a level of 11–13 per cent per year, well beyond the limits of the Phase 2 guidelines. Therefore, a pent-up imbalance exists which will have to be corrected by more hospital income.

The source of additional income will probably be higher prices or more intensive use of hospital services. If prices are raised to close the gap, the claim costs will surely go higher than those allowed for under the reduced trend factor of Phase 2. On the other hand, if all or part of the needed money comes from increased utilization, our rate structure will still be in trouble.

When it comes to the limitation of increased expense charges to $2\frac{1}{2}$ per cent of the actual dollar amount per unit of exposure represented by such items in the previous premium rate, I think I can say that this is just not enough and that the limitation is having an adverse effect on our results. The fundamental reason for this inadequacy is that the major component of our administrative costs is salary, and salaries are permitted to increase up to 5.5 per cent or more.

Speaking of expenses, one important influence of the NEP has been the creation of considerable extra work for insurers. The heaviest impact comes with the million-dollar cases—those requiring prenotification to the state insurance department and the Price Commission. Information must be assembled, complex forms completed, questions answered, clarifications supplied.

On the $250,000–$1,000,000 band of cases, we have to supply a quarterly report after the fact. Until we knew for certain what information the Price Commission would require, we had to prepare much the same information as for the million-dollar accounts. During the first week in October the form was finally issued. It does not appear to present any unforeseen problems, and we should now have less work in connection with this category of cases.

For cases of all sizes, the renewal process has become more complicated. New renewal tables had to be devised to comply with the "five-eighths" limitation. The expense limitation requires a separate calculation. All these special calculations and forms must be retained in anticipation of an audit by the Internal Revenue Service. Another problem, of lesser concern, involves the question of our responsibility to make certain that we do not make a sale which exceeds the Pay Board's guidelines.

This policing task in my company usually takes the form of a letter to the client or prospect reminding him of his obligation to comply.

Speaking of policing, there is an interesting paragraph in the Price Commission regulations (sec. 300.20[m]) to which reference should be made. It is just a brief paragraph, so let me read it to you:

> Monitoring by health insurers. Each health insurer is authorized and encouraged to monitor and report to health care providers (both institutional and non-institutional) any price increases by those providers that involved significant deviation from the provisions of this part that apply to those providers and any increases in uses of services or benefits that significantly exceed its experience with that provider. Upon receipt of such a report, the provider and the insurer shall make a good faith effort to determine whether any violation of this part has occurred and to take any steps to remedy such violation.

The task of monitoring providers in any effective way is made exceedingly difficult because the limits on increases of provider's charges apply on an aggregate basis. Thus a provider could increase his charge for any one service as much as he wanted as long as the effect was not to increase his aggregate charges for all services more than the amounts stipulated in the regulations. From a practical standpoint, a check to determine whether a provider's aggregate charges exceeded the regulations could be accomplished only by making a comprehensive audit of his accounts, a process we are neither authorized nor equipped to do. Even the process of checking on individual charges, as a first indicator of possible violation, is made difficult by the fact that providers are only required to post or have available in their offices a list of their prices; they are not required to furnish these to carriers. Therefore, we do not have price lists to check current charges against, even if such a process would be practical or meaningful.

During the last nine months industry committees of the Health Insurance Association of America and the International Claim Association have met on several occasions to study how, within the framework of the above restraints, it would be practical to develop meaningful monitoring programs for member companies. Several of the carriers have implemented efforts to monitor charges, with the approaches differing markedly from one carrier to another.

In general, measures taken may include the following:

1. Maintaining current price information for the principal institutional providers in the area served. Some maintain only room-and-board charges; others maintain both room-and-board charges and charges for select ancillary

services. Increased prices that are apparently in excess of the permitted limits are questioned.

2. Monitoring a sampling of surgeons' fees, using individual physicians' profiles. Increases that are apparently excessive are questioned.
3. Again using the profile technique, monitoring a sampling of physicians' nonsurgical charges and challenging excessive increases.
4. Enlisting the aid of self-administered groups in identifying possible excessive charges. One company said that it had not found it necessary to institute any new procedures over and above its standard monitoring and screening of what it feels to be reasonable and customary charges.

In conclusion, I think it might be safe to say that the lower rate of increase in medical care costs during the NEP period is undoubtedly favorable to our financial results. However, limitations on our freedom to set rates are clearly unfavorable. On balance, all companies surveyed replied that the over-all effect of the program is more likely to be unfavorable than to be favorable but that the net effect will in any event not be too great.

Here are a few of the specific comments from various companies.

Expected value of decreased health insurance operating gains resulting from price control program is one-half million dollars. This comes from the limitation on premium increases, the limit on expense load, the inability to load for prior loss recovery, and the delays in getting increases approved and put into effect.

Existing controls have resulted in significant reductions in the level of rate adjustment in 1972 in comparison with 1971. In addition, controls on providers appear to have a marked impact on actual price changes to date in 1972. However, we see many factors emerging in this area which will make it very difficult for the price controls on providers to actually restrain inflation to the desired limits.

Our current group health experience does not indicate that our 1972 financial results will be greatly different from those of 1971.

Our 1971 group health insurance financial results were poor. We expect improvement in 1972, although it is too early to hazard a guess as to its extent. This anticipated improvement definitely cannot be attributed to price controls. We believe that it will be somewhat less than it would be in the absence of controls, perhaps by two or three million dollars. To date, the effect of the controls in containing our claim costs appears to be somewhat less than the effect they have had on our premium rates.

On balance, we feel that the impact has been negative.

Speaking for my own company's situation, we sincerely hope and expect that we will get better health insurance results this year. We are

putting our hopes, however, more on better evaluation and improved standards of renewal underwriting and rate actions than on the slowed inflation of health care costs under the NEP.

MR. WILLIAM HSIAO: The wage and price controls imposed by President Nixon in August, 1971, produced an unmistakable break in the rate of inflation of medical care prices. Results of this economic stabilization program affect health insurance premium rates and the financial results of insurance companies. The program also implies additional responsibility to the insurers in monitoring and controlling medical care charges.

While indexes do not tell the whole economic story, they do provide a measure of price movements. Before Phase 1 of the economic stabilization program, the medical care service component of the consumer price index had been rising at an annual rate of 7 per cent. Nine months later the rate was down to 3.6 per cent. This sharp deceleration in the rate of inflation prevails for all subcomponents of the health services.

The annual rate of increase in physicians' fees declined to 2.5 per cent from 6.6 per cent, dentists' fees to 3.4 per cent from 6.8 per cent, and prescription drugs to 1.2 per cent from 2.0 per cent. Meanwhile, the annual rate of increase in charges for a semiprivate room decreased from 13.3 to 7 per cent; the rate of increase for operating room charges moved from 11.7 per cent down to 6.2 per cent.

What measures were taken by the government to produce such dramatic results? The guidelines set forth by the Price Commission are simple enough: Physicians may not increase their fees so as to increase their total revenue by more than $2\frac{1}{2}$ per cent per year. Increases in hospital charges are limited to 6 per cent per year. Recently this was modified so that hospitals must limit their increase in the cost per admission to 8 per cent per year.

Although the guidelines are stated in a few simple words, the application of them is far from simple. There are no common units of measurement for the quantity of physicians' services. A physician's charge for an office visit can represent a five-minute consultation or a twenty-minute visit. A charge for a hysterectomy may or may not include pre- and postsurgical care. When the quantity of services is so fluid and heterogeneous, it is almost impossible to compare the price of one period with another. Physicians, unlike automobile manufacturers, do not publish a price list for their services. A consumer seldom knows the charge for a specific medical service unless he has used that particular service previously and remembers the charge. Supposedly, insurers do maintain reasonable and customary fee screens for physicians' services. However,

in actual practice these screens are not the profile of each physician's charges; rather, they are maximum limits the insurers have established on the basis of aggregative statistics and judgment. With these practical problems, any price control would be hard to enforce. By and large, the government has relied on voluntary compliance.

Among hospital charges the problem of enforcement is just as complicated, but in a different sense. For hospital services there is a commonly accepted measurement for quantity—patient-days. However, cost per patient-day encompasses a multitude of services and charges. The quality mix of hospital care is changing rapidly. In recent years hospitals have moved toward intensive care and toward discharging convalescent patients to extended care facilities or home care. This trend is clearly demonstrated by the decreasing length of stay per admission. In controlling the prices of hospital services, the Price Commission tries to take into account the problem of change in quality mix by allowing the rate of increase to be 8 per cent. However, this does not lessen the complexity of the problems of enforcement. Again the government has to rely largely on voluntary compliance.

From the indexes stated above, it seems that at least in the short run voluntary compliance has been effective. The economic stabilization program has produced a deceleration in the rate of inflation of health care prices. However, there are some disquieting currents in the background. Trouble appears to be brewing in the hospital sector. While the rate of increase of hospital charges has slackened, hospital cost per patient-day continues to rise at the old rate of 12–13 per cent. Hospital cost per day did remain fairly stable during the Phase 1 period but increased at a galloping pace during the second quarter of 1972. The American Hospital Association reported that hospitals are straining against price guidelines. It estimated that 20 per cent of the nation's 5,865 general hospitals would be requesting exceptions for rate increases from the Price Commission by the end of September. It is too early to assess the long-run impact of price control from these developments. Most experts in this field believe that the basic causes of the rapid inflation in medical and hospital prices remain unresolved. For the hospital, increasing unionization of hospital workers brings about higher wage demands. In addition, the labor input and capital investment (equipment, building, laboratories, and the like) per patient-day continue to rise at an alarming rate. Hospital administrators and the public continue to grope with ways to contain the cost acceleration and encourage productivity increases.

On the physician side, the long-term outlook is just as foggy. As stated previously, under the Price Commission guidelines physicians may not

increase their prices so as to raise their revenues by more than 2.5 per cent. Meanwhile, physicians continue to find their professional expenses increasing at a rate of 5–6 per cent per year. Since, on the average, one-third of a physician's total revenue goes to pay for professional expenses, this means in effect that the Price Commission is limiting the increase in physicians' net income to less than 1 per cent. Many health experts question how long physicians will accept this kind of constraint. A sudden surge in physicians' fees in June alarmed some government officials. Was it transient or premonitory? They do not know.

Aside from its impact on physicians, hospitals, drug companies, insurance companies, and Blue plans, the economic stabilization program has a direct impact on the federal health programs. Hence it affects the pocketbooks of taxpayers. Through the Medicare and Medicaid programs governments pick up about one-third of the total cost of general hospitals. Hospital payments are based on reasonable costs rather than on charges. To supplement the Price Commission guidelines, the Social Security Administration also promulgated a rule that hospitals may not increase their per diem cost more than 9 per cent per year. Prior to Phase 1, hospital per diem cost has been rising at an annual rate of 13 per cent. For the Medicare program alone, price control can reduce the government outlay in the year 1972 by $250 million, which in turn means that the financing requirements—social security tax—can be that much less.

As for physicians' fees, Medicare program payments are based on a customary and reasonable fee screen, with the maximum limit set at the 75th percentile. The fee screens are updated periodically to take account of physicians' current charges. When the price-control program was inaugurated, the Social Security Administration ruled that the total fee-screen level cannot increase more than 2.5 per cent per year. It is estimated that this action may reduce the Medicare program outlay by as much as $60 million in the first year. However, it should be pointed out that physicians are free to bill patients directly for the amount that exceeds the fee screen, which the government will not pay.

What responsibilities do health insurers have in the economic stabilization program? Many government officials would like to see the insurance companies and Blue plans take an active role in monitoring and influencing the price of health care. However, the suspicion in and out of government circles is that the insurers are reluctant to play such a role. One reason is that in the eyes of physicians and hospitals it places the insurer in the role of an antagonist. Another reason is the administrative difficulties. Unlike Blue plans, an insurance company seldom covers a

large portion of a population in a locality. This makes it very difficult for a company to ascertain the customary charges of each physician. Also, it would be very difficult to monitor the hospital charges when the frequency of the bills from a particular hospital is low. However, the insurance industry has demonstrated that these are not insurmountable administrative problems; the industry has solved similar problems before. Working co-operatively, the companies centralized and shared medical information through the establishment of the Medical Information Bureau.

In recent years a number of studies have shown that health insurance coverage has been a direct cause of the rapid price inflation in health services. In an econometric study published last year, Martin Feldstein of Harvard University showed that during the period 1958–67 the growth of hospital insurance may have accounted for as much as an 80 per cent rise in hospital prices. Feldstein also found a similar cause-effect relationship between insurance and physician charges. It is frequently explained that insurance, in addition to pooling risks for the insureds, also reduces their awareness of prices of health services. Because of insurance, insureds' direct out-of-pocket costs are greatly reduced. This induces a greater demand for health services. If an excess demand (demand is greater than supply) condition is created, then the providers of services can increase their prices at an abnormal rate. What can be done about this? Some would argue that insurers have a social responsibility to restore the equilibrium in the marketplace on behalf of their policyholders. This can be done through more stringent monitoring and controlling of the medical prices. Others would argue that this function is the proper domain of the government. Regardless of who should carry out this function for society, it is agreed that this function needs to be performed. The Price Commission has looked to the insurance industry and the Blue plans to monitor the prices of health service. Also, the Commission hopes that the insurers will exert pressure on physicians and hospitals to moderate their price increases. Whether the insurance industry is willing to accept this challenge remains to be seen.

MR. ROBERT J. MYERS: I would like to comment on one of the many statistics that Bill Hsiao presented.

Bill mentioned that, according to the magazine *Medical Economics*, the net income of physicians in the past several years before the NEP had increased by about 10 per cent per year, well above most other increases

in income. I would suggest that the approach taken by *Medical Economics* is not completely valid, because it involves net income before federal and state taxes.

Physicians, like actuaries, are economic creatures and, in establishing increases in their fees, take account of the effect of income taxes and the depreciation in their incomes as a result of general price increases. Accordingly, I believe that the 10 per cent annual increase in the net income (before taxes) of physicians has done little than maintain, or perhaps slightly increase, real income.

It may be argued that the progressive nature of the income tax reduces the real income of higher-income persons relatively as inflation occurs. It is true that this will be the effect if the income tax provisions remain static and thus produce what some people term "additional moneys available in the form of social dividends." In my opinion, however, the income tax provisions should be put on a dynamic basis, so that, as incomes rise, the breaking points in the various tax brackets are automatically adjusted upward—just as is now the case with regard to the automatic adjustment of social security benefits and the maximum taxable earnings base.

NEW INVESTMENT MEASURES FOR PENSION FUNDS

What are the new investment measures? How do they work? What do they mean? What is the role of the actuary?

MR. ROBERT T. BREHM:* I would like to describe a number of commonly used measures in the investment measurement field. They are return measures and various risk measures that you have all heard of. I would also like to review the performance of funds segmented in three different ways: the first manner of segmentation of our population will be by investment philosophy; the second will be by asset size; and the third will be by manager type—investment counselor, insurance company, or bank and trust.

First of all, I would like to describe the two basic measures of return—time-weighted and dollar-weighted return. Dollar-weighted return, very simply, is the return that equates beginning assets to ending assets, adjusted for periodic contributions. It is the real rate of return on a fund. It is the return that would be used in making historical comparisons with the assumed rate of return on a fund, because it is the real rate of return that was earned on the assets. Normally this return is measured by using market value—beginning and ending. Book value does not enter into the computation on any asset. It has a few problems built into it. Since it is the real rate of return, it does not recognize the flow of assets into the fund, and the flow of assets into the fund can affect significantly this particular rate of return. Therefore, for comparative purposes, it is not the best kind of return to use, because you may find substantial differences in dollar-weighted return between funds, caused not by difference in management but by difference in fund flows. Hence we have a time-weighted rate of return which, in theory at least and pretty much in practice, eliminates the impact of fund flows from return.

Time-weighted return can be computed by two methods. The first is very simple. It computes the time-weighted rate of return for each period, let us say each quarter of a year—the internal rate of return for each period. Then you simply link those returns. That is the simplest way to compute it, and, frankly, that is the way most people do it. When you do that, obviously each period is weighted equally, regardless of the assets that were at work during the period. If in the first period you have $1

* Mr. Brehm, not a member of the Society, is a vice-president of A. G. Becker and Company, Inc.

million and in the last period you have $10 million, each of those periods would have an equal weight in developing the annual rate of return. Obviously, this reduces the impact of flow of funds, and for that reason it is a better return to use when comparing one fund to another fund or a particular fund to an index such as the Standard and Poor's 500. It is the preferred type of return. It is the return recommended by the Bank Administration Institute for comparing one fund to another.

Another important advantage of the time-weighted return is that it is probably the best return to use when looking into the future because it does give you the average return, viewed historically, and it should be a better representation of what might happen in the future than would be the case with a dollar-weighted return, which could be substantially distorted due to fund flow.

