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**THE GROWING MAGNITUDE AND SCOPE OF PENSION
SERVICES TO CLIENTS**

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1. Work involving investments, including asset valuation methods, investment strategy, and analysis.
2. Special actuarial calculations, including minimum funding determinations, gain and loss review, selection of appropriate assumptions, and cash flow and benefit projections.
3. Services in non-actuarial areas, such as preparation of employee booklets, drafting of documents, completion of governmental forms and development of administrative manuals.
4. Ways in which consulting firms and insurance companies are meeting the heavy volume of ERISA-related work.
5. Audits of actuarial calculations,
6. A look at new services which may be provided in the future.

MR. ALEXANDER J. C. SMITH: There seems no doubt that the amounts of money involved in private pension plans are going to increase the demand for pension services. These very factors are also going to increase the demand for quality in pension services. It is the intention of our analysts this morning to help us with that problem.

MR. COLIN G. CARLTON: We have observed some general trends in the scope of services to pension clients of our firm, which is a medium-sized consulting firm in Canada.

Among small plans, that is, those with assets of less than \$1 million, there is a continuing tendency to discontinue plans and to provide pensions through the alternative route of a deferred profit sharing plan together with individual or group registered retirement savings plans. The desire for a more predictable pattern of employer costs, together with the greater degree of control by the employer and the greater ease of communication, has made the deferred profit sharing plan vehicle very popular with smaller employers. For those who prefer to stay with the pension plan, there is a continuing trend away from group annuity policies. In fact, some insurers no longer issue group annuity policies in Canada. Instead, employers are entering deposit-account type contracts, not necessarily the traditional deposit administration but possibly a pooled fund largely invested in short to medium term bonds on which the trust company or insurance company is prepared to offer a capital guarantee and an annually declared rate of interest. Although these funds historically have provided a lower return than other vehicles, they have the virtue of tracking inflation perhaps better than any other type of investment.

In medium sized plans, with asset of perhaps one to five million dollars, it is encouraging to see a far more intelligent awareness and interest in understanding the actuary's assumptions as regards both assets and liabilities. Clients will discuss alternative levels of funding of the plan, with a clear recognition of the different characteristics of different benefit formulae. There seems to be a slowing in the rate of improvement in benefits, particularly in the trend to non-contributory plans or to very generous early retirement provisions, but this may be the temporary result of poor business conditions and the impact of the Anti-Inflation Board (A.I.B.). Another clear pattern is the trend away from institutional type investors, such as trust companies and insurance companies, towards the investment counselling firms. These firms have done a remarkable job in Canada of selling their flexibility, skills, and ability to communicate meaningfully with clients. The institutions have been criticized for the low rate of compensation of their fund managers, the structure of their committees, and their generally rather ponderous approach to investment management.

In larger plans there is continuing interest in developing improved benefits, if only in the form of setting future objectives to be met after A.I.B. controls are lifted. This has been aided by improved investment returns over the past two years, and some reduction in the rate of increase in salaries. Employers appear less worried about the implications of final earnings plans than they were a few years ago. A greater concern is for the potential costs of indexing pension benefits after retirement. While virtually all major companies do provide various ad hoc adjustments in pensions, the repetition of such adjustments is leading to an expectation of their continuance by many pensioners, and a number of employers may prefer an automatic system in contrast to substantial consulting fees every two or three years with respect to yet another complex formula and costs thereof.

In these larger plans there is finally emerging some real progress in the process of quantifying investment objectives, formulating investment strategy, and making realistic assessments of performance relative to the objectives. However, this vital aspect of managing the pension fund still receives too little attention by actuaries, and as with any vacuum this space may soon be filled by others.

Much has been written by professional investment managers about the need for a three-cornered approach to pension investment. The three corners are the plan sponsor, the fund manager, and the actuary. A possible fourth party is the investment performance measurement service. This three-cornered approach frequently becomes a dialogue between the sponsor and the fund manager, or a monologue by the fund manager alone.

There are at least six reasons why the actuary should be involved. First, he knows the structure of the liabilities, analyzed by fixed portions and those which are related to salary increases or cost-of-living changes, as well as the time terms of these liabilities. Second, the actuary knows the minimum rate of return required if the fund is to avoid a deficit over the planning period. Despite the well-publicized pressure for investment results in order to save money in the pension fund, the primary motivation of most sponsors still appears to be the avoidance of deficits. Many plan sponsors are averse to risk and would rather minimize short-term losses than to maximize long-term gains. Third, the actuary knows what restrictions are placed on the investments due to mandatory reporting requirements. Fourth, the actuary knows the benefit objectives of the fund sponsor and his

intended contribution pattern. Fifth, the actuary should be aware of any particular liquidity needs. This often tends to be his sole contribution to the discussion and is perhaps the least important element, as lack of liquidity in pension funds is almost never a factor. Finally, through his training in compound interest, the actuary should understand measurement techniques at least as well as the fund manager or the plan sponsor.

