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ACTUARIAL PRINCIPLES AND PRACTICES FOR PENSION PLANS

Chairman: CARL H. FISCHER. Panelists: JOHN HANSON, CONRAD M. SIEGEL, GEORGE B. SWICK

1. Discussion of the Exposure Draft Recommendations of the Academy Committee on Actuarial Principles and Practices in Connection with Pension Plans
   (a) Determination of actuarial present values under pension plans
   (b) Recognition of inflation in the determination of actuarial present values under pension plans

2. The "best estimate" requirements of ERISA.

MR. GEORGE B. SWICK: As you know, I am Chairman of the Academy Committee on Actuarial Principles and Practices in Connection with Pension Plans.

Before getting into our recent Exposure Drafts, I would like to remind you of the purpose of the Committee, and the basis upon which we now function.

The mandate under which the Committee now functions is contained in the following provision of Academy Opinion A-4 of the Guides to Professional Conduct.

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

The work of the Committee was difficult enough prior to September 2, 1974. The enactment of the Employee Retirement Income Security Act added a new dimension. Section 302(c)(3) of the Act provides as follows:

> "For purposes of this part, all costs, liabilities, rates of interest, and other factors under the plan shall be determined on the basis of actuarial assumptions and methods which, in the aggregate, are reasonable (taking into account the experience of the plan and reasonable expectations) and which, in combination, offer the actuary's best estimate of anticipated experience under the plan."

Also, Section 302(c)(2)(A) of ERISA provides:

> "For purposes of this part, the value of the plan's assets shall be determined on the basis of any reasonable actuarial method of valuation which takes into account fair market value and which is permitted under regulations prescribed by the Secretary of Treasury."

Certainly a multitude of practices can be covered by the words "the actuary's best estimate." We hope the work of the Committee will add some comfort to actuaries operating in this new world of Federal legislation. We also hope that our work will assist actuaries in public relations. One of our primary goals is to prepare Recommendations which will assist the actuary in dealing with non-actuaries, as well as giving guidance to actuaries in their professional capacity.

As previously indicated, ERISA has caused us great concern. The somewhat loose wording of the Law makes it difficult to anticipate its regulations, and we have had many discussions on the intent of the Law.

Now, what were the comments on the first Exposure Draft, and how did we deal with them?

There were six basic criticisms:

1. The Exposure Draft does not present any significant actuarial principles and practices.
2. References to actuarial cost methods were insufficient.
3. The restatement of present practices will stifle the development of new ideas and procedures.
4. There is evidence of a lack of research.
5. Criticism of the specified approach for computing the present value of accrued benefits under an active plan.
6. Finally, the accountants complained of our suggesting the identification of accountants who may have audited data and/or asset valuations.

Furthermore, at New Orleans last fall, the Chairman of the Society Pension Committee suggested on behalf of that Committee that we promulgate a Recommendation that the accrued benefit method not be used for average final salary plans.

The Committee believes that it has dealt effectively with these comments.

I believe you will find, after careful reading of these two Exposure Drafts that they are directed primarily towards <u>disclosure</u>.

Perhaps the most important Recommendation of each document is Recommendation 4, which in each case reads, essentially, as follows:

> "The extent to which benefits should be funded in advance of the date when they must be paid is a decision to be made by the plan sponsor, with the assistance of the actuary, in light of many factors, including regulatory requirements, collective bargaining considerations, financial practices, accounting considerations, and alternative uses of money. If the funding pattern differs from the long-term pattern consistent with the Recommendations set forth herein, the actuary should disclose the trend of the funding pattern, and should indicate, at least approximately, the impact of such funding pattern on future pension contributions."

The inclusion of this statement in each document, made it much easier to complete the balance of the Recommendations.

Within the context of Recommendation 4 of the Exposure Draft on Present Values, I believe the most important provisions are as follows:

In line with current thinking of the Society's Pension Committee, Section 2.3 reads:

> "The term "supplemental present value" is preferred by the Committee as a designation for the quantity variously referred to as "accrued liability," "past service liability," and "supplemental liability." The Committee believes that the term "supplemental present value" best describes the present value of future contributions to the plan in excess of expected future normal costs, and therefore recommends the use

of this term in lieu of those previously used. In some actuarial cost methods, "supplemental present value" is not a direct present value of specific benefits, but instead is an amount derived from other present values (e.g., an amount equal to the excess of the present value of total projected benefits over the present value of expected future normal cost)."

The discussion of Actuarial Cost Methods has been simplified.

New Procedures have been given greater attention. In the projected benefit method area, the following language has been added (Section 4.2):

"Projected benefit methods have, in the past, generally been applied to the existing population of plan participants without allowance for replacement of terminated employees, or changes in the size and structure of the workforce. However, the Committee recognizes and accepts projected benefit cost methods based upon projections of the existing workforce adjusted for expected new hires and expected future changes in the nature of the workforce.

While in the accrued benefit method area, the following new language appears (Section 4.2):

"The accrued benefit method has, in the past, generally been based upon units of benefits accrued to the determination date using historical records. The Committee recognizes and accepts the accrued benefit method under which retirement benefits are first projected to expected retirement on the basis of relevant actuarial assumptions, and the current cost is then based upon an appropriately pro-rated portion of that total benefit. To determine the total projected benefit at retirement, actuarial assumptions may be made with respect to salary scale, prospective entitlement to early retirement benefits in excess of those having equivalent actuarial values to the accrued normal retirement benefits, projection of Social Security benefits and taxable earnings, etc. As used in this context, the accrued benefit method has some of the attributes of a projected benefit method."

Following this up, and recognizing the statement of the Society's Pension Committee regarding the accrued benefit method, the following Recommendation 2 is included (Section 4.5):

"Where the accrued benefit method is used with respect to a plan benefit formula related to compensation in the years immediately preceding retirement or other termination, the actuary should base his calculations on the pro-rata portion of benefits projected to expected retirement or other termination date."

There was much criticism of the handling of one-year term cost, and this has been changed to emphasize stability as well as magnitude.

There was much criticism of the specified method for computing the present value of accrued benefits under an active plan. This has been revised, again to a disclosure posture.

