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VALUATION REPORTS

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What a complete report should contain.

The report as a consulting tool.

MR. PAUL W. ROBBERSON: Towers, Perrin, Forster and Crosby actuarial valuation reports, while written by individual actuaries, are based on a model report. Each report contains four main segments as follows:

1. A one page summary listing the highlights of the report.
2. The main body of the report which gives the major results of the valuation for the current and previous years.
3. Supporting tables which give further detail and reconciliation of the results presented in the main body of the report.
4. A tax exhibit which presents the final maximum tax deductible limit and minimum funding standard account for the previous year.

The main body of the report contains basic valuation results, pension expense considerations, funded status, and a brief description of methods, assumptions and experience. Supporting tables contain detailed summaries of funding method liabilities and assets as well as accrued benefit present values. Also contained in the tables are a detailed summary of actuarial methods and assumptions, a summary of plan provisions and a summary of active participant data and a reconciliation of all participant data. Typically, a gain and loss analysis is involved.

TPF&C actuarial valuation reports are intended to be comprehensive technical documents and as such generally are not used to communicate valuation results. This communication generally takes the form of some type of summary, which is presented in person to the client. Graphic presentations are being used more and more frequently.

A system of graphic presentation has been developed based on techniques presented in a report entitled "Unfunded Pension Liabilities, The New Myth" written by TPF&C actuaries, Paul Gewirtz and Robert Phillips, which appeared in the August 1978 issue of the Financial Executive. This presentation system utilizes a pie chart to represent the present value of all prospective benefits for all participants. This pie chart is appropriately divided to indicate the portion covered by assets, funding method liability, and present value of future normal costs. This is compared with a separate partitioning of the pie according to the present value of benefits broken down according to those benefits vested and insured, vested but not insured, accrued but not vested and to be accrued in the future. This presentation method has been found to be very effective, not only in communicating the results, but also the concepts, of a valuation.

MR. WALTER J. MC LAUGHLIN: At George B. Buck Consulting Actuaries, Inc. we have a standard format for the report on the actuarial valuation. We have only one standard format. However, the actuary may vary the format because of the size of the plan, the type of plan and the desires of the client. Therefore, due to special circumstances a particular valuation report produced by Buck may vary considerably from the format I am about to describe.

Before discussing the Buck standard format it might be of interest to note that the usual procedure at Buck upon completion of the valuation is to forward a short letter of results presenting the recommended contributions to the client. In this results letter we inform the client that the formal report will follow shortly. We send these contribution figures in advance in order to expedite their communication to the client.

I will review our standard format briefly by telling you some of the items which we include and some which we do not include in it.

The main sections of the Buck standard report format are as follows:

(1) In the front of the report is presented a summary of the valuation's principal results.

(2) A discussion of the assets, including the asset valuation method.

(3) Sections dealing with the figures of the valuation balance sheet and derivation of the contributions payable, including a section with respect to the funding standard account.

(4) Amounts under Opinion No. 8 of the Accounting Principles Board.

(5) Attached to the report as schedules are generally the following items:

  (a) A valuation balance sheet or table showing the derivation of the valuation results,

  (b) An outline of the actuarial assumptions and methods used,

  (c) A summary of the main plan provisions. We usually produce a long and detailed plan summary,

  (d) A copy of the previous year's Schedule B and the attached actuary's notes, and

  (e) Tables of employee data broken down by ages.

Not included in the Buck standard report are:

(1) A gain or loss analysis - although some actuaries do include such an analysis in some of their reports. It is a Buck requirement that a gain and loss reconciliation worksheet be

completed before a report is released to the client.

(2) Any type of statement as to the actuarial soundness of the plan although we do include a copy of the previous year's Schedule B where the actuary has signed the formal statement contained therein.

We generally use copies of the outline of actuarial assumptions and methods and the summary of the main plan provisions as the required attachments to Schedule B of Form 5500.

Since the earliest days of the firm, Buck has had a system of peer review. Not only are actuarial reports double checked for accuracy by the consulting actuary's department, but a reviewing actuary checks that the reports have been so checked and also completely reviews the entire report prior to giving approval for release of the report to the client.

