RECORD OF SOCIETY OF ACTUARIES
1976 VOL. 2 NO. 2

PENSION FUNDING VEHICLES

Moderator: FRED W. MUNZENMAIER.
Panelists: JAMES J. DAVIES, JAMES F. MacLEAN.

1. Choice of Vehicle: Individual Policy, Deposit Administration, IPG, Self-Funding and Split-Funding.

2. Investment Mix.

3. Insurance Company versus Corporate Trustees and Outside Investment Advisors

4. Approaches to Plan Termination.

5. Small Plans.

MR. FRED W. MUNZENMAIER: I would like to point out that there is some good background reading on our topic today contained in the Society of Actuaries study notes. One of them is Pension Fund Investments contained in Part 7 of the syllabus. The other is on Pension Funding Agencies contained in Part 6. With that I'm going to turn the meeting over to Mr. Jim Davies, who will discuss equity returns versus fixed-income investment returns and give us some of his current thinking on pension fund investments.

EQUITY INVESTMENT MANAGEMENT BY ALTERNATIVE FUNDING AGENCIES

Equities as Investments

MR. JAMES J. DAVIES: Undoubtedly equity investments are the most widely used investment medium among employee benefit funds, although this has not always been the case. The shift towards greater interest in equity investments has been occasioned by a number of factors:

(1) The historic excess of the total returns on common stock investments over fixed-income investments, for example, long-term corporate bonds. This excess varies considerably depending upon the period over which the excess is measured. For example, the figure has been as high as 14% per year during the decade from 1952 to 1961. On the other hand, more recent experience during the ten years from 1965 to 1974 has produced a negative excess figure of -1% per year. However, despite short periods during which fixed-income investments performed better than equity investments, the general rule of thumb has been that equity investments have performed about 3% to 7% per year better than fixed-income investments.

(2) Pension and other employee benefits have grown larger and tend to be related more to earnings in the final years of employment. This suggests the need for the investment program to protect assets against the inroads of inflation. While no investment offers a complete hedge against inflation, particularly changes in the rate of inflation, equity investments may offer the best solution for a pension fund with long-range investment goals. Here it is important to note that investors are not compensated for changes in the rate of inflation on a year-to-year basis. In fact, it may be many years before an increase in the rate of inflation is reflected in an increase in the rate of return on common stock investments because of the lag involved in investors altering their earnings expectations and corporations altering their product-pricing policies, as well as the immediate negative impact of an increase in the rates of interest used by investors to discount future earnings.

(3) The equity markets offer a large pool of assets into which pension funds can readily enter and exit, assuming they all do not do this at the same time. Further, the investment industry is well equipped to handle common stock investments as evidenced by the large number of analysts and portfolio managers at the various funding agencies and brokerage firms.

(4) Employee benefit funds with defined benefits are typically better able to withstand the volatility of equity investments than most other investors. Ignoring the practical problems of short-term performance analysis, in theory a pension fund with defined benefits can afford to wait out the storms of the stock market, particularly if the actuary is willing or able to effectively smooth the assets in the actuarial valuation. Of course, the opposite may be true for profit-sharing plans since participants will be looking closely at their regular statements which will fully reflect security price changes.

Equity Strategies

Most of the funding agencies offer capabilities in the equity investment area. Disregarding special forms of equity investment, nearly all the major funding agencies offer some form of expertise in the management of common stock investments. A categorization of investment styles by type of funding agency is not appropriate because each funding agency is free to decide on an investment strategy that is peculiar to its own operation. Hence, the same kind of investment strategy may be followed by one or more insurance companies, one or more banks, and one or more investment advisors. Thus, it may be more important to focus on general forms of equity strategy without regard to funding agency.

There seem to be four main types of investment approach taken in the common stock area, as follows:

(1) An approach often followed by the larger institutions is to work from the broad economic background to decide which areas of the marketplace, such as which industries, are likely to fare best. Projections may be made for periods of up to five years. This allows an investment policy committee to decide on broad sectors of the market in which funds should be concentrated. It is then up to the security analyst to produce appropriate recommendations within each market sector. The portfolio manager would be responsible for coordinating the directions of the policy committee with the recommendations of the security analysts. There are many variations on this particular approach; however, the basic idea is that decisions are made on a "top down" basis running from the broad economy at the top to the individual stock analysis at the bottom.