If these arguments are accepted, why is the actuary often not involved in the formation of long-term investment strategy? One very simple reason is that it costs the plan sponsor money in his consulting budget to meet with the actuary, whereas the advice of the fund manager or the performance measurement service appears free, since it is loaded into charges based on a percentage of the fund. The second reason may well be that many plan sponsors do not know what potential benefits are available, or believe that there is no real difference between one pension fund and another. However, the most likely circumstance is that the actuary has either paid little serious attention to measurement results and reasons, and the investment implications of the liability structure, or is unwilling to provide advice in areas where he feels he is less than expert.

On the basis of professional training, the actuary has no reason to be inexpert compared to others in the investment field. The sponsor's lack of knowledge should be overcome by good communication by the actuary, and the third reason (that the sponsor does not want to spend the money) will soon disappear if it becomes evident that the actuary has something worthwhile to say. Consulting actuaries are in serious danger of losing their position to a number of investment management firms who offer complete services in this area. While these individuals may have had more direct contact with portfolio management than most actuaries, they still do not have the total involvement with both the asset and the liability side of the pension fund which the actuary has. Even if we put aside our crass commercial interests as consulting actuaries, we can still argue that it is not in the best interests of the client to add a fifth party to an already crowded scene.

While of course the full cash-flow projection is the most informative tool, it is still an expensive exercise. The actuary may instead provide four useful but less expensive services:

1. Analysis of the term and structure of the liabilities into their component parts, so as to identify an immunized asset position with appropriate investment types and terms for each part.
2. Given the actuarial assumptions being used, development of an approximate formula for a minimum required rate of return over the next three to five years which will maintain the solvency of the fund, making a reasonable allowance for inflation. The usual type of formula will take the form "minimum return = $A + B \times C$ " where A is a constant percentage, B is a factor between zero and one, and C is a measure of the inflation rate. For example, "4% + 6 times the annual percentage increase in the consumer price index". Over time, actual fund returns can be compared with this objective formula.
3. Examination of the immediate cash requirements of the fund, in the worst circumstance where no employer contributions are made throughout the plan year.
4. Use of an asset valuation technique which does not impinge upon the freedom to invest the assets.

The sharp fall in stock prices in 1973 and 1974 spurred client interest in actuarial techniques which reflect asset values in a longer-term context than the unmodified market value. Some plans still use historical book value, or a notional book value, neither of which has much connection with either current reality or future earning power of the assets. It is becoming common in Canada, for equities at least, to use some kind of smoothing technique to adjust current market values. For example, the market value of equities may be adjusted by a trend-line fitted to the stock market index over perhaps three full market cycles. Because this can result in actuarial values higher than market values this does not meet the letter of the Ontario guidelines, but the Pension Commission will accept the method given a reasoned explanation of the Actuary's position. For fixed income investments, of course, the method of discounting the cash flow from the assets is the most satisfying from the actuary's point of view. There is one particularly important practical feature of discounting technique:

An "explicit" valuation basis is almost unavoidable, because if an implicit basis is used and the interest rate used for the liabilities valuation of a final earnings plan is carried over to discount current asset returns, the current asset value will be greatly overstated relative to the liabilities in a period of continuing inflation. The use of a low long-term interest rate to discount the currently inflated coupons on bonds is clearly inappropriate - either the interest rate must be increased to a realistic current level, or the inflation component in the bond coupon must be taken out.

The final trend we have observed is the increasing likelihood of further government intervention in the pension system in Canada. There is a tremendous volume of public debate, some informed and some not so informed, in the newspapers, on television, in labour negotiations, and in the board rooms. In Canada there are six separate bodies or commissions studying the subject of pensions for various levels of government. It is a safe bet that some reasonably substantial changes will result from these government studies. It is a great deal less clear whether this will take the form of a greatly expanded government system, requirements for mandatory minimum levels of pension benefit, stricter vesting and locking-in requirements, more complete disclosure of benefit provisions and investments or whatever. In practice, the effect on services to clients is threefold.

1. There is a marked increase in the number of questions as to what government will do, and how this will affect the client's finances, for example in the way in which benefits should be integrated with government plans, or in the difference between salary and benefit relationships when expressed in gross income terms versus in net or disposable income terms.
2. There is considerable pressure on consultants to increase their contact with governments, to participate in studies, and generally to influence the course of future legislation.
3. There is a proliferation of seminars and conferences to be attended as opposed to doing chargeable work, thus increasing the cost of doing business.

It is absolutely essential that actuaries use every avenue to ensure a viable private pension system to supplement the equally necessary public system. Hopefully the trend will be for actuaries to develop practical solutions to meet the three main problem areas: insufficient coverage of the population, lack of genuine portability, and protection against cost-of-

living increases after retirement. However, it is distressing to note that the Royal Commission established by Ontario, which may well play a key role in the development of pension legislation in this country, does not contain a single actuary. This is most unfortunate, but hopefully actuarial advice will be obtained by the commission. Nevertheless, individual consulting firms would be wise to invest substantial amounts of time and money in developing practical and understandable suggestions to contribute to the public debate.