As regards the accountants, we have eliminated the references in the first Exposure Draft. As you are aware, there is a liaison group of Academy members and members of the AICPA. It is my belief that this group will be successful in satisfactorily defining the relative positions of actuaries and accountants, particularly with respect to complying with ERISA.

Now, turning to inflation, and again within the context of Recommendation 4, we have recommended that inflation:

1. be recognized explicitly in each actuarial assumption affected;
2. while it is perfectly acceptable to reflect inflation implicitly, if inflation is recognized implicitly, the actuary should take pains to report the effect of such an approach; and

3. whether recognized explicitly or implicitly, the actuary should disclose his assumptions regarding the level of inflation assumed.

The Committee recognizes the difficulty in dealing with inflation, and also recognizes the fact that serious consequences of inflation are of recent vintage. I would call to your attention the following annual compound rates of increase in CPI:

1925 - 1974	2 + %
1950 - 1974	3 + %
1960 - 1974	3-3/4%
1970 - 1974	6 + %

This certainly gives the actuary substantial area for judgment of the future. Indeed, it may be appropriate for the actuary to present results on alternative assumptions as to inflation.

Actuaries giving implicit recognition to inflation must do so with utmost care. The relationships are certainly different for:

1. flat benefits or career pay plans vs. average final salary plans; and
2. plans with no post-retirement cost-of-living increments vs. those which do provide for such increments (whether limited or unlimited).

It is encouraging to note that a number of articles are now appearing in actuarial literature regarding these relationships.

The relationships of inflation on such assumptions as

1. turnover,
2. disability, and
3. unreduced early retirement

have not been the subject of any papers, with which I am familiar. Suffice it to say there would seem to be some relationship in these areas.

Some of the old familiar "rules-of-thumb" regarding interest rates and salary scales do not hold up where

1. the plan is well funded,
2. there is a large current pension payroll, or
3. there is a liberal unreduced early retirement provision.

It is primarily for these reasons that the Committee came to the conclusion that explicit recognition of inflation in each actuarial assumption is preferable. Neither actuaries nor their clients, should be lulled into misleading pension commitment forecasts based upon the results of some other actuary with respect to some other pension plan.

MR. JOHN HANSON: Although I intend during the course of my remarks to make one or two critical comments about the work of the Academy leadership in this area of principles and practices, I would like to affirm that I don't question the sincerity or motivation of either the Board or the Committee. Also, I think they have represented the profession well in other areas. I know they are sincerely attempting to solve the problems as they perceive them.

I think we all know from our work that a problem clearly stated is half solved. I hope someone will have the sense to put on the brakes, and understand the problems of ERISA, before approving principles and practices that unnecessarily expand the problems of the pension actuary.

I am firmly convinced that it is possible to solve the problems that exist with respect to public plans not subject to ERISA and to solve the problems that exist with respect to ERISA plans. But you surely can't do that if you don't distinguish between them.

The Problems of the Pension Actuary

What are the problems faced by the pension actuary? Some see the problem as a lack of credibility of actuaries in the eyes of the public. Others see the problems perhaps as a need to prove to the public that actuaries are in fact a professional group. I have mentioned the need to avoid personal liability under ERISA.

An important practical problem is to decide how to proceed on a basis consistent with our scientific heritage. It seems to me that we can't prove our professionalism by renouncing or ignoring our heritage.

Another major problem in my opinion is the failure of the Academy leadership to provide guidance for the Committee on Principles and Practices. As a result, the Committee is burdened with both the task of defining the problems and finding the solutions. The Committee has also been asked to investigate the potential liability of the actuary under ERISA and to meet with the Secretary of Labor to discuss the language in the EBS-2 certificate. This is an unreasonable burden for a single committee. The objectives of the Academy officers in my opinion are too vague to be adequate: their charge to the Committee seems to be "put the house in order." They seem to want change for change's sake.

Pension actuaries also have the problem of contending with uninformed opinions by officers of the Academy. For example, one officer of the Academy, with a work background suggesting no pension experience, indicated in The Actuary, "We need full-time actuaries to work on actuarial principles and practices." I submit that the time spent by the Committee on Principles and Practices has been more than adequate to develop recommendations meeting our needs. The problem has been and I believe still may be a lack of agreement on an intellectual approach. I am certainly not interested in financing a full-time actuary hired by the Academy to develop rules and regulations.

General Comments on Recommendations

Let me turn to some general comments about the recommendations of the Committee. I believe they would be more helpful to laymen if the terms used were familiar to laymen -- specifically, if the terms were those of ERISA. I don't find the term "supplemental present value" to be particularly useful and I don't think it will frequently be used. Also, I don't think it helps to refer to "accrued benefits" as something that they aren't.

The Committee indicates that they are attempting to develop material that will be helpful to actuaries in dealing with non-actuaries. Whether the material will be helpful remains to be seen. But there is the related question of whether the committee wants to be helpful to laymen. It seems to me that the actuarial profession should make an effort to help auditors, the SEC, the security analysts, the economists, Congress, and the CASB to solve the problems they face by applying our special expertise. We can't do that if we don't speak their language. It appears to me that these recommendations, intended to help actuaries, may confuse laymen, and I sincerely hope that isn't intentional.

It is apparent that these recommendations are now unavoidable, and I think they should accomplish two basic objectives:

1. The first objective is to set forth the various viewpoints of actuaries for the purpose of educating laymen and also for the purpose of laying the groundwork for recommendations that will be acceptable on an intellectual basis to actuaries. It is important to do this, and I would say that no group of actuaries, including the Committee, could possibly write down all of the arguments in favor of explicit recognition of inflation, write down all the arguments in favor of implicit recognition of inflation, view these arguments objectively, and then prefer one over the other.

2. The other basic objective of these recommendations should be to rule out certain procedures which probably 9 out of 10 pension actuaries would agree are incorrect. For example: the use of assumptions that are inconsistent with respect to inflation under ERISA; inconsistent normal cost and past service liabilities for the minimum funding standard of ERISA; and the use of term costs for calculating the cost of vesting at termination of employment.

Potential Liability of Actuaries

In addition, I believe that the recommendations should take the potential liability of the pension actuary into account. Attorneys and accountants have suggested that our obligations will evolve in the manner of the accountants as "public experts," rather than as a result of the fiduciary responsibility requirements of ERISA. After reading the proposed regulations of the Joint Board of Enrollment, I think this is likely. There may be disagreement on whether we will be named as "fiduciaries" in regulations yet to come, but I don't think there is much disagreement that we are likely to be sued from time to time.