(2) Some firms, usually among the smaller institutions, adopt the opposite approach and concentrate first on finding appropriate securities in which to invest. Only after stock candidates have been found are they put together in a hypothetical portfolio so that adjustments can be made to produce some overall balance which makes sense in terms of the broad economic outlook. Firms that specialize in this approach often follow only stocks with certain characteristics, such as secondary growth stocks and value-oriented stocks whose shares are not popular with the institutions.

(3) Most funding agencies are basically buy-and-hold investors, for a number of reasons. The sheer size of funds under management may prohibit significant trading in fund portfolios. Further, most investment managers do not claim any expertise in timing entry into and exit from the stock market on a major scale. In fact, academic studies have shown that greater than 75% success is needed in timing market peaks and troughs in order to offset the disadvantages caused by trading costs. Nevertheless, there are some managers who concentrate on these techniques. Usually these firms have their own proprietary formulas and indicators that produce the signals for purchases and sales. Due to the erratic nature of the stock market, it may take two or three market cycles before such a manager can be properly evaluated.

(4) Some funding agencies are willing to adopt a custom-tailored approach for each of their clients. The resulting investment portfolio might include any of the three characteristics already mentioned. The reasoning behind this kind of approach is to completely understand the wishes of the client as to market risk, volatility, cash flow, and other portfolio characteristics. As an example, there are some fund sponsors who are instructing their managers to invest portfolios with a specific beta (or volatility) or realized income measure. With the greater emphasis that ERISA is placing on broad investment strategy, this type of custom-tailored approach may become more popular with employee benefit funds in future.

Funding Agency Characteristics

As already noted, investment strategies vary considerably within each kind of funding agency. However, it might be well to note some special characteristics of each type of funding agency that are noteworthy:

(1) Insurance companies have always been large investors in equity securities because their general accounts have usually included a percentage, usually less than 10%, in such securities. This strong equity background has enabled the insurance companies to handle the large increases in the amounts of funds placed in their separate accounts for equity investment in recent years. The total of separate account equity funds under management by the major insurance companies now is about $10 billion, compared to about $100 billion of employee benefit equity funds managed by the banks.

The separate accounts offered by insurance companies are directly competitive with the commingled bank funds. Performance studies showing the average results for banks and insurance companies seem to indicate that past performance results for the two kinds of agencies have not been significantly different in the past. For those believers in modern capital market theory this result might not be unexpected in an efficient market environment where the institutions involved are handling large amounts of money.

(2) Most of the money placed with bank trustees is held with the big city banks, with the largest holdings in the New York banks. The larger banks tend to operate on a more structured basis in order to maintain adequate controls for the large amounts of money and wide range of funds under their management. In the commingled fund area, separate funds are often available for high-grade stock investments, intermediate-grade, and more speculative issues.

Some of the smaller banks have developed investment strategies which have proved quite successful. Other banks' performance records have been no more than satisfactory, possibly reflecting in some cases a relatively large number of individual accounts and the need to seek investment advice from outside sources such as other banks and brokerage firms. In short, it may be necessary to monitor investment results more closely for the smaller bank than for the larger bank.

(3) When we come to the outside investment advisors, there is a wide range of sizes and investment approaches. Many of the larger investment advisors manage mutual funds, whose public records can be used to give some indication of performance potential. A review of such outside advisors is made somewhat difficult in some situations because of the lack of the kind of information that is readily available in the case of the other two kinds of funding agencies, i.e., insurance company separate accounts and bank commingled funds.

From time to time there has been talk of requiring investment advisors to produce a prospectus showing full details on their organization and a performance record on all their accounts. For many counselors this might prove a difficult and cumbersome task, possibly one of the reasons why such proposed legislation has not been enacted. Without requiring full disclosure, it is sometimes difficult to evaluate whether the performance record is a reliable guide to their past performance.

Special Investment Areas

Most of the discussion on equity investments has related to common stocks. However, considerable expertise has been developed in other forms of equity investment. All kinds of funding agencies are involved in this process to varying degrees. For example, in the real estate area, the banks and the insurance companies have taken the lead in developing separate accounts and commingled funds for such equity investments. However, there are some outside investment advisors that do handle real estate equity portfolios.

Other areas where funding agencies are becoming more active include options, foreign stocks, arbitrage, and convertibles. However, the total percentage of funds invested in these areas continues to be quite small. It is likely to increase significantly in the future since the rate of growth of pension funds is exceeding the rate of growth in capital formation. This may result in the stock market being unable to handle as large a percentage of total pension funds as are presently invested in that area.

