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INVESTMENT OF PENSION FUNDS

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1. In the context of ERISA and the market and economic conditions of the last several years, what are the proper roles, responsibilities, and expectations of plan sponsors and investment managers? How should investment policies be defined and implemented?
2. What are the aggregates in our capital markets and in pension funds today? Where might one look to select the securities which would be used to implement an investment policy?
3. How should the selection among the supply of available investments by type and quantity be made? What rate of return expectations should we have in making those decisions?
4. How does the actuary, the plan sponsor, and the investment manager monitor performance? What are the standards of accountability? What do they help us say in terms of selection of investment managers, choice of actuarial assumptions, and monitoring the quality of results?

CHAIRMAN WILLIAM A. DREHER: We will try to serve two central objectives. We will provide insight into the ingredients of an investment program, performance objectives, and related goals, so as to assist actuaries in two aspects of their work: in selecting the ingredients of a set of actuarial methods and assumptions, specifically the investment return assumption; and the procedure for relating assets for actuarial purposes. We will also sensitize actuaries to the investment process, in order that you, in turn, can make a contribution in the dialogue that should go on between the plan sponsor and the investment manager, so that the actuarial component of the investment manager program is adequately reflected in the decisions which are made between them.

I would like to quote from the exposure draft of the Academy's Committee on Principles and Practices in Connection with Pension Plans. It has a bearing on the general question of why actuaries should have a substantial interest in investment matters. These quotations are, "The actuarial assumptions selected should represent the actuary's best judgment of future events affecting the related actuarial present value." I give emphasis to the word "future." "The actuary should consider the impact of inflation and the method of valuing assets in selecting the actuarial assumptions to be used." Then, finally, "He should give consideration to appreciation (or depreciation) of investments so as to reflect, in a manner consistent with the investment return assumption used in the calculation of the related actuarial present value, the expected long-range growth of the plan's investments while eliminating the effect of short-term volatility." Upon the formal adoption of this exposure draft, these sentences or some modifications of them will be a basic guideline for all of us. It is particularly important to take this prospective view, because the recent history of investment performance has been miserable, by any historic standard, in relation to any actuarial assumption.

Surveys done by our firm indicate that the ten-year cumulative annual rate of return on bank and insurance company commingled funds is under 1% for the

ten years through 1974. If we need any one fact to illustrate that past performance, even for periods of time as long as 10 years, is not the absolute guide to the selection of assumptions about future events within a pension fund, I would submit that the last ten years give us that demonstration. I only regret that the price has been so high in terms of the impact on the assets themselves.

MR. CARL HATHAWAY:* I will give you three conclusions that we have come to about the Employee Retirement Income Security Act of 1974 (ERISA). First, it is obvious that the attitudes of both managements and trustees will be shaped by the manner in which the regulatory authorities enforce the respective provisions of the Act. But we believe the approach of the Labor Department will be that the Statute and its provisions will be very strongly enforced, but that enforcement will not ride roughshod over existing business practices. In fact, we believe the purpose of the prudent man rule under ERISA was intended as a departure from the traditional personal trust cases in which a balance had to be maintained between the respective rights of income beneficiaries and remaindermen.

We believe it also provides relief from the requirement, in personal trust cases, that each investment stand on its own merits. Significantly, the prudent man rule was not intended by the Congress to be restrictive, but rather to create a frame of reference for the other fiduciary standards, bearing in mind the special nature and problems of employee benefit plan trusts. Hereafter, prudence will be measured against the actions of other managers of employee benefit funds rather than against those of individuals, endowment funds and personal trust managers. That is a significant change.

Trustees who have acted under well-drafted plans and trust agreements and who have adhered to traditional fiduciary concepts, with advice and guidance of competent counsel, should have little reason to be concerned by the imposition of the Federal prudent man rule. We do not anticipate any dramatic change in what we do and how we do it.

Second, we expect a much greater and more continuing dialogue between management and trustees, with more detailed information in respect to management objectives and financial needs of the pension plan. It is expected that under the outlined procedure, the persons who administer the plan will determine whether the plan has a short run need for liquidity, e.g., to pay benefits, or whether liquidity is a long term goal and investment growth is a more current need. This in turn is to be communicated to the person responsible for investments, so that investment policy can be appropriately coordinated with plan needs.

Corporate managements and trustees are currently wrestling with the proper application of this rule. It is obviously the duty of the management to provide the trustee with some rather precise information as to the needs of the plan in the ensuing periods. Some managements have considered that this language requires a much greater involvement in the investment management of the plan assets. Certainly, it is in the province of corporate management to provide the basic information and general guidelines for the trustee, so that he will be able to protect the integrity of the plan. It would appear that, if corporate management becomes too involved in the daily investment decisions of the trustee, a much greater degree of personal responsibility and potential liability may result.

A major client of ours initiated a survey of forty of the most prominent investment managers in the country, trying to better understand the subject. Here are two specific questions and the responses.

*Mr. Hathaway, not a member of the Society, is Senior Vice President, Morgan Guaranty Trust Company.

Query? With respect to investment guidelines of the types indicated below, do you consider that their establishment should be the responsibility of corporate management, the investment manager, or a joint responsibility?

	<u>Corporate Management</u>	<u>Investment Manager</u>	<u>Joint Responsibility</u>
Diversification percentages	3	16	21
Bond rating limitations (e.g., "Baa or better")	3	17	19
Dollar limitations on investments in any single asset (stock, bond, or real estate)	4	11	24
Prohibition of specific securities, industries, or types of investments	20	3	16
Other	6	1	7

Query? In your judgment, what is the best way to establish a mix objective (or the range within specific mix determinations are made) for a pension fund?