Anyone that thinks there is no connection between these recommendations and our position in a lawsuit is exceedingly slow and dimwitted. I think it is vital to ask whether there isn't something important to learn from the relationship of generally accepted acounting principles to the SEC, to court decisions, and to the auditors. In an effort to try and have some understanding of these matters, I have reviewed a number of court decisions and other material, and I think it is fair to summarize the relationship in this way. Essentially the SEC will assume that any report prepared using principles that have no substantial authoritative support will be presumed to be misleading, and only general acceptance by the accounting profession will overcome this negative presumption. The following quotes are from the January 1975 issue of The Vanderbilt Law Review:

1. Page 150 - "In cases where financial statements.......are prepared in accordance with accounting principles for which there is no substantial authoritative support, such financial statements will be presumed to be misleading or inaccurate despite disclosures contained in the certificate of the accountant or in footnotes to the statements provided the matters involved are material."
2. Page 150 - "The 'authoritative support' necessary to overcome this negative presumption is general acceptance by the accounting profession."
3. Page 151 - "Auditing standards gain 'authoritative support' through formal adoption by the American Institute of Certified Public Accountants (AICPA)."
4. Page 152 - "The Accounting Principles Board (APB) of the AICPA and now the Financial Accounting Standards Board (FASB) have attempted to establish a uniform set of specific accounting principles, binding upon members of the profession and dealing with all areas of financial accounting."

Where does that leave the auditor when he is a defendant in court? Let me read two additional quotes:

1. Page 155 - "Judge Carter refused to consider the expert testimony of an accounting professor who offered his opinion that the application of defendant's method of accounting had made the financial statements misleading and deceptive. Once it had determined that the expert's opinion did not represent the majority view within the profession, the court rejected this testimony -- without so much as a fleeting comment on whether the majority view was 'fair'."

2. Page 156 - "the court summarily dismissed the challenge to this method when the plaintiff conceded that LIFO was generally accepted in similar circumstances."

The Committee may have established the explicit recognition of inflation as the "preferred approach" in the belief that the use of the implicit approach would be satisfactory if disclosed. It seems likely from the above that any preferred approach may become a uniform standard if our liability evolves like that of the auditors. The following six court decisions show how the liability of auditors has evolved over the years from a laissez-faire standard to required disclosure of all material relevant information to criminal liability for intentional deception:

1. National Surety Corporation vs. Lybrand (1939)
2. Fischer vs. Kletz (1967)
3. Escott vs. Barchris Construction Corporation (1968)
4. Rusch Factors, Inc. vs. Levin (1968)
5. United States vs. Simon (1969)
6. 1136 Tenants' Corporation vs. Max Rottenberg & Co. (1971)

They also indicate the following:

1. Actions were brought in each instance (and I am including a criminal action brought by the SEC in U.S. vs. Simon) only after some individual had suffered a dollars and cents loss.
2. The liability of auditors results generally from "mistakes" that are material and the part of the damages resulting from causes other than the "mistakes" is at least in theory not recoverable.
3. There is much litigation about materiality. In the SEC sense, an item is material if some person's actions would have been different based on an alternative handling of item in question.
4. The following seems to me to be obvious:
   (A) The more rules, the more mistakes, the more liability
   (B) The more preferred approaches, the more adverse testimony, the more liability.

Auditors have an immense liability problem. An auditor can be charged with responsibility for a dollars and cents loss almost any time and from almost any quarter. On the other hand, an actuary can be charged with responsibility for a dollars and cents loss, it seems to me, primarily in the event of a plan termination, since employees with benefits uninsured by the PBGC might file a lawsuit contending that the contributions should have been higher and their benefits should have been funded. Another possibility is that an employer, faced with a contingent liability, might make the argument that he never would have adopted the plan of benefits if he had really understood the total cost. These are good solid possibilities for lawsuits. Clearly auditors need rules for their defense. But detailed actuarial principles and practices on matters involving judgment are more likely in my opinion to make actuaries targets than to provide a defense in the type of lawsuits that might realistically be envisioned.

Comments on Recommendations on Inflation

I would say first of all that the treatment of the use of assumptions that are inconsistent regarding inflation is inadequate.

Some actuaries believe that assumed salary increases may logically exclude anticipated inflation in the event that the financial plan of the sponsor is to recognize the inflationary costs of the future from the presumably inflated revenues of the future. These actuaries also believe that the investments of the pension fund may nevertheless be assumed to earn a return including an element of inflationary or productivity return inasmuch as the full range of investments are available to the fund investment manager.

Such actuaries thus believe that an assumed rate of salary increase of 1/2% to 2% per annum intended to reflect "merit" increases only may sometimes be adopted along with an assumed investment return that recognizes the impact of inflation and that might be 6% or 7% or more.

In my opinion inconsistent assumptions of this type are not appropriate under ERISA, and perhaps the profession might wish to attempt to restrict the use of such inconsistent assumptions under plans not subject to ERISA. But I think it is very important that the profession acknowledge the logic behind this viewpoint. The actuaries who have used this logic are not unscrupulous or immoral, and if we don't demonstrate an understanding of these various viewpoints, continued opposition seems to me to be inevitable. Any person using a procedure that is outlawed is likely to continue to object if he believes his viewpoint isn't understood, because he will also believe that, if only the profession understood his thinking, the particular rule would never have been made.

The draft prefers explicit recognition and the only arguments I can find in the draft, other than the mere assertion that it is best, is the statement that the following two dangers exist if inflation is recognized on an implicit basis:

1. A false impression may be given that the plan's actuarial basis is quite conservative; and
2. The performance expectations from the pension fund's investment policy may be set too low and/or an inappropriate investment policy may be selected.