MR. MUNZENMAIER: I thought the comment on disclosure by investment advisors was especially good. Sometimes when they're providing us with figures,you wonder what really has gone into those figures and if we're really making a good comparison. And since the rest of us are having to disclose everything anyway, it seems that maybe we should go one step further with the investment counselors. Jim, I think you have some comments on fixed income.

FIXED INCOME INVESTMENTS

MR. JAMES F. MacLEAN: Jim went into a good deal of the theory behind the equity investment of pension funds in the past. We are noticing that a great many plan sponsors are moving substantial amounts to fixed income because of equity performance in the last two or three years, and also because of the emotional impact of the equity volatility involved. Secondly, somewhat akin to the timers, we find that a great many plan sponsors are converting quite a bit of capital gains into fixed income, on the theory that if double digit inflation comes along later on this year, then we'll see the market fall off substantially and perhaps repeat the 1974 cycle. The lubricant that makes this all easy is the current high yield on fixed income and commercial paper.

In the specific area of the options available between insurance companies, banks and counselors, it would appear that the insurance companies have more of a cafeteria available to the pension fund investor. The traditional method of investing in merged assets is very attractive. I think that Pacific Mutual credited 9.6% last year and Bankers of Iowa 9.91%; most of the professional life insurance companies are in this area, between 8.5% and 9.5%. In addition to the merged assets approach, most of the large Eastern mutuals provide separate accounts of varying types. There are ordinary bond funds and mortgage funds. The old tradition of the direct placement bonds that insurance companies have done for some years, avoiding the SEC 10K's and all that expense, produces a gross rate of anywhere from 3/8% to 6/10% in excess of the ordinary type bond trades.

The newest thing of all is the guaranteed fixed-income contract which operates very similar to a bond. One company has a gross rate of 8.85% for a term of eleven to twelve years and 8.80% for nine to ten years and 8.75% for six to eight years. They guarantee an expense charge depending on the size of the funds. It varies from .65% on the first half a million down to .15% on over four million. If you deposit, say, two million dollars, then at the end of the term you collect a compounded rate equal to the gross rate less your specific expense charge. Now we've seen several clients go this route for a portion of their funds. They do have the disadvantage of being illiquid. None of that money can be used for benefit payments or any kind of liquidity problem you might have, so that, in practice, the plan sponsor is restricted to a certain smaller percentage.

Many of the banks are getting into real estate and a combination of real estate and mortgage funds, which are kind of a mix between equity and fixed. Then, of course, the custom-tailored type of bank handling would be in the ordinary traditional U.S. and industrial type bonds. Although most of the great volume of publicity we get out of the investment counselors concerns equities and various types of romantic equity possibilities, there are several investment counselors who specialize in fixed income. The plan sponsor has the choice of hiring an investment counselor to handle his fixed-income portfolio. And it won't be long before they'll have as much explanatory data and sales material as they do on equities. A couple of counselors that occur to me are Fisher, Francis, Trees, and Watts and, of course, Brown Brothers-Harriman. There is plenty of advice available in the fixed-income area and, if you pick your insurance company carefully, possibly they have the largest variety to offer with the exception of the investment counselors.

MR. MUNZENMAIER: I'd like to say a few words on the guaranteed principal-guaranteed interest types of contracts. Generally we have not been recommending them for a defined benefit plan because our understanding is that the insurance company is taking some of the actual investment return that is being earned on the money in exchange for the guarantee. But we do find that these contracts are very appropriate for a defined contribution plan, especially a profit-sharing plan or savings plan that allows the employee to have an investment option, because most of the contracts allow the employees to transfer freely between the fixed-income guaranteed contract and the other investment options in the plan. An employee can get out at his book value, which is the money that he has put in plus the company's money plus the guaranteed rate of return. We find that these vehicles are especially attractive to the employees because we can get from 8% to 9 1/4% gross rate of return on money. After expenses, we find that the actual rate of return might be high as 9% on a particular contract.

We do have certain things that we've been looking for in these types of contracts. One is a provision that the interest rate would be increased if the insurance company increased the rate credited on its new contracts. For example, I know one company was offering 9% guaranteed for the next eight years. A lot can happen in eight years. The new contracts could go up to 10% and what the employee is getting on his money could become uncompetitive. That is one of the first things that we look for and we found that most of the companies are willing to offer an increase in rate credited if the rates that they credit on new contracts go up. Another provision that we look for is some way to get out of the contract at book value without a market value adjustment. Usually, what is required is that this take place over some number of years. For example, one contract allows you to get out at full book value over a four year period in five equal installments. Another one allows the transfer of funds at book value at 1% a month. Most desirably, the contract has a provision to allow you to transfer the contract at market value if it is higher than book value. And that would occur, of course, if general interest rates went down in the future.