Exhibit 1 shows a dollar-weighted and a time-weighted return plotted annually for the last ten years, 1962–71, for a median fund out of some 700 funds that were in the set population which you see in the exhibits. Note that the two returns move in an almost contiguous pattern, as we would expect. Remember that these are average funds and therefore do not have unusual fund flows. They do not have unusual rates of return. That is not necessarily typical, and the reason we go to some pains to use the right method of measurement is that roughly 20–25 per cent of the funds that we are evaluating have unusual flows. Therefore, you must use the proper method of measuring return to obtain the proper comparative results.

When we find a substantial difference for a particular fund between the time-weighted and the dollar-weighted return, that also reveals something about the fund. It tells us whether the flow of funds—the flow of assets into this particular fund—has been helpful or has hindered the performance of the fund. So, out of the difference between these two returns for a particular fund, you gain additional historical insight into the fund's performance.

You will note in Exhibit 2 that the cumulative rate of return for equities over a ten-year period is about $6\frac{1}{2}$ per cent, as opposed to 5 per cent on total assets. Obviously for this ten-year period equities have outperformed debt-type securities. It is important to note that the Standard and Poor's 500 does not track these funds particularly well. In the years 1963 and 1964 the Standard and Poor's 500 substantially outperforms the funds under measurement here, as is true of 1967. However, in years such as 1966 and 1971 it substantially underperforms managed assets. Frequently the index on an annual or quarterly basis is not representative of managed retirement fund portfolios. That being the case, you could

EXHIBIT 1

TOTAL FUND—MEDIAN DOLLAR-WEIGHTED AND TIME-WEIGHTED RATES OF RETURN

ANNUAL RATES OF RETURN (PLOTTED ABOVE)

	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
DOLLAR-WEIGHTED	-2.53	10.63	9.63	7.75	-4.94	12.69	9.16	-6.37	0.84	17.67
TIME-WEIGHTED	-2.78	10.68	9.63	7.41	-5.02	12.34	8.80	-6.29	0.43	17.64

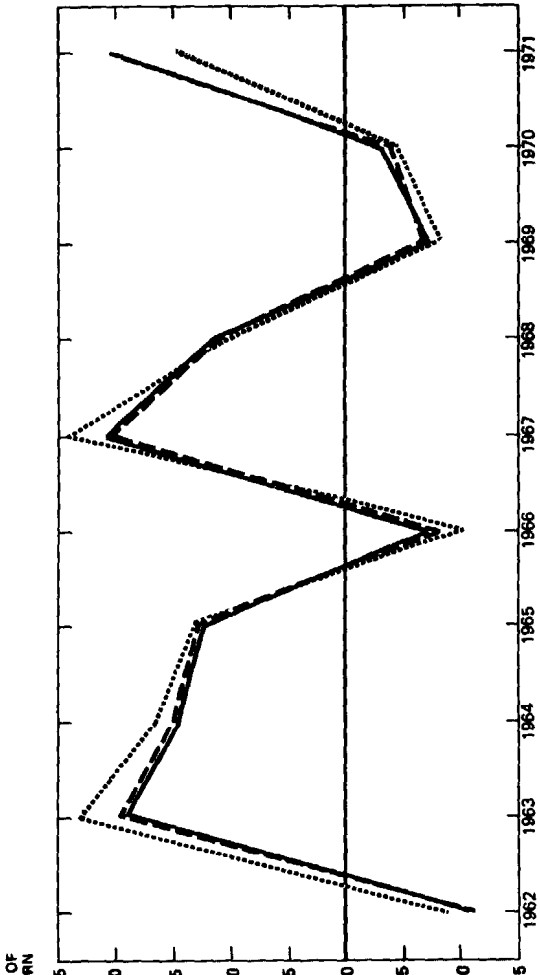
CUMULATIVE ANNUAL RATES OF RETURN (NOT PLOTTED)

	1962-1971	1963-1971	1964-1971	1965-1971	1966-1971	1967-1971	1968-1971	1969-1971	1970-1971	1971
DOLLAR-WEIGHTED	5.20	5.75	5.29	4.99	4.63	6.34	5.04	3.84	8.95	17.67
TIME-WEIGHTED	4.91	5.85	5.26	4.67	4.22	6.30	4.75	3.21	8.53	17.64

SOURCE: A. G. Becker & Co., Inc.

EXHIBIT 2

EQUITIES—DOLLAR-WEIGHTED AND TIME-WEIGHTED RATES OF RETURN AND STANDARD AND POOR'S 500 RATE OF RETURN



ANNUAL RATES OF RETURN (PLOTTED ABOVE)

DOLLAR-WEIGHTED ———	-10.77	19.31	14.56	12.38	-7.80	20.70	11.58	-7.35	-3.30	19.88
TIME-WEIGHTED — — —	-11.19	19.43	14.78	11.70	-8.08	20.66	11.36	-7.30	-3.72	20.22
S&P 500, TIME WTD ·····	-8.71	22.84	16.50	12.47	-10.09	23.99	11.08	-8.45	3.95	14.34

CUMULATIVE ANNUAL RATES OF RETURN (NOT PLOTTED)

	1962-1971	1963-1971	1964-1971	1965-1971	1966-1971	1967-1971	1968-1971	1969-1971	1970-1971	1971
DOLLAR-WEIGHTED	6.48	7.70	6.89	6.14	5.66	7.64	4.87	3.17	7.88	19.88
TIME-WEIGHTED	6.31	8.32	6.98	5.90	4.93	7.88	4.26	2.25	7.36	20.22
S&P 500, TIME WTD	7.08	9.00	7.38	6.13	5.11	8.43	4.86	2.86	9.02	14.34

SOURCE: A. G. Becker & Co., Inc.

draw substantially wrong conclusions about the performance of a particular fund if you compared it only with the index.

There are a number of suggested ways of measuring risk in the investment of retirement fund portfolios. Generally speaking, they all stem from the idea that risk is uncertainty about a future expected return. A very simple statement: you expect to achieve a 5 per cent return—are you completely certain of that, or aren't you?

You are probably more certain if you expect 5 per cent than you are if you expect 10 per cent. If you expect 10 per cent, you have a high degree of uncertainty about achieving that return. You might achieve 20, and you might achieve minus 10, over a particular period of time.

Measures of risk tend to relate to the concept of a range about the expected return. The higher the target, the higher the range of expectations. Hence, when we look back in time and we want to measure the risk that was assumed by a portfolio, and have only return statistics available, the method of measuring the risk would be to measure the variability of return over the period. Usually quarterly rates of return are used. We look at the mean absolute deviation or the standard deviation of quarterly return about the cumulative return. If the variability of quarterly return is high, we suggest that the portfolio was risky. If it is low, we suggest that the portfolio had low risk—the return did not vary. It will be found that variability of return is not highly correlated with return. In other words, if this is a risk measure and if risk is related to return directly, it appears that we do not have a very good measure of risk. As risk goes up, return would tend to go up. Generally, we do not find this to be the case on the funds we evaluate.

Beta is another, similar, measure that you have all heard of, except that beta is the variability of a fund in relation to the Standard and Poor's 500 or the market. Beta is the slope of a regression line which relates the fund's return to the market's return. We plotted a particular fund's return quarterly against the Standard and Poor's 500 return and developed a line of best fit for those points over a four-year period or whatever period we picked. The slope of that line would be beta, and that would tell us how sensitive the portfolio was to changes in the market's return. Beta has been suggested as a good predictor of future return on a portfolio. It has been suggested as an astute measure of risk, the market-related risk of the portfolio. We find that beta is not highly correlated with return; it explains little about the historical return of retirement funds. It may not explain much about the future return of retirement funds either, and I will leave that for later discussion.

Another statistic, derived when we develop a regression relationship

between the fund's return and the Standard and Poor's 500 return, is the intercept of the line that relates the market to the fund's return. Here we find that there is, in fact, a high correlation between alpha, that is, the intercept, and fund return.

Alpha has been described as the premium for astute security analysis. It has been described as a measure of investment selectivity, and it seems to be that sort of thing. Other measures of selectivity that we make for portfolios of this type correlate highly with alpha. Alpha correlates very closely with return historically. It tells us, in effect, how well the assets of the fund have been managed. It is one measure of comparison of the premium earned by management of the portfolio.

Now I would like to review three ideas—three areas in which we segregate the funds that we have on our system. The first is by investment philosophy. This is very difficult to handle satisfactorily, because, when we have asked our clients and our investment managers how they manage their money, or what their objectives are, we have found that there is not a significant capability of relating what the investment objectives are for these funds. So, when we record it, we do not find that we can easily segment funds on the basis of that information. Instead, a method that we have found very useful is to divide our funds up by income produced, that is, actual income return from each portfolio. We group the funds producing the highest level of income—the upper 25 per cent of funds based on investment income—into one group. We group the middle 50 per cent of funds based on income into the medium-income group, and the lower-income group is the lower 25 per cent of the funds based on income. When we look at the cumulative return, we find that the growth funds, or low-income funds, cover a return over this period, compounded annually for the last ten years, of 5.6 per cent, whereas the high-income funds, the most conservatively oriented funds, have a return of 4.9 per cent. This is a difference of 70 basis points—certainly significant from a long-term growth point of view on a fund but perhaps not as great as you might have expected. If you have been in any area of this business, you know that people have been talking about 12 and 15 per cent returns for growth-oriented funds, but we do not see it here in the real world.

Now to a second way of viewing the same information. For one period of time, 1968–71, we have grouped the funds again into low-, medium-, and high-income and have recorded the cumulative rate of return for this group of funds. For this period the low-income funds, the growth funds, have about a $3\frac{1}{2}$ per cent return annually, whereas the high-income funds, the most conservative funds, have done relatively well—5 per cent. We then look at those funds by asset size and find that there really is not

much difference. The more conservative funds are not necessarily bigger; as a matter of fact, we find that they are smaller—$9.8 million average as compared to $12.5 million. The investment income rate of return is significantly different. The high-income funds have made almost all of their return by producing a 4.2 per cent income return, whereas the low-income funds have only 1.7 per cent return based on income.

When we look at the rate of variability, we see that over the period the rate for the low-income funds is significantly greater—1.55 as compared with 0.98 for the high-income funds. Stated differently, the simplest way of checking on the variability of a fund is to look up the relative level of income returned on the fund. It will give you the same answer as the direct measurement of the variability of return, or perhaps a more sensitive answer. Actually, the equity commitment is important here: the high-income funds have a lower equity commitment. One thing we do in considerable detail on a particular fund is to look at the sources of performance.

Much has been said about the size of a fund and its impact on performance, the question being: Do large funds perform better or poorer than small funds? Is there really any difference if you go across size ranges? Or, should I split my fund or shouldn't I?

We have split the funds into three groups based on size: $10 million, $10–$50 million, and $50 million and over. In each of these categories there are over 200 funds, a good representative sample. For this particular period of time, 1967–71, we see that the rate of return on the total fund is essentially the same for all three groups: 6.3, 6.6, and 6.2 per cent. The differences are certainly not substantial, and, as a matter of fact, the middle group, $10–$50 million, does slightly better. Do large funds have higher levels of income, or are they more conservative than small funds? Answer, no. The income return—3.40, 3.43, and 3.60 per cent—shows no significant difference. Total fund variability again shows a slightly higher rate of variability in small funds than in large funds, but there is no significant difference: 1.03 versus 0.96. Equity commitment: no significant difference. As a matter of fact, the smaller funds have a lower commitment, which is a little different than you might expect. Equity cumulative return: 7.90 per cent versus 7.95 per cent—no difference. The income rate of return shows a somewhat greater difference: 4.40, 5.00, and 4.70 per cent. In general, we have found that fund size is not a significant variable in any of our studies.

The last topic I would like to discuss is manager type, perhaps the most sensitive issue we can discuss with a client. Do counselors do better than banks or better than insurance companies?

Here are some statistics that relate to that point, and I will comment a little further on them. Fundamentally, for the last four years there has not been a significant difference in total fund return (4.9, 4.6, and 4.7 per cent). On our asset side we find that the investment counselors have funds that are significantly smaller on balance than either insurance companies or bank and trust companies. You see that there are about $6 million in the average fund for investment counselors, up to $15 million for insurance companies, and $12.5 million for bank and trust companies. So there is a difference.

The equity cumulative return again is pretty much the same—4.6, 4.2, and 4.4 per cent (no significant difference). Beta, the measurement of market sensitivity, is again about the same.

Equity commitment shows a significant difference. The counselors and the banks have about the same level of equity commitment. The insurance companies have substantially greater exposure to equities. Obviously because the latter are separate accounts, they are managed equity accounts, whereas on the counselor and the bank side they are more of the balanced orientation.

On return for 1971 only—that is, total fund return—we find that the insurance companies did least well in that year. On equity return for 1971 only, the insurance companies also did least well—18 per cent as against 20 or 21 per cent. That probably suggests the orientation of the insurance portfolio in this particular sample.

Although there are unique differences among these investment management styles and types, it is interesting to note that among these groups we see significant differences in investment performances in only two years out of the twelve-year period. Perhaps this is not too surprising when you think about it, because whether it is an insurance company managing a separate account, or a bank and trust company, or an investment counseling firm, everyone is trying to do the same thing with the same information and basically with the same tools. Therefore, on average, they are coming out with about the same results. No one seems to have a secret. As a matter of fact, for the last four years the counselors did best out of the three groups—they ranked second in 1968 and 1969 and first in 1970 and 1971. However, they did not outperform the group for the four-year period by any significant amount.

One last general comment: we think that the work we do in investment analysis is similar to the work you do. We do not believe it possible to take one number like beta to describe completely the performance of a particular fund, just as I am sure you would not like someone to take one number, such as the assumed return on the assets of a pension fund, to

describe completely your work. There is much more to it than that. Investment analysis is very complex. It requires much basic information to start with and substantial analytical capability to make sense of that information in order to really assist the client.

MR. KEITH H. COOPER: It is generally acknowledged by some that actuaries should not offer investment assistance to their clients. The following suggestions have been made in support of that point of view:

1. An actuary is not necessarily an investment expert and as a result may find himself over his head should he attempt to assist a client in the determination of the equity/debt content of his pension portfolio or in the selection of particular securities to be included in the pension portfolio.
2. An actuary has a conflict of interest where, on the one hand, he is required to establish an interest rate for valuation purposes while at the same time he is involved in the investment decision-making process for the same plan.

I do not endorse these statements entirely. Instead, I believe quite firmly that actuaries should offer assistance in specific areas of the investment process—otherwise they are not providing the best possible service to their clients.

The three areas in which I believe an actuary has an important role to play in the investment process are as follows:

1. SELECTION OF A FUND MANAGER

I believe that it is an actuary's function to assist his client in narrowing down the field of fund managers to be reviewed when that client is interested in selecting a fund manager to replace the existing one, to handle the moneys of a new fund, or to add a new fund manager to the fold. Because the actuary ordinarily has dealings with a large variety of fund managers, he "knows the field," so to speak. Not to assist in this area would, in effect, force the client either to review a much larger sample of managers than is necessary or, alternatively, to place the client in the position of narrowing down the field on his own, thereby possibly not selecting the appropriate party to manage his pension assets.

In the case where a client has an interest in pooled rather than individual segregated funds, the actuary can assist the client by analyzing performance figures for such pools. This is an acceptable role only if the actuary is able to measure a sufficiently large sample of pooled funds for all types of fund managers, that is, insurance companies, banks, and so on, and only if the pools are compared in a consistent fashion, that is, if income and expenses as well as appreciation are reflected in the same manner for each fund under analysis. Further, performance figures must be con-

sidered for varying periods of time as well as for end dates reflecting high, low, and neutral market conditions.

In the case of individual, as well as pooled, segregated funds, performance statistics are not the only items that should be considered. The actuary should be certain that his client appreciates other factors. Some of the factors that he can analyze in order to assist his client are investment philosophy; research capabilities and facilities; use of external research material; depth, experience, and compensation levels of investment personnel; amount of money under management; names of major accounts; types of investments that they can handle, for example, mortgages and/or real estate as well as bonds and equities; and so on.

The selection of a fund manager is an important matter, deserving the attention of someone familiar with the essential ingredients for successful investment performance.

2. ESTABLISHING FUND OBJECTIVES

An extremely important, if not the most important, aspect of the actuary's role is that of encouraging his client to establish investment objectives for his pension fund—an area in which the actuary is particularly able to offer assistance. I feel that an actuary has an obligation to his clients, beyond the traditional annual or less frequent valuation, to help them budget for their future pension plan costs. This is best achieved by a process I refer to as "long-range financial planning." This financial planning process covers the following steps:

1. The actuary, with an assist from his client, establishes the best possible estimates for mortality, turnover, salary increases, and so on, in the future.
2. A best estimate of benefit improvements that will occur in the future is made, along with a timetable for their appropriate implementation. This is done for the corporate plan as well as for government programs.
3. Expected growth patterns for the company are established from which changes in the growth of the pension plan population are forecast.
4. Two items remain as variables, namely, the investment rate of return and the level of corporate contributions to the plan.

Assuming that the company wishes to pay no more than a certain fixed percentage of payroll toward its pension plan, it is then possible to develop the investment rate of return that equates to that contribution level. Alternatively, if the company has some rough indication of what the investment rate of return might be in the future, it can determine what the corporate contribution should be in the future as a percentage of payroll.