- A. Corporate management should determine the mix, based on--
 - 1. Independent judgment
 - 2. Concurrence with investment manager's recommendation
 - 3. Concurrence with actuary's (or other third party's) recommendation
- B. Investment manager should determine the mix, based on--
 - 1. Independent judgement
 - 2. Concurrence with corporate management recommendation

In this inquiry, there was a lot of double-answering. The Act requires diversification of investments of the plan "so as to minimize the risk of large losses, unless under the circumstances, it is clearly prudent not to do so." This creates a new dimension for trustees previously acting under New York State law or other state laws where there has been no such requirement. It is unlikely that any regulations will be issued providing detailed guideposts for fiduciaries on what constitutes proper diversification.

It is incumbent on corporate management, where there are multiple managers, to provide investment managers with overall guidelines and an indication as to how diversification should be attained. It is unrealistic to assume that any trustee can secure information on a continuing basis and maintain general categories of investment in proper focus acting on his own.

There's enormous dichotomy between what corporate managements believe should be a proper diversification and how it should be implemented. I want to give you a range of what we have received in this sense from several clients. This is from a very major company with over a billion dollars in pension fund assets. The policy that this company has enunciated to us is that:

- 1. The company's investment managers have full discretion both with respect to the choice of investment media for the pension fund and the distribution of pension fund assets among the media chosen.

The company does not participate in these decisions nor does it attempt to influence them in any way.

2. Each investment manager is expected to design an asset structure that, in his view, is appropriately related to the total pension liability. The company will provide a response to the specific questions by investment managers and all necessary information concerning the pension liability.
3. Each investment manager is expected to manage his portion of the company's pension fund total as though the assets under his supervision were all the company has.

His asset structure should not be influenced by knowledge of: (a) how other managers are investing, or (b) the composition of the pension assets in total.

Now here's the opposite extreme - another company with a billion dollars in assets, with multiple managers:

Policy: The company's investment philosophy is to seek the greatest return on its pension fund assets, consistent with the fiduciary character of the fund. Since fixed income securities are segregated under separate management, managers should concentrate on equities as the principal investment medium. Common stocks and equivalent investments will normally constitute at least 90% of the invested portion of the portfolio with greater exposure to fixed income securities contingent upon notification of company.

Objectives: In order to achieve a balanced portfolio, the company has selected managers with varying investment objectives. Each manager is to select investments consistent with the investment philosophy previously exhibited and upon which his selection was based. All investments should recognize that the preservation of capital is inherent in the fiduciary nature of the trust. Performance will be measured both on an absolute basis and in relation to individual investment objectives. In all cases, consistency of yield is preferred to an equivalent overall yield resulting from several interim fluctuations. Since earnings of the pension fund are not taxed, ordinary income or capital gains are equally desirable.

This is another extreme.

1. At no time shall more than 20% of the market value of the fund be invested in common stocks. However, if the market value of common stocks exceeds the 20% specified above and such excess is attributable solely to market action, the trustee shall not make any further investment in common stocks, but shall not be obliged to dispose of any holdings in common stocks simply to reduce the value to the percentage specified above.
2. All common stocks included in the fund shall be listed on the New York Stock Exchange, unless previously cleared with a responsible designated individual.
3. Fixed income investments shall consist of marketable securities of a quality rating of a least A or better and a range of maturities.

4. The fund shall not invest directly in direct placement securities.
5. No portion of the fund shall be invested in special situations.

One can see, even in the corporate area, there is a dichotomy about how ERISA is going to be interpreted and what's going to come about as a result of it.

The cumulative effect of two relatively poor investment years in succession has made many managements uneasy with the risks inherent in any other investment except fixed income securities. Thus, even before the effective date of ERISA, and the prudent man rule, corporations imposed guidelines and changes of investment horizon on their trustees. This trend will continue, particularly when funding requirements under the statute become effective as of January 1, 1976 and experience deficiencies must be paid up in fifteen years. Therefore, we expect cash return to assume a greater role than it has for companies in the investment of funds. But we hope that corporations would not overreact and retrogress to the rigid restructuring of investment policies.

A counsel for the Secretary of the Treasury called me the other day and said that they were very concerned about the reaction that they were getting from people who manage money and people responsible for plans, in relation to their attitudes about investments, investment in equities, and investment in small companies. I told him we're not going to do anything different than we did historically. We're going to invest in small companies and we're going to invest in equities. He said that that's the first person who has told him that.

The Department of Labor very strongly wants that to be done and all its interpretations of the rules so far encourage it to be done. But there are many people who believe that a very significant change is going to take place. There is a very clear and present danger that may develop because of an overreaction to ERISA. We are trying in our conversations with clients to try to mitigate this overreaction and to ease it, but, when it's combined with the experience of the last two years, it is very difficult to do so. Maybe people, if we have better experience, will come to realize that the last two years were an aberration, hopefully only every 40 years. If they don't, there are going to be problems for the capital markets and other problems as well.

CHAIRMAN DREHER: It's our conclusion, from review with our counsel and discussions with managers, that the issue is not, can you hold the securities of a small company or one which doesn't have the history of earnings and dividends that the larger companies do, but have the decisions made with respect to each of those investments followed sound principles and accepted practices, and are they in an effective way being monitored during their life within your portfolio.

MR. GEORGE JOHNSTON:* We are seeing a trend toward management positioning itself more than before in terms of broad allocation of assets, many more wanting either complete bond management or complete equity management, and more control at the management level as to allocation within the broad categories. This could be misread in that the greater desire for bond management may be the reaction to the stock market in the last couple of years and not just an ERISA reaction.

* Mr. Johnston, not a member of the Society, is President, Scudder, Stevens & Clark.