MR. DAVIES: I would like to mention a couple of problems with these guaranteed contracts for the thrift plans. One is that most insurance companies would require you to put all your fixed-income money through the insurance contract so that you couldn't invest in bonds combined with the insurance contract and you have to make a full-blown commitment to the insurance contract. Probably few people understand the risks and rewards of the underlying insurance company investments or really understand what they're getting into. And the other problem is, if interest rates go down, the participants may end up with a distribution of money which they can only invest at a lower rate than the rate that they were credited with during the time they were in the plan. For example, if they've been putting their money in with an 8% guarantee, and interest rates go down to 5%, all they're getting back is their book value which they can invest at 5%. If they had been in a bond investment they would at least have significant capital appreciation which they could use to offset the lower income.

I think there are some problems with these contracts which aren't likely to surface for some years because they're fairly new in nature.

MR. MUNZENMAIER: At this point, we'll go on to the next topic which is investment mix.

CURRENT APPROACHES TO INVESTMENT MIX

Introduction

MR. DAVIES: For many years professional guidance for employee benefit funds has been readily available, most often in the form of portfolio managers deciding on sectors of the marketplace in which to invest and security analysts selecting among the companies within a particular industry. However, in the area of deciding on mix between bonds, stocks, cash equivalents, and other forms of investment, professional help has not always been as readily available. Of course, this has varied somewhat depending on the characteristics of the funding agency involved.

However, it is in the area of broad mix that the investment results on an employee benefit fund are most impacted over the years.

Types of Decision

The approach taken most often in the past has essentially involved a passive role on the part of the fund sponsor who has delegated to his investment managers the decisions on how the funds should be invested. All that has been required of the managers has been a regular reporting on investment decisions after the fact. This approach has worked reasonably well in most cases. However, there have been situations where the specific characteristics of the fund, for example, certain projected cash flow payments, may not have been fully taken into account by the investment manager. This may not have been the fault of any specific party, but rather a lack of communication and understanding of the investment process. Further, there have been instances where the fund sponsor and the manager have been reluctant to accept more than a minor degree of volatility for fear of causing actuarial losses to emerge in the event of a bear market.

Less often, the fund sponsor has been more active in instructing the investment manager on investment policy decisions such as broad investment mix. The kinds of situation where this may have happened would be where the corporate treasurer has been quite knowledgeable in investment matters or where the fund sponsor himself may have been quite small and investment decisions impacted his own benefits directly.

The trend is more towards a group decision approach where all parties involved are expected to contribute towards the decision on investment mix. This is particularly important now that the new pension legislation has placed fiduciary responsibility upon specific parties involved in the investment process. The group decision may involve the fund sponsor and the investment manager and his staff, as well as the actuary and/or the outside investment consultant who is assisting in the investment management process. Some consulting firms (either actuarial or non-actuarial) have been heavily involved in monitoring investment performance for some years and the area of assistance with investment mix is a natural outgrowth of their previous activity.

Characteristics of Decision Process

One of the key characteristics has been the type of employee benefit plan under consideration. It used to be that profit-sharing funds would be invested more aggressively than pension funds because it was considered that employees were more willing to be more aggressive with their own profit-sharing balances, particularly where a separate vehicle was available for investment in fixed-income securities at a participant's election. The experience of the 1973-74 bear market has changed some of this thinking in the investment community to the extent that profit-sharing funds are being invested less aggressively.

If there is any kind of benefit fund that can accept greater levels of risk, it is the pension fund where benefits are defined by formula and the fund sponsor is responsible for making up investment losses. Even here, it is important to focus on the extent to which the sponsor is willing to accept increased risk in anticipation of greater long-run returns on the portfolio. The extent to which the different kinds of investment involve risk and volatility can be used to determine the most desirable investment mix. However, an evaluation of risk is often subjective in nature, rather than being statistical, so that any statistical analysis along these lines may well result in an overall investment philosophy that is too conservative.

A more realistic evaluation of the risk-to-reward potential may lie in evaluating performance statistics. Many of the services being offered to fund sponsors, to decide on investment mix, make heavy use of past performance statistics on the different kinds of investment. The distribution of historic returns on different kinds of investments are used to indicate the likely ranges of performance in future years. The longer the future time span being considered, the less the impact of the greater degree of variability in common stocks because of the smoothing effect of the longer number of years, thus increasing the percentage of the fund that might likely be considered appropriate for investment in equities.