In the usual case where we are preparing an actuarial report for a client for whom we had produced one the year before, we generally work from a copy of the previous year's report in drafting this year's report. This procedure while being a time saver can also tend to produce some occasional errors to be spotted by either the checker in the consulting actuary's department or the reviewer; such errors as:

(1) A failure to up-date a figure from the previous report and consequently the appearance of the same figure in this year's report.

(2) Dates not changed from the previous report.

(3) A failure to mention a change in plan benefits during the year in the body of the report, or to make the change in the plan summary.

(4) A failure to mention a change in the actuarial assumptions during the year in the body of the report, or to make the change in the outline of assumptions.

Another error that comes to mind which might be found by a Buck reviewer, other than typographical errors or mathematical mistakes, would be employee and pensioner table counts which differ from the totals shown in the body of the report.

We at Buck take two possible views of the effect of the peer review upon the quality of the reports as they are received for front office review by the reviewing actuary.

- One view is that such reports have less errors in them than they might otherwise have since more care is taken in preparing them for fear of the reviewing actuary finding errors in them.

- The second view is that such reports have more errors in them than they might otherwise have, since less care is taken in preparing them because it is realized that a reviewing actuary will review them before they are allowed to be sent to the client.

Clients and their advisors form an opinion of our competence based on the quality of our reports. Therefore, we feel our reports must be constructed properly, provide sufficient information, be understandable, and lastly, but most important, they must be as free from error as possible, both with respect to quoted figures and the wording contained therein. Therefore, we feel there is a definite need for a peer review in the production of our finalized actuarial report. Our added responsibilities under ERISA make this review even more of a necessity.

This reminds me of the story of three telegrams between an actuary and his lawyer.

Actuary's telegram: WIRE ME HOW MY CASE CAME OUT.

Lawyer's telegram in reply: RIGHT HAS TRIUMPHED.

Actuary's return telegram: APPEAL IMMEDIATELY.

Ideally we would like the consulting actuary to deliver the report and review it with the client at that time, or possibly to meet with the client shortly after the report is mailed to review its contents. Unfortunately in practice this ideal is too seldom realized because of a number of reasons. Chief among these is the demand upon the time of both the consulting actuary and the representative of the client which made it difficult to arrange a meeting around the time the report is completed. Also there is the problem of adding to the client's bill. As someone once said, "Talk's cheap...if actuaries don't do the talking."

However, where such a meeting is arranged, the actuary will review with the client all the main figures in the report. Previously I mentioned that we do not normally include a gain and loss analysis in our reports. Therefore, at a conference, the actuary will generally take this opportunity to review the main experience items which have affected the contribution rate during the year. Possibly the actuary may indicate to the client that he intends to change an assumption because of the experience trends. At such a meeting the client may request that some additional information, which he feels that he needs, be added to future reports.

I believe the actuarial report is an advantageous consulting tool when the report has been constructed properly and given an in-depth, oral presentation by a knowledgeable actuary.

MR. STEPHEN G. SINGER: Reporting of pension costs must satisfy a variety of needs.

These are ...

to communicate the contribution requirements for the year under study and the relationship between assets and liabilities on the valuation date;

to provide the corporate auditor and plan auditor the actuarial information necessary for preparation of his report;

to provide information required for completion of government forms including the actuary's opinion required by ERISA;

to provide a recap of the input to the actuarial valuation. Input consists of the plan provisions, the employee data and the financial data. The accuracy of the results reported are dependent upon the accuracy of these input items;

to describe and document the actuarial assumptions, actuarial methods and special procedures used in the computation of the results;

to provide information to the employee group affected by the plan on the funding progress of the plan;

to give the plan sponsor an understanding of the demographic and economic forces which led to the final results.

In the past, and too often today, the needs of the plan sponsor, generally corporate management, have been the least well served. Actuarial reports have been all too successful in obscuring the information which management requires, because of the volume of technical material which is included for other purposes, because of the apparent similarity of many terms which, in fact, represent quite different items, and because of the pervasive use of obtuse technical jargon and concepts.