Those in favor of implicit recognition respond that the actuarial basis will in fact generally be more conservative under the typical plan subject to ERISA when inflation is recognized implicitly. They point out that Opinion A-4 suggests the need for adequate assumptions and that substance is more important than appearance in any event. They don't believe that the level of the assumed rate of return should have or (based on experience) has in fact had any significant bearing on investment performance; they think that the reporting of a high assumed rate of investment return is as likely to lead to inappropriate investment policy as a reporting of low rate of return and that the potential result of reporting a high rate of assumed return would be to encourage a speculative investment policy. They observe that the reporting of high rates of assumed salary increases has been objectionable in practice to some employers on the grounds that such rates might establish targets under negotiated plans, perhaps leading to higher than necessary wage settlements. They also believe that a high assumed rate of return is less credible than a low rate of return in view of investment performance in recent years.

There are also what I regard to be some very persuasive reasons in favor of implicit recognition. Based on the proposed Recommendations, I am not convinced the Committee understands these matters, and therefore I do not accept their viewpoint.

Since explicit recognition is preferred in the draft, an actuary must explain and justify his procedures if he chooses to recognize inflation on an implicit basis. In New York, at the Society panel on this same subject, I put this question to George Swick: Assume real rates of 4% interest and 2% salary increase. Assume 2% inflation and that the plan does not provide cost-of-living increases for retired employees. Under the recommendations, the user of 4% interest and 2% salary increase must disclose that contributions would have been lower if he had used 6% and 4%. My question to George was this: In view of our ERISA work "on behalf of the participants", shouldn't the user of 6% and 4% disclose that the contributions would have been higher if he used 4% and 2%. George's tentative answer was "Yes, this should be disclosed". What is the result if this holds up? The result is that no matter what the assumptions are, we are supposed to estimate the implications of another set of assumptions.

I am particularly opposed to Recommendation Number 3. A person makes his best estimate under ERISA and I don't feel he should disclose an alternative answer as required by Recommendation 3 if the inflation is not anticipated on the basis that "seems realistic." In other words, I could well make a best estimate with assumptions that don't "seem realistic" in all respects. "To seem" is "to appear," and I always thought our obligation was not to produce reports based on mere appearances. If time permitted, I would say a considerable amount about what I view as the ongoing abuses of our scientic heritage by our leaders, particularly the designation in A-4 of principles and practices to be "generally accepted" before they are written. The AICPA never did that, even though the accounting disciplines are essentially pragmatic with no logical derivation -- scientific or otherwise -- from a set of postulates or basic concepts. It took the SEC and the courts to impose the pronouncements of the AICPA as "generally accepted."

Change in Purpose

More important, perhaps, is what appears to me to be an unwarranted change in our purpose. Historically, the position of the profession has been that assumptions should be adequate and appropriate and a margin of conservatism has been in order in the face of uncertainties. Assumptions have ranged all the way from conservative to realistic. Optimistic assumptions have been undesirable, perhaps unprofessional.

What is the impact of ERISA? ERISA requires our best estimate and it seems to me we clearly have a legislated obligation to the beneficiaries. I believe that pension actuaries welcome the independence from the employer provided by ERISA in the infrequent situations when the employer may use pressures to obtain optimistic assumptions. After much consideration, I have concluded that I should maintain some conservatism within the best estimate range under all plans, including Taft-Hartley plans. And there is a range: I don't have one single answer now, any more than I did before Labor Day, 1974.

In reading ERISA on this point, I think it is necessary to read between the lines. It's wrong, I think, and a mistake to just read "thou shalt make a best estimate." The best estimate is on behalf of the participants; the law is named the "Employee Retirement Income Security Act"; Title I is headed "Protection of Employee Benefit Rights"; we make our best estimate certification in developing contributions under the minimum funding standard; and the first paragraph of ERISA stating the purpose of the legislation ends with words indicating that minimum funding standards are needed to assure "financial soundness."

I wasn't convinced by those words, however. I think what really convinces me is a review of the potential consequences of using optimistic as opposed to conservative assumptions. The consequences of overly optimistic assumptions are a possible excise tax levied on the employer and increased possibility of liability in potential lawsuits when benefits are unfunded at plan termination. On the other hand, the consequences of conservative assumptions are the problem we have always had, merely a disallowed tax deduction from one year to another, and of course the possibility of ejection from the Academy.

The standard of our profession has been that assumptions are to be "adequate and appropriate." What is it now to be? The present value recommendation calls for "reasonable" assumptions; this is the test of the accountants called for since 1967 in paragraph 24 of Opinion No. 8. The inflation draft calls for "realistic" assumptions. Again, ERISA calls for assumptions that are "reasonable in the aggregate" and that take into account experience, explicitly for purposes of the minimum funding standard.

Personal Conclusions

Let me end by giving you my personal conclusions and convictions:

1. I believe the wholesale changes suggested by these inflation recommendations are unwarranted and undesirable. The situation simply isn't that bad. For the most part actuaries have been making their best estimates, using adequate and appropriate assumptions, without undue influence from the plan sponsor.

   We are emerging from a period of great inflation during which experience has had nothing to do with assumptions. The orderly funding of pension plans and the credibility of actuaries will not be well served, in my opinion, by sweeping discontinuities.
2. It seems to me that conservative assumptions have sometimes turned out to be realistic, and I think "realistic" assumptions will sometimes turn out to be optimistic assumptions that are not adequate and appropriate. The only proper standard for the profession I believe is consistency with the "adequate and appropriate" standard. It is ironic that in the past I've objected to the notion that optimistic assumptions are unprofessional. Under ERISA, my views have changed; I'm on the other side of the argument and I'm startled to find the profession abandoning its position. It seems as if we may have passed in the night.
3. It is often necessary to give the range in cost for a number of reasons, but I believe that our credibility will suffer greatly if we provide alternative answers in connection with virtually every calculation. Should we after each statement add, "on the other hand,". or should we start all of our certifications with words such as "assuming that experience will be strictly in accordance with assumptions, which it will not, our best estimate is as follows."
4. In the final analysis, individuals must make their best estimate in light of all the circumstances under ERISA and decide whether to follow the recommendations of the Academy. I'm personally not willing to make all the disclosures called for; because of uncertainties that I mentioned before, I could well make a best estimate in which some of the assumptions don't "seem realistic." After making my best estimate I'm not willing to give an estimate of what my best estimate would have been if it had been something different. I'm also influenced by the 1971 Tenants Corporation court decision in which the court held that an auditor "might have been" further obligated if he had been acting as a fiduciary. The more required disclosure of the impact of results under other assumptions, the more potential liability when experience proves, as it must, not to have been strictly in accordance with our assumptions.
5. At this stage, I don't believe actuaries should adopt the preferred method of the Academy out of fear of personal liability. I think there is a good chance that ERISA regulations from the Department of Labor, IRS, and the Joint Board will both determine liability in a lawsuit and be more consistent with generally accepted practices than the proposed Academy rules on inflation. I think we should follow our conscience and face whatever problems that arise.