The difficulty of evaluating past performance figures can be readily seen by reviewing the last five years' performance figures with a longer span of investment returns. The trouble is that the plan sponsor is likely to focus more attention on recent experience which is close at hand than the longer-term trend of the market place.

The more sophisticated services and some of the better-equipped investment managers are laying more emphasis on the likely course of future investment markets under different economic scenarios. The economy is becoming more volatile as levels of debt in Western society increase to abnormally high levels and governments are less able to control inflation and unemployment. Some say that the danger signals are flashing and that we are in the process of moving towards a major depression along the lines experienced in the 1930's, maybe accompanied by hyperinflation. Others seem to think that inflation at double-digit levels is more likely to be part of past history and that we are now moving into an era of prosperity and lower levels of inflation. Certainly, there are good arguments in favor of either view. The point is that fund sponsors should be carefully considering both alternatives, and even other alternatives, such as a deflationary environment, in setting appropriate investment strategy.

Trends in Investment Mix

We are likely to see more sophistication in the area of making decisions on investment mix. This will likely involve more of the actuary's time, as well as use of outside investment consultants and a greater interest on the part of investment managers.

In the meantime, we may see some struggling on the part of fund sponsors (and even actuaries) in determining appropriate strategy. The planning of investment strategy of large corporations has moved to higher levels as a result of ERISA (often to the Board of Directors or its equivalent). Some of the impact of the greater attention to investment mix is likely to produce results which may appear startling. The movement of a major portion of a pension fund from equities to guaranteed insurance contracts that has been seen in the case of one or two large fund sponsors recently is a good example.

We may see more changes of a major nature in pension fund investments, particularly if more safety is sought in fixed-income securities. It seems important that all professionals involved in the funding process take the time and effort to understand the relative risks and rewards involved in the long-run investment program for an employee benefit fund, so that better decisions on investment mix can be made in the future.

Another result of analyzing investment mix has been to highlight the desirability of moving into new areas of investment. The trend towards more holdings in real estate has been a direct result of the favorable long-term rates of return on certain kinds of real estate (of course, some forms involve high risk) and the attention to fund diversification highlighted by ERISA. We are likely to see more funds moving into real estate, an area where actuarial expertise may be needed in determining appropriate policies for placing an actuarial value on such holdings.

Extension of stock trading on a world-wide basis is likely to force pension funds to consider investments in foreign securities. Already major U.S. corporations are dependent to a large extent on foreign countries for their corporate earnings. Thus this trend towards international portfolios is completely logical and consistent with adequate diversification, and is followed by many European funds.

In short, the approaches currently being taken to decide on mix leave room for considerable improvement. Hopefully, actuaries can be helpful in aiding the process of improvement. The decision on mix is probably the most important investment decision for a fund sponsor.

MR. MUNZENMAIER: At this time we would like to open the discussion to the audience for any questions or comments you might have.

QUESTION: Mr. Davies, you stated that the rate of growth of pension funds is greater than the rate of growth of capital formation. Do you view this as a short or a long-term phenomenon? If you view this as a long-term phenomenon, what potential effect on the stock market do you think this will have?

MR. DAVIES: I guess in answering that question I would look to some of the European funds where typically the pension funds are more mature and the economy is more mature. The pension funds have been having difficulty in investing their funds in the stock market for the reason that I stated. I think in this country it will happen over the next ten years. We saw some of the impact in 1972 when the general stock market was declining and some of the institutional growth stocks were quite strong, primarily because of the pressure pension fund money put into the stock market. When the pressure came off, the decline was quite precipitous. I guess the impact on the stock market will be major. I expect to see more pension funds financing equity capital in the form of private placements, much as insurance companies do in giving money out in fixed-income securities; so I expect to see more deals between individual pension funds or groups of individual pension funds and corporations.

QUESTION: Mr. Davies, you indicated the need for smoothing out the valuations in equity portfolios as they are applied under defined benefit plans. Do you have reference to any new techniques, or are any techniques becoming prevalent to accomplish the smoothing out of valuations?