MR. MICHAEL J. MAHONEY: Before getting into some of the special actuarial calculations, a few comments on the valuation data base are in order. Under ERISA the actuary must certify as to the accuracy of the data base. In the past we have sometimes operated with data that were incomplete, and if there was no serious omission, used the assumption that the missing data had the same characteristics of that furnished without necessarily disclosing it in our report. I do not think we can do this any more. Today we must disclose the nature of the assumption and its effect on our valuation. This requirement to certify the accuracy of the data may cause some additional expense for our clients.

With regard to plan terminations, ERISA has certainly complicated the actuary's work. There is the preparation of Form 5310, notification of filing to the PBGC, sufficiency determination calculation of PBGC guaranteed benefits and the allocation of assets in accordance with ERISA Section 4044. In many instances bids are sought from insurers and the actuary must analyze various proposals. This involves analysis of various cashout options of deferred annuities as well as comparing bottom line costs. We have run into situations where the plan sponsor has gone to great length to fulfill the ERISA requirements, perhaps more than necessary, because of the fear of being sued at a later date.

Another area where ERISA has complicated matters is mergers. In one situation the matter was quickly dropped after both sides looked into some of the necessary calculations (e.g., additional valuation, funding standard account) and into some of the possible fiduciary risks and contingent liability.

ERISA has imposed a maximum limitation on the amount of benefit payable under a qualified pension plan. Because of this, many corporations have instituted supplemental plans for the executive group. Usually supplemental benefits are equal to the excess of the formula benefit over the ERISA maximum. However, some supplemental plans provide additional benefits and/or options. Even though most such plans are unfunded, the employer and his accountant still have an interest in knowing the magnitude of the liability being assumed. Hence, additional actuarial services are required with respect to the design and valuation of supplemental plans.

With regard to actuarial assumptions, ERISA requires that the actuary use his best estimate of what might reasonably be anticipated in the future. To some actuaries this means that all assumptions must be explicit. Certainly there are many advantages to the explicit approach and these are enumerated in Section 4 of the Academy's "Pension Plan Recommendations and Interpretations."

However, we should use a little caution. Under certain conditions an explicit inflation assumption could result in a lower required pension contribution, which may not be in the best interests of the plan participants. Thus, in his efforts to be "realistic", the actuary could be at odds with one of his

primary ERISA responsibilities. Furthermore, when we hear economists predicting rates of inflation in the neighborhood of 5% to 6% for medium to short-term range and 4% long-term, this could lead to explicit salary assumptions of 6% to 7%, and an explicit interest assumption of 7% to 8%. Some actuaries find these high for the long-range projections required in pension valuations. In fact, I have not encountered many situations which could justify an interest assumption greater than 6½%.

Of course, instead of using single rates we could use a step approach, for example, a salary assumption starting at 7% and grading down to an ultimate assumption of 4% to 5%. This approach is not new and has been followed by the insurance companies with respect to interest assumptions in determining rates for deferred annuities. However, the additional work involved may not justify the apparent accuracy. Finally, when one mentions explicit assumptions, the tendency is to think only of salary and interest. There are other areas such as Social Security, turnover and early retirement in which the trend may be toward being more explicit as well.

There has been a tremendous demand for additional services in non-actuarial areas. More and more we are being asked to draft plan documents and assist in the design, planning and printing of employee booklets. But the actuary must be careful to avoid the unauthorized practice of law. In most situations in which we are involved, the lawyer wants us to provide the initial draft of the plan document. There are not many changes in our draft and the process is smooth and fairly quick. The reverse, where the lawyer does the initial draft, does not seem to move as smoothly. That is probably because the actuary is devoting more of his daily time to ERISA requirements, rather than reflection on the capabilities of the legal profession. In any event, we always recommend that the client clear with his attorney both the plan document and the employee booklet.

We are also getting more involved in the communications of benefits. Many employers are opting for the employee benefit statement approach to meet their ERISA requirements. Again, this involves the actuary in the computation of accrued and vested benefits, summarization of other plan benefits and even in the design and printing of the form. Determination of accrued benefits is not an easy task with multi- and multiple employer plans. Their recordkeeping procedures and data base management need vast improvement. For these plans, the more appropriate approach might be to report accrued benefits only upon request.

We have also become involved in the development of administrative manuals. Usually we are asked to review what has been written by the "in-house" staff, although we are sometimes asked to do the initial drafting.

Some actuarial firms have become involved in the development of computerized benefit systems. Cathode ray tubes are installed with the client, and the client administers the plan through the use of his own or the consulting firm's computer facilities.

Finally, ERISA has generated more questions from the accountants. In a few instances the accountants have got into areas that were once left to the actuary. We find that we are having to give more detailed explanations of assumptions, treatment of gains and losses and cost projections. There seems to be no consistent pattern