MR. HATHAWAY: It is definitely the responsibility of the plan sponsor, working with his actuary, to be in a position to provide us with specific information that relates to the liabilities of the plan, the assets of the plan, the funding of the plan, and, in a sense, the distribution of the mix of assets so that we can make a reasonably intelligent recommendation to the company about how we should invest that portion of the assets that we are responsible for, if, in fact, we are not designated as an equity or fixed income manager. Most companies that we are in contact with have this information available. We've been asking for it for a period of eight years in determining our own investment policy for each account. There is not going to be a great deal of change in the way we have been behaving, but I think for other people there may be somewhat of a change.

CHAIRMAN DREHER: There has been an effort among many of the progressive firms to increase the quality of this dialogue in the understanding between themselves and their clients. I would expect there would be an important increase in the documentation of this dialogue. Too often in the past, impressions have been created and accumulated over time that are quite inconsistent with the original basis upon which the relationships were established, and it is very important, for mutual protection, that that danger be avoided or minimized.

MR. ALLAN B. ROBY, JR.: In digging through musty toms full of statistics on the capital markets and flows of funds data for this panel, I was struck by three thoughts:

1. Economics is well named the dismal science! The lack of good reliable data is astonishing, given the number of economists busily at work. The figures I will be sharing with you are based on several sources which - while never specifically agreeing - do have the real virtue of agreeing in magnitude and trend.
2. Pension plans are not very important in our total capital markets...
3. But are very important in major segments.

Table I shows estimated year-end financial assets held in the U.S. for three selected years. I draw your attention to the following:

1. Total financial assets are estimated to be a shade over \$3 trillion in 1975.
2. Those types of assets which pension funds normally hold - stocks and corporate bonds - will total about \$1.2 trillion. Thus, pension funds investment decisions directly impact about 1/3 of the total.
3. While corporate bond assets have grown rapidly over the nine-year period, stock assets have grown only slightly. Part of this is due to market losses on stocks, but the major cause is the increasing reliance on debt rather than equity in corporate financing.

TABLE I
 BOOK VALUE
 YEAR-END FINANCIAL ASSETS - U.S.
 (billions)

	<u>1966</u>	<u>1971</u>	<u>1975</u> <u>(est.)</u>	<u>Compound</u> <u>Growth Rate</u>
Mortgages	\$ 332.1	\$ 460.5	\$ 648.4	7.7%
Corporate Bonds	126.6	216.9	304.7	10.3
State & Local Bonds	103.4	165.8	223.3	8.9
Foreign Bonds	<u>9.5</u>	<u>14.6</u>	<u>21.9</u>	<u>9.7</u>
Sub-Total	<u>571.6</u>	<u>857.8</u>	<u>1,198.3</u>	<u>8.6</u>
Commercial Loans	249.1	381.8	608.0	10.4
Treasury Debt (Public)	<u>239.0</u>	<u>296.3</u>	<u>421.4</u>	<u>6.5</u>
Total Debt	1,059.7	1,535.9	2,227.7	8.6
Stocks (Market)	<u>665.9</u>	<u>1,004.7</u>	<u>852.3</u>	<u>2.8</u>
Total Assets	\$1,725.6	\$2,540.6	\$3,080.0	6.7%

Notes: 1. "Commercial Loans" includes money market instruments.
 2. "Treasury Debt" includes Federal Agency debt.

Sources: 1. Salomon Brothers "Supply and Demand for Credit," 1973, 1975.
 2. SEC Statistical Bulletin, April 1975.

Table II shows us the share of these assets held by all pension funds other than Federal pension schemes. I do not believe you will be surprised to see that fund holdings of debt have been rather constant in terms of the supply available.

TABLE II
 BOOK VALUE
 YEAR-END PENSION FUND ASSETS
 (billions)

	1966		1971		1975 (est.)	
	\$	%	\$	%	\$	%
Corporate Bonds	72	56.9	114	52.6	163	53.5
Other Long Term	15	3.4	19	3.0	19	2.1
Sub-Total	87	15.2	133	15.5	182	15.2
Commercial Loans	---	---	1	0.3	2	0.3
Treasury Debt (Public)	10	4.2	7	2.4	8	1.9
Total Debt	97	9.2	141	9.2	192	8.6
Stocks (Market)	46	6.9	110	10.9	116	13.6
Total	\$143	8.3	\$251	9.9	\$308	10.0

- Notes: 1. "Other Long Term" includes mortgages, state and local bonds, and foreign bonds.
 2. "Commercial Loans" includes money market instruments.
 3. "Treasury Debt" includes Federal Agency debt.

- Sources: 1. Salomon Brothers "Supply and Demand for Credit," 1973, 1975.
 2. SEC Statistical Bulletin, April 1975.

The holdings of total corporate bonds exceed 50% throughout the period. Hence, pension funds are extremely important to the corporate bond market. The pension influence on other forms of debt is not significant.

Over the nine-year period, pension funds have doubled their relative holding of stocks. This rapid growth is not surprising, given the increasing awareness of the ability of pension funds to invest for the very long term. However, the relative holding of stocks is still rather small - especially in comparison to the relative bond holdings. Does this mean a small influence on stocks?

Table III shows the relative flows into stocks and bonds. It is evident that from a cash flow viewpoint, pension funds are the major factor in the stock market. Furthermore, this table reinforces the observation that pension funds play an important role in corporate bonds.

TABLE III

FLOW OF FUNDS
(billions)

	<u>STOCKS</u>		
	<u>1967</u>	<u>1971</u>	<u>1975 (est.)</u>
Pension Funds	\$ 5.7	\$ 12.1	\$ 6.8
Other Institutions	3.4	7.2	4.6
Individuals	<u>(6.8)</u>	<u>(5.8)</u>	<u>(7.6)</u>
Total	\$ 2.3	\$ 13.5	\$ 3.8
	<u>CORPORATE BONDS</u>		
Pension Funds	\$ 5.3	\$ 7.4	\$ 12.1
Other Institutions	4.9	6.6	9.8
Individuals	<u>5.8</u>	<u>9.7</u>	<u>9.4</u>
Total	\$ 16.0	\$ 23.7	\$ 31.3
	<u>OTHER ASSETS</u>		
Pension Funds	\$ 5.8	\$ 4.2	\$ 7.5
Other Institutions	66.3	148.2	144.2
Individuals	<u>(1.8)</u>	<u>(17.0)</u>	<u>11.6</u>
Total	\$ 70.3	\$ 135.4	\$ 163.3

Source: Salomon Brothers "Supply and Demand for Credit," 1973, 1975.

