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PENSIONS

Actuarial Reports

A. What basic information should be included in a first study report to a client contemplating adoption of a retirement plan? How should the report differ for a union-employer plan where the costs have been negotiated but the benefit amounts have not been established?

B. What information should be included in annual actuarial reports? What methods and devices can be used by the actuary to present his reports on a basis which can be better understood by his clients?

C. To what extent should reference be made to the funding requirements of the Internal Revenue Code, including identification of maximum deductible and minimum necessary contributions, and the effect of gains, losses, and carry-forward contributions?

D. To what extent is responsibility accepted for the sufficiency of contributions made and the results of reliance on the actuarial report?

MR. DAVID YANIS: A first study report to a client contemplating adoption of a retirement plan should be tailored to the needs of the client in every way possible. At Alexander and Alexander, this entails the efforts of a team of actuaries, each concentrating on a specific area. Such a study might follow this outline:

1. Retirement plan features, setting forth the key features in the structure of a plan such as eligibility requirements, whether contributory or noncontributory, retirement age provisions, and the type of benefit formula. The discussion should relate to the client's fiscal problems, his policy on employee benefits, current or contemplated union demands, and the long-range economic outlook as well as any precedents set in the industry or area.
2. Funding methods, presenting the theory and basic mechanics of the various kinds of insured plans, trusteed plans and split-funding arrangements.
3. Suggested plan outline, omitting the technical language of the final text. Certain plan features would be recommended but a wide range of benefit formulas would be shown. In addition, special types of benefit, such as widows' benefits, disability pension, optional forms of retirement benefit and optional employee contributions, would be discussed.
4. An appendix showing (i) certain key statistics, such as age and service distributions as well as average earnings, average age and average service factors; (ii) cost tables for a wide range of benefit formulas together with an explanation of the actuarial assumptions used; (iii) projected benefit illustrations for a sample of present and future members of the plan; (iv) long-term cost projections as a function of the investment return, influx of new entrants, and earnings increases with and without allowance for inflation;

(v) the steps required to establish the plan, covering creation of the insurance contract or trust agreement, approval by the Board of Directors and qualification by the Internal Revenue Service.

MR. BERNARD FENSTER: At Charles Ahearn, our initial report is usually broken down into two parts. The second part consists of the usual cost estimates for various proposed plans, plan specifications, benefit illustrations and statistical data. We try to break down our cost figures into the costs for each element such as annuity, death benefit, disability, etc., and also show the effect of different eligibility requirements. We believe, however, that the first part of our report may be somewhat unique and have found from experience that it is helpful to the client in making a decision on his pension program. This part consists of a preamble covering an analysis of the subject of retirement benefits, including the various pension media that are available and their pros and cons, trends in plan design, current trends and costs of pension programs, the various benefits that may be included, income tax considerations and a summary of the current Social Security system with illustrative benefits.

MR. CYRIL J. WOODS: There are two points I think we should bear in mind when considering the presentation of an initial report. The first is that the client, having already frequently been exposed to advice from representatives of many insurance companies and trust companies, is possibly quite confused. We feel at William Mercer Ltd. that the shorter our report, the better, provided it includes all essentials. Various possible alternatives, particularly in instituting and funding a plan, are better dealt with in preliminary discussions. The second point is that we must avoid what in England we used to call "spurious accuracy." We must not give the client the idea that in meeting the bare cost of his proposed plan he is fully funding to meet his real pension problem, unless, of course, his proposed plan goes as far as providing pensions based on final earnings with an automatic cost of living adjustment after retirement.

His proposed plan probably only indicates how far he is prepared to commit himself now. He must realize the probability of his having to liberalize the plan later, but he should try and fund now to avoid retroactive improvements becoming a charge on future revenue. It is essential to discuss the effect of investment policy, particularly equities, on future pension costs. Our real job is to give our client a proper sense of proportion on the whole matter.

MR. WILLIAM A. DREHER: An actuarial report is like the exposed part of an iceberg; but since it is frequently the only result of our work clearly visible to the client, it is the only means which he has to appraise the quality and value of our work. There are three general rules I keep in mind when writing a first study report:

1. The report must restrict itself to the kernel of the problem in order to keep the attention of the client in sharp focus.
2. The report need not be encyclopedic to be effective. It should be agenda for a conference and a working tool.
3. The report should be arranged for the benefit of the executive but should also include appendixes covering the details of interest to the controller and the pension administrator.