A further obstacle to comprehension in the case of the corporate plan sponsor is the multiplicity of results which are generated when many reports covering many plans are presented within a short time frame. Here management suffers from a massive overdose of detail.

We, at Hansen, recommend a system of pension cost reporting which is intended to provide management with the information it requires - an overview of the important findings in a format meaningful to the audience for which it was prepared - and at the same time satisfy the traditional technical requirements of the report.

Since we feel that these two objectives are by and large mutually exclusive, our approach, quite simply, involves preparation of two reports -- a technical report that we call the actuarial report and a second report which we call the management report which is designed to satisfy the client's need for information.

Looking at the actuarial report first: The premises which give rise to the report structure we adhere to are that the actuarial report <u>is not</u> a consulting tool. It is a technical document complete enough to enable another actuary substantially to reconstruct the results. Because of the wide audience this report can find, it is a rather public document. In fact, we believe it is a totally public document. Accordingly, we keep the content of the report to a factual standard presentation of the pertinent results.

For several practical reasons the format and content of this report are strictly controlled. We have prepared several standard report formats to fit essentially the universe of report possibilities. Beyond selecting between acceptable variations, our actuaries are not allowed to make changes.

This approach we believe has several advantages ...

The first is quality assurance - we specify minimum content - that content is in every report.

The second is operational economics - we produce several thousand reports a year - we need some degree of standardization to enable us to produce a quality product at acceptable cost. The standardization helps in several ways ...

- Our computer programs are easily designed to produce the specific items we need (this gives us uniformity of calculational approach also).

- Our word processing equipment gives us the typed copy quite efficiently.

- Our people are easily trained in what should go into any specific item in the report.

- Finally, you have the advantage of increased familiarity of what comes where in the report, both by the clients and by our own personnel who must audit the report.

The last satisfies our rather strong feeling that an actuarial report from Hansen should be constant regardless of by whom and where prepared.

The report contains the following exhibits:

Actuary's opinion letter

Contribution Requirements (minimum, maximum and recommended)

Funded Status of the Plan

Description of, and the financial effect of changes in plan provisions, assumptions or methods.

Development of Normal Cost

Development of the Unfunded Past Service Liability

Development of Contribution Requirements

Description of Method and Assumptions

Summary of Financial Data used and Development of Valuation Assets (if necessary)

Summaries of the employees valued

Summaries of the Plan Provisions considered

Glossary.

The report as described should satisfy all of the purposes for a valuation report I described earlier save one -- management's need for information.

To address that need and to be the consulting tool the actuarial report is not, a second report has been developed.

More specifically, this report is intended ...

to provide management with an overview of the effects of the actuarial experience and secular developments on pension expense;

to provide detail on the effect on the individual plans serviced of experience factors to the extent not covered by the individual actuarial reports;

to discuss current developments in the employee benefit field which might have implications in the future on the design, financing and/or administration of the covered benefit programs;

to present specific recommendations for changes in plan design and actuarial or administrative practices;

to provide consolidated schedules which will highlight the differences in actuarial practices and results from plan to plan;

to provide a comprehensive, self-contained reference source for the most important facts and statistics regarding the clients' plans.

This report is free form. It is tailor-made for the audience to which it is intended. Nevertheless, it might be instructive to discuss a typical report. Finally, since the simpler situation is an obvious modification of the more complicated case, it is most instructive to discuss the more complicated situation -- the corporate entity which sponsors many (at least more than one) plans.

We might begin at the back of the report and work forward.

First we have the consolidated exhibits ...

The intent of this section is to collate the mass of detail which could exist in multiple plans and provide like information in a number of consolidated exhibits. Such exhibits include ...

Contribution requirements

Actuarial data - normal costs, unfunded liabilities, Funding Standard Account credit or debit balances

Benefit security

Benefit payout projections

Asset values

Numerical reconciliation of contribution requirements

Plan summaries

Assumption and method summaries

Participant reconciliations

In a separate set of appendices we give a detailed analysis of experience for each plan.