MR. DAVIES: I guess most consulting firms have their own pet formulas for smoothing assets, and these work reasonably well in most cases. We have two problems that have recently arisen. One is the severity of the bear market in 1973-74, which often caused smoothing formulas to produce actuarial values of assets that were so far above market values that the actuaries shook in their shoes when presenting this information to the fund sponsor. The other thing is the advent of ERISA, even though I understand there have been no firm regulations on what value of assets can be used. It may be of concern to an actuary to use an actuarial value that may be 50% above the market value on any particular valuation dates. If you have to limit your smoothing in accordance with what you think will be acceptable to the government authorities, then the whole point of smoothing is eliminated. The time when you really need the smoothing is when you have the severe bear market. You don't really need it when the bear market is fairly minor.

MR. MUNZENMAIER: We've been working with one client on trying to establish an asset smoothing method. One of the methods they looked at was the five-year moving average method. At January 1, 1975, that method would have resulted in an actuarial value of assets that was 140% of market value. But at the beginning of 1976, of course, it came back and the two values were very nearly the same. Our question was would the government accept the method that produced an actuarial value of assets that was 140% of market? One method often used by our firm is to take the previous year's actuarial value of assets and credit the assumed rate of return, taking into account the pay-ins and pay-outs, and use that value of assets as the actuarial value, provided that it is no less than 90% of market value and no more than 110% of market value. If it gets outside that range, we'll let the actuarial value float up to as much as 120% of market value or down to as low as 80% of market value.

INVESTMENT MIX AND PROJECTIONS

MR. MUNZENMAIER: I would like to discuss more on investment mix, and describe the approach that we are taking in this area. There are two concerns here: one is to prevent the liquidation of assets at a loss in order to make benefit payments, and the other is to see that the client has a cost that doesn't fluctuate widely from year to year due to ups and downs in the market. To help prevent liquidation of assets at a loss, we'd project the benefit payouts for the next ten years. If it looks like there's a substantial excess of company and employee contributions plus investment income over expected payouts, we'd stop there. Then we can say to the client that there would not be any cash flow problem. If it does look like there may be a cash flow problem, then we will make projections of what the actual company contributions would be over the next ten years using various sets of actuarial assumptions.

We also try to go into the unexpected situation, which would be the most adverse cash flow situation that could happen. Generally, that would be the type of situation we had in the 1930-39 depression. One thing that would be considered is a decline in investment income. For example, at the low point in the 1930's, stock dividend income declined by 45%. You'd also have to consider that there would be a decline in the number of plan participants due to a cutback in the employer's staff. Employment dropped by 25% at the low point of the 1930-39 depression and 35% in the manufacturing industries. Then you'd have to consider that plan contributions would not cease altogether, because you'd have to meet the IRS minimum funding standards. We do consider that the employer would probably wait until the last possible minute to make his contribution. The cutback in personnel could result in the maximum usage of the plan's early retirement provisions. We might assume that 100% of those individuals who are eligible for early retirement would retire early. This would help us to establish a liquidity reserve. The employer would take the amount of money that we determined he would have to have available to cover this adverse situation contingency and set it aside in liquid type investments to meet the cash flow problem.

Other things to consider in determining investment mix are the plan provisions themselves. For example, we have one client where one of the key officers is past normal retirement age. He can walk in at any time and draw out a million dollars. We've had the investment manager set aside a million dollars in the event this person wants to retire. Other things to consider are death benefit provisions in the plan which preserve an individual's lump-sum value of his retirement benefit should he die after normal retirement age or after early retirement age. These are some of the considerations that we take into account in trying to help a client establish an appropriate investment mix.

MR. MacLEAN: I thought it might be of interest to mention that we have been retained recently on a sixty million dollar fund to do projections for the next fifteen years with two types of increase in the employee work force. We assume two basic inflation rates feeding into the interest rate and the increase in salary. We actually do a seriatim set of valuations for the next fifteen years, which will outline the various restraints on the fund. The reason for the projections was that the investment committee was concerned over their fiduciary liability. They are willing to pay us a substantial fee to have these various scenarios outlined and to show how prudent they were at this point in time. Now they'll continue to be prudent in the future.

MR. MUNZENMAIER: We will go ahead to question number four on the program, namely, approaches that are being taken on plan terminations. And Jim, I believe you wanted to document one case that you've gone through with the Pension Benefit Guaranty Corporation (PBGC).