The analysis I have just discussed could be developed on a "most optimistic" as well as on a "least optimistic" basis, providing a high- and

a low-cost estimate range within which corporate costs could be expected to fall. Further, special contingencies such as plant closings, substantial mortality improvements resulting from a major medical breakthrough, and so on, could be analyzed to determine how they might influence the over-all level of corporate contributions.

After the actuary and his client have done this homework, they can then arrange for a meeting with their fund manager to discuss investment objectives for the plan. This becomes a more meaningful process in view of the basic information that is now available to all three parties as the result of the financial planning process completed by the actuary. With the financial information that has been developed, the fund manager will be able to determine, on a more informed basis than before, the types of securities in which the assets of the pension plan should be invested. This is important, since the security mix, as well as the maturity dates for specific securities, could have quite a bearing on the total rate of return generated by the fund over an extended period of time. It is evident that this process provides management with a very useful financial tool with which to budget for corporate pension plan contributions in the future, while at the same time providing very useful information from which to establish investment objectives with the fund manager. It should be recognized that if the fund manager feels that he cannot generate a rate of return that will keep corporate costs within desired limits, then something will have to be altered. Either the benefits that the company would like to provide to its employees in the future will have to be reduced, or, alternatively, the fund manager may have to find a way to improve the over-all performance of the fund. This could be accomplished in part by accepting greater risk, a matter that would have to be discussed with and agreed to by the client. The point is that the client must recognize that additional risk must be accepted in order to be able to generate the desired rate of return and that the fund manager is being placed in a more precarious position than he otherwise might have been. By greater risk, I am implying that a greater equity content would have to be accepted, or, more generally, securities providing greater investment return but with associated higher risks for principal preservation would have to be accepted.

3. MONITORING PENSION FUND PERFORMANCE

The third area in which the actuary can perform a useful role is that of monitoring pension fund performance. There are two areas in which the investment performance of the fund manager should be monitored. First, it is desirable to see how the performance of a client's pension fund has measured up with the performance of comparable pension funds.

Optimum performance is essential, since improved performance can either reduce corporate pension plan costs or, alternatively, increase pension plan benefits for the same level of corporate contributions to the plan. Second, in those instances where investment objectives have been established with the fund manager, the manager's performance should be compared with the objectives that were established earlier.

An actuary can either perform such calculations for his client or, alternatively, assist his client by helping him select one of the firms that specializes in the measurement of investment performance. It seems to me that we are capable of measuring the performance of the manager against objectives. However, if the actuary intends to provide a comparative performance measurement service, he must accept the fact that he is locking himself into a long-term arrangement, since, once he commences the calculations, he is assuredly obliged to continue the practice. In addition, this process requires him to take considerable pains to establish a fairly large sample of funds, encompassing a variety of fund managers, for measurements that are consistent with one another, in order to provide meaningful statistics to the participants. Where an outside service is used, the actuary can assist his client by helping him to interpret the information supplied by the investment performance measurement firm. I believe that the actuary is particularly equipped through his mathematical training to assist in this area of interpretation.

MR. KENNETH K. KEENE: First I would like to make a side comment on the use of common stocks as an inflation hedge. Over the period 1966–71, inclusive, the return, including appreciation, on the Standard and Poor's 500 stocks has averaged out to slightly better than 5 per cent. During this same period of time you have had inflation which has probably averaged around 4 or 4½ per cent. If in 1966 you had taken out a variable annuity with a 5 per cent assumed investment return, and the underlying investment experience was similar to the Standard and Poor's 500, then you would have had a flat income for the last six years, while the cost of living rose about 25 or 30 per cent, so it would not have been too successful as an inflation hedge, at least during that period of time. Today a better inflation hedge—at least a better indication of inflation, if not necessarily a hedge—would be the rate that is obtainable on high-quality corporate bonds. This rate is now about 7½ per cent. If you assume that the rental cost of money in the absence of inflation is around 3½ or 4 per cent, then the balance (about 3½ per cent) would represent a premium for inflation, which happens to be very close to the current expectation of many economists.

On the subject of investment performance measurement, several techniques have been devised—A. G. Becker, for example, has a very significant technique. There are some others, however, that can be used, and some of them might be well received by the corporate client. One in which we became involved is a little different from the Becker type. First, we take one of the indexes—for stocks, we might use the Standard and Poor's 425 or 500 index—and we assume that the money is invested in that index. That was one of the choices that, hypothetically at least, the investment manager had as an alternative to what he actually did. We also invest it hypothetically in several other kinds of funds—public information is generally available—the best source for this would be mutual funds. So we make a hypothetical investment in a specific mutual fund. In order to demonstrate to the client that his manager should be seeking a high goal of performance, we, with the benefit of hindsight, pick some of the better mutual funds, and say that this is what his moneys would have been worth at the end of a given period of time if they had been similarly invested.

We show the results both in terms of the rate of return during the period involved and in terms of what the dollar value of the fund would have been at the end of the period. The latter figure is something that generally is of great interest to the client. You can confuse him with all kinds of figures on rates of return, and probably when all is said and done he does not comprehend very many of them, but when he sees that his own fund is worth, let us say, $7 million at the end of a ten-year period, where the return on it was 5 per cent, and then sees that if he had invested this money in a given large-size mutual fund—not one of the fly-by-nights—where the return would have been 10 per cent and his $7 million would have been worth, say, $11 million, that captures his attention. This, then, is another approach. It has the advantage, we think, of simplicity. It is obviously not overly sophisticated, but at least it tells the corporation that it either has nor has not done very well. It also tells the corporation that, if it has not done well, perhaps it ought to take some steps to try to do better.

Unfortunately for us, unlike the A. G. Becker service and some of the others that are sponsored through the investment community, we have to charge real money for our service, but that is one of the facts of life.

MR. HARRISON GIVENS, JR: Bob Brehm showed you the time-weighted returns in comparison with the dollar-weighted returns; as he pointed out, they are different and they mean different things. Each of them tells you something, and comparing them tells you something else.

Now, instead of just taking $1,000 at the beginning of the period and seeing what happens to it over your time interval, suppose that you put in $1,000 at the beginning and $1,000 regularly every month or every quarter or every year over your time interval—level contributions—and see what kind of level return you would have, given where you started and where you ended. This is another return. It lacks a common well-accepted label. It is not a dollar-weighted return in the sense that it has anything at all to do with your fund. It is not a time-weighted return, in the sense that the amount at the beginning left alone is commonly called a time-weighted return, but it is something. It is a standardized cash flow, and it tells you the kind of experience you would have had, given level contributions. This is a kind of average of what you would have had if you had put your $1,000 in the fund five years ago and watched it for five years, another $1,000 in four years ago and watched it, and so on. It is a composite rate. If it is the same kind of number as the others, that tells you something, too. Every time you add some new indicator, you are learning something that the indicator tells you about the market or the investment performance, but you are also learning something by looking at how it compares with everything else you have learned.

Let us take a simple example. Suppose that you look at the market on January 1 and December 31 of a given year, and it is at the same place on both dates. There is absolutely no change—I am including investment income here—so, if you had $1,000 in the beginning, you have $1,000 at the end, and you say there was a zero per cent return for that year. But during the year the market was wandering around. It may have gone down and back up again, or it may have gone up and come down again. So, suppose that, instead of putting in $1,000 at the beginning and looking at it at the end, you put in $1,000 every month. You would get a different result. If the market had gone down and come back up again, you would be a hero. You might have a 25 per cent return for the year. If it had gone up and come down again, you would have been smashed. Not only will the answer you obtain tell you what happened from the beginning to the end, but monitoring the result of what happens, if you put money in regularly over the interval, will tell you quite a different thing. Comparison with the other measures is going to tell you something, so whatever you want to call the idea of a return based upon level inputs, it gives you a new number. It is something in the way of a composite of your conventional time-weighted returns and, by comparing it with time-weighted returns, provides additional information.

There are some interesting things about that rate of return. What does

it tell you? What does it not tell you? Let me make the observation that if you have a certain pattern up and down over the period—a certain set of unit values—and you calculate the level return over that period, you will get a certain answer. Now I give you a different world. The unit value at the beginning and at the end was the same. The prices in the interval inside are now quite different because I have simply permuted them. Instead of going one track, I went a different track. I used the same unit values, but I reordered them inside. Interestingly, that does not change the answer. You will have bought, over the course of time, the same number of shares of your mutual fund, and your yield will be the same. And so you have learned something. The one thing that the number does not tell you, when you have this periodic deposit approach, is the order in which the market or the fund was varying. You can tell that it went up or that it went down, but you cannot tell which occurred first. It is an interesting number, one you will be seeing something of. It illustrates the general point that the more things you measure, the more things you learn about what you are measuring and about other things as well.

MR. DONALD P. HARRINGTON: I have heard much today about time-weighted and dollar-weighted returns, but I think that we are going beyond that, because what I have seen on the board here is regression analysis and correlation coefficients; I suggest that the next step is predictability. This is what many firms are concerned with today. They are using beta and alpha for predicting. I would like to have your opinion on some of these so-called quotes from the future—statements of what the future will bring. I suggest that some of these tools were intended initially to be used in a highly controlled, scientific environment in which a scientist was carrying out a particular type of experiment, and that these correlation-regression analyses had definite meaning. I would like to hear what you have to say on this, Bob, with respect to how it relates to the market.

MR. BREHM: The obvious problem for someone employing an investment manager is to know what is going to happen in the future, to be confident about the manager's ability to perform in the future. The manager has to be confident that the portfolio he selects will perform in the future. Thus you have two decisions being made here: client selecting manager and manager selecting portfolio. Beta has been suggested as useful for selecting that portfolio which has a certain risk class and therefore a certain level of expected return. A substantial amount of underlying

theory basically says that, if the market is efficient, everyone has the same information; therefore, if you select securities that are highly variable, or if you take a greater market risk, you will achieve higher returns on average over time.

Out of all of that came beta—the relationship between the market and the portfolio. It was originally described and theorized as a predictive tool, not as a measurement tool. A number of assumptions have to be made if it is used as a measurement tool, more than when it is used as a predictor of performances. Is it a good predictor of performance? Probably not very good. On a security-by-security basis, the beta statistics for a particular stock vary substantially over time. Beta is not stable. If it is not stable, you are in trouble, because if you select securities based on the historical beta of the security and the beta changes, you then really do not know what you have in the portfolio.

That is the situation with regard to individual securities. The theory goes further, however, and says that is all well and good but that if you aggregate enough of these securities in a portfolio, then, although the beta statistics of any particular security will change, so will those of the others, and they will not covary. They will vary in such a way as to maintain into the future a rather uniform, predictable beta on that portfolio.

I am not saying that I believe all this. Beta is a very convenient, simple number. There is nothing magic about it. I am sure that all of you are familiar with the number. I would guess that if you knew with absolute certainty the relationship between height and death, you would have something—if it never changed, you would really have something. Well, the same is true of beta for securities and portfolio selection. You may have a handle on it today—it may look very good—but if conditions change in the market, industry, the economy, or the international scene, any number of things may happen that will change the relationship between a particular security and the market or between the market and a group of securities. If that happens, then it is immaterial that there may have been a relationship in the past. On a particular security I would say that no one really believes that beta is stable.

VARIABLE LIFE INSURANCE

1. What is the purpose of variable life insurance? How will it benefit the insurance industry? How will it benefit a particular company? What does it do for the policyholder? In what respects might the development of variable life insurance on a significant basis be harmful to the industry?
2. Will variable life insurance be profitable to the company? What are the profit sources? What statistics are used to measure profit and to determine gross premium scales? What is the significance to the company and to the policyholder of these statistics?
3. What should be the investment policy of the separate account in which the net premiums are invested? How is the investment policy related to benefit design? To profits?
4. What is known at the present time about computation of federal income tax for life insurance companies issuing variable life insurance? Is tax policy related to benefit design?
5. What will be the likely level and incidence of commissions to agents? Are any changes in distribution methods foreseeable at this time? Will variable life insurance appeal to special types of sales outlets such as stock brokers, life and casualty insurance brokers, and pension consultants? Is variable life insurance a suitable product for the debit agent and his client? What are the potential replacement problems?
6. What problems could arise with respect to compliance with federal regulation of variable life insurance? With state regulation? What is adequate disclosure to the consumer? What are appropriate limitations on sales proposals and dividend illustrations?
7. What are the organizational problems in general? For smaller companies? Should a company issue variable life insurance through an affiliated life insurance company? What possibilities are there for helping the smaller companies to cope with the administrative problems?

CHAIRMAN J. ROSS HANSON: By variable life insurance (VLI) we mean ordinary life insurance under which the death benefit, the premium, or the reserve (or any combination of these) varies in relation to the investment result of a segregated assets account. There are three subclassifications: (*a*) insurance contracts issued only to qualified corporate pension or profit-sharing plans, (*b*) insurance contracts defined by the ALC-LIAA in its current petition to the Securities and Exchange Commission for exemption from the federal security laws, and (*c*) ordinary insurance contracts not meeting definition *b*.

Contracts in subgroup *a* are not subject to SEC regulation. Contracts in subgroup *c* are probably subject to such regulation, although this is not known for a fact. Hearings have been held but no decision has yet been reached. Nothing that is said by the members of this panel should be construed to indicate industry acceptance of SEC regulation of the contracts in subgroup *b*.

Most of the principles, considerations, and problems with which a company must grapple when considering a variable life product apply to contracts in all three subgroups, although clearly there are exceptions, and some of these exceptions are of the most significant magnitude.

Contracts in subgroup *a* have been written in the United States, but as far as I know no business has been done in the other two subgroups.

MR. L. BLAKE FEWSTER: Why have an equity-based product? Why have an equity-based product in the form of VLI?

The introduction of any new product sold by a life insurance company normally comes from the demand of the public relayed through the sales staff. A worthwhile product is seldom developed without this demand. The answering of the demand for an equity-based product therefore may be the real purpose of VLI and also the benefit to the industry, to a particular company, or to the policyholder—or to the agent.

With a product as new as VLI, broad principles today may be something else in the future. My experience has been with a company that does business in Canada only.

In Canada we probably have had the legislative authority to issue variable life insurance since the early 1960's when the concept of separate funds was first introduced. My own company certainly did not rush in. By late 1968 we had decided to enter the equity field for individual purchases with some form of equity accumulation annuity. However, because of potential complications, both conceptual and legislative, we later decided to enter first with VLI and this we did in early 1970.

The type of product we chose may be looked at in its simplest terms as being similar to a regular participating life insurance plan with dividends used to purchase paid-up additions but with the interest portion of the dividends related to the performance of an equity fund rather than to the performance of our general funds. We took three of our regular plans—whole life, life premiums to 65, and endowment at 65—and gave the policyowner the choice of having 25, 50, 75, or 100 per cent of the net level basic reserves carried in our individual equity fund. The premium is the same as for a regular plan. Dividends are applied to purchase what we call

variable paid-up insurance. The variable paid-up insurance in any one year could be negative, and the balance of the variable paid-up insurance could also go negative. However, we do guarantee the minimum death benefit as the initial face amount. Another variable feature is the frequent adjustment in values because of a weekly determination of the equity fund value.

Our purpose in having VLI was to round out our product line so that a potential customer would have a comparable choice between a "regular" and "equity-based" contract at the same premium. One strong reason we chose VLI as our first equity product was that it would be the least disturbing to the training and background of our field force. This was important to us because we are a combination company with a large and varied field force. Our plans are not "hot money" types but rather long-term life insurance plans. Periodically a policyowner can change the degree of equity participation or transfer to a fully guaranteed basis.

For some customers the equity flavor behind VLI seems to satisfy their desire for "a piece of the action." Some customers feel that VLI, being sensitive to stock market trends, will give a better correlation with the cost of living than would a regular contract. I think also that some agents or their clients feel that the equity aspect will give a better long-range performance. It is too early to tell this in my own company. I am sure we have had periods when the variable policy has done better than a regular policy and other periods when the same variable policy has not done as well.

From the insurance industry standpoint there are the challenge and satisfaction of adapting to changing demands and conditions. And, of course, the industry wishes to broaden its product line and to retain its share of the savings dollar.

From an individual company standpoint our agents have welcomed the broader product line. Our variable life insurance sales were running at about 9 per cent of total sales last year and are currently running at about 7 per cent. Total sales have increased so that some of our equity sales must be life insurance sales that we would not otherwise have made. We have found that merely having an equity product available has increased the sale of our regular product. We have noted some trend to more permanent insurance, and within the permanent family we have experienced some additional sales of endowment plans. The policyowner is also given a wider choice of plans. Since the VLI is identical to regular plan except for the equity feature, the amount of any sale can be determined first, and the choice between equity and regular can be a secondary matter.