The report itself consists of textual analysis of the valuation results. This is given as an overview of the experience of all plans.

The intent here is to highlight significant occurrences and give the financial effect - but on a consolidated basis which permits management to focus in on the gross results. The financial effect of deviations from assumptions is related to some measure which the client might be able to understand - rate of investment return, gross rate of salary increase, or gross turnover rate.

Also included in the technical analysis section are comments on funding progress (against the benefit security measures) and discussion of the investment implication of the cash payout projections.

We conclude with an evaluation of the assumptions and recommendations for change, where indicated.

The next section is a discussion of current developments in the Employee Benefit field which might have implications for Plan Design, and/or administrative practices.

Topics included here are prior laws and regulations (such as mandatory retirement, asset valuation and maximum deductible contributions), proposed or pending legislation such as PBGC changes, reversed integration requirements and mandatory retirement, the ERISA improvements bill and significant court cases (Daniel and Manhart).

Finally, we tie it all together with a section on our recommendations for changes in plan design, administrative and actuarial practices.

It should be noted that the management report is not provided to all clients. It is expensive. It works best with a multi-plan sponsor (although it works well enough for a single plan) and it takes a lot of forethought and preparation time. Sometimes it is replaced by a letter. Sometimes only a meeting is held to discuss the actuarial findings.

In general, we have found that our clients like this approach -- the management report becomes their reference base. The valuation reports are referred to only for highly technical information -- that is to say, rarely by top management - more frequently by auditors and plan administrators and since our standard actuarial report is often attached to the Schedule B, even occasionally by plan participants.

MR. MICHAEL J. MAHONEY: At Milliman and Robertson, the actuarial reports are somewhat individualized, but we do have some broad guidelines as to the basic elements that should be contained in that report. We have no specific wordings, formats, or procedures which each actuary must follow.

We do, however, have a peer review procedure whereby the pension actuarial work in each office is audited by a pension actuary from another office. Thus the peer review is a post review and its main purpose is to assure that the reports and other pension actuarial work is meeting M. and R. standards.

We have heard in the presentations how four different firms address the problems of actuarial reports, reviews, and control checks. Are there any questions or comments?

MR. WILLIAM W. FELLERS: At the Wyatt Company we follow the Milliman and Robertson approach of not having standard reports. This approach can lead to some problems. One problem is to distinguish between actuarial "puffery" - which is where the actuary is given complete rein - and the basics. Through a post-valuation peer review process such as Mr. Mahoney has described, we now and then find that situation, and ask the actuary, "Are you really telling the client what he wants to know? Are you keeping to the basics?".

In connection with the management type of report, what we have done on occasion, usually for a large client, is to prepare a rough draft of the report, including whatever the actuary thinks is appropriate, and before finalizing that report, the actuary reviews the draft with the client to see if the report contains what he really wants, or if some of the actuarial "puffery" should be removed. A final report is then produced that is agreeable between the client and actuary. I have found this process to be quite helpful in reducing a large and growing report with more and more schedules to what is essential. This process would be followed perhaps every three to five years.

Another point concerning the evolution of a report occurred to me in the process of reviewing the reports of the various Wyatt Company offices. One office concluded that the actuarial report should now really be Schedule B and its attachments. Their reasoning was that someone might ask for the actuarial report, and they would prefer the actuarial report to be just what is presented as a part of Schedule B and is public information. Covering letters and the supplementary material accompanying the Schedule B attachments would then represent the management-type report which might be discussed with the client.

In a way then, we have come full circle. The Wyatt Company started out with a basic standard type of report showing valuation results, derivation of maximum and minimum contributions, summarization of valuation data, plan summary, actuarial assumptions and methodology, and a comparison and discussion of valuation results one year to the next. Later, we began the practice of having reports prepared by different actuaries, which we still follow to some extent. However, we are now back to wondering if the actuarial report should again be standardized - essentially the Schedule B.

MR. DAVID ROSENBERG: At Johnson and Higgins, we consider it important to include a gain and loss analysis in our actuarial reports. Why is this not given more attention by some of the speakers?