APPROACHES TO PLAN TERMINATION

MR. MacLEAN: The PBGC is getting involved in some of these matters for the first time with personnel that are, from my personal experience, relatively inexperienced in these matters. In dealing with the IRS we had absolutely no problems. It was just a question of a reasonable determination of an equitable distribution of the assets on hand. The procedure is pretty much outlined in the average plan. This one I'm doing is my first contact with the PBGC. We had our IRS approval October 15, 1975, and we are still trying to get a certificate of sufficiency out of the PBGC today. This is not a case where the assets are insufficient. It is a case where we used the doctrine of actuarial error and will release some four hundred thousand dollars back to the plan sponsor, after buying out all liabilities from the Prudential and the Union Mutual for the disability part. If you are getting into a situation like this, count on taking quite a long, long time to get the job done.

MR. MUNZENMAIER: We visited the PBGC last week, and they said just the opposite. If the assets are sufficient, they're going to put it right through. We had an interview with the Director of Office Programs and Policy Development at the PBGC and we asked him some questions trying to find out what would happen to us when we go to the PBGC with a plan termination. His first suggestion was, when it looks like a plan termination is going to occur, establish contact with one of the representatives of the PBGC immediately.

They told us that where there is a sufficiency of assets to cover the guaranteed benefits the case would go through PBGC in a relatively short time. They indicated that they would accept tests that clearly showed that the plan had sufficient assets. For example, if you calculated that assets cover 90% of the vested liability, but there have been significant plan amendments within the last five years resulting in a phase-in, and you can show that there is a sufficiency, they would accept that. Another example might be where you can show that the liabilities are 90% funded on an actuarial basis that is much more conservative than what the PBGC uses. They would accept that as a test of sufficiency.

They indicated that in any plan termination, you've got to allow benefits to be payable in the form of an annuity. They aren't going to allow a distribution of the funds to the participants without the plan administrator providing for the individual to take his benefits in the form of an annuity. They also indicated that if there is an insufficiency situation, no lump-sum distributions at all will be allowed. The PBGC will take over the plan and they will not allow a lump-sum distribution. If it is a sufficiency situation, then the way that they will determine the appropriate amount of lump-sum distribution (if that's the election you make) is that they will determine the lump-sum value based on current market rates. They define current market rates as a broad average of current annuity rates being offered by insurance companies at that time. If after paying out the lump-sum distribution under these current market rates there were assets still left over, they would go back and determine lump-sum values based on the assumptions that were used in the actuarial valuation of the plan. If those assumptions were more conservative than their rates, and if those values were greater than the values based on the current market rates, the employees would get the additional amount. Only after you have done that would you be able to release any assets to the employer. We asked them if they would allow a particular company in an insufficiency situation to utilize quotes from an insurance company if they were more favorable than the PBGC rates. He said they might allow it, if it was a solid quote that could be relied on for a sufficient period of time. He did suggest that the best way is to buy the annuity prior to the termination of the plan but only up to the guaranteed benefit limits.

INVESTMENTS IN A CLOSED FUND

MR. DAVIES: The investment policy for a terminated fund that is separately invested is usually considerably more important than for a fund that is likely to continue and remain in perpetuity. Proper consideration needs to be given to the expected cash flow in future years.

The investment mix should reflect the emerging cash outflow requirements and the extent to which inflation protection for the assets is needed to cover any expected or planned increases in future benefits resulting from cost-of-living increases.

Investments made for a shorter term than appropriate for the emerging cash flow pattern will impose a risk on the fund as a result of making future reinvestments at higher or lower interest rates than originally anticipated. On the other hand, investments for longer periods than called for by the cash flow pattern impose a risk that the market value of the investments when they need to be realized may be higher or lower than originally anticipated, particularly if the investments are volatile in nature. Some balance between these two kinds of risk is particularly important in a closed fund.

MR. MUNZENMAIER: We can move on to questions number one and number five which are about a choice of a funding vehicle and also the approaches to minimize expense for small plans under ERISA. At the annual meeting of the society, later on this year, there will be a full session on approaches to small plans. Here we are really just scratching the surface. We did talk to a couple of insurance companies before coming to this meeting and I would like to describe what one insurance company is offering.

In their Deposit Administration contract for twenty-five lives or more, for an annual additional fee of $750, they are preparing all the ERISA amendments, the summary plan descriptions, assisting in preparation of IRS Form 5300, preparing the EBS-1, and helping with Annual Report Form 5500. For an additional $75, they are doing an actuarial valuation and then all of the other benefit payment and accounting functions that you typically find in a Deposit Administration contract. One other insurance company is offering essentially the same services, for plans with an annual contribution of three thousand dollars or more. They're charging 12% of that contribution at that level, graded down for a higher level of contribution.