Some of the problem areas with variable life insurance are the following:

1. Because of the increased sensitivity of the variable product to swings in the stock market, there could be dissatisfaction if payouts from the plan have to be made at times when stock market prices are depressed or dropping.
2. If variable life insurance is the only equity product offered, it could be used in the wrong manner. For example, prior to the recent jolts in the stock market, there was a tendency to overstate the glamour of the equity-type investments behind variable life insurance and to try to compete with, say, the most exciting current mutual fund.
3. Agents accustomed to selling traditional forms of life insurance may have a tendency to want to make the same kind of projections of future values for variable life insurance. Obviously, much more restraint is required in dealing with a much more vulnerable product.
4. Increased disclosure requirements for variable life insurance naturally will lead to more disclosure under traditional product lines. This is not necessarily bad, but disclosure could be simple to some people and just confusing to others. The ultimate effect of these increased requirements and of the continuing jurisdictional battles both in Canada and in the United States of America is an unknown factor at this time.

At this point I think the development of VLI has, on balance, been worthwhile.

CHAIRMAN HANSON: The question is often raised as to where sufficient retained earnings will come from if the policyholders receive all the investment income of the separate account. To answer that question we can first look at the sources of income to the company. The company receives a gross premium (inclusive of any policy fee), peels off the loading for its expenses (acquisition and maintenance), and invests the balance (the net valuation premium) in the separate account. The interest rate assumed in the net premium can be chosen so that a reasonable profit from loading can be expected in renewal years; the higher the assumed interest rate, the greater the loading but the smaller the variable life insurance increases, so that a compromise has to be reached, and, of course, the assumed interest rate cannot exceed statutory limits (currently $3\frac{1}{2}$ per cent in most states).

Another source of income to the general account is the charge against the assets of the separate account. This charge is roughly comparable to the difference between the gross investment income rate earned on general account assets and the rate credited in the dividend scale, or the rate assumed in the nonparticipating gross premium scale, for a fixed-dollar policy. However, from this charge, the company must pay its in-

vestment advisory expense, establish contingency reserves, and cover those expenses not paid for out of loading. The potential contribution to profit from this source for each policy is defined by the contract, whereas in fixed-dollar contracts it depends on experience under nonparticipating contracts and on the rate credited in the dividend scale under participating contracts.

Surrender charges, if any, will yield a contribution to profit as in fixed-dollar policies.

The mortality profit or loss under a VLI policy should be somewhat greater per dollar of gross premium than it would be under a fixed-dollar policy with the same initial face amount. This is obviously true as long as the amount of insurance exceeds the original face amount, since the amount of risk assumed by the company is then greater than under a fixed-dollar policy.

Profit in variable life insurance is affected by the investment results of the separate account, since such results directly affect the insurance risk and the amount of assets against which the asset charge is made. Since the investment results of the future are unknown, it is necessary to use some technique to estimate investment results for the purpose of determining the profitability or adequacy of a known premium. One approach is to simulate future investment results and derive a statistical distribution of various measures of profit such as surplus share or present value of book profits. From such a distribution, one can determine the probability that a given premium will develop a specified level of profit. Of course, the validity of this technique depends upon the choice of the basic investment experience used in the simulation process and the assumption that such experience is reliably descriptive of the future. Another approach, the method of using some fixed rate, such as 9 per cent, or the experience of a few historical periods, does not really identify for management the risk it is taking in the adoption of a specified premium scale.

Statistics concerning the probability that the amount of insurance will grow to a specified level can be similarly determined. Thus the company can determine the probability that the net cost to the policyholder will be less than some desired bench mark. It is difficult to see how this can be communicated to the prospective policyholder. Nevertheless, it is still necessary for management to be able to judge just how effective variable life insurance will be in achieving its purposes with respect to the policyholders as consumers.

Obviously, the credibility of these statistics is dependent upon the confidence one has that the past investment experience used in the simulation of the future does indeed represent the future. Thus, when a company

is trying to assess whether or not its product will be beneficial to the policyholder and profitable to the company, it is vital that a realistic attitude toward the investment policy and investment results be established.

MR. CHARLES B. BAUGHMAN: I see no reason why the investment policies should be different for variable life and variable annuities. Most, if not all, companies have an investment policy which has long-term growth as its primary objective. Income is a secondary objective.

It has been suggested that since the death benefits on the New York Life design are highly responsive to investment results in the early years, the investment policy for that design should be different from the investment policy on the Equitable or the Fairbanks design. I see no reason why this should be so. The benefits under both designs are actuarially equivalent. A good investment performance in the early years gives a higher death benefit to the New York Life policyowner, but it gives a higher reserve to the Equitable policyowner. The higher reserve leads to higher benefits in future years. What I am trying to say is that, actuarially speaking, a good investment performance benefits policyowners equally, regardless of the design. Therefore, I believe the investment policy should be the same for both designs.

Good investment results increase profits. The better the performance, the higher the income from the asset charge and from mortality costs. The question of investment as related to qualified versus nonqualified business deserves some consideration. It is likely that there will be capital gains taxes on nonqualified business but not on qualified business. Therefore, a company might feel that it wants to emphasize growth to a greater extent on its nonqualified business than on its qualified business.

MR. JEROME S. GOLDEN: Little is known about computation of federal income taxes for VLI at the company level, but the industry is now beginning to tackle the problem. Before I discuss the possible future development in the taxation of VLI, I would venture a guess, albeit a slightly educated one, on how the companies have dealt with taxes in their early developmental work on VLI contract drafting and pricing.

There are some companies which will be selling VLI through newly formed or newly acquired subsidiaries and are not too worried about tax, since under any imagined tax structure for VLI they will not be paying taxes for a relatively long period because of operating losses. These companies are probably more concerned with how to avoid losing tax loss carry-forwards.

There are companies, including some of those described above, which have left the question of taxes to their own ingenuity by reflecting in their contract language that (and I am not quoting any specific contract) "the investment experience of the separate account reflected in VLI policy benefits will be reduced by a charge for taxes or amounts set aside as a reserve for taxes." They have reasoned that, whatever the tax situation for VLI, they will be able to develop a tax-charging or tax-reserving system that will be fair and equitable and still leave the product competitive.

In the preliminary research on a pricing structure, most companies have had to assume a specific tax-charging or tax-reserving system in determining the cost of providing for any insufficiency in the separate account with respect to the minimum death benefit guarantee. In its research, the ALC-LIAA Task Force on Reserves for the Minimum Death Benefit Guarantee under VLI made some tests assuming that a tax reserve equal to 30 per cent of the capital gains or losses would be held. Surprisingly, the effect of the tax reserve, although generally reducing the level of capital gains reflected in death benefits, is to reduce the cost of providing for the insufficiency by modulating the swings in the net investment performance.

One thing is clear—no companies, at least none that I am aware of, which have actively researched VLI, have assumed that the taxation at the company level would be such as to keep their companies from marketing an attractive product. Two companies to my knowledge have requested a ruling from the Internal Revenue Service to the effect that the reserves under their proposed VLI policies qualify as "life insurance reserves" under the 1959 Federal Income Tax Act. The IRS, informally, has had difficulty in accepting the notion that reserves for benefits in excess of the guaranteed minimum death benefit are life insurance reserves. One company has withdrawn its request; the other has asked the IRS to hold the matter in abeyance. This question, above all, must be resolved so that the total reserves under VLI are considered "life insurance reserves" for tax purposes.

Very recently an ALC-LIAA task force was formed to study company income tax treatment of VLI. It is faced with a difficult task, almost as complex in my estimation as the development of the original tax act. Some of the problems it must deal with in addition to the "life insurance reserve" question are the following:

1. How do you maintain parity between fixed benefit and variable life insurance? Participating variable versus nonparticipating variable?
2. How do you maintain parity between variable annuities and, say, retirement

income policies offered on a variable basis, if some companies should want to offer the latter policies to their regular market, even though endowments are not included in those classes of contracts for which the industry is seeking exemption from the SEC?

3. How do you handle all types of variable life designs beyond those contemplated in the industry petition to the SEC? For example, how do you treat designs using favorable investment earnings to purchase term insurance or to be left on deposit as variable accumulations?
4. How do you differentiate between qualified and nonqualified VLI for tax purposes?
5. How do you produce an amount of revenue to satisfy the IRS?

One simple approach would be to extend the tax law in its current form to cover VLI. Assuming that the assets supporting the reserves are invested primarily in equities, then the effect in an established company offering VLI directly would be a decrease in the Phase 1 tax, that is, the tax on taxable investment income. This results in part from the reserves supported by assets whose earnings are primarily dividends subject to the intercorporate dividend credit. In addition, realized capital gains generated by those assets would, for the foreseeable future, be offset by capital loss carryovers, at least in most of the large mutual companies. The effect on Phase 2, that is, the gain from operations, would be "uncontrolled," with unrealized capital gains reflected in "increases in reserves" producing operating losses and unrealized capital losses reflected in reserves producing operating gains. In some cases the effect on the gain from operations might be such as to swing a company from a Phase 1 to a Phase 2 tax position, thereby forcing the company to pay an extra tax in that year, which it could not recover in other years. The results would not be as traumatic for a new or smaller company offering variable life but would probably result in a company's having to reserve for taxes and then not having to pay them for a long time. Thus the current law, in my estimation, could not be applied as is.

How should VLI be taxed? I would argue that a taxing structure for VLI should have the following basic characteristics:

1. VLI taxation should be reasonably consistent with fixed benefit life insurance, at the policyholder as well as at the company level.
2. The tax structure should be neutral as among different benefit designs, pricing structures, and investment policy. Thus, tax policy, and by this I mean tax management, should not favor any particular policy design.
3. The structure should be such that Phase 1 and Phase 2 are consistent; that is, taxable investment income created in Phase 1 should not be eliminated in Phase 2. For example, under participating life insurance, dividends are limited in determining the gain from operations under Phase 2, so that

taxable income cannot be reduced below taxable investment income less $250,000.

4. In the absence of true operating losses, the tax structure should produce tax revenue currently.

MR. FEWSTER: I do not see why the level and incidence of commissions should differ from those of other similar life insurance products in the same company. Indeed, in my own company, since the premium level for variable insurance is the same as for our corresponding guaranteed plans, there was no question that there should be a difference. We feel that it is important for our agents to be in a neutral position in this respect when they are talking to their customers. As disclosure rulings develop, some changes may be required, but these changes are quite likely to apply equally to both variable and nonvariable life insurance.

We do not see any particular changes in the distribution method. If the product becomes popular, there may be increased pressure for multiple licensing as different forms of product develop, but I think that our regular sales force can handle variable life insurance. It is a life insurance product first and a product with an equity investment flavor second, and the specialists in life insurance sales are those presently trained for it. And, as suggested earlier, having variable life insurance as the first equity product helps the traditional agent.

Agents must pass an examination before they can sell our product. Out of our total sales force of over 2,000, we have about 1,600 or 80 per cent qualified to sell variable life insurance, including 1,300 so-called debit agents. While our debit agents no longer sell industrial insurance, they have a close relationship to a group of policyowners within a given district and are responsible for keeping this business in force and healthy in all respects and for offering service and protection to their customers. Many of these customers want our variable life insurance product, and it is being offered to them.

We have had no particular replacement problems. Our regular funds have continued to grow, and we feel that a part, at least, of our variable life insurance sales comes from sources we might not otherwise have. Also, as stated earlier, since introducing the plan we have tended to increase the proportion of our business on a permanent basis. We do feel that the packaged variable life insurance plan minimizes the replacement problems that some other equity-based products have experienced.

MR. GOLDEN: I believe that the appeal of the variable life product is overall in its "guaranteed insurability." That is, if the investments underlying the reserves for VLI follow, in a general way, increases in the cost of

living, then the death benefits under VLI will follow this general trend without regard to the insured's continued insurability. Of course, the VLI design with fixed premiums and a level guaranteed minimum death benefit will not produce increases in death benefits that are proportional to increases in the cost of living, unless the net investment return after taxes and charges exceeds the sum of the assumed interest rate and the increase in the cost of living. This is not a remarkable relationship, since the investment return to provide for increases in death benefit proportional to the cost of living must make up for the deficiencies in the level premium as well.

I would like to answer the questions listed in the program first with respect to the contracts in category *b*, that is, insurance contracts defined by the ALC-LIAA in its current petition to the SEC for exemption from the federal securities laws. I will refer to these policies as VLI. I will briefly touch on those contracts in category *a*, qualified contracts, and those in category *c*. For ease of discussion, I will refer to the latter group of contracts, possibly subject to the federal securities laws, as variable endowments.

I believe that VLI will require sales effort and sales training similar in amount to that required for fixed benefit life insurance (FBLI). The product has more similarities to than differences from FBLI. Provisions such as the grace period, reinstatement, insurance nonforfeiture options, optional modes of settlement, and partial surrender of loan provisions have FBLI as their model.

The appeal of VLI will be in the increased death benefits which will ultimately go to the beneficiaries and not the insureds under the policies. The appeal will be need, rather than greed. The prospect for life insurance will not purchase VLI as an investment for himself, since even under very favorable investment experience, the return on his investment in VLI will never be as great as under "pure investment" vehicles.

The training required will be similar to that for other new insurance products and, of course, will be easier for life insurance agents having a foundation in FBLI. Thus I would expect that a compensation structure similar to that for FBLI would be appropriate for VLI, because of the similar sales effort and sales training required. In general, comparable compensation for fixed and variable products avoids potential conflicts of interest on the part of the agent.

Turning our attention for the moment to variable endowments offered to the regular market, I envision a product that would have a guaranteed minimum death benefit and a guaranteed maturity value. This product might be regulated by the SEC and subject to the 1940 act sales load

limitation. I believe, however, that this product could be successfully marketed with compensation structures similar to those for variable annuities. Even though the rate of commission might be lower, the agent might ultimately produce greater income from the sale of such a product because of the possibility of attracting larger annual premiums and attracting premium dollars directed to other investment media.

Variable life will require face-to-face sales interviews as FBLI does. In no sense will VLI sell itself. To paraphrase the president of a large mutual company, any marketing system (other than the agency system), such as direct mail or mass solicitation, is dependent for its success on the existence of the agency system. I agree that only after VLI is first marketed by individual agents will other marketing systems have a chance for success.

It should be pointed out that VLI will not fit into the "group insurance mechanism," where there is no buildup of reserves and the product generally provides salary-related benefits. Mass marketing techniques, however, such as salary allotment, could be used effectively with VLI. A variable endowment of the type described above may "sell itself" and fit into mass marketing techniques such as direct mail.

The pure insurance broker should find VLI an attractive product for his clients. Just as brokers favor certain insurance companies for specialized products, brokers may look to companies with particular benefit designs and contract features with which they feel most comfortable. For a temporary period, before the marketing of VLI is widespread throughout the industry, companies not normally using the brokerage outlet may be accepting business from this source.

The VLI policy offered in the qualified market, either on a whole life or endowment form, may become an attractive product for the corporate pension trust market. VLI makes sense in money-purchase arrangements now being funded by FBLI and variable annuities.

If VLI is an appropriate product for the regular market, then it should be suitable for the debit agent and his clients. Of course, this presupposes a thorough sales training program and product understanding on the part of the agent. I would argue that the guaranteed minimum death benefit with the potential for increased death benefit features of VLI should be offered to all segments of the insurance-buying public.

If there should be widespread acceptance of VLI by the public and by the sales forces, companies may be faced with requests to change existing FBLI policies to VLI within their own organizations, or alternatively have existing FBLI policies surrendered for their cash values to be replaced by newly issued VLI policies in their own company or in other

companies. If practicable, it would be highly desirable for a company to make changes from FBLI to VLI in its own organization on a basis that involves no new acquisition costs to the policyowner and no greater compensation than if the original policy were not changed. As a practical matter, changes within a short period after the introduction of VLI make sense.

As for replacements between companies, there may be potential problems in this area. A new revenue ruling, No. 72-358, which permits exchange of one policy in one company for a policy in another without a taxable event occurring, may facilitate such replacements. In addition, certain companies will market VLI in advance of others, creating pressure for replacements. State replacement rules probably will apply although it is not clear how comparisons can be made. I also see a real problem in that VLI sold in replacement situations may often appear to be a more attractive product than the continuation of a fixed benefit product.

CHAIRMAN HANSON: The subject of regulation in variable life insurance is a very complex one. Policies in subgroup *a* are not subject to regulation by the SEC and there has been no decision yet from the SEC as to the petition filed by the ALC-LIAA with respect to policies in subgroup *b*. There is no way we can forecast either what the SEC is going to do or what the reaction in the insurance industry or the investment community will be to the SEC position. As far as I know, there are no policies in subgroup *c* in existence, but I certainly see no reason why there will not be and they will, possibly, be subject to SEC regulation. Using the variable annuity experience as a guide, we might expect the major difficulties with federal regulation to be (1) the initial filing of the necessary registration statements for the product and the corporate structure, (2) the annual amendments to these statements, (3) restrictions on pricing and other matters, (4) daily compliance with the regulations in the field and administrative offices, (5) the conflicts which may arise between state and federal law and regulation, and (6) the licensing of agents and some home office personnel as registered representatives.

These problems may be so severe that no accommodation can be made by the life insurance industry to regulation under the federal securities laws. This has not been the case with variable annuities, but the magnitude of these questions with respect to variable life insurance is much greater. In any event, many companies are awaiting a definition of the SEC position before doing anything about this important subject.