MR. SINGER: We also produce a gain and loss analysis through our computer system. We choose not to include it in the actuarial report because it could be potentially misunderstood, possibly sensitive information that we would rather not share with the public. The gain and loss discussion would go into our management report or a supplementary letter, or be discussed at a client meeting.

MR. MC LAUGHLIN: It has been Buck's policy for many years not to include a gain or loss analysis in the report. We do a gain or loss analysis for ourselves, checking on the main reasons for the change in the contribution rate. The actuary would go over the gain or loss when discussing the report with the client.

MR. ROBBERSON: If I choose to think of gain and loss in terms of the elements that have affected the change in expense - namely, change in normal cost and change in amortization of supplemental liability - then TPF&C reports contain three areas in which that is analyzed.

The first is a presentation of the major reasons why the normal cost and unfunded liability changed, such as:

- change in the profile of a covered group,
- change in the plan,
- total gain or loss,
- amortization payments since last year,
- changes in method or assumptions.

Thus, it is a broad categorization of forces which have acted to change the expense level.

The second is a breakdown of the aggregate gain or loss into that which arises from asset sources against the investment assumption, and the total amount which has arisen from liability sources.

The third, optional but contained in most reports as a supporting table, is gain and loss by source. Recently that has been streamlined in our model reports from a fairly extensive discussion to a short rendition covering gain or loss from salary changes, turnover, mortality, and so forth.

MR. MAHONEY: Based on a sampling of M. and R. reports which I have seen, the gain and loss analysis is not a standard procedure in our reports. In some situations where a significant change in costs or amortization amounts occurred, the major elements accounting for the change (about 85%) were highlighted, but there was not detail accounting of the total gain or loss.

MR. FELLERS: Wyatt Company reports are not heavy on the gain and loss either. The basic reason is that we view the gain or loss as short range - i.e., what happened last year. What we are really seeking is long range.

If the contribution requirement went up significantly, the reason is usually apparent - salaries increased more than assumed, or assets, say, earned less than assumed. The major reasons why the contribution changed can usually be pinpointed. It strikes us that this is all you really need to do.

MR. ROSENBERG: Sometimes the reasons are not so obvious - suppose both assets and salaries have risen significantly. If there has been a pattern of salary scale losses that have been compensated by very good investment earnings and the prospects of investment earnings being lower in the future, the presence of the gain or loss analysis in the report can be used by the actuary as a warning that plan costs may rise significantly in the future.

MR. JAMES A. BEIRNE: Some of my plans have accountants auditing the actuarial report. In their letter to management, the auditors may say that nothing is wrong with the valuation, but they may recommend certain improvements in the area of collecting data. Are the management reports you are discussing duplicating work, or is the actuary's management report and the auditors report conflicting in any way?

MR. SINGER: I do not think so. We may discuss administrative practices, but the thrust of the management report is more toward the elements of plan design, actuarial procedures and assumptions.

We do get into recordkeeping, but in the sense of considering a data base approach where indicated. If a particular area of concern did occur to both the auditors and us, so be it. That would just fortify the result. The incremental expense would be minor.

MR. MAHONEY: We do not audit the data either. Our reports state that we have checked the data for reasonableness and have relied on what the employer has furnished us. However, we do perform a life-by-life reconciliation of active, retired, and vested terminated lives from one year to the next.

Paul, do you use the actuarial report as a consulting tool at TPF&C?

MR. ROBBERSON: Many times in a client situation, the actuarial report can be used as a pool of information from which you can glean enough facts, figures, and results, so that you can construct a scenario of "what would happen if ...?". For example, what would happen if we gave the retired population a 5% increase plus 1% for each year since 1970? Or, what would happen if we changed the formula from 1.2 to 1.3% of final pay? If you have the results in the actuarial report, you can give quick "ball park" answers for that type of thing.

One item in the report that I find especially helpful is the summarization of employee data by age and service, or age and salary cells. Considerable analysis can be done from such a display. It is handy to have it in the report.