Now that we have proven what everyone knew already, what can be said about the future impact of pension funds on the capital markets? I would like to develop two differing scenarios for you:

A. The passage of ERISA and its emphasis on vesting and funding requirements will reduce cash flow for corporations. This will cause increased problems in building adequate capital bases with internal funds. The increased cash flow into pension funds will tend to be invested in the larger, stronger companies. Thus, lower credit companies will be unable to recover their "lost" cash flow without paying significant premiums for both debt and equity.

This is not necessarily bad for the economy. Cash is forced from marginal companies into the market which will price the funds efficiently. In other words, the efficiency of capital resource allocation is improved, but perhaps not the fairness. The government will try to meet this problem. While a tax subsidy is possible, the most likely result is an expansion of Federal Reserve credit to make sure everyone gets their fair share. An expansion of credit by the Fed., in order to force capital allocation to lower credit companies, will lead to increased inflation.

There will be a shift from deposit-type assets to equity or debt instruments because of the substitution of pension benefits for current pay. That is, there is now a pressure on companies to increase cash flow into pension

funds which can only be met by curtailing current pay increases. Because of this shift from deposit assets, there will be a trend toward a bid-up of the interest rate on deposits. There will be pressure on the regulatory authorities to abandon regulation Q and other restrictive rules.

The capital markets do operate efficiently in resource allocation. Therefore, they will adjust to the new rules. The extent of government interference with the free working of the system will determine the time needed to adjust. The more interference, the longer the time.

B. The Pension Benefit Guaranty Corp. is another new factor on the scene. The liability insurance provisions will allow companies anti-selection in two ways:

1. Under-funded plans can increase the risk in the underlying assets (to the extent allowed by the fiduciary provisions).
2. To the extent the Guaranty Corporation has a chance of being left holding the bag, shareholders of sponsoring companies gain by choosing to increase pension benefits rather than wages in labor negotiations.

To avoid burdening the taxpayer with the cost of this anti-selection, the Guaranty Corporation will increase the premiums paid by strong, healthy, conservative companies. Thus, it will create a conduit by which capital will flow from the strong to the weak companies.

Which of these two scenarios will come true? Probably neither in its entirety. I believe we will see a period of increased conservatism in pension fund investing while the rules and regulations are absorbed. Relatively more funds will be invested in bonds over the near term. Once we are all comfortable with the new situation, equities of strong companies will again be favored. I believe we will see a continuation of the two-tier market, where the top tier is composed of financially strong companies (where financial strength includes a well-funded pension plan) as opposed to a top tier of only growth companies.

CHAIRMAN DREHER: If you consider the numbers which we've heard for the aggregate of pension fund holdings in bonds and stocks as representing 20 to 25% of the total outstanding securities of those two types, and overlay on that the presumption that this sector of our national system of savings is going to continue to be growing more rapidly than other forms of national savings, you have to ask yourself: For the longer term, what is the reasonable balance between the isolation of savings in this tax-free form, dedicated to the payment of claims stretching out over 40 or 50 years, and the allocation of those savings to other public policy purposes? It suggests that we may have a fascinating debate in another five to ten years involving such questions as the tax status of pension fund asset accumulations.

MR. JOHNSTON: Figures are more difficult to come by in Canada. We talked to two big insurance companies. Neither of them wanted to be quoted, and neither would give us an estimate on equities, but we could get bond figures. We have our own figures on equities, but, generally speaking, the rule of one-tenth is the convenient rule with respect to Canada versus the U.S., in terms of national wealth, national income, and divisions of assets. It is amazingly consistent when you compare, for instance, the corporate bond market; there is about \$22 to \$23 billion in aggregate terms now. That is just about 1/10th of the figures you saw a minute ago. The total government securities there, which are the federal government and provinces, is about \$78 billion. In the U.S., there are \$663 billion. Mortgages in Canada are about \$55 billion; here, they are roughly \$700 billion. Equities are in the range of \$70-\$100 billion--I would suspect \$80-\$85 billion right now--and our total in the market is about \$850 billion now, which was \$700 billion on December 31, 1974. Private pension assets in Canada totaled about \$15 billion as of June 30, 1974.

It's interesting that the pattern is a mirror of ours, although it is my general understanding that the proportion that is in equities there is generally lower than it is here.

MR. HATHAWAY: I was just at a conference on capital formation that Fortune magazine put on. It involved industrialists and investment managers and people from the federal government. The theme of the conference was: would there be a capital shortage over the next five to ten years? There was a consensus that there would be a requirement to raise about \$250 billion in equity money over the next ten years to finance the orderly growth of our economy. If you did it on an average basis, it would require about \$25 billion a year of equity financing. Never has this amount of money been raised in the equity market. The maximum that has been raised has been about \$22 billion. Individuals have been the net sellers and, in the last five years, they have sold in every single year. The least amount they sold was \$5 billion and most about \$9 billion. So there is going to have to be a very significant change in the way individuals invest their money to finance the orderly growth of the U.S. economy.

The only way that will come about is to have a bull market in securities. It's like a revolving door. If you don't have a bull market, you don't have growth, and if you don't have growth, you don't have a bull market. There is a real problem here. It's obvious that, if you don't require the growth, you don't require the financing. One way or the other we rationalize this. Pension funds are an integral part of this whole involvement and a very critical factor in it. I don't think it is definitively important whether you put all the money in equity or bonds. They will both finance growth in a sense. But there is going to have to be significant equity investments to produce the combination of this \$25 billion, by both individuals and pension funds.