As far as state regulation is concerned, there are also some serious problems. It may be that the states will not have adequate resources to

regulate this type of business if it develops that a different kind of regulation is needed. I believe that only a few states require regulation of variable annuities under the so-called blue sky laws; because of the life insurance element, there would be even less reason for variable life insurance to be involved under these laws. Nevertheless, there will probably be an increasing interest at the state level in other aspects of regulation not currently applied to life insurance, such as more disclosure of the price of the product and the policy contents, regulation of sales illustrations and other sales practices, and review of the operation of the separate account.

There are technical problems at the state level which I am sure will be more fully discussed at other times. For example, amendments to state law may be needed for proper interpretation of minimum nonforfeiture benefits, and rules with respect to replacement of existing insurance will certainly need revision. There are technically involved questions as to appropriate reserves for asset guarantees and other risk undertakings; some of these questions have arisen with respect to variable annuities but have not yet been answered. There will be a need for rules with respect to illustrations of dividends, cash values, and amounts of insurance. Such rules must have enough latitude to permit fair competition but be strict enough to avoid deceptive practices.

I believe personally that, in practice, complicated disclosure requirements do not add materially to the protection of the policyholder's interest. This means that he must have a great deal of confidence in the company and its representative at the point of sale and later. Therefore, we must make a sincere effort to earn that confidence just as we have already done with our fixed-dollar business. This will be one of the most difficult aspects of variable life insurance administration.

Obviously, the question of just what kind of regulation and how much of it is needed to protect the consumer's interests is intimately related to the question of who should provide this regulation and how thorough it should be.

MR. BAUGHMAN: In general, there are five areas where there are organizational problems. They are investment, legal, marketing, administrative, and, last and probably least, actuarial. It is very important to bear in mind that they are not independent. Let us consider two examples. Suppose a company does not have an investment department that is highly proficient in selection of common stocks. Then it may decide to invest its separate account assets in one or more mutual funds. This will cut into the legal area because, if the SEC regulates, the separate account

will be a unit investment trust. This means that there will be two prospectuses, one for the mutual fund and one for the policy. However, the reports required by the SEC are simpler, but still complicated. There is also a marketing implication. If the mutual fund has been in existence for some time, the company may be able to use past investment performance as a sales aid for the product. There are also administrative considerations. If a company goes the unit investment trust route, there must be quick and accurate communication between the company and the mutual fund as to the price per share, number of shares purchased, and date of sale.

Another example is the development of a product design. A good design must be actuarially sound, marketable, administrable, and legal. We have done quite a bit of research on designs and have found only two that meet the four requisites—Equitable and New York Life.

Probably the biggest organizational problem most companies will have is the lack of trained personnel. You are not going to get them from an employment agency. Even if you use outside consultants, you will have to train yourselves. The actuaries will have to read the New York Life paper on variable life and, more importantly, the discussions. But this is only a beginning. Like the proverbial iceberg, there are more problems below the surface than above. The actuaries, lawyers, and systems and marketing people will have to read policy forms of other companies and understand why certain provisions were drafted in a certain way. They will need to consult each other and spend many months or years in searching for a product which meets their requirements. The lawyers must learn the totally different and perplexing intricacies of federal regulation. Even on the state level, they are going to have problems working with insurance departments which have not had an opportunity to become familiar with this new product. The marketing people have the almost impossible job of figuring out how to explain this product adequately to their agents so that the agents can explain it to their prospects. The administrative people also have an extremely difficult task. They will find that they need almost as much knowledge about the product as the actuaries. They will discover that they cannot adapt their system for administering fixed life insurance to variable life. They will learn that unless their system is thoroughly tested before it becomes operative, the likelihood of mistakes is greatly increased and that mistakes are overwhelmingly costly to correct. They will find that they are dealing with both a separate account and a general account, which results in a big expansion of their chart of accounts. Finally, the "back office" requirements for keeping records and keeping them accurately are extensive, difficult, and fraught with possibilities for error, and the penalties for error can lead to heavy fines, prohibition of conducting business, and jail.

The organizational problems for a small company are the same as for a large one. Chances are, however, that the small company has fewer resources in the form of personnel and money to enter the business. We will return to this later.

One large mutual company formed a subsidiary in order to sell variable life on a nonparticipating basis. This seems to be a good reason. Another did not. It, too, must have had a good reason for its decision. A large stock company bought a variable annuity company to avoid having the parent company involved with the SEC. That subsidiary is now selling variable life insurance on a limited basis. To the best of my knowledge, most other companies who have made a commitment to variable life are not going to use an affiliated company. A significant advantage in selling variable life through an affiliate is that a mutual company might recognize that nonparticipating variable life may be a more reasonable product than participating variable life. In addition, there may be a chance of avoiding certain onerous requirements of disclosure by officers of the parent company as to their personal investment transactions if variable life is sold through an affiliated company.

We have previously discussed some of the organizational problems of entering this business. We may as well face it. A very small company with limited resources may not be able to sell variable life insurance. Nevertheless, there is hope. I know of at least one company that not only will put the client company in business but will use its expertise to administer the variable life business for the company. The cost may be less on a unit basis for the large company that does it all by itself. There are also good consulting actuaries who have prepared themselves to lend valuable assistance in this area. There are firms which are developing an administrative system (or modules of a system) that they will sell to life insurance companies.

MR. WALTER N. MILLER: I feel that it will be essential for companies to be able to illustrate possible results under variable life insurance policies keyed to reasonable favorable and unfavorable hypothetical rates of investment return in the underlying separate account. Such illustrations will be necessary not only to enable prospective policyowners to evaluate the effect of different types of VLI policy design, but also (as is the case with variable annuities) to evaluate the effect of different assumed interest rates (AIR's), asset charges, and the like. In connection with such illustrations, let me say also that I favor the use of reasonable hypothetical future rates of investment return as opposed to the alternative of using actual investment performance over some prior period. The latter approach, when used for illustrative purposes, can be characterized as

"here's what might happen if history repeats itself exactly," a concept which leaves me quite uncomfortable. Furthermore, anything based on past investment performance will not adequately highlight differences to be expected on account of product design, AIR, and so on, unless one single past investment performance index (e.g., the Standard and Poor's 500) is mandated for all illustrations. This approach would create problems of its own.

As far as VLI administrative systems are concerned, there seems to be no doubt that a company intending to offer VLI will probably have to have a fairly sophisticated computerized system for the administration of this product. However, most people agree that there is a much greater basic similarity between VLI policies and corresponding fixed benefit policies than there is between variable annuities and corresponding fixed benefit annuities. At New York Life our electronics and systems people have told us that, in many ways, our VLI systems work has been much easier than that in connection with our variable annuity program because of this important fact.

MR. GOLDEN: It would take a net investment return in the separate account in excess of the sum of (1) the assumed interest rate and (2) the annual increase in the cost of living to produce increases in the death benefit under a fixed premium VLI policy that are proportional to increases in the cost of living.

We have made some tests comparing VLI with alternative combinations of insurance and mutual funds. Basically, in these tests we have equated both VLI premiums paid by the insured and the VLI death benefits with those emerging under these combination insurance programs, solving for the cash value as of a specific date. In some of these tests we have had to construct a hypothetical term insurance policy which in all likelihood no company would offer, since it would have to provide for significantly increasing amounts of term insurance and for renewal throughout the whole of life. This is an obvious result, when you consider that excess investment earnings under our VLI design are used to purchase additional paid-up whole life death benefits and that any insurance program to provide similar benefits must permit increasing insurance coverage. The results of these tests depend in great measure on the assumed tax structure for VLI. However, assuming a very conservative taxation of VLI (that is, a relatively heavy burden of taxes), VLI is the more attractive product.

CONSUMERISM

1. The actuary's role: What responsibility does the actuary have to serve the consumer's interest? Are there conflicts among his responsibilities to his employer or client, to his profession, and to the consumer? Should the Guides to Professional Conduct be expanded to include the actuary's responsibility to the consumer?
2. From the consumer's viewpoint, are current United States and Canadian industry and regulatory practices satisfactory with respect to commissions, products, and services? What should actuaries be doing to effect changes in these practices?

CHAIRMAN ARDIAN C. GILL: Mr. Moorhead characterized his Presidential Address in 1970 as "a meditation on outspoken actuaries [and] the part they play in keeping us attuned to our responsibilities and alive to our opportunities." Mr. Moorhead also admonished, "It is all too easy to speak of existing practices in a derogatory way. It is far more difficult to suggest alternatives that can be accepted with confidence as improvements upon them."

It is our purpose today not to meditate but to speak out on our responsibilities and our opportunities with regard to the consumer. There are differences in point of view among the panelists, traceable in some measure to their different professional responsibilities and vocational affiliations. We have an actuary from Canada, where methods of operation are somewhat different from those in the United States and where there are differences, perhaps, in consumer-company relationships and attitudes. We have a representative from the New York Insurance Department whose primary responsibility is to look out for the consumer's interest. I would like to emphasize that he is here as an individual, and as a professional, and is not speaking officially for the New York department. We have a representative from a United States stock life insurance company which is part of a conglomerate. I expect, then, that we will hear views ranging from *caveat emptor* to *caveat purveyor*.

MR. DAVID R. CARPENTER: I hope that there is no doubt on the part of any of us that we do have a responsibility to the consumer. Since this is a very big question, to which the answer would vary according to one's position as an actuary, I would like to present my personal views as an officer of a stock life insurance corporation.

As a general rule, I feel that my first loyalty is to my employer. Such a statement usually shocks people, but I am not sure why. I personally do not think that it is anticonsumer to make such a statement, for I believe that I am indirectly serving the consumer if I have the best interests of my employer at heart. As an example, one of my primary responsibilities is to participate in the design and pricing of products that will prove to be successful for my employer. It has been the experience in my company that two of the best ways to be successful from a profit standpoint are to design products that the consumer wants and to price our products competitively. Neither of those goals seems to be anticonsumer. Strangely enough, I am often put in a position where I feel that I would be acting less responsibly toward the consumer if I were to recommend a lower set of premiums, as opposed to premiums which I believe are set adequately for profit. Irresponsible pricing of certain products can lead many companies down a road toward problems which will, ultimately, cause the consumer much more grief than paying a higher, adequate price for the product.

Here are some examples of other responsibilities that I feel toward my employer, yet they might well be considered as responsibilities to the consumer: (1) doing everything within my power to assure the solvency of the company, (2) doing everything within my power to assure that our advertising is not misleading, (3) providing understandable, technical explanations either directly or indirectly for the benefit of the consumer, and (4) doing everything within my power to simplify the product, especially the policy form.

Many people today seem to interpret this question of consumer responsibility in terms of product cost. Although I definitely think that it is our responsibility to make sure that, generally speaking, benefits offered are not out of proportion to premiums charged, I do not get the reading that the consumer is as obsessed with cost as others might lead us to think. For example, the 1971 Monitoring Attitudes of the Public (MAP) survey continues to indicate that possibly our two greatest problems regarding the consumer are (1) the legalistic and aloof image of the life insurance industry and (2) considerable resentment on the part of the consumer toward specific prospecting methods used by our salesmen. The evidence seems to indicate that a very low percentage of life insurance purchases are based on lowest cost, and only about 13 per cent of those polled indicated that they felt the agents were being compensated too highly.

So I agree with the consumer. I definitely feel that we should do all

within our power to reach the consumer on a meaningful basis, simplifying our product wherever possible. He definitely desires the counseling services of a high-quality agent, and I am in complete agreement that we should do our best to see that he gets it.

The fact that I work for a stock life insurance company does not indicate to me that I have to be at odds with the consumer. Likewise, I do not see a consumerism handicap in the fact that the company I work for is part of what might be referred to as a conglomerate. This latter fact should be of significance only to the stockholders.

CHAIRMAN GILL: Bob Boeckner, you also work for an organization with stockholders. Do you see things in the same way as Dave?

MR. ROBERT G. BOECKNER: First I might say that our company is somewhat different from Dave's, in that, although we are a stock company, about two-thirds of our policies are sold on a participating basis. However, since we also sell a great deal of high minimum nonparticipating term insurance, by amount our sales are more evenly split between participating and nonparticipating. With so much participating business, our actuaries are torn between the interests of the shareholders and the interests of the policyholders.

On the general subject of consumerism, we may think that this current period is unique, but there have been two or three similar periods in the United States in the last hundred years. The target industries during that period were different from those of today. After all, the automobile industry was not a significant factor in the economy in the 1880's. However, the key point to note is that, while the emotionalism of these past consumerist movements died away, the legislation arising from it remained on the books. I will not be surprised if this proves to be the course of the current consumerist movement.

On nonparticipating business, especially in the term area, there is so much fierce competition that I cannot see how the buyer can lose, unless someone feels that 1,800 insurance companies are too many, leading to a wasteful and expensive duplication of effort. As a result of this fierce competition, I sometimes worry for fear the interests of our shareholders are forgotten or at least receive low priority. Perhaps in smaller, newer stock companies where there is more direct interest in the return to the shareholders, this is not true. I think that in a fairly large stock company the rates may receive more attention than the profits.

Although consumerism has begun in Canada, its development lags

behind that of the movement in the United States. For instance, no province yet requires interest-adjusted net cost illustrations, nor has any Canadian shoppers' guide been circulated. No province has yet asked us to appoint an ombudsman or register consumer complaints. However, several consumer-oriented situations have begun to develop. The Canadian Life Insurance Association has appointed a committee on consumerism which has been considering the question of cost comparisons at the request of the Ontario government. Also, the Human Rights Commission in one province has contended that many employee benefit plans discriminate on the basis of age, sex, and marital status. For example, single females who support a family may not qualify for dependent coverage.

Twisting legislation, like some of the United States replacement legislation, was introduced in 1971 for the first time. Early in 1972 the provinces adopted legislation pertaining to the advertising of life insurance, particularly with respect to direct-mail or newspaper coupon approaches. We also have in one province a personal investigations act similar to the requirements affecting insurance investigations of applicants in the United States. As a more general indication of rising consumerism in Canada, some companies have noted a large increase in inquiries from the public, although the large majority of these tend to be requests for information rather than complaints. In one instance we have been ahead of the United States for some time. We have pension legislation in four provinces requiring a minimum degree of vesting and a certification by an actuary that the liabilities of a pension plan have been calculated properly. At this stage, it does not appear that Congress is likely to pass similar legislation in the United States this year. Since our company operates in several territories, including Canada and the United States, one of our major problems will be to bear in mind the United States requirements with respect to our United States business and any Canadian requirements affecting our Canadian business. I expect to see a trend toward requirement of more disclosure in Canada just as in the United States.

CHAIRMAN GILL: Bob, you mentioned 1,800 companies. Do you think that having such a large number of companies works for or against the consumer?

MR. BOECKNER: I personally think that there must be some overlap in expenses incurred. The differences in size among companies seem to be

quite great. Mr. Denenberg did a study of the concentration of business by company in various states. The major companies really have a large share of the business. He feels that the big companies do not compete, yet there are many small companies chasing each other. I do not think that this is good. Perhaps we need some shaking out to provide more of a threat to the larger companies and to eliminate the smaller, inefficient companies.

CHAIRMAN GILL: My next question is addressed to Mr. Kelly. Tom, how do you as a professional, and also as a regulatory official, feel that the profession should view its responsibilities to the consumer?

MR. THOMAS J. KELLY: I think that the response to this question involves two levels of responsibility. Each actuary, as a professional, has certain responsibilities. In addition, the Society of Actuaries representing our profession has certain responsibilities.

The individual actuary's responsibilities should vary with the extent to which he participates in policy-making decisions. Thus the staff actuary or consultant whose function is mainly technical and advisory should see that each new product, marketing facility, guideline, or procedure, such as those for underwriting, claim handling, and the like, is evaluated so as to identify, as far as possible, the benefits to the consumer, to the company (including any stockholders), to the salesmen, and to any other competing interests. Where such an evaluation seems to indicate inadequate benefits to the consumer, the actuary should identify this situation and recommend methods for correcting it.

With respect to an actuary who participates in policy-making decisions in a company or perhaps in a government agency, he should review the analysis forwarded to him by the staff actuary or consulting actuary and use his influence as a member of the policy-making committee to see that the consumers are treated fairly.

Our Society should take a definite stand in support of consumer interest. To assist in this objective, we should consider providing a forum where a member who has to implement a management decision that he feels is unfair to consumers will be able to present his professional analysis and views without the fear of reprisal by his employer.

Although there may be some problems in maintaining the anonymity of the actuary, a forum of this type might be of assistance to Society

members and to consumers by providing opinions on noncontroversial matters and majority and minority opinions concerning controversial matters.

CHAIRMAN GILL: Tom, are you suggesting a kind of grievance committee?

MR. KELLY: But more objective.

CHAIRMAN GILL: What kind of power would it have?

MR. KELLY: Mainly through publication.

CHAIRMAN GILL: A sort of moral suasion?

MR. KELLY: Moral suasion and a digest of professional opinions on the subject.