It may be necessary to educate the client before he can make an intelligent decision, but I believe that general discussions concerning the various insured and trusteed methods of funding, Social Security benefits, and basic considerations of plan design should take place before the first report is presented. A first study report might take the following form:

1. A summary of the report findings.
2. Suggested and alternate plan provisions.
3. Summary of actuarial valuation and contribution estimates including the effect of alternate actuarial assumptions and contribution budgeting methods.
4. A list of the steps necessary for the adoption of the plan, qualification with Internal Revenue, and presentation to employees.
5. Appendixes attached would include a summary of employee census data and a statement of actuarial assumptions and methods.

A different approach would be used if a retirement plan already existed or if other types of benefit plans were being considered along with the pension plan.

An annual valuation report should reflect the general principles described above. The arrangement I prefer is:

1. Summary of valuation.
2. Recapitulation of pension fund membership and, where applicable, summary of gain and loss analysis.
3. Comments on the state of funding of retired members' benefits and vested benefits.
4. Discussion of employer contributions for coming year in relation to minimum and maximum limitations of Internal Revenue Code, and funding policies adopted by the company or recommended by the actuary.
5. Appendixes showing a summary of census data, a summary of the actuarial basis and funding methods and an outline of the plan.

On the subject of methods and devices which enable reports to be better understood by clients, I feel that the first requirement is effective writing. Brevity, crisp narrative style and intelligent organization are all necessary. On the other hand, quoting liabilities and contributions to a great many digits leads to confusion and an inaccurate impression of the reliability of the calculations. The summary of actuarial methods and assumptions should include periodic values of the various service table elements and it is also helpful to show deferred annuity values, probability of living to service requirement, temporary annuities, etc. Graphs and charts may also be helpful either in the report or for use during a conference. Finally I believe it is most important to present each report in person.

MR. FRANK D. CUBELLO: On the assumption that the actuary has been supplied with the necessary data, a first study report should include the following basic information:

1. A proposed plan with a careful analysis of its provisions, including any features which might expose the client to the risk of additional cost.
2. A comparison of the proposed plan with the plans of other companies, particularly those in the same industry. Also, the retirement benefits for a cross section of employees should be shown as a percentage of pay to indicate the adequacy of the proposed benefits.
3. A discussion of the cost assumptions and the reason for their adoption. The actuary should make it clear that the true costs of a plan do not depend on the actuarial assumptions and can only be determined in retrospect.
4. The various methods for estimating costs should be described and the appropriate method for both the client and the proposed plan should be selected. For example, the unit credit method might produce misleading costs in the case of a new company with a relatively young staff.
5. The cost estimates will show the normal cost and the initial past service liability together with the amounts required to meet certain past service funding objectives.
6. The report should point out that the final retirement plan should take account of other benefit programs to produce a properly integrated over-all program.

Under a union-employer plan where the costs have been negotiated but the benefit amounts have not been established, the actuary should stress that the more direct the relationship between the method of determining benefits and contributions the less likely that the plan will get into financial difficulties. The following information should be included in an annual actuarial report:

1. A statement of the actuarial assumptions and method for estimating costs.
2. A statement of the financial condition of the plan, including the unfunded actuarial liability and the funding limitations applicable thereto.
3. A statement of receipts and disbursements for the year.

4. A gain and loss analysis.
5. The data required for substantiating tax deductibility for the year and the filing under the Welfare and Pension Plans Disclosure Act.

Based on the information presented, the actuary may also recommend changes. For example, the gain and loss figures may suggest a revision of certain assumptions. Changes in Social Security benefits or a benefit scale approaching inadequacy may suggest a change in the benefit formula.

The report may be better understood by the client if important data are summarized in tabular or graphical form. However, I believe that much can be accomplished by a service call after the client has had an opportunity to read the report.

MR. B. RUSSELL THOMAS: The basic information to be included in a first study report will vary depending upon the requirements of the client. As a minimum a first study report should include the following:

1. A brief summary of the provisions of a proposed plan.
2. A description of the actuarial cost method.
3. A brief description of the actuarial assumptions used.
4. A statement as to the proposed funding medium.
5. An indication of the degree of flexibility of funding under the cost method and funding medium proposed.
6. A brief summary of employee data used in the valuation.
7. The basic valuation results.
8. The annual contributions based on various periods of funding the past service liability.

For a union-employer plan of the type referred to in the second question of section A, a full explanation of the effect of increases and decreases in the work force and hours worked should be included in the report. It is also desirable in these cases to make the tests required by PS 64 prior to submission of the first report.