CHAIRMAN DREHER: I get one sense out of these numbers. If the distribution of available bonds and stocks is approximately one unit for bonds and three units for equity and if that is roughly the distribution of bond and stock holdings within pension funds, it really would not be possible to have any major shift of pension fund investment strategies without an enormous dislocating effect in terms of the rates of return on individual issues and the market values, particularly, of the equities. I think there are some interesting questions here relating to the selection of salary assumptions for pension funds. If you viewed the gross national product as representing the aggregate of economic resources, and then consider how that's going to be distributed between rewards to capital and rewards to labor, and if capital formation needs emphasis in the future that it hasn't received for the past 10 to 20 years because it has unsuccessfully competed with the claims for labor, and if it does successfully compete in the future, that will leave less as a share to be flowing through to increase real wages for employees. And with lower rates of real wages, what effect will this have on savings?

It is only out of such savings, that the investments can be made to create the assets on corporate balance sheets which are needed for their growth. It's intricate and fascinating, and one can begin to understand some of the relationships between economics and investment and the actuaries role in trying to define liabilities and pension costs.

MR. JOHNSTON: The answer to the question of appropriate types of assets is that optimum portfolio which will produce the greatest total number of dollars over the long term within the perimeters of satisfactory risk, legal restraints and size of markets. In order to concentrate attention to reach a reasonable conclusion, it is, perhaps, desirable to hypothesize that we are

going to have neither runaway inflation nor prolonged recession or depression. We operate comfortably within these dreaded extremes with continuing growth in real terms but with no implicit assumption that we have won the battle of inflation. Nor can we assume that we will regain the worldwide preeminence we enjoyed for over twenty years after World War II.

Also in discussing the subject of types of investments, it seems appropriate to note that, with the large development of wealth in this country, the ownership of much of our wealth is represented less in the physical possession of tangible assets than in the financial claims on tangible assets--represented primarily by bonds, stocks, mortgages and loans.

With this background, I think we can reasonably project that bonds and stocks will continue to represent the major portion of investments by long-term pension funds. In a secondary tier there will be mortgages, and in a distinctly third---and much smaller---tier there will be investments in real property such as undeveloped real estate, direct ownership of commodities, gold, undeveloped natural resources, and some small investment in direct operating businesses.

I suggest that we will continue to see innovation and development of new forms of handling investments in the interest of spreading risk, efficiency, and expense reduction. Thus, it would be reasonable to expect a broader utilization of commingled funds and mutual funds designed to solve more effectively specialized investing problems, which could range across high-risk small companies, short-term investments, foreign investments, and real estate equity and mortgage pools. It is also possible that a commingled approach might be evolved for some of the exotic, non-income-producing assets, but I suggest that any wide use of such assets would have to wait for a broad conviction that we are inevitably faced with high and runaway inflation.

In selecting investments, the question is always ultimately: which investments? and which types of bonds and stocks? Time does not permit a lengthy analysis, but I suggest that within bonds the primary emphasis will continue to be upon high-grade marketable corporates and, to a lesser extent, U.S. Agency issues and U.S. Treasury issues--- with almost no investment in municipal bonds and foreign bonds. Within the much discussed real estate field, it would seem likely that pools of mortgage investments will have a growing appeal, and we will see further success in the development of syndicated mortgages in the form of mortgage bonds which might have growing appeal for pension funds.

Pension fund investment in common stocks will, of necessity, as well as with much prudence, continue to emphasize primarily the issues of large and seasoned companies with emphasis upon current yield and growth rates, depending upon the level of interest rates and economic prospects. However, I expect we will continue to see a not-insignificant investment through pooling and mutual funds in smaller companies---and perhaps in high-grade foreign equities. On the point of foreign equities, there is growing interest because of the diversification they offer, but I expect that the actual dollar flow from U.S. pension funds into foreign equities will be slow in developing.

As far as non-income-producing assets are concerned, I think we have to be skeptical as to whether they will be appropriate except under extreme circumstances. Since the investment of pension money seeks to produce an optimum total return in dollars---whether earned from income or price enhancement---such investments as gold, commodities, mineral reserves and undeveloped real estate, which represent appealing storehouses of value, may not stand the test of investment suitability in many seasons. Clearly, if we could be certain that we will have the disease of runaway inflation, their appeal is obvious. If we could be certain that we will have severe and prolonged recession, even the appeal of cash and the very short-term investments is obvious (for a while). It is within the great middle ground between these two

extremes where it may seem best that such investments are left to the individual, the entrepreneur, the land developer, or the speculator.

What will be the relative importance of assets in pension funds in broad terms? Let's first look at how pension fund assets are presently distributed. Private pension funds presently have about 40% of their assets in bonds of all types, but mostly corporate, about 55% in equities, and 2% in mortgages. State and local pension funds presently have about 68% in bonds, 23% in stocks, and 7% in mortgages. If we combine these two large segments of pension funds, which have aggregate assets of \$225 billion, we find that the aggregate is invested about 52% in bonds, 42% in stocks, and 5% in mortgages.

Much of the investment history of the last fifteen to twenty years has been a reduction in the difference in promised returns from bonds and the expected returns from stocks. Perhaps putting this another way is to say that shortly after World War II there was a substantial premium in terms of expected return from equities, partly because there were continuing worries about the postwar depression and the cold war. On the other hand, we came out of World War II with enormous surpluses of savings and a high liquidity position, so we had low interest rates and a high bond market. The inroads of inflation leveraging of balance sheets, lower savings, and the changes in the structure of our economy have caused bond yields and expected returns from equities to come much closer together. Thus, the utilization by pension funds of these two broad markets will likely shift based on economic trends and expectations which will be watched closely. However, I see no basis for concluding but that bonds and stocks, with their advantages of marketability, information and efficiency of investment, will continue to account for most of pension fund investing---close to 90%. Mortgages and real estate-related investments may creep up to 10% to 15%, and I believe that other types of investments will remain decidedly minor.