CHAIRMAN GILL: I would hope that would apply to insurance regulation. I wonder whether any of this should be made explicit in the Guides to Professional Conduct? Dave, do you want to say something about that?

MR. CARPENTER: In my position, I see no deficiencies in our Guides to Professional Conduct. The Guides specifically allow for fulfillment of our responsibility to the public. We also mention that we should not provide our services where it becomes evident that those services "may be used in a manner that is contrary to the public interest."

I think that we might pay more attention as a profession to specific violations of this code of ours, but I feel that, generally, most of our members follow the code quite well—even though I doubt whether many of us have it memorized.

Perhaps the question should be rephrased. Perhaps what we are saying is that the Guides are just too vague. For an actuary who wants guidance it is sort of like reading the Bible—if you read the Guides, you can get the guidance you need. I know that the Committee on Professional Development took a look at this a year or a year and a half ago. One of the key questions was, and still is, are we a profession or not? What is a profession? There are probably members of the Society in this room right now who do not perform actuarial functions any more. There are probably members in this room who do not consider actuarial work to

be a profession. I think that until you answer that you cannot move on and say, "If you are a professional, how should you act?"

CHAIRMAN GILL: I think that responsibility to the public is the very first Guide to Professional Conduct.

MR. CARPENTER: I believe that it is mentioned again in the fourth one. I would like to add that, in many respects, I am more concerned about the portion of the Guides which refers to the relationship of trust which many of us have with our employers. It has been my observation that that trust is more often violated than is our responsibility to the public.

CHAIRMAN GILL: How does that come about, Dave?

MR. CARPENTER: I do not care to be too specific, but I have been in situations where I have heard actuaries discussing matters of company policy—matters which I felt were of a highly confidential nature. Also, I can recall situations where, after leaving one employer and going to another, a person has felt free to use information which should have been kept confidential.

CHAIRMAN GILL: Does that hurt or benefit the consumer?

MR. CARPENTER: That is a good question. My point is not whether it hurts or benefits the consumer but whether we are being misdirected in the consumerism movement. If we are going to look at the Guides, perhaps we ought to look at them from the standpoint of the employer as well, and perhaps there are as big, if not bigger, problems there than on the consumer side. I do not think that we have reached the point where betraying an employer's confidence is pro-consumer—with the possible exception the case of grossly anticonsumer actions.

CHAIRMAN GILL: It is typical to vary commissions by plan of insurance—in fact, section 213 of the New York Insurance Law almost forces you into that. Tom, do you think that this may result in the consumer's being sold the wrong insurance program—say, permanent instead of term?

MR. KELLY: The determination of which plans of insurance are right and which are wrong for a consumer probably varies from one consumer

to the next and from one time to another for the same consumer. While there have been criticisms along the lines inferred in your question, the statistics that I have do not show that a disproportionate amount of permanent insurance has been sold by companies licensed in New York State. From the statistical tables published annually by New York State, the increase in life insurance in force from December 31, 1968, to December 31, 1971, for term insurance has been practically the same as for whole life and endowment insurance. A similar breakdown for new sales was not available from these tables. The apparent objective in the current statute in providing a lower commission limit on term insurance was to keep the price of this coverage as competitive as possible.

While there appears to be some interest in revising the commission limits in section 213 of the New York Insurance Law to reduce or eliminate the differences in percentages among different plans of insurance, perhaps consideration should be given to the possibility of simplifying the statute while retaining its current objectives.

CHAIRMAN GILL: Do you think, Tom, that commissions should be disclosed in the prospectus or in the policy? I believe that this has been proposed by at least one insurance department.

MR. KELLY: While this suggestion has a certain appeal, and is consistent with requirements in other areas, particularly in equity investments, this might not be advantageous to the consumer.

Although commissions appear to be a major form of compensation to a life insurance agent, except perhaps during the first few years of his employment, publication of these commissions would probably bring immediate opposition from the consumer. If this resulted in a reduction of costs and still provided reasonable income for agents who are conscientious in performing services, it could be beneficial. However, companies might be pressured by their agents to provide alternate compensation, consisting mostly of an adjustable salary, with a very small commission added to it. The allocation of the salesman's salary to the cost of a specific policy might be opposed as being impractical. Therefore, the resulting publication of an artificially low commission in a prospectus or in a policy would be misleading.

Incidentally, section 213 does not forbid an insurer from reducing its commissions on permanent life insurance to the maximum permitted for term insurance. An approach along this line would eliminate the commission differential referred to earlier.

CHAIRMAN GILL: Bob, I believe that in Canada you have a commission differential situation. Don't you pay higher commissions on participating plans, and do you think that this is in the best interests of the consumer?

MR. BOECKNER: I think that your point might rather be that Canadian companies may pay lower commissions on nonparticipating policies than they do on participating. Remember that we have nothing in Canada corresponding to section 213 of the New York Insurance Law to limit our commission scales. The use of lower commissions on nonparticipating business leads to lower premium rates. This is important for nonparticipating business, because there is more direct rate comparison than on participating business, where dividends tend to clutter up the picture.

When our company was new and small, we did not have any dividend history to quote; thus it was harder for our agents to sell participating insurance. Using a commission structure that was somewhat biased against nonparticipating insurance helped to overcome this. Also, the agents were encouraged to sell higher premium business, which is good for any company. Since the Canadian insurance law limits the percentage of participating profits that can be distributed to shareholders (the limit is $7\frac{1}{2}$ per cent in our own case), the participating insurance sold by a Canadian stock company may be better for its policyholders than its nonparticipating insurance, even if commissions are a bit higher.

In our own company, the trend in recent times has been to use the same commission structure for participating and nonparticipating insurance, except on preferred risk nonparticipating plans, where commissions are lower to keep the premium down as I have suggested. This works to the benefit of the nonparticipating consumer. I suspect that, if a law were passed requiring the commissions to be the same on participating and nonparticipating business, companies would prefer to raise the nonparticipating scales to the full commission level rather than to reduce participating commission scales to the cut-rate nonparticipating level.

CHAIRMAN GILL: So it could be counterproductive, although I suppose you could cure that by stipulating the commission level. What does that $7\frac{1}{2}$ per cent relate to?

MR. BOECKNER: The profits that can go to the shareholders are limited and are based on the size of the participating fund. In our own

particular case, the proportion is 7½ per cent—we will get to a limit of 5 per cent of participating profits that can go to the shareholders when our participating fund reaches $500 million. Mr. Humphrys could be more specific on this point.

MR. RICHARD HUMPHRYS: Technically, the limitation is related to the profits to be distributed from the participating fund. Once a decision is made to distribute any profits from the participating fund, then the law says that for companies of the size of the one mentioned a maximum of 7½ per cent of that amount can go to the shareholders. It does not mean that the shareholders can take 7½ per cent of the surplus of the participating fund. It relates only to what you set aside for distribution to shareholders or policyholders in a particular year. The scale ranges from 10 per cent in small companies to 2½ per cent in very large companies.

CHAIRMAN GILL: Thank you, Mr. Superintendent. Bob, I have another Canadian question. You pay rather high first-year commissions—higher than the United States—perhaps 70 per cent or more, with fewer renewals. Do you think that this is a better or a poorer scale from the consumer's viewpoint?

MR. BOECKNER: The problem of high first-year commissions has been brought to our attention by the superintendent of insurance in one of our provinces. He has asked whether such a remuneration pattern leads to lower early cash values. While I personally would like to see a more level commission structure, nevertheless other first-year expenses incurred in our issue and selection procedure would still result in first-year expenses substantially higher than those in renewal years. From the agent's point of view, a bird in the hand is worth an extra 4 per cent in the bush in a renewal year. We find that in signing up new agents, heavily front-end-loaded contracts have a great deal of appeal. Also, people responsible for the financing of new agents like to have their advances covered and have the agent start validating as soon as possible.

An interesting development in the other direction arose recently as the result of a study by the Life Underwriters Association of Canada which appeared to show that companies paying lower first-year commissions and some sort of lifetime renewal commissions provided the greatest remuneration to agents. While there was some doubt as to whether the correct discounting factors were used, a great deal of pressure

arose from some of our established agents to go for a more level commission structure.

Our basic problem is not that there are so many agents making too much money but rather how to provide an adequate income to the vast majority of our agents. If a man is not making an adequate income from selling insurance, he will not be providing the consumer with good-quality advice.

CHAIRMAN GILL: Dave, you operate in both the United States and Canada. Do you have a similar point of view?

MR. CARPENTER: In Canada we are interested basically in selling nonparticipating coverages with heavy emphasis on term and decreasing term. Essentially there are no differences between the pattern of commissions that we pay on Canadian business and that for United States business of the same plan or type.

However, I guess you might say that I have a point of view, inasmuch as my company will be introducing a new compensation package within a couple of months in both the United States and Canada. Moving away from the concept of 5 per cent level renewal commissions, we will be bringing all of our renewals forward into the first four renewal years. In case anyone is interested in some of the advantages that we saw in moving in this direction, here are some of them:

1. *Persistency.*—We feel that our new scale will improve persistency significantly in the early years of the contract. In answer to the cry that our business will tend to disappear after the fifth year, it is our opinion that if you have a policyholder for five years you may well have him for twenty. There is little evidence that payment of a 5 per cent renewal commission keeps policies in force in the later years.
2. *Recruiting.*—We feel that this new contract will help us recruit into the business men who, on the basis of our old scale, might have determined that it would take too long to build up a sizable income.
3. *Retention.*—We feel that the heaped renewals will allow us to increase the percentage of men who succeed. This is not only good for our company; it is good for the distribution system as a whole.
4. *Financing.*—It is anticipated that our cost of financing new agents will decrease materially.

I had a reason for stating these advantages to you. I think that, if you analyze each one, you will see that although they were obviously conceived from the company point of view, none of them is anticonsumer.

It is to the consumer's benefit if we can increase persistency. From a distribution system standpoint, it is to the consumer's advantage if we can make our distribution system better. If we can recruit more people, retain them, and train them so that in the long run we have a more professional sales organization, it is to the consumer's advantage. It is certainly to the consumer's advantage if we can reduce our financing costs. It is interesting how these things can work out. Once again, I would like to emphasize my position, which is different from the position others take: the consumer says, "Look, I want secure coverage, I want the services of an agent, and I want them at a reasonable price" (I am speaking very broadly in my use of "reasonable"). The consumer is really not interested in the specifics of compensation.

CHAIRMAN GILL: I wonder whether heaping commissions is not running counter to consumerist pressure? Do you see no merit in taking the opposite tack of, say, limiting the front-end load as in mutual funds or of making low-load life insurance available elsewhere than in savings banks?

MR. CARPENTER: In general, I personally do not feel that the front-end load should be modified as has been done in mutual funds. As I pointed out earlier, there is not now a consumerism movement against the compensation being paid to life insurance salesmen. It is my personal opinion that the explanation of this is not that "it is because the consumer has no idea what the salesman is making." The general findings are still with us: those who feel that our distribution system is costly have been unable to define a viable alternative. Although I am sure that many of us are tired of hearing it by now, the fact remains that life insurance is sold, not bought.

The fact seems to remain also that the sale of life insurance through savings banks has been other than impressive. According to the MAP survey, however, it appears that more consumers are in favor of that method of distribution than favor any other method, *other than* our agency system. I think it is of great interest that the number of consumers "going around" the agent remains at a fairly low level. As a matter of fact, the latest MAP survey indicates that only 4 per cent of those surveyed both have bought directly and still prefer to do so.

In case anyone is interested, the 1972 *Life Insurance Fact Book* indicates that 1971 savings bank insurance in force was approximately $4.6 billion. While purchases of this type of coverage in 1971 were in

the neighborhood of $340 million, purchases have remained relatively stable in the last five years, actually dropping in 1970. In contrast, ordinary life insurance purchases in 1971 were approximately $133 billion; the corresponding in-force at year end 1971 was approximately $790 billion.

MR. DAVID H. RAYMOND: Dave Carpenter's comparison is invalid: he is comparing savings bank life insurance (SBLI) results from three states, in all of which it is legislatively hog-tied, to agency system results nationwide.

TABLE 1

SAVINGS BANK LIFE INSURANCE (SBLI)
RANKINGS FOR 1970 ISSUES

STATE	MAXIMUM SBLI PER PERSON	SBLI ORDINARY ISSUES RANKED BY	
		No. of Policies	Amount of Insurance
Connecticut	$ 5,000	15	56
Massachusetts	41,000	*	5
New York	30,000	10	13

* Number of policies not meaningful because maximum policy is $5,000. One person buying $41,000 of insurance receives nine policies.

Table 1 shows where SBLI ranks within each state where it is allowed. I feel that these rankings are encouraging, considering the handicaps. Many people claim that life insurance cannot be sold without agents, but the strident opposition to legislation reducing restrictions on SBLI suggests that they do not have much confidence in their claim.

That is not to say that life insurance can sell itself. SBLI does have marketing expenses. In comparing life insurance sold by banks to life insurance sold by agents, total marketing costs must be considered. A significant factor is the very low lapse rates for SBLI, probably resulting from the absence of high-pressure selling.

MR. JEROME S. GOLDEN: I understand that the lapse experience varies from bank to bank, depending upon how aggressively the sales-clerical personnel sell the insurance. In one case in which the personnel consisted of former life insurance salesmen, the lapse experience was significantly worse than average.

MR. HUMPHRYS: I was interested in Mr. Carpenter's remarks to the effect that the policyholder does not really care what system of compensation is used. I think that is true if the policy stays in force and carries through to its intended purpose, because, if the policyholder dies immediately after issue, he gets the face amount whether there was a high first-year commission or not. But not all policies carry through—there are surrenders. So, in adopting a heaping of renewal commissions, is his company or are other companies ready to face the issue and carry through with the courage of their conviction—that it really should be immaterial to the policyholder what system of compensation is adopted? Therefore, are you ready to give a much higher cash surrender value in the early years when the policies do not carry through in accordance with their terms? I think that this is the real issue concerning the front-end load.

MR. CARPENTER: I think that is an excellent point. Whether or not we have high early cash values depends on marketing strategy—you know that we have high-cash-value plans and we have low-cash-value plans. The new compensation program that we will be installing has had absolutely no effect one way or the other on what we think about cash values. It is less important in our case because of the mix of our business and the fact that we do write such a large amount of forms of insurance which do not have values. While I have the microphone, I would like to answer Dave Raymond. First of all, I did not mean to appear to attack the savings bank form of insurance. My point concerned consumerism and distribution. I feel that life insurance is still sold and not bought. I have absolutely nothing against the savings bank form of distribution. In 1970, because of the poor economy, I believe that there was a fairly considerable drop in savings bank production. This happens because the seller's hands are tied. People either come in and buy, or they do not. The needs of the consumer in 1970 did not drop.

CHAIRMAN GILL: Bob, in your area of product design, how does the actuary keep the consumer's interest in mind?

MR. BOECKNER: In our company one of our main aims in premium design is to provide a low rate in preference to emphasizing the profitability consideration. The emphasis on low rate ultimately has to benefit the buyer. Any actuary involved in product design has to give careful

consideration to various interests. There are the interests of the agent and the company to consider, but, more important, there are the interests of the buyer. Incidentally, the group of buyers is not a homogeneous group; it is made up of various types of prospects.

For example, in deposit term, the buyer is asked to make a deposit, as evidence of his good faith, which will be returned in five or ten years along with interest. On this business we expect better persistency, enabling us to recover our initial expenses sooner, and we would like to pass our persistency savings on to the buyer. In order to ensure that we get this better persistency, deposit term plans customarily provide for little or no cash value prior to expiry. The regulatory authorities in several jurisdictions say that we must have significant cash values in deposit term contracts to benefit those people who lapse their coverage; thus you are almost prevented from rewarding the persistent policyholder and ordered to provide a benefit for the lapsing policyholder.

In any savings contract, such as an annual premium deferred annuity or a variable endowment, it would be most equitable to charge your first-year issue expenses in the first year and have lower early cash values. On the other hand, the company can incur the higher first-year expenses but use level loading charges to provide a significant cash value earlier. Again, the people who persisted would be subsidizing the people who lapsed early.

Split life leads to an obvious clash in interests. The plan has some advantages, but its main advantage of low term rates could be said to be achieved primarily through lower total sales remuneration. Here the public appears to benefit while the agent suffers. However, as I said previously, if agent compensation is not adequate, the field force will deteriorate and the public will ultimately suffer.

In the area of product design, we may bring out a new product with a low rate which may be achieved partially by reducing remuneration. On past occasions when we have introduced such plans, I have sometimes been asked by members of the field force how much my salary was decreased in order to get the rate down.

A problem that is becoming more and more significant concerns expense allocations. Our studies have shown that our per policy expenses are increasing dramatically, but our per thousand expenses have not changed much in ten years. If we charge per policy expenses appropriately, the smaller policyholder may be driven out of the individual policy market. We almost have to adopt the approach of letting the large policy subsidize the smaller. In a more positive vein, this trend may also

lead us to look at new marketing systems in an effort to bring life insurance to the small-policy buyer at a cost which he does not regard as being outrageous.