   I have never really thought that one could find meaning in life by doing actuarial work, but I suppose if they chisel on my tombstone - "Here lies John Hanson - he promoted benefit security" - it wouldn't be all that bad. George, what are they going to chisel on your stone? Maybe it will be - "Here lies George Swick - his assumptions seemed realistic."

6. My last comment, and I believe this strongly, is this. An actuarial organization that develops rules which unnecessarily increase the potential liability of pension actuaries under ERISA just can't be doing an acceptable job of representing enrolled actuaries.

In view of all the criticisms I've made, and in an effort to communicate them clearly, I have prepared a draft of my concept of how the profession should handle the inflation question. This draft describes the economic problems, gives the arguments pro and con, and arrives at conclusions that in my judgment are consistent with the merits of the opposing viewpoints.

Recommendations on the Responsibilities of the Actuary Regarding Recognition of Inflation

Introduction

1. Guide A-4 (or C-4 or S-4) describes the basic responsibilities of the actuary in the application of actuarial principles and practices under pension plans. These recommendations outline the views of the Board with respect to the responsibilities of the actuary in recognizing inflation in the assumptions adopted for completion of an actuarial valuation under the circumstances described below and in the completion of an actuarial report with respect to such an actuarial valuation.
2. Actuarial values are estimates, developed utilizing such scientific disciplines as general mathematics, probability and statistics, numerical analysis, theory of interest, life contingencies, demography, construction of mortality and other tables, elements of graduation, and risk theory.
3. The Board recognizes that the exercise of judgment in utilizing these scientific disciplines is fundamental to our profession. As stated in Guide A-4 (or C-4 or S-4), the promulgation of uniform practices or procedures which fail to take into account the individual circumstances applicable to a particular plan would be unprofessional. These circumstances include the provisions of a particular plan, the purpose or purposes which the valuation is intended to serve, the nature of the employee group, the degree of funding already accomplished, and the prospect of permanence of the sponsoring organization or of the plan.
4. Thus, the Board recognizes its obligation to stipulate clearly the circumstances under which these recommendations on responsibility are applicable.

Applicability

5. These recommendations are intended to apply in connection with any actuarial valuation utilized for the purpose of determining amounts of contributions or levels of pension benefits under continuing plans providing benefits that react to inflationary increases in wages or prices. Such plans include "final pay" plans that include cost-of-living adjustments in the compensation base and all plans with automatic cost-of-living benefit adjustments. These recommendations do not apply to plans providing "career average" benefits or to flat benefits that are unrelated to compensation. These recommendations apply whether or not such plans are subject to the Employee

Retirement Income Security Act (ERISA). The recommendations are modified as a result of the nature of the employee group, the degree of funding already accomplished, or the prospects of permanence of the sponsor, only to the extent explicitly stated herein.

Impact of Inflation

6. The impact on compensation of increasing prices as measured by the Consumer Price Index (CPI) is well known. The CPI is an important benchmark in the salary administration programs of virtually all employers and, in some industries, increases in the CPI automatically result in increases in wage levels. Studies also indicate that "merit" or seniority increases in compensation are less substantial during or immediately after a period of inflationary general increases than prior thereto. Compensation increases also result from productivity gains in some industries and from the need to compete for labor in other industries. Over most historical periods, "real" compensation increases have resulted from total increases in excess of the rate of price inflation; in recent months, however, prices have risen faster than wages in most industries.
7. Increasing prices and wages also result in automatic increases in Social Security benefits that automatically reduce benefits otherwise payable under integrated plans which provide for an offset of all or part of the Social Security benefits payable at retirement. Projections of Primary Social Security benefits range from 25% to 50% of the taxable wage base depending on the assumed levels of prices and wages. Increasing prices also increase benefits automatically under some plans with cost-of-living increase provisions.
8. Statistics prepared by economists associated with the Federal Reserve Bank in St. Louis, which measure inflation on the basis of the Gross National Product Price Deflator, tend to validate the empirical relationship originally observed by economist Irving Fisher* between inflation and the rate of investment return on high grade corporate bonds. These economists thus view interest rates on corporate bonds as the sum of a "real" rate in terms of purchasing power plus an added rate of return that is attributable to inflation or inflationary expectations. Other economists have suggested that there can be no "real" rate of return on corporate bonds** in the event of continued levels of inflation at the rate of the recent past, and have shown such return to have been nil during past periods of sharp inflation as measured by the CPI. Some studies suggest that investment in common stocks will provide the investor over the long term with a return that will both compensate for inflation and reflect increased productivity; however, some feel that common stock investments will not produce as high a level of return as in some past periods, because they expect that there will be decreased levels of productivity gains and that a larger share of such gains will be allocated to labor in the form of increased wages and benefits. Further, all historical studies indicate that rates of return will differ for fixed income, cash equivalents, common stock, mortgages, real estate, and other types of investments. The theoretical

* The Theory of Interest, Irving Fisher (1930)
** Real Investment Returns and High Secular Inflation: Is Coexistence Possible, George M. Lingua (1974)

and long-term relations are of course not valid on a short-term basis and are disguised by fluctuations in security values which have been particularly pronounced in recent years.

9. The Board is aware of the impact of inflation on the rates of retirement at various ages, the rates of disability and recovery from disability, and on employee turnover, but no authoritative studies of the impact of inflation on these contingencies have come to the attention of the Board.
10. The Board is aware that the practices of actuaries differ substantially with respect to anticipating future inflation in the assumptions adopted for an actuarial valuation. The Board believes that such differences are unavoidable since assumptions are based on statistical data that has not been adequately codified or correlated and on predictions and interpretations of economists that do not present a basis for uniformity.