As in the case of first study reports, the content of the annual actuarial reports will vary according to the circumstances of each case. The information included will also depend upon whether the report is designed to serve as the basis for submission of the information required to be filed under Section 404 of the Internal Revenue Code and under the Federal and State Disclosure Acts. If the client relies on the actuary's advice as to the level of contributions and is not interested in more elaborate information, a very brief report may be adequate showing a summary of employee data, basic valuation results, maximum deductible contribution, and annual contributions on other bases which may be of interest.

If more information is desired, the report may be expanded to include detailed schedules of employee data, tabulations of experience on mortality, withdrawal, disability, etc.

It has been our practice at The Wyatt Company to refer specifically to the requirements of the Internal Revenue Code in discussing maximum and minimum contributions and the disposition of experience gains and losses. While the resolution on unauthorized practice of law recently adopted by the American Bar Association appears to prohibit a consultant from discussing the disposition of "excess contributions," there seems to be no prohibition against referring to the requirements of the Code in discussing maximum and minimum contributions.

MR. R. NORMAN WOOD: A first study report is not an isolated document and will take account of both the discussions which have occurred before the study and the steps to be taken after the report has been submitted. The first study of a proposed pension plan should contain a review of possible plan features and outline the areas for decision. It should be selective or else the client could merely be advised to read one of the many books which have been published on the subject of pension plans. Besides dealing with benefit provisions, the report should contain a description of the various funding media available, describing their characteristics and pointing out the advantages and disadvantages of each.

The question of an unfunded pay-as-you-go plan as opposed to a funded plan will often be raised and this can be answered by a projection of future costs under the two systems. It is often argued that an employer can make more effective use of pension reserves, and show a higher yield, if he retains the capital in his business. However, if a balance sheet reserve is credited with the full net rate of earnings of the business, the earnings available for dividends are diluted by the reserves being built up to pay pensions. It can be shown that in order to preserve the dividend earning capacity of the capital investment in the business, an internal reserve for future pension payments should be credited only with the net cost, after taxes, of replacing the reserve by borrowing from other sources.

A report to a joint union-employer group presents different problems. Sometimes the representatives handling the joint undertaking are less informed on pension matters than the financial officer of a corporation requesting a study and therefore the follow-up conference is most important. Where the costs have already been negotiated, the employees will naturally expect to receive full value in pension benefits for the contributions paid, so that the choice of actuarial basis and funding medium becomes particularly important. This also raises the question of the funding period to be used in measuring the cost of past service benefits.

It is our experience that the form of the annual actuarial report for a particular case will develop over the years. Some clients are interested only in a statement of the contributions required for the current year, while others may desire more detailed information of the financial results and future projections. As a minimum the annual report should contain a review of the experience since the previous report, a summary of basic information as to numbers and earnings, a summary of the benefits being valued and a description of any changes in the benefit provisions since the previous valuation.

The valuation of a pension plan involves a matching of present assets and future income against accrued and prospective liabilities. Since the actuary must be just as much concerned with the assets and the income producing capacity of the pension fund as with the liability figures emerging from his calculations, it is appropriate for him to review the investment performance of the pension fund.

The numerical results of the actuarial valuation form the basis for determining the amount of contributions and the actuary is the person best qualified to interpret the results. I feel strongly that it is the duty of the actuary to show how the figures relate to the funding requirements of the Internal Revenue Code, leaving their detailed application to the client and his other advisors.

As to the responsibility accepted for the sufficiency of contributions, it should go without saying that each member of the Society will have sufficient integrity and respect for his profession to advise his clients according to his honest judgment based on adequate training and experience and to take all possible steps to insure that his recommendations are fully understood.

DR. ALAN A. GROTH: At Arthur Stedry Hansen, our first study report includes not only a description of the different funding media but also a brief discussion of the different funding methods. We have found that when a company has asked for proposals from several actuaries, insurance companies, and other organizations such as mutual funds and trust companies, they usually get a different cost estimate from each. In order to avoid confusion in the mind of the employer, who may believe that actuarial science is more exact, we have to discuss the funding assumptions as well.

In connection with joint union-employer plans, our general experience is that while these plans are supposed to be jointly managed, the employer representatives in almost all cases give up their responsibility very quickly. The actuary is the only one standing in the way of the union demand to increase benefits beyond the level which can be supported by the contributions. At a recent meeting of the Conference of Health and Welfare Plans, an organization dealing with the so-called Taft-Hartley funds, somebody said that the actuaries are prohibiting progress by preventing the unions from increasing benefits. Our responsibility is even greater in such cases because, apparently, we are the only ones interested in attempting to establish a balance between contributions and benefits.

In our annual reports we usually present not only current requirements but also over-all liabilities broken down for the different types of benefits. Our reports are quite comprehensive as far as reference to the funding requirements of the Internal Revenue Code is concerned. As a matter of fact, we cover not only the requirement for the year but also the effect of timing of contributions within the year.