Turning to the most difficult question of rates of return which may be anticipated on various types of investment, it seems essential to have a general long-term economic forecast. I think it is not only practical but logical to assume that our system will survive and prosper with growth in real terms, although we face secular inflation and many structural changes in our economy. For sake of discussion, I suggest that we will have real growth of 3% or more per annum, inflation averaging in the range of 4% to 7%, and a greater volatility in our system than we have known for many years (until the recent past), because our financial institutions are apparently unstable now. Our currency and banking system and international monetary relationships are unstable, and it's going to take a long time for us to face the solutions that can introduce more stability. At present, high-grade, long-term bonds afford yields of about 8 3/4% to 9%. We have all learned that they can be very volatile in price. However, sustained investment in this market should produce total long-term returns in the range of 7% to 10%. Success in reducing our structural inflation would lead me to conclude that the return would be more toward the lower end of this range over the long term.

Equities, being more diverse, are not as subject to easy generalization, and 9% in the bond market is stiff competition. This is particularly so against the background of the past few years when inflation and recession have added substantially to the volatility of equities, mostly on the down side. Returns of recent years have been low and negative in most cases, and one could defend the conclusion that equities are inappropriate for long-term fiduciary investment. However, it is important to note that equities continue to be the residual claimant of profits in our system, and of dividends. Further, volatility in and of itself is not necessarily adverse for the long-term investor since it affords opportunity for investment at attractive price

levels.

Assuming that invested capital in U.S. corporations will be employed effectively and profits will share in the growth of our system, the short answer to the question of return is that equities should afford long-term total return within the range of 9% to 13%. This can be far off the mark in any short period of time, but it can be supported by analysis of expected return on capital, by a review of present dividends and estimated growth in dividends, and by the analysis of earnings yields on equities in general. As far as mortgages are concerned, I believe their return will be slightly above that afforded by the high-grade bond market. But here, too, we have a great diversity of type of investment, and a good single number estimate would be 9%.

CHAIRMAN DREHER: Our firm conducted a series of interviews in January and February among eight of the large investment advisory firms with a focus on their economics and research inputs to their decision making. Among the things we discussed were their 20-year expectations for inflation, bond rate of return, total and equity rate of return. The range of replies included long-term views of inflation between 3% and 6%. On the general premise that the current coupon rate on long-term corporate bonds of good quality is going to be equal to the inflation rate plus an amount of 3%-3½%, you come then to an expectation for bond performance over the longer term varying from 6%-9½%, with a fairly considerable consensus in the 7%-8% range. Adding on to that the equity premium which compensates the investor for taking the risk inherent in common stocks in exchange for the more secure fixed income return, in the range of 3%-5%, you get a range of total equity expectations of 9%-14½%, and with a sense in the middle of a narrower range of say 10%-12%.

MR. MURRAY BECKER: We shouldn't assume that the last two years have cancelled out all the lessons of the last 50 years, and an actuarial assumption is something that we are talking about for the next 40 or 50 years. Since we like to talk about the differential between interest assumption and the salary scale, there are enough problems in the economy that we should be concerned. Can we continue to be able to get 3½% or so plus the amount of inflation in long-term bonds? For the last several years we have had negative results; that is, salaries have been going up because of inflation by very large amounts and investment results have been negative by even larger amounts. It seems to me that one might think of narrowing the gap a bit, but one wouldn't go around saying that we should panic into assuming, for example, salary scales that are higher than the rate of interest or even the same as the rate of interest.

The state of the art in investment performance measurement has not changed much in the last several years and has been well covered in previous actuarial meetings. The early techniques involved the utilization of dollar-weighted and time-weighted rates of return, with comparisons made to various market indices and to results of other investment managers. Then came the development of the alpha and beta technique and so-called "risk-adjusted" rates of return. In my opinion, alphas and betas have added a lot of seeming sophistication, but are of very little validity as a tool for appraising investment performance, policies, and managers.

Aside from these rather widespread techniques, there are undoubtedly other tools which are being used here and there. For example, one might study such items as portfolio characteristics, what would have happened if certain stocks had not been sold, or what the true costs of a transaction are, aside from the obvious.

We are in a period now of trying to determine the best ways to translate the mathematical techniques available into tools for obtaining better future

investment performance. This leads me into the second topic, and I'd like to begin by discussing performance goals.

For many years, the majority opinion has been that performance goals should be relative to the market. But everytime we go through an interval such as 1973-74, the possible use of absolute goals to preserve principal tends to be re-examined. Obviously, the use of absolute goals implies that the plan sponsor expects the investment manager to be substantially out of the stock market whenever it is going to decline. Is this a reasonable expectation?

This is a judgment for the plan sponsor to make. If he feels that there are investment organizations with market-timing skills that will be right more than half the time, then an absolute rate of return goal can be considered. Otherwise, he is simply creating a standard of performance which he cannot expect to be met in practice.

A more widely held opinion is that no one has ever proven the ability to outguess the market. To put it another way, those who try to predict the market tend to be right about half the time. The half that are right, of course, are the ones currently claiming to have the proven expertise.

If the plan sponsor does not wish to impose the market-timing approach, then the goals for the investment manager should be market related. Before discussing relative goals, I would like to comment on the more basic question of whether an investment manager can out-perform the market averages. Most plans sponsors think so, or at least act as if they think so, but this is a premise that cannot be proven.

Indeed, there is some proof alleged to the contrary. From time to time, there have been studies indicating that the aggregate performance of institutional investors, by and large, are the market. Furthermore, even if the typical institutional investor does not out-perform the market averages, this does not preclude the existence of organizations with above-average track records and superior capabilities.