The View of Actuaries

11. Some actuaries believe that assumed salary increases may logically exclude anticipated inflation in the event that the financial plan of the sponsor is to recognize the inflationary costs of the future from the presumably inflated revenues of the future. These actuaries also believe that the investments of the pension fund may nevertheless be assumed to earn a return, including an element of inflationary or productivity return, inasmuch as the full range of investments are available to the fund investment manager. Such actuaries thus believe that an assumed rate of salary increase of 1/2% to 2% per annum intended to reflect "merit" increases only may sometimes be adopted along with an assumed investment return that recognizes the impact of inflation and that might be 6% or 7% or more.
12. In recent years, Internal Revenue has liberalized prior restraints on assuming inflationary salary increases, and some actuaries believe that the assumed salary increases and each other assumption should be chosen as the actuary's best estimate with a suitable allowance for future adverse fluctuations. Thus, they believe that each assumption should be "explicitly" adjusted to reflect the long-term impact of the inflationary environment. They believe that realistic costs can only be the costs that result from assumptions so chosen that each is realistic. They believe that recognition of escalating prices and wages is particularly important in projecting amounts of Social Security on a realistic basis under offset plans, and they point out that the cost of certain types of plan amendments (such as a change from a final 10 year average to a final 5 year average) may be substantially understated if implicit assumptions are used. They also believe that the use of realistic select and ultimate turnover is essential in determining the appropriate amount of reimbursement from the government under plans covering employees working on short-term government contracts.
13. Other actuaries believe that the best approach is to anticipate only "real" increases in compensation and investment return and that the effects of inflations and recessions should be ignored. These actuaries prefer to review the peaks and valleys of the CPI since its inception, and they believe comparisons of actual experience with what would probably have been considered "realistic" assumptions during various historical periods since 1800 provide useful lessons that should be taken into account. They are also aware of the influence of governmental intervention on future economic conditions,

and they believe that amendments will be needed in the present escalation of benefits under the Social Security Act. These actuaries observe that a 1% per annum increase in the assumed salary increase is substantially offset by a 1% per annum increase in the assumed rate of investment return prior to the assumed retirement of the employee, and that the use of the assumed real rates provides for an "implicit" recognition of inflation, with a margin for conservatism under most plans which they believe to be entirely appropriate in view of the unpredictability of future levels of inflation and governmental action and of the presently unquantified impact of inflation on the assumed rates of investment return, retirement age, and on rates of disability and turnover. They point out that the actuary is obligated to certify to his best estimate under ERISA on the basis that the assumptions are reasonable "in the aggregate," and they argue that the actuary should not be accountable or liable for each of the assumptions individually. They also point out that Revenue Ruling 71-371 does not permit completely realistic assumptions with respect to cost-of-living increases and that this Revenue Ruling requires reasonable results on an aggregate basis.

14. Some actuaries generally support the view expressed in the preceding paragraph, but they observe that valid measures of "real" rates of investment return and salary increase have not been established. In view of the uncertainties, they believe the assumptions should include a margin of conservatism if they are to be adequate and appropriate. They also believe that valuations of the value of vested benefits and of potential contingent liabilities of an employer at plan termination, which are not based on projected future salaries, should be based on assumed real rates of return in order to avoid an understatement of such liability that could result using a high rate of return that is subject to downward fluctuations. They also point out that the assumed rate of return determines the benefits paid under many plans.

15. Other actuaries support the view expressed in Paragraph 13 on the grounds that both Opinion A-4 (or C-4 or S-4) and the requirements of ERISA necessitate that experience under the assumptions be reviewed periodically. They believe that the appropriate selection of assumptions on an explicit basis over the long term is possible only with continuing gain or loss analyses with respect to each assumption, and they do not believe that the substantial expense of such an analysis is generally necessary or in the best interests of plan sponsors. They also observe that the use of the explicit approach will tend to reduce the computed liability for retired employees (under plans without automatic cost-of-living benefit adjustments) and therefore reduce the contributions, and they feel that reduced contributions may be inappropriate because of (1) experience losses with respect to both rate of return and salary increases in recent years and (2) the obligation of the enrolled actuary under ERISA to adopt assumptions "on behalf of the employees."

16. Other actuaries tend to prefer the explicit choice of assumptions but feel that the change to such a basis should be determined in light of experience gains and losses. They feel that a change after severe losses may not appear to be credible to the employer, and especially to the smaller employers. They also think that an enrolled actuary must be consistent in making "best estimates" under ERISA and that a change in the interest assumption under a plan covered by this Recommendation would necessarily require the same change, which could be undesirable, under a plan not covered by this

Recommendation, when assets under both plans are invested in the same fund.

17. Other actuaries believe that assumptions appropriate for the long term should be determined explicitly but that these assumptions should be modified to reflect the high rates of inflation that are expected in the near-term future. They believe this is necessary to avoid a credibility problem with all assumptions. They contend, in effect, that explicit recognition of inflation requires the adoption of such a select and ultimate approach to the recognition of inflation.

18. Some actuaries believe that the assumptions should be consistent with respect to inflation but that the major concern of the actuary should be to develop a continuity of costs without undue emphasis placed on experience of recent years. For this reason, and in view of the widely differing views held by competent actuaries and, more importantly, by economists, they believe Recommendations regarding changes in assumptions with respect to inflation should require only moderate changes in direction. Some actuaries also believe that the funded status of the plan should be taken into account in setting assumptions.

19. Those in favor of explicit recognition believe that the following two dangers exist if inflation is recognized on the implicit basis:
    (1) A false impression may be given that the plan's actuarial basis is quite conservative; and
    (2) The performance expectations from the pension fund's investment policy may be set too low and/or an inappropriate investment policy may be selected.

20. Those in favor of implicit recognition respond that the actuarial basis will, in fact, generally be more conservative when inflation is recognized implicitly. They point out that Opinion A-4 (or C-4 or S-4) suggests the need for adequate assumptions and that substance is more important than the appearance in any event. They do not believe that the level of the assumed rate of return should have or (based on experience) has, in fact, had any significant bearing on investment performance; they think that the reporting of a high assumed rate of investment return is as likely to lead to inappropriate investment policy as the reporting of a low rate of return, and that the potential result of a reported high rate of assumed return would be to encourage a speculative investment policy. They observe that the reporting of high rates of assumed salary increases has been objectionable in practice to some employers on the grounds that such rates might establish targets under negotiated plans, perhaps leading to higher than necessary wage settlements. They also believe that a high assumed rate of return is less credible than a low rate of return in view of investment performance in recent years.