As for section D, I am not quite sure that I know when a contribution is insufficient. What should the criterion be for determining insufficient contributions? If contributions have been determined for a number of years on the basis of prefunding and then, for one reason or another, the employer cannot or will not make sufficient contributions on the basis of the previous funding method, can we tell the client that his plan will not qualify? Of course, we can call his attention to the fact that he is guilty of bad cost accounting, but can we tell him that his plan will not continue to be qualified under Internal Revenue Service requirements? If pay-as-you-go contributions are permissible, shouldn't it also be permissible to contribute an amount which is more than the pay-as-you-go cost but less than the PS-57 requirement on the basis of the funding method?

MR. ROBERT G. MOSS: I believe that there are three essential parts of an annual valuation report: (*a*) the presentation of the results of the determination of assets, liabilities, and costs; (*b*) a statement of the valuation method and actuarial assumptions employed; (*c*) a signature.

The material in the first part often contains a balance sheet and some form of reconciliation with the previous year's results, a statement of the normal cost and a schedule showing the determination of the maximum deductible limit. A minimum contribution may be recommended based on some funding objective or on Internal Revenue Service requirements. In addition to the essential items, the report may also include an analysis of gains and losses by source; comments on the soundness of the plan, the appropriateness of the assumptions and changes in the assumptions, method, or both; a summary of the provisions of the plan; and a distribution of employees by status, sex, age, and/or earnings.

Items (*b*) and (*c*) are omitted from some reports, which is unfortunate since these items add authority and often utility to the report.

The gain and loss analysis has three important uses: it indicates to the employer the nature of the experience and suggests the trend of future costs; it permits the actuary to prove that the current year's results are consistent with those of previous years; it establishes the appropriateness of the actuarial assumptions and shows what margins are contained therein.

A device which can be used to gain better understanding of the report on the part of the client is the presentation of the most important results at the front of the report. This can be done either by a brief foreword, which may also serve as a table of contents, or by means of a covering letter. The main purpose of the report is to present facts, but if the report does not interpret these facts where interpretation is needed, then it is less useful.

MR. JAMES A. CURTIS: I would like to mention in answer to Dr. Groth that employers in the Northwest seem to be taking as much interest in their plans as the unions. However, the actuary still has to contend with the same pressure of the union trying to set the level of the benefits, with the actuarial assumptions being determined as those required to produce these benefits.

On the subject of what devices an actuary can use to present his reports on a basis which can be better understood by his clients, we have found it helpful at Milliman and Robertson to present a brief definition of the actuarial terms being used on the left side of the page with the dollar amounts of the liabilities on the right side. We have also found that through the use of the newer and faster computers we are able to produce such things as benefit projections as by-products of the regular program. We have found that the trustees are very happy to get such information.

MR. PRESTON C. BASSETT: While we have a standard actuarial report form at Towers, Perrin, Forster and Crosby, we modify it to meet the needs of the client. We emphasize to all our clients that our reports are prepared for their benefit and should include only the information they find valuable. The report contains two parts: the first summarizes the results of the valuation; the second contains a series of tables showing more detailed information on the plan's operation.

Early in the first part, we set forth the essential financial factors, such as the actuarial liability, the assets of the fund, the unfunded actuarial liability and the normal cost, together with an income and outgo analysis. Where technical terms are used, they are defined. Next we cover the recommended contributions for the current year, showing the maximum tax-deductible contribution as well as the minimum in accordance with our interpretation of Mimeograph 5717. This is followed by a discussion of the various assumptions used and a historical comparison of the actual experience with each of the assumptions. The trends developed are helpful as guides in the selection of future assumptions. We next comment on the requirements of the Internal Revenue Service for claiming tax deduction of the contributions with references to the various subparagraphs of Section 1.404 (a)-2. The final section refers to the information to be filed under the Disclosure Act and indicates the tables which may be used to file with the D-1 Form. We also include a simple graph showing the progress of the funding of the plan over the years.

The more detailed tables in the second part show, among other things, a breakdown of actuarial liabilities and normal cost among various groups of employees and separate figures for individual subsidiaries or divisions if desired. Also shown is the gain or loss from each of the factors—mortality and termination prior to retirement, mortality after retirement, salary increases, retirement ages, interest earnings, profit or loss on sale of securities, etc.

It is apparent from the above that we prepare a rather complete report. Because of the detailed and technical nature of the report, we have found through experience that a personal presentation is the only satisfactory way for the client to gain an understanding of the material.