CHAIRMAN GILL: Tom, do you think that the regulator should use his position in the area of products to achieve simplification or better consumer understanding?

MR. KELLY: My answer to that question is an emphatic yes. However, it is not expected that the regulator should stand alone in trying to bring about simplification and consumer understanding of the products sold by life insurers. The industry and particularly life actuaries have a definite role and responsibilities in this regard. While policy provisions in general have to be carefully worded because of statutory requirements and legal precedents developed by judicial interpretations, there should be some way of explaining to a prospective policyholder (consumer) the most important benefits he may anticipate and the major limitations and exclusions. In the area of implementation, the New York Insurance Department has adopted the NAIC model regulation on replacements, which specifies the minimum information that must be provided to a policyholder when he is considering replacement of his insurance. The NAIC is currently working on a model regulation concerning advertising. Also in the form of implementation, this department has promulgated Regulation 62, which so far specifies minimum benefits and unacceptable provisions in accident and health policies that the consumer can make an informed choice as to the best coverage available to him to meet his health care needs and those of his family. It is intended that this regulation will be supplemented by requirements concerning the classification of accident and health contracts, guidelines in determining premium rates, and the like.

CHAIRMAN GILL: Tom, you haven't brought out a shoppers' guide. Is this because of a concern for the consumer, or a lack of concern?

MR. KELLY: Although New York has not brought out a shoppers' guide for life insurance, it has published a similar tabulation of costs for automobile liability insurance. Perhaps the main reason why no shoppers' guide for life insurance was issued by the New York department is that there are differences of opinion within the department as to the benefits that such a guide will ultimately provide for the consumer.

At one time I recommended a guide that would have differed somewhat in emphasis from the one published by Pennsylvania. While I am not convinced that my recommendation would have provided an ideal solution, there is a continuing public need for guidance by actuaries in this area. In analyzing the benefits of such a guide, we should determine, first, who the consumer is that we are trying to help. If he is a super-select risk, who is knowledgeable and sophisticated about life insurance and who can be expected to buy large policies, the shoppers' guide may be helpful. It may show him a fair comparison of the costs of products that he could qualify for in practically any company. It is assumed that his knowledge and sophistication would guide him in applying other factors, such as the service provided by the agent and the company, in making his final choice. However, even for this type of consumer, the competition among insurers could become so acute as to encourage over-optimism in the expectations of future investment earnings, expense savings, and so on, in presenting net costs for comparative purposes.

CHAIRMAN GILL: You touched on the preferred and substandard risks. One of the criticisms leveled at the industry is that it does not take care of the uninsurable. Kirk Roeser, you are privileged to remain mute, but would you like to comment on that?

MR. KIRK ROESER: I will just make a brief point about the consumer who never really becomes the consumer—the uninsurable risk. I wonder whether this will become a consumerism issue in the future. The declined applicant says, "You guys are just wonderful. You insure everyone except the man who might file a claim." Naturally, that is not true, since we are able to write most risks. Of course, our business is to insure the unexpected occurrence, not the expected one, but the premiums tend to become rather high in the worst impaired risk classes. The question is, does the consumer have the right to demand a system under which insurance would be available, at reasonable costs, to everyone who is not on his deathbed?

Would an assigned risk pool approach, similar to the automobile assigned risk pools, provide a solution? Premiums in that pool could be limited to, say, those generated by 200–300 per cent standard mortality. The better risks in that pool, as well as the standard and preferred risks, could subsidize the poorer ones.

Of course, this would require regulation and would run counter to

some principles of free enterprise that we currently take for granted. But consumerism and free enterprise are frequently at odds.

A subsidized assigned risk pool would have plenty of its own problems. How would you allocate the subsidies? How would you prevent the deathbed sales? What type of face amount limitations could be imposed? The biggest problem would be persuading healthy prospects that it is still in their best interests to buy now.

But we need to be aware of, and we have to be willing to react to, criticisms such as, "If the government were handling this, I'd be getting a better deal." Ask the man who has just been told that he is uninsurable, or that he is insurable but at a prohibitively expensive premium, and I'll bet that that is what you will hear.

CHAIRMAN GILL: That is an interesting concept. There is perhaps a solution to that deathbed problem. In Brazil, where they are not quite as concerned as we are with the niceties of free enterprise and where they have difficulty in getting medical examinations because it is such a vast country, they put liens on the policy. The first year you might receive only the return of premium benefit on death—perhaps also for the second year and the the third. Does anyone want to comment on the assigned risk pool? Tom, how does that strike you as a regulator?

MR. KELLY: I think that it has some possibilities. As Kirk indicated, however, the matter of just how it would be organized and how it would be implemented would be a problem. In our own state, where we have the auto assigned risk pool, there is mandatory coverage which brings in a broad spread of risks. Perhaps there should be some minimum mandatory coverage, as a necessary development in the life insurance area—something completely foreign to us now. But, if we do not provide some kind of method of insuring these risks, some other agency or some other vehicle may be developed to provide this, either through the expansion of a federal program like social security or through a state fund.

CHAIRMAN GILL: Some companies have established consumer departments where an individual can make contact with a large company and find somebody to talk to. Dave, do you have any experience or thoughts about that?

MR. CARPENTER: As you might guess from my earlier remarks, I would be very much in favor of that type of service. I think that this

is the kind of thing the consumer is crying for. Unfortunately, I feel that the direction being taken by most of the consumer advocates, as well as by various regulatory bodies, is leading us into an embarrassing conflict. Service costs money. Perhaps what the consumerist should propose is that a company be given a specific deduction from its "cost index" (whatever index that might end up being) to reflect the fact that it is providing superior services to its policyholders.

I would like to add one other twist here. I do not believe that lower price is obviously in the best interests of the consumer any longer. I feel, for instance, that the decreasing term market and possibly the level term market are reaching a point where one of my biggest decisions as an actuary might be to recommend that we not reduce rates. I think, that, if we continue the rate reduction spiral that has been going on in the competitive areas of the marketplace, some consumers will be hurt. I am afraid that some of the smaller companies that we compete with, especially in the decreasing term market, may be in trouble in the next five or ten years. So, from a consumerism standpoint, I as an actuary should find myself looking for alternatives to lowering rates in that market.

CHAIRMAN GILL: Bob, I think that in Canada companies have tended to take an association approach to reach the consumer. Is that correct?

MR. BOECKNER: You are correct in that most of the activity so far in Canada has come from the Canadian Life Insurance Association. In addition to setting up a committee on consumerism, the Canadian Life Insurance Association is conducting a public relations study which is aimed toward improving the industry's communications with the public. The association is running a series of advertisements which will provide information about life insurance and invite readers to request additional information. I believe that this program is similar to that of the Institute of Life Insurance in the United States.

The Travelers is the only company so far in Canada to mount a full-scale campaign directed to consumers. Their Canadian response has been quite a bit smaller than the response they obtained with their similar campaign in the United States. Most of their inquiries were in connection with property insurance, and only a few inquiries regarding life insurance have been received. Another company has sent a questionnaire on services to each of its policyholders with its billing notice, but it has not directed any campaign to the public at large.

I think that activity by the trade associations is less suspect by the public than activity by an individual company. People want to be assured that no agent will call on them if they ask for information. This is a rather sad comment on the service provided by our agents. However, it is easy to see why it has developed, since most of us do not pay anything to our agents for a service call. Our only incentive in providing service calls is that the agent may be able to make some new sales if he does some servicing.

1. What is the state insurance department's responsibility with respect to Phase 2 regulations?
2. To what extent is the control of hospital and other service charges the responsibility of
   a) The insurance carrier?
   b) The insurance department?
   c) The Federal Price Commission?
3. Is it necessary for states to regulate group insurance in any of the following areas?
   a) Premium rates
   b) Minimum standards and standard forms
   c) Group annuity minimum reserves (immediate and deferred)
   d) Other

CHAIRMAN J. FREDERICK BITZER: I would like to comment on the role of the actuary in government regulation and in government generally.

There is certainly a need in government for the actuary in his professional capacity and an opportunity for him to do useful and valuable work, whether as an employee of a state insurance department or as a consultant. It is important that the actuary's opinion be given its proper weight within the department and that the commissioners generally give the actuarial profession appropriate respect.

Is there a place for the actuary in regulation in a nonprofessional position as commissioner or deputy commissioner? This is allied to another and broader question: To what extent should the actuary participate in politics?

I believe that broader participation is desirable and can be accomplished without impairing the quality of the profession as a whole if a small number of the members involve themselves seriously in politics and government, but only to the extent that they have a genuine desire and aptitude for such activity. I doubt that it would be helpful or desirable for large numbers of the membership to become politically involved. However, there are other ways in which the actuary can aid government. The actuary can participate (1) as a member of his profession, (2) as a citizen, or (3) as a politician.

The need for the professional actuary is obvious in state insurance departments and in connection with the various state retirement funds.

Professional positions and consulting functions are well known at the federal level—for example, the position of actuary of the Social Security Administration and the Board of Actuaries of the Civil Service Retirement System.

The actuary as citizen can participate on local boards such as the board of education, or in local politics as a member of the town committee of his political party, and can be especially useful as a member of retirement boards or commissions. Actuaries as citizens have given valuable testimony in public hearings.

It is in the third area—the actuary as politician—that serious consideration is needed. I am not using "politician" here in the derogatory sense but rather to describe a person engaged in politics or government on a party basis on a wider than local or town level—for example, running for the legislature or serving on the state central committee or in statewide fund raising. Another example is appointment or election as state insurance commissioner or deputy commissioner in a non-civil service capacity.

It can be expected that lawyers, by the very nature of their profession, will predominate in the making and supervision of laws. Because of the importance of budgets, taxes, and pension liabilities in government, however, there is also a need for men and women with a grasp of figures and the capacity to handle them with skill and integrity.

Obviously, if many actuaries were to focus their energies and abilities in a political direction, essential services would suffer. I am convinced that if perhaps 2 or 3 per cent of the Fellows would follow the political line to the extent that their affairs permit, the best interests of both government and actuarial and general financial considerations would be served.

One of the saddest and most frustrating experiences in government is to watch excellent testimony presented before legislative committees, knowing that subsequently it will be buried because no qualified person is following through in the political process which decides what will actually go into the final legislation.

MR. BROOKS CHANDLER:* The life and health insurance industry has become so accustomed to government regulation, including a substantial degree of rate regulation, that accommodation to its requirements

* Mr. Chandler, not a member of the Society, is senior vice-president of Provident Life and Accident Insurance Company. He is also a member of the National Committee on the Health Insurance Industry, which acts as adviser to the Wage and Price Board on the cost of health care.

is largely taken for granted in the operation of our business. On August 15, 1971, however, without warning, we were faced with an entirely new dimension in government regulation when it became apparent that the freeze on wages and prices announced by the President would apply to insurance premiums and that employer contributions toward the cost of employee benefits would be frozen along with other forms of compensation for services.

Representatives of the industry made immediate arrangements to bring to the attention of government officials at the policy level the problems which had been created for the insurance business—primarily the prohibition against the sale of new employee benefits funded by employer contributions and the interruption of the group experience-rating process. Pleas that sales personnel engaged in the marketing of insurance for employee groups to provide death benefits, disability benefits, protection against health care expenses, and pensions had in effect been put out of business were rejected out of hand, with the explanation that a freeze on wages and prices inevitably creates inequities and that the economic crisis resulting from continuing inflationary pressures was so serious that it was necessary to bring to a temporary halt all increases in the cost of producing goods and services which were being reflected in the upward spiral of prices. The argument that employee benefits of the types usually funded by insurance were not inflationary, and that their continued expansion was in the public interest, proved ineffective. In the view of government economists, the necessity of controlling production cost increases outweighed all other considerations in a period of cost-push inflation, as differentiated from the demand-pull inflation with which we had been familiar in the past. Too, the feeling was general that the exemption of employee benefits during the Korean war had led to undesirable overexpansion.

The government did, however, welcome presentation of views by the industry as to the form regulation should take after the freeze when increases in prices and wages would be permitted on a controlled basis.

There are sound arguments for exemption of insurance from price controls, and particularly short-term price controls, and these were presented to officials of a number of government departments participating in the formulation of policy. Increases in premiums for personal property and casualty insurance lines, and for health insurance, had become very sensitive matters, however, and requesting complete exemption of all types of insurance from price controls was found not to be feasible.

A measure of relief was granted with respect to continued application of experience-rating formulas as the result of publication by the Cost of Living Council of its *Policy Statement No. 16*, which permitted redetermination of rates for all types of insurance, using existing formulas and procedures to the extent that they reflected loss experience and changed conditions of risk but without provision for increases in the prices of goods and services for which benefits were payable. The rationale for *Policy Statement No. 16*, obviously, was that authorized premium adjustments did not, in effect, represent price increases.

It was clear during the freeze that the officials and staff members responsible for formulation and implementation of the government's economic stabilization policies were devoting their resources and energies almost exclusively to design of a postfreeze program. In late October the President announced the November 13 effective date of the new control period, which came to be known as Phase 2, and the administrative structure under which it would be implemented. The Cost of Living Council, which had served as the over-all policy-making body, was continued, and the now familiar Pay Board and Price Commission were established. A number of committees were set up also, to advise with the Cost of Living Council, Pay Board, and Price Commission in areas of special concern such as interest and dividends, state and local government, rents, and the sensitive health care sector in which price escalation had been highly visible. The Committee on the Health Services Industry was given the responsibility for recommending to the Price Commission a procedure for regulating increases in health insurance premiums as well as in prices charged by providers of health care services.

A proposed health insurance premium regulation was submitted by the Committee to the Price Commission early in December, but final action was deferred as the result of a decision to include all types of insurance under a single regulation. An over-all regulation was finally issued on January 11, 1972.

As all of you doubtless know, the insurance regulation permits use of existing rate-making formulas and procedures, reflecting actual costs and changed conditions of risk (including utilization), with customary provision for commissions and for contingencies or chance fluctuation. Claim administration expenses are permitted to be entered into the calculation on the same percentage basis in relation to losses as in the past. However, the factor for price inflation is limited to five-eighths of the insurer's prefreeze factor, and the factor for overhead expenses and profit can be increased only $2\frac{1}{2}$ per cent annually in dollar amount for each unit of exposure. This limitation on the increased charge which can be made for

an insurance company's expenses is found to be quite severe when the labor-intensive aspect of the business is considered.

Both individual and group life insurance and annuities (but not credit life) were exempted from price controls by the Cost of Living Council on November 13, 1971, the effective date of Phase 2. The 1971 amendments to the Economic Stabilization Act enacted in December exempted from wage controls employer contributions for most pension and profit-sharing plans, annuity and saving plans, group insurance plans, and disability and health plans, unless determined by the Pay Board to be unreasonably inconsistent with the standards for wage and price increases. In late February, 1972, the Pay Board ruled that annual increases in employer contributions up to seven-tenths of 1 per cent of the wage base, including exempted benefits, would not be considered unreasonably inconsistent. Catch-up provisions to allow for new plans and improvement of substandard plans were included. In May, 1972, firms with under sixty employees, exclusive of those in the health and construction industries, were exempted from all wage and price controls. These exemptions and limitations have seemed to provide sufficient latitude to permit relatively normal activity in the sale of new plans and the liberalization of existing plans.

Life insurance and annuities having been exempted, the price regulation's effect basically is limited to the various forms of health insurance and to property and casualty insurance. It is safe to say, I believe, that the regulation is considered generally acceptable, since the life and health insurance industry has from the beginning supported the efforts of the administration to control inflation throughout the economy.

No responsibility is placed on insurance carriers or state insurance departments for the control of charges for hospital and other medical care services, although there is a provision authorizing and encouraging insurers to monitor and report to health care providers any price increases that involve significant deviation from the limitations imposed by the regulations, or any increase in use of services or benefits that significantly exceeds a carrier's experience with a provider. Control of prices is the direct responsibility of the Price Commission itself. The principal role in monitoring and enforcing compliance has been delegated to the Internal Revenue Service.

The control system relies heavily on voluntary compliance. Institution of controls which would require establishment of a large new bureaucracy has been deliberately avoided, as evidenced by the fact that the combined staffs of the Cost of Living Council, the Pay Board, and the Price Commission, plus the Internal Revenue Service people assigned to the pro-

gram, total less than 4,000 employees, as compared to the more than 15,000 engaged in the administration of controls during the Korean war.

It was felt necessary, however, to provide for reasonable prenotification and reporting of larger premium increases, and insurers were divided into three categories, or "tiers," for this purpose. Tier I companies, those with revenues exceeding $250 million annually, are required to prenotify to the Price Commission increases involving $1 million or more of annualized premium. In keeping with its objective of limiting administrative staff, the Price Commission enlisted the services of state insurance departments to certify on the basis of the information submitted that these prenotified increases have been calculated in a manner permitted by the regulation. While some flexibility is allowed to the insurer in determining the state to which the prenotification is submitted, it is the general practice of most companies to select the state of domicile. As a result, the states in which the major group-writing companies are located bear most of the health insurance burden.