Again, we are dealing in an area where no one's theories can be proven. It seems to me that when a plan sponsor hires an investment manager, he should expect something in return for the fee. And this something should be above-average performance, relative to the market. Otherwise, the plan sponsor can arrange to get performance equal to the market, at much lower cost, by simply investing in an appropriately selected sample of the stocks underlying the particular average he wants to zero in on. In short, given the premise that the investment manager should earn his fee, the plan sponsor has a right to expect performance over a period of time that is in excess of the market averages.

I've heard many employers state goals, such as: "We expect our investment manager to out-perform Standard & Poor's 500 by 10%." The problem with this goal is that it's difficult to make it workable in practice. Every investment measurement study must have a beginning and an ending point, and in practice you find that this kind of goal tends to be met whenever the study ends at a high point in the market and tends not to be met when the cutoff is at a low point. This is because pension funds tend to invest in stocks which do better than the market when it is going up and worse than the market when it is going down.

Accordingly, it seems to me that goals that automatically adapt to up and down markets are preferable. This can be accomplished by using separate goals for up and down markets. For example, you might use a goal for common stock investments of 15% better than the market when it is going up, while accepting performance 5% worse than the market on the down side. This approach makes each particular investment measurement study more useful for purposes of appraising investment management and policies.

Incidentally, one of the outcomes of ERISA will be greater emphasis on

fixed income investments, partly for prudence's sake and partly for greater stability. For this reason, the plan sponsor may well want to earmark a segment of the fund for fixed income investments and make the investment manager responsible for the allocation between fixed and equities only with respect to the remainder. In such case, the relative goals would be applied only to the portion within the investment manager's discretion.

It is unreasonable to expect any investment manager to meet the goal every year. The best one can hope for is to meet the goal cumulatively over a reasonable period of years and, perhaps, more often than not. How long an interval is a "reasonable period of years"?

Statistically, I would say you'd certainly want to go five or ten years before the results can be considered credible. However, few corporate managements have the luxury of waiting until the results are statistically valid. A more realistic interval is three to five years (including at least one full market cycle), with the shorter interval being imposed only if the results seem disastrous.

CHAIRMAN DREHER: The process of monitoring is not a slide rule test that gives us a score card in an absolute sense which dictates decisions about allocation of capital or the retention of investment managers. The goals themselves should be structured to be responsive to the characteristics of the investment policy. Some managers may, for example, be expected to have considerable latitude in the amount of funds which they hold in cash equivalents depending upon their view of the current state of the equity markets. So, in that context, including the cash equivalents with their stocks to determine the total results and to have an appropriate bench mark for comparison would seem prudent. Also, as managers are given wider discretion to move freely between bonds and stocks, you have to seek sector performance goals as well as goals that relate to the totality of the responsibility.

In that context we've been experimenting lately with hybrid goals. For example, if it's agreed that the investment manager will, over time, move within a corridor that might be, say 50% to 80% of stocks, and that over a longer time period a 35%/65% distribution would prevail, then one could develop a theoretical result based upon a combination of 35% investment in a fixed income index and 65% in either a common stock index or results achieved by other common stock managers. By accumulating results on this hybrid, you then are in a position to compare the manager's actual results, which represent the combination of his success in selecting sectors as well as success in selecting individual issues.

MR. BECKER: I think you can have separate goals in up and down markets without having to time the market. The investment manager can achieve that simply by being better than the market, by having better than a sample of the market. He has to do that to out-perform it in the first place. Perhaps his stocks will increase by the upside goal, or even more than the goal, and perhaps they won't go down as badly. You have to think of these things as targets. You're looking at them cumulatively and if the cumulative goal is met you tend to be very satisfied.

MR. JOHNSTON: On bonds, measurement of this type of performance is still in its infancy, because we have had the Dow-Jones for years and haven't had a bond index. I suggest that we use the term fixed income rather than bonds to make sure that we remember that bond management encompasses anything from one day to 100 years in managing a bond portfolio. There are not many indices well constructed yet. We have a long way to go for that.

The other thing which affects both bond and equity management and total portfolio management which I don't think any of us have a good enough handle

on yet is, how is the fund invested for what happens next. This is almost more critical in bond investing than it is in stock investing.

MR. RICHARD G. SCHREITMUELLER: The various investment media discussed by the panel thus far this morning involve securities or trust funds of one kind or another. Insurance company general asset account investments are also an important investment medium for pension funds, and are a special breed of cat in several ways:

1. The life insurance companies who manage these investments are not fiduciaries under ERISA, at least several of the major insurance companies have so stated that this is their position. The underlying reasoning, which makes sense and is in accordance with rules of the Labor Department and the Internal Revenue Service, is that the "plan asset" is the insurance company contract itself, which thus is analogous to a security which might be bought by the plan sponsor or his trustee.
2. Insurance companies are not regulated by any federal agencies such as the SEC, or the bank regulatory agencies with regard to the manner in which they "sell" general account investments to plan sponsors or disclose the financial results. The only significant regulation is at the state level, and is primarily concerned with the insurer's solvency.
3. General account funds held under typical open-ended pension funding contracts of the DA or IPG type usually do not have any objectively determinable market value.

Depending on the terms of the particular funding contract, the plan sponsor who invests in an insurance company's general account may be placing a very high degree of faith in the insurer to provide fair treatment of items which are not guaranteed in the contract, such as interest rates, reserves and asset value calculations. In practice, if the insurer does not live up to this faith, the plan sponsor and participants seem to have no recourse against the non-fiduciary insurer. It has been our feeling, backed up by some experience and research, that insurance company general account investments are attractive during the first few years the contract is in force, but become progressively less attractive as time goes on, and are least attractive at the time of termination. It is interesting to note that, in the absence of realistic market values which can be readily determined, there is no generally accepted way for a plan sponsor to measure and compare the investment performance of funds being held in an insurance company's general account.