Responsibilities of Actuaries

21. Except as provided in Paragraph 23, in developing contributions under pension plans subject to ERISA having plan features that react to inflation, the actuary should recognize inflation either explicitly by adjusting each of the assumptions or implicitly by utilizing assumed real rates of investment return and salary increase in conjunction with other assumptions that are consistent with respect to inflation in light of plan provisions. The actuary should disclose the basis adopted in his report as required by Guide A-4 (or C-4 or

S-4). Further, with respect to recognition of inflation on an implicit basis:

(a) Under plans with automatic increases in retirement benefits resulting from increases in a price index, the actuary should make an appropriate adjustment in the reserve to be funded at the retirement age of each employee, and

(b) When developing the estimated cost of changing any plan feature that reacts to inflationary increases in wages or prices, the actuary should make appropriate adjustments in the assumptions in order to provide an appraisal of the range of cost that could result under one or more levels of possible inflation.

22. Under plans not subject to ERISA, the actuarial assumptions may be inconsistent with respect to inflation in that the actuary may ignore inflationary salary increases and assume that inflation will have an impact on investment return (see Paragraph 11), provided that such assumptions shall be adopted only after the actuary has completed an actuarial valuation or an adequate estimate of the results that would obtain if inflation were recognized either explicitly or implicitly in accordance with Paragraph 21 above, and the results of such valuation or estimate have been communicated to the client in order to indicate the implications of these alternatives.

23. Under a plan having fund assets in excess of the value of all accrued benefits, the actuary may adopt assumptions ignoring inflationary salary increases on the basis described in Paragraph 22, subject to any provisions of ERISA or regulations thereunder to the contrary.

MR. CONRAD M. SIEGEL: I feel that the current exposure draft is a considerable improvement over the first draft.

Section 3.1 mentions the third purpose of present values is the calculation of actuarial equivalents, but there doesn't seem to be any further mention of specific recommendations. I think it might be desirable to expand on this point in connection with the type of equivalents such as lump sums which can involve substantial mortality and financial selection.

Should anything be said about the elimination from funding of employees by means of a funding elimination period longer than the plan's eligibility period?

There are some actuarial principles that are sometimes hard to set down in writing. Some practices just don't seem to pass the "smell" test. In Pennsylvania, there is a requirement that all local government employee plans be subject to an actuarial study. The form that was prepared asked the actuary the following question: "Do you feel the current level of funding is sufficient or insufficient in relationship to the long-range actuarial requirements?" In other words, this is a yes or no question that the actuary is asked in connection with the current level of funding. The answers to this questionnaire were quite interesting.

Some plans (indicated as "sufficient") were substantially overfunded because their source of revenue had nothing to do with benefit requirements. There were also a great many plans (indicated as "insufficient") that were hopelessly underfunded. There were a number of plans where the actual level of contribution appeared to be a small fraction of the normal cost plus interest total that the actuary had calculated. But the actuary indicated that the funding was "sufficient" and, upon further inquiry, he indicated it was because he said to the local government officials ... "What is your intention ... to have a sufficient fund or an insufficient fund?" The officials replied, "Oh, ours is going to be sufficient." So, the actuary checked it as "sufficient."

Also, some actuaries have indicated that, while the current level is substantially less than any minimal actuarial level, they are not concerned about it because, over the next ten years, there will be enough cash flow to pay the benefits. That was the reason why they filled it out as "sufficient."

I think the exposure draft could give some indication of how to answer that yes/no question.

Recently the Cost Accounting Standards Board published proposed regulations on pension costs. This involves cost reimbursement for defense contractors and indicates that the Cost Accounting Standards Board looks to some of our principles and tells us very specifically what it likes and what it doesn't like. It goes into great detail and seems to reject a lot of the funding methods which we use. For example, it requires a separate measurement of (a) normal cost, (b) interest on unfunded accrued liability, (c) the portion of unfunded accrued liability being charged to an accounting period, and (d) actuarial gains and losses. As I read it, C.A.S.B. wants to examine actuarial gains and losses, and does not want to have them buried in the normal cost under frozen initial or aggregate funding methods.

The proposed regulations require that each assumption be reasonable; not that in the aggregate the assumptions are reasonable. In fact, just to read one paragraph ... "The basis or rationale for each actuarial assumption used shall be derived from historical experience as amended by reasonable long-term expectations. However, when an actuarial assumption differs significantly from historical experience, the contractor shall provide evidence supporting its conclusion that such experience is no longer appropriate. Actuarial assumptions shall be established so as to avoid distortions caused by short-term fluctuations." This implies a justification of each of your assumptions if your assumptions are not in accordance with historical experience.

The other interesting thing is that the Board apparently rejects some of the methods that actuaries use for calculating normal costs, such as using an average entry age and so forth. C.A.S.B. wants us to use the sum of the individual normal costs calculated at the specific entry ages.

The other item that I have in connection with the exposure draft was with respect to small plans. There is a mention in the "inflation" section that small plans can use approximations and do not have to use methods that are as complex or refined and so forth. I wonder whether something similar to that might also be put into the basic section of the exposure draft. There is something about approximations, but no mention of small plans.

CHAIRMAN CARL H. FISCHER: I have a question for Conrad Siegel. Do you think that the frozen initial liability or the aggregate cost method is going to be eliminated under ERISA?

MR. SIEGEL: I don't know if they will be eliminated under ERISA.

The Cost Accounting Standards Board's proposed regulation affects a very small percentage of the plans under ERISA, those of defense contractors, but they are generally large companies. For those of you who feel that these proposals are going too far into actuarial territory, there is a period during which you may comment on them. It seems to imply that there are actuarial funding methods which bury gains, which, in some fashion or another, never really indicate whether your assumptions are right or wrong over long periods of time.

MR. EDWARD H. FRIEND: First of all, the exposure draft addresses itself to pension plans, but I am sure that the Committee would recognize that there are a number of health and welfare plans with deferred benefits for retired lives and it would seem to me that, if we are going to recognize the funding obligations for deferred benefits, we ought to begin to take into consideration those benefits in health and welfare plans which really are mini-pension plans. This should be addressed by the Committee.