INVESTMENT OF SMALL PLANS

MR. DAVIES: There is a basic dichotomy in the employee benefit fund area in that a small employer does not have the time or often the expertise to deal with the investments of his fund. On the other hand, if he were able, the small fund is ideally situated to take advantage of less frequently traded securities (e.g., smaller growth companies' shares) which may be capable of producing superior long-run rates of return.

The small plan may be more comfortable in placing funds with an investment manager whose total funds under management are relatively small. This may allow a feeling of comfort that assets are being handled more effectively than with a large manager and allow time to discuss investment philosophy fully with the portfolio manager.

Alternatives available to the small plans include use of mutual funds and investment pools operated by banks and insurance companies. Even some counselors operate pooled funds. Delegation of investment responsibility in this fashion does not in any way reduce the need to monitor performance and review alternatives on a regular basis.

CHOICE OF FUNDING VEHICLE

MR. MacLEAN: I would like to relate one of the types of internal administration of an insurance company on the size basis. There is a rule that no group products will be written below ten lives. Everything has to be individual policy - either ordinary plus side funds, or deferred annuities with or without side funds. Over twenty-five lives, no individual policy contracts can be written. Between ten and twenty-five lives, it is catch-as-catch-can. This is a continuing problem because of very obvious agency pressures involved and the difference in cost between individual policy funding and group funding.

The actuarial questions get down to profit-sharing versus pension plans and the maturity of pension plans. Usually, small plans that are being written might not have any payouts for as long as from five to eleven years. A great many of the small plans are written on closely-held companies where the chief people get into their fifties and decide it is about time to put the plan in, but you still do not have the problem for about ten years as far as investment policy is concerned. For small plans with a bank or investment counselor, coordination of rates and volatility is even more important emotionally than with the large plan. Very often it is necessary to sacrifice a little extra yield to avoid big swings in the asset value. The type of employer and their emotional attitude is important.

Any time you change funding, it is a reportable event, so we have to notify the PBGC and also make an actuarial certification to the IRS. We have run into problems going from insurance companies into trusteed plans. The insurance company is able to write the plan on their own document, sometimes without a separate plan document. Certainly a trust agreement is not needed. Now these items are needed, and it creates new problems. We had a client with a union plan and part of the bargaining was that the plan assets were to be invested in an insurance company. To go with a bank, the plan sponsor had to put this on the bargaining table. These are problems that I didn't expect ten years ago, but that we face now.

MR. MUNZENMAIER: On type of employer and choice of funding vehicle, it seems that the guaranteed rate of interest return type of contract might be appropriate for a city or a hospital where their budgets are public information, and they want a consistent rate of return each year. As long as the actuary has an appropriate salary scale built into the valuation and you can count on the rate of return, this may be an appropriate vehicle for that type of plan. Are there any comments from the audience at this time?

QUESTION: What is your opinion of very short-term paper (one year and less) as a proper investment for pension funds, especially as an inflation hedge?

MR. MUNZENMAIER: One company pointed out that Treasury Bills up through the end of 1974 had done better than the stock market over a ten-year period and better than the bond market, and they wanted to know why Treasury Bills would not be a better investment vehicle for pension fund. It seems to me that is almost like no fund management at all. It seems that investment counselors and banks are out there that can do a better job than just putting them into that type of investment. As a hedge against inflation, could you explain that more?

ANSWER: The short-term paper reacts extremely quickly to increases in the cost of money, far faster than long-term paper, and probably a little faster than the stock market. I believe in Europe they're using short-term paper a great deal to guard against the quick changes to double-digit inflation.

MR. DAVIES: The best kind of management between 1973 and 1974 was no management at all. I think our firm has been recommending that short-term paper is a good investment during times of increasing inflation. Changes in the rate of inflation make short-term paper a very viable investment (at least to protect your principal), and the interest rate is usually almost enough to cover the cost of living. During 1974 you could earn 10 or 11% on your short-term paper, and protect principal during that time when the cost of living was going up 12%. That was pretty good in that kind of environment. The difficulty is that you can get caught out in the cold.

This happened in the United Kingdom where the market rose 100% in a month or two. You have to be extremely careful, or what you are protecting against may run away from you if you are not quick to move on the other side.

MR. MacLEAN: I might add that the market timers go to short-term paper when they sell the market. Their philosophy is to save the principal and keep that rate up, but they do not contemplate it on a permanent basis. Their idea is that when the short-term paper goes up, that is the time to get out of the market.