Much more could be said about this subject if time permitted, but we will simply make three suggestions about general account investments. First, as actuaries, we should be careful about signing our names to actuarial statements under ERISA which disclose asset values that may not in fact be available solely to provide benefits to the plan participants. Second, it may be advisable to bring the lack of regulation or disclosure, and other questionable features of many insurance company funding contracts, to the attention of the plan sponsors, so that they may properly assess any fiduciary risks which they could be exposed to under ERISA. Finally, insurance companies may wish to consider whether the conventional open-ended DA and IPG group pension funding contracts of a year ago are still appropriate for funding pension plans which are subject to ERISA. An insurance company contract is not a trust fund, or a regulated security, and all of us involved in pension plans should recognize these facts in whatever dealings we may have with general account investments.

MR. STANLEY LUTHER EISNER: As investment manager, how do you help your clients quantify their risk aversion and thereby come down to some mix in their portfolios? I think everybody agreed this is going to be a jointly developed thing between the plan sponsor and the investment manager, depending upon his risk aversion. How do you go about getting the client to identify that risk aversion and then reflect it in your investment portfolio?

MR. JOHNSTON: I don't think that betas and alphas have been much help in determining an investment portfolio, particularly on stocks. What you really need is a future beta. Most betas are historical, and the investment process is trying to price the future, and what we really need is that future beta. We have to go on our experience in the volatility of the markets and types of securities and try within the parameters of what we understand the client's aversion to risk may be, to show what, based on our thinking about the future, these markets are likely going to do. They are going to be very volatile, whether we are talking bonds or stocks. In some cases, we have a responsibility to keep a client from overreacting in trying to eliminate risks. I don't think in our society we can eliminate risk in any form of investing, even in cash.

MR. HATHAWAY: The quantification that we attempt relates to the available return in fixed income securities and historical returns that stocks have earned. When available returns on fixed income securities get close to the historical level of equity performance, and that is about 9%, you have to sit back and say, why don't you invest in fixed income securities. If you don't, you must expect equity securities to have a substantially higher return, and then you have to qualitatively announce to the client why you expect that quantitative result. Sometimes it doesn't happen. But, when the returns approach one another, you've got to think awfully hard about investing in fixed income securities. Last year, we put half a billion dollars into fixed income securities because of the inverse yield curve that existed. You have to definitely anticipate a higher rate of return in equities than 9%, if you have 9% bonds. It's as simple as that.

CHAIRMAN DREHER: We have found it very illuminating for ourselves and for the people whom we work with to look at the past. All those numbers have been there, but most of us until the last few years haven't taken the time to look at the absolute rates of return over different times, and for different classes of assets. Just sitting there and stopping and looking at what has actually happened in the past can be eye-opening, and the extent of volatility under deflationary and under inflationary conditions has been a reality. I am convinced that it will continue at least at these levels in the future. Likewise, it is greater for stocks than bonds, perhaps three times as great as compared to a fixed income portfolio with a wide and more conventional distribution of maturities extending from quite short to very long.

Another thing that we found useful is to ask questions relative to the pension fund in the context of the entire company. The nature of the business, the size of its profit margins, the cyclicality of its revenue base, the size of its labor cost, and the extent of its pension fund commitments can make a company more or less able to tolerate the earnings per share consequences of investment volatility. One can use numbers to illustrate ideas without assuming that the numbers force you to a unique solution. They can help one sense the range within which a comfortable solution or conclusion will be reached.

Thirdly, one can see these matters prospectively by simulating the future evolution of a pension fund, taking into account the dynamics of short term investment performance for bonds and stocks, and testing, through the feed-

back mechanism of the actuarial asset evaluation procedure, how investment volatility, first filtered through the asset valuation method and then dampened by the gain and loss amortization procedure, will impact a base level of pension costs. These are instructive and numerically oriented efforts to deal with some large uncertainties.

MR. MARTIN LEVENSON: I wonder whether this sort of quantitative measure of risk is the whole story in all cases. I heard recently of a situation in which the trustees of a multiemployer pension fund decided to consider getting out of the stock market entirely. They raised the question to the bank that was serving as their corporate trustee. The bank's response was that if the trustee decided to take that action they didn't think that they could continue to serve as corporate trustee, because they no longer would be complying with the requirement of ERISA concerning diversification of assets. I find that far fetched and don't imagine that that would come to be a widely held view.

MR. HATHAWAY: We considered it and the law specifically does state that 100% in specific security forms might not be construed to be diversification, but I don't see how anybody can criticize you for being 100% in U.S. Treasury bills if the stock market goes down 40%. It is the kind of direction that we do not like, especially if we disagree with it.

Last year, about September to December, which would have been the worst possible time to do something like that, we would have resisted it very strongly. Three of our clients did suggest that. We finally convinced them that they shouldn't go all the way. They went some of the way. Their activity costs have been enormous in terms of what they have lost and what they could have gained. We required that they, because they were then fiduciaries under the law, specifically put that in writing to us, so that if somebody at a later date said, why were you so stupid as to sell all these stocks in October 1974, and now the market is up 50%, and to buy fixed income securities which either have gone down or stayed the same, we would have some record of it. We do very strongly resist those kind of overtures and, hopefully, will resist them at such times as they are particularly inappropriate to accomplish.

MR. JOHNSTON: We're not a trustee bank, but under the new rules we're fiduciaries along with everybody else. There should be extensive dialogue on anything like this and communications, so both sides can understand each other; and we would resist an extreme in this direction just as we would resist it in the opposite direction of saying that we think you ought to be 100% in stocks all the time and do 20% better than the market. We simply wouldn't take the account. We have disqualified ourselves when we get what really is an extreme.