The second point that I have has to do with, or ties in with, some of the comments that John Hanson has made, where a body of practice seems to affect what one may be expected to do if the courts may find adversely against the practitioner who would act against the body of opinion. Accordingly, I would recommend a change in Recommendation 1 which addresses the requirement that, if an actuary behaves in a way that is materially inconsistent with the recommendations, he attest and explain his inconsistency. I would require that, when the circumstances under which the actuary is functioning justify procedures which are consistent with common practice or when the circumstances are such that a different practice is appropriate, he so assert. In other words, an assertion should be made both ways. If you are in a situation when the customary practice is being used, you should assert that this is a normal situation. This enables one to digress from the usual procedure more comfortably, recognizing one must assert both ways.

There is no mention in Section 2.2 with respect to different ways of amortizing the past service liability along the lines of the Myers - Siegel paper. I think that this should be addressed. (See note at end of discussion.)

In Section 6 of the Exposure Draft there are references to actuarial assumptions, but no mention is made of assumptions with respect to cost-of-living increases, with respect to the utilization of medical care, and one which is particularly troublesome (and that is under collective bargaining plan with contribution bands), no reference is made to the rate of movement from one contribution level band benefit to the next.

Recommendation 8 refers to long-term trends by reflecting the fact that long-term trends should be given heavy weight, and undue weight should not be given to recent experience. Actual experience may be less important than meaningful information with respect to future experience as a result of changes and conditions.

One final point, there is a lot of discussion among trustees of plans with investment counselors to consider the investment return assumption of the actuary in setting investment policy. It seems to me that we should be outspoken in our effort to indicate that the actuary follows, not leads in this investment policy matter; in other words, the actuary chooses assumptions based on what he expects the investment counselor to do. He does not set investment assumptions and have the investment counselor or the investment manager attempt to meet these assumptions. I think, unless we speak out on this, the wrong impression is going to continue.

MR. PAUL H. JACKSON: I've got a question for George Swick. The guides to professional conduct call for the actuary to base his calculations on methods and assumptions that follow sound principles established by precedence and common usage. The actuary who was working from that type of situation has to look at what common usage is and, in so doing, he can take what his fellow practitioners are doing. For example, he can review the interest assumptions being used currently or the pattern of the last five years and he can accordingly gauge his own assumption in relation to those of his fellow actuaries. He may get his own estimate, but at least in getting it he is aware of where everyone else stands. In your opinion on inflation, it seems to me that you're saying that actuaries up to this point have been doing something which is fundamentally erroneous. The Committee recognizes that inflation exists but the poor practicing actuary has never heard of it, so we're bringing it to his attention in this document. We are going to require that he make an explicit assumption. The first implication of this seems to me that we ought to go back and change the guides to professional conduct so that we follow the sound principles and practices established by committees and not by common usage. A more practical question which I have is an effort to help the practicing actuary who, if he followed that Opinion, would have to make an explicit assumption as to inflation. Would each one of the members of the Committee who have signed this Exposure Draft set forth for their fellow practitioners the assumptions which they wish to stand on in the way of inflation, so that he can at least get 12 opinions as a starting base in which to measure his own opinion?

MR. SWICK: I would say first of all that the document does not require you to use an explicit inflation assumption. If the response from the membership of the Academy and the Society is such that this preference should perhaps be reviewed, we will review it.

MR. PAUL A. GEWIRTZ: From my reading of ERISA, I believe the actuary is clearly required to choose reasonable assumptions and methods. From my reading of the exposure draft, I find an indication that the client clearly has the right to choose the pace of funding. But doesn't this take us a giant step backward and put us in a position where the client will be pressuring us, as he has done in the past, to lower the incidence of contributions now so that he can find it more affordable. Again, from my reading of ERISA, I find that the client of the actuary is no longer the plan sponsor; he merely hires the actuary. The actuary's client is now legislated to be the plan participants. If I choose a method and set of assumptions on behalf of my new client, namely the plan participant, I clearly have to choose something in their best interests whether it's affordable or not by the plan sponsor. If it is not affordable perhaps we have to revise his asset commitment. For example, if a particular analysis of the plan indicates to me that there is a cash flow strain because of the age of the group and many people are close to retirement, I might indicate for example a twenty-year amortization period where thirty years might be the range allowed under the law. I want to recommend the twenty-year amortization but the plan sponsor in the exposure draft clearly has a right to say the funding should be thirty years. Isn't there a conflict of interest there?

MR. HANSON: I think you are still engaged in some fundamental problems that many actuaries have. I don't think it is the role of the actuary to make judgments about the amortization period or even about the incidence of the cost that is affected by choices of funding methods. All those cost methods are available under the Act to the plan sponsor. I think it is our obligation to reveal to the employer the range of the cost that is possible under the Act. On the other hand, I agree with you completely that, insofar as the exposure draft suggests that the actuary is not responsible for choosing the assumptions, that is undesirable. However, when I read Opinion No. 4, that doesn't to me change the fact that the law still exists and that I have to make my best estimate with respect to assumptions. I would have preferred it if the recommendations had dealt more explicitly with different circumstances as mentioned earlier, and perhaps there wouldn't be all of this confusion. Of course one reason it doesn't is that a lot of people do think that the actuary should choose funding methods and the amortization period.

MR. E. ALLEN ARNOLD: I think it is time we heard some comments in support of the inflation draft. I think the thrust of the inflation draft is disclosure to the client. I think it is important that the client know what the actuary really thinks will happen, whether he uses the explicit approach or the implicit approach. The implicit approach really doesn't tell the client anything about what the actuary really thinks. If he wants to use the implicit approach, that is fine; but I think the exposure draft is correct in requiring that the actuary say what is the real basis for this actuarial valuation so that the client can understand what the actuary thinks is going to happen.

(Editor's Note - The Myers - Siegel paper referred to in Mr. Friend's remarks is "Validity of a Unique Method of Funding Accrued Liability in Public Employee Retirement Plans" by Robert J. Myers and Conrad M. Siegel, to be published by the Conference of Actuaries in Public Practice.)