The staff of the NAIC, working with representatives of the Price Commission and of the industry, prepared guidelines explaining the regulation and prenotification procedures in detail. The states have no responsibilities in administration of the controls on insurance premiums other than this certification of the larger cases.

Both Tier I companies and Tier II companies, those with annual revenues between $50 million and $250 million, are required to report quarterly to the Price Commission all increases involving $250 thousand or more of annualized premium. The regulation prescribing the reporting form and the procedures to be followed has only recently been issued, and the reporting requirements are just now going into effect, retroactive to the first quarter of 1972.

Despite the relatively limited prenotification and reporting requirements, all rate increases, including those involving less than $250 thousand of annualized premium and those made by the Tier III companies, those with less than $50 million of annual revenues, must comply with the regulation. Responsibility for monitoring compliance rests with the Internal Revenue Service.

The increase in the cost of health services generally, including health insurance premiums, continues to be extremely visible and sensitive, and the effectiveness of controls on health insurance premium increases is a highly charged political issue. Unfortunately, the only information available to the public has been the periodic publication by the Price Commission of limited data relative to prenotified price increases acted upon by the commission. These data show an unweighted average in-

crease of 16.8 per cent through June, 1972, and this figure is pointed to as indicating that the controls have had little effect, since the percentage far exceeds the percentage increase in the health care component of the consumer price index.

The lack of propriety of this generalization is obvious. Staffs of the life and health insurance trade associations have recently compiled figures showing that for a group of eight representative companies writing well over half of all group health insurance in the United States, the average increase on 934 cases, each involving over $250 thousand of annual premium, which were considered for rate adjustment between January 11 and July 1, 1972, was only 7.8 per cent. Premium rates were increased an average of 14.6 per cent on 519 of the 934 cases. For the remaining 415, premium rates either were unchanged or had decreased. It is significant that the rate adjustments for these same 934 cases in 1971 prior to the freeze averaged 13.9 per cent. The rate of increase, therefore, had been reduced to 56 per cent of the prefreeze level.

The feeling persists, however, that the regulation should be re-evaluated. A new paragraph has been inserted in the regulation authorizing the Price Commission to require that an insurer produce evidence to show why a particular rate should not be reduced so as to provide a rate consistent with the economic stabilization program. The manner in which this provision will be applied is not yet clear.

The Cost of Living Council is currently conducting studies designed to develop not only proposals for changes in the regulation which would reduce the rate of increase for the short run but also new approaches which might be appropriate if controls remain in effect for an extended period.

Recognizing the effect that changes in utilization of medical care services can have on the over-all cost of health care and health insurance, consideration is being given to the feasibility of utilization controls.

The future of the control program is difficult to predict. The administration favors relaxation as circumstances permit, and present legislative authority expires on April 30, 1973. It does seem likely, however, that if there is a program of price controls extending beyond next April 30, health insurance premiums may well be within its scope.

MR. J. MARTIN DICKLER: My comments are addressed to the question whether or not it is necessary for states to regulate group insurance in the area of minimum standards and standard forms—more specifically, as applied to group health insurance providing coverage for hospital and medical care costs.

We live at a time when consumer protection is a major issue, and it should not be surprising that consumer advocates find health insurance a subject for attention. The great variety of health insurance policies available can be bewildering to the average consumer, and policy provisions tend to be complex. This is also a time when the health insurance industry is being criticized by national political figures as having failed to provide adequate protection for the public. These critics often cite examples of people who believed that they had adequate insurance, only to be bitterly disappointed by meager policy payments after major illness.

There is little doubt that there are people today with inadequate group health insurance coverage. With the inflation that has occurred in hospital and medical care costs, policies providing fixed-dollar benefits may have become inadequate with the passage of time. This is probably more applicable to small than to large group coverage. Larger groups are more likely to have plans providing semiprivate room-and-board hospital coverage and benefits for reasonable and customary medical expenses. Despite efforts of carriers to upgrade fixed-dollar coverage to current expense levels, a poor image has been created by inadequate plans still in existence. The fact that millions of employees and dependents have excellent coverage is usually overlooked. If the objective of an insurance department is to establish a floor of protection by setting minimum health insurance standards, then the interests of both the public and the industry might jointly be served.

It has been argued that such standards should apply only to individual insurance, where the need for public protection is greatest. Group insurance is purchased mainly by employers, who pay a good share, if not all, of the premiums. Since there is no obligation on the part of employers to provide group health insurance, it is possible that minimum standards could discourage the sale of such coverage. From another point of view, it is argued that in most industries group health coverage is very good and is constantly being improved through union bargaining and, moreover, that buyers of group insurance are more sophisticated purchasers than the average consumer. A fairly persuasive case can be made that there is a greater need for public protection in the individual insurance market than in group.

It is unlikely, however, that a state insurance department which has decided to set standards for individual coverage will be inclined to exempt group, especially small group, policies. Group health insurance is all the protection most people have against hospital and medical care costs, and only the wealthier will supplement a group plan with indi-

vidual coverage. Although it is probably true that minimum standards are less necessary for group than for individual insurance, it would appear that in most cases the minimum standards will be applied to both.

A real problem arises in the attempt to define minimum standards for health insurance, since there are wide differences of opinion as to what constitutes minimum coverage. Relatively high minimum standards could mean that insurance protection will be priced beyond the means of various segments of the public. Certainly this would be an unfortunate outcome, since the objective is to guard the interest of consumers. Consumer groups do not always appreciate the fact that the higher the floor of protection, the higher the premium rates will be. Furthermore, if minimum standards are established without any reference to the kinds of insurance currently in force, such standards inadvertently can result in labeling good insurance coverage inadequate merely because of technical considerations.

In the past year there have been several public hearings in New York State in connection with a proposed regulation that would define minimum standards. This regulation contemplates three types of acceptable policies—basic hospital, basic medical, and major medical. All policies issued which do not meet the minimum content of one of these three would be required to be labelled "limited." Many companies are uncomfortable with the idea of having their policies called "limited" and would prefer to issue as few policies as possible with this label.

The hospital policy specifies a minimum of 21 days of in-hospital coverage, which is certainly reasonable as a minimum period of protection. The difficulty lies in determining what level of room-and-board benefit should be considered minimum. It is a real challenge to set a minimum room-and-board benefit in New York State, where semiprivate daily rates can range from over $100 in New York City to between $30 and $40 in the upstate rural areas. Even allowing for variations by area, the question remains: How close to the area-average semiprivate rate should the minimum room-and-board level be? The state insurance department certainly assumes a significant responsibility in determining this level. If it takes the position that the minimum should be a high percentage of the semiprivate rate, this would have the effect of discouraging carriers from selling individual policies, which normally provide only a fixed-dollar benefit for room and board.

The New York Insurance Department is also defining minimum standards for a basic medical expense policy which would provide benefits for surgery according to a minimum surgical schedule, for physician's attendance in hospital, and for anesthesia. In defining a minimum

surgical schedule, a structure of relative values is automatically defined, and this can pose major problems. A wide variety of surgical schedules are in use by insurance companies, and there is the possibility that however well constructed a particular surgical schedule may be, and even though it provides generous amounts for most surgical procedures, benefits for certain procedures might be less than the minimum schedule permits. Thus it is possible to invalidate perfectly good surgical insurance coverage through the adoption of a minimum standard schedule.

Finally, minimum standards for a major medical policy are defined, detailing the kinds of expenses that must be covered and setting permissible maximums on deductibles and coinsurance. In defining minimum standards for major medical, certain problems arise. One section of the regulation has already been promulgated. It prohibits the sale of policies providing coverage for only specified diseases, although provision is made for issuing additional coverage for specified diseases as long as there is acceptable basic health insurance coverage present. A question is now raised as to whether the public should be denied the right to purchase a policy providing protection only against specified diseases: arguments on both sides can be expected.

When minimum standards are set, it may be expected that regulations involving disclosure will also be established, and this will present problems to insurance companies. Again citing New York as an example, the proposed regulations will provide that purchasers of individual policies be given disclosure statements summarizing the contents of the policy and stating whether it meets the minimum standards established by the New York Insurance Department. In group insurance disclosure as to whether or not the insurance meets standards will be a required part of certificates and announcement booklets. Depending upon the extent of disclosure requirements, this could represent a formidable expense to companies, one which eventually will raise the cost of insurance to the public. Hopefully, state insurance departments will keep this fact in mind when designing the disclosure requirements, so that the costs of informing the public do not become unreasonable in relation to the information delivered.

The implementation of a new scale of minimum standards can have a serious impact on the operations of an insurance company. For most companies the tendency will be to issue policies that are equal to or better than the minimum standards in order to avoid having to affix "limited" labels indicating that the coverage is substandard in some respect. Depending upon how the minimum standards are drawn, a company might well find it necessary to refile many different policy

forms and to incur considerable expense in printing new policies and sales material.

Another serious question which the states must consider in the development of minimum standards for insured plans is what effect they will have on noninsured plans and related arrangements such as service contracts. Will the regulation drive many employers toward noninsurance as a convenient escape? What effect will this have on the consumer? On state revenues? It seems clear that any form of meaningful minimum standards should also take into account noninsured plans. At the present time, however, no concrete solutions are available, and it is difficult to predict how the states will deal with this question.

As a group man considering the question whether minimum standards are necessary for group insurance, I perhaps wish they were not. As a realist, however, I expect that some such standards will be adopted and can only hope that the state, in discharging its responsibilities to the public in this area, will not impose arbitrary rules and standards which will incur needless expense without adding consumer protection.

MR. MANUEL M. GORMAN:* The belief that competition, rather than government should be the regulator of price is deeply ingrained in the American business credo. It finds expression in our antitrust laws, to which almost all businessmen pay at least lip service. We have long argued that competition is the most effective, flexible, and responsive regulator of price and hence best serves the public need.

Rate regulation is a mechanism designed primarily to operate where competition fails or will not function adequately. It has been a significant characteristic of the property and casualty business but *not* of the life insurance business generally. Even in the property and casualty business, the current trend appears to be toward less direct government interference with the pricing mechanism.

While rate regulation has not been characteristic of the life insurance business generally, there have, however, been two notable exceptions operating from quite different premises. They are the establishment of minimum first-year group insurance premiums and the control of credit insurance premium maximums—somewhat antithetical approaches to rate regulation.

MINIMUM GROUP RATES

Statutes providing for the regulation of minimum first-year premium rates for group insurance have been enacted in five states: New York in

* Mr. Gorman, not a member of the Society, is vice-president—general counsel for the Life Insurance Association of America.

1926 (sec. 204[2]); Ohio in 1935; Maine and Pennsylvania in 1959; and Michigan in 1960. The Michigan law was repealed in 1969, so only four states remain with such enactments. But because the New York law has extraterritorial application and applies to all group insurance written anywhere in the United States by New York–licensed companies, the impact of this rate regulation is quite pervasive.

Perhaps I should note also that in the area of group health insurance New York exercises a form of indirect rate control through its power to refuse approval of policy forms where benefits provided may be said not to be reasonable in relation to the premiums charged.

The original group life minimum premium statute was enacted because it appeared that some of the companies were accepting group life cases at premium rates which did not seem to be adequate on reasonable assumptions as to mortality, interest, and expense. To put it another way, the legislature stepped in to prevent the continuance of what some regarded as an unsound rate war which could have led to some company insolvencies.

The scale of minimum premiums, or more accurately the loading formula, set by the insurance department for many years appeared to be adequate for smaller groups but rather redundant for larger groups, and was regarded by some New York–licensed companies as creating competitive disadvantage vis-à-vis non–New York–licensed companies. Over the years this feeling resulted in both a number of proposals for repeal or modification of the New York law and the development of various devices to circumvent its application. Proposals for repeal found some receptivity in the insurance department but have been met with mixed emotions by companies which feared that repeal might result in a rash of switching of cases. This, they said, would be adverse to the best interests of both policyholders and companies. There was also fear that competitive pressures might cause some small companies to be faced with alternatives of withdrawing from the group life business or setting premium rates at levels which could result in losses endangering their solvency.

In the most recent go-round on this subject in 1969–70, one of our industry committees recommended repeal; another committee disagreed; and the final result was a recommendation to the insurance department that the minimums be lowered (by modifying "advance expense adjustments"). This suggestion was adopted by the New York department, and the other states involved have taken generally consistent action.

Nevertheless, the New York department this last year on its own initiative sponsored a bill which would have made the group life first-

year minimums inapplicable to any group previously insured—a substantial repealer. The bill was not enacted but may reappear in the next legislative session.

Thus in this area we still have what consumer-oriented critics would regard as the anomaly of a rate-regulatory statute which says that competition is not a trustworthy regulator, that competitive zeal may overcome sound underwriting judgment, and that in this instance the lowest initial price to the consumer is not the prime consideration.

CREDIT INSURANCE

Rate regulation of credit insurance has proceeded on a quite different premise. The competitive characteristics of the market lead to what is commonly referred to as "reverse competition"—competition of a type which exerts an upward rather than a downward pressure on the price of the insurance.

In brief, the system is about as follows: Credit insurance is sold primarily through lenders as an adjunct to loans made. Borrowers rarely shop elsewhere for their credit insurance and thus become practically a captive market. Lenders, as group policyholders, receive compensation for their services through commissions, dividends and rate credits, and frequently through various questionable devices and stratagems. The insured does not receive the benefit of dividends or other refunds to the creditor-seller. In practical effect, the higher the premium for the insurance, the more the lender will ultimately receive for handling it. So he seeks a higher premium, and, if the insurer is to get or hold the business, it must do so subject to the upward price pressure of the creditor-lender who controls the ultimate market.

Thus, in the case of credit insurance, classical concepts of competition fail to operate, and the practicalities of the marketing system have necessitated the intervention of a regulatory mechanism to protect the ultimate consumer—the insured borrower.

This situation has intermittently aroused the interest of congressional committees and has been subjected to vitriolic attack by congressmen and senators who have threatened federal intervention on the ground that the states were not adequately protecting the public in this area.

Actually, while the state regulatory pattern still leaves considerable margin for improvement, it is not as bleak as has been charged and, as a matter of fact, has been steadily improving. To review the record: In 1957 the NAIC adopted a model regulatory bill which stipulates that benefits provided shall be reasonable in relation to the premium charged. In 1959 the 50 per cent loss ratio bench mark was adopted, and in 1966

the Richmond resolution affirmed the 50 per cent loss ratio as a minimum. Over forty states have enacted the model bill, and a number of others have modifications thereof. A large number of these states have promulgated prima facie rates, subject to possible deviation. The major argument has revolved around the prima facie rates which can be justified on the basis of the 50 per cent loss ratio bench mark and the available statistics. As I noted before, however, the state record has been steadily improving.

In answer to the question whether it is necessary for states to regulate group insurance in the area of premium rates, I venture two conclusions: (1) With respect to minimum first-year group life insurance premiums generally: probably not. (2) With respect to credit insurance: unquestionably yes.

GROUP ANNUITY RESERVES

Current valuation laws generally provide for the use of $3\frac{1}{2}$ per cent as a maximum interest rate in valuing group annuities. In recent years this has led to very severe strains on surplus for companies writing any substantial amount of group annuities. The problem is serious for all types of group annuity cases, but particularly for one-shot purchases in take-over situations.

The interest rates actually credited to group annuities have been very much higher than average portfolio rates. This situation is due to a number of factors, especially high rates of return on new investments, the general use of the investment year method of allocation, and the tax treatment of investment returns from qualified pension plans under the company federal income tax act. For these reasons the existing $3\frac{1}{2}$ per cent limitation has been much more serious for group annuities than for other products.

In 1971 the ALC-LIAA proposed to the NAIC that the Standard Valuation Law be amended to provide for the use of a new mortality table (contained in a paper presented at your last annual meeting) and 6 per cent interest for all group annuities purchased on or after the operative date of the amendment.

The NAIC appointed a task force of insurance department actuaries who recommended that such a change be adopted. Unfortunately, the task force also recommended that the model bill be amended to provide that the maximum interest rate revert to $3\frac{1}{2}$ per cent on December 31, 1980, subject to a five-year discretionary extension by the insurance commissioner. This report was made at the NAIC June meeting, and the ALC-LIAA had to oppose this as being unworkable. It takes several

years to get changes in the valuation laws enacted in all the states. This means that no sooner would we get the laws all amended than we would have to start over.

The NAIC subcommittee to which the task force reported directed the task force to resolve the disagreement with industry and to report back before the NAIC meeting in Atlanta in December, 1972. I can now report to you that at the Zone IV meeting in Sioux Falls several weeks ago the task force revised its earlier proposal so that the interest rate of 6 per cent would not revert to $3\frac{1}{2}$ per cent until December 31, 1985, and the C-3 subcommittee accepted the task force report as revised. Thus it would appear that the change will receive NAIC endorsement in December at Atlanta. While obviously we would prefer no automatic reversion date, we are inclined to regard the 1985 date as an acceptable compromise.

It should be noted, for those of you concerned with pension valuation, that it will probably not be necessary to establish reserves which anticipate a reduction in the statutory interest rate to $3\frac{1}{2}$ per cent in 1985.