MR. MAHONEY: Personally, I want to discuss the report in detail with the client and, in the course of the reviewing and explaining the results, other items arise. In that sense the report may indirectly serve as a consulting tool, or lead to subsequent studies. However, we do not use the report per se as a consulting tool.

MR. FELLERS: I think the report is one of the most important tools you have. The one drawback to using Schedule B as a valuation report is that your real actuarial visibility to the client is your report. You should use the report both to present your results, and to determine what else the client needs. For example, when APB 8 came along, the information started appearing in the report, and I think it should. When ERISA came along, previous minimum contributions may have been superceded by the minimum required by ERISA. The report ought to explain what the difference is, and what has happened. The report should be a cutting edge in developing these concepts for the client.

MR. GERALD G. TOY: I try to use the report as a consulting tool. I find that it is a convenient time to get together with my clients, sometimes the only time during the year I have the chance to make suggestions.

I have noticed that auditors' reports almost always have last year's results alongside this year's results. I have found this approach to be a convenient way of conveying changes in the plan to my clients, but I have not generally put it into printed form. How do the panelists feel about this?

MR. ROBBERSON: We report both current year and previous year values in the major results section of the TPF&C report, but not in the supporting tables. The items reported for both years would include normal cost, supplemental (or actuarial liability), present value of vested benefits, present value of accrued benefits, minimums, maximums and asset values.

MR. SINGER: We do year-to-year comparisons also. We also include comparisons of pay of the covered group, and participant counts.

MR. THOMAS BLEAKNEY: We have recently been looking not just at year-to-year changes, but going back over several years and selecting some key data - salary rates, count, employer contribution rates, and so forth. It is very interesting to go back ten to fifteen years and follow the trend. I think the client finds that rather interesting.

MR. GEORGE C. WICKS: I have a question about terminology. Has anyone adopted the recommendations of the interprofessional group using such terms as annual actuarial value for normal cost, or are you staying with traditional language?

MR. ROBBERSON: We are staying with traditional TPF&C language which differs from Hansen which differs from Buck. I feel that the recommended language is too complicated. One of the reasons we have developed and used the pie chart presentation is to educate the client on what our terms mean.

MR. SINGER: We have not adopted the new notation. In 1976 we standardized our language to what we could agree as closely as possible was the language of ERISA.

MR. MC LAUGHLIN: The actuarial profession has a great need for standard nomenclature. We have not, however, adopted the new terminology. The actuaries continue to use what has generally been used in our reports.

MR. MAHONEY: I was on the terminology committee, but I am not using the new terminology. That report represented a significant compromise among the various members. I can understand the views of some people outside the profession such as the accountants, who have trouble with our various terms. If we do not settle the terminology issue, we may be forced into using terms we do not like. A new committee has been formed, and maybe they will come up with something more palatable.

MR. MICHAEL R. GREENSTEIN: If we do not get standard nomenclature, it may be done for us. If the Financial Accounting Standard Board is going to promulgate rules on pension plan reporting, it will probably include terminology as well.

I have a question on the frequency of valuations. Do you consider doing valuations other than annually? If so, what is your opinion on whether or not the accrued liability portion of Schedule B requires, in effect, annual valuations?

MR. ROBBERSON: For most clients, we do annual valuations. In my office we do a triennial valuation for one client. The client does his own interim valuations. The Schedule B is based on the last triennial valuation plus estimates which include the client's own interim calculations.

For another client we perform valuations every two years. The Schedule B in the intervening year is based on estimates made with the prior valuation. In the case of present values of accrued benefits, we are now calculating present values at both the beginning and end of the year, so that the end of the year calculation may be used as the beginning of the year calculation in the following year when a valuation is not made.

MR. SINGER: We naturally have a strong preference for annual valuations. We permit non-annual valuations, but only under specified conditions such as no previously uncosted plan changes and no assumption changes. We must satisfy ourselves that costs have not changed beyond tolerable limits since the last valuation. With regard to the accrued benefit liabilities we prefer simply to document the date of the last valuation, and put down the last solid number we have, and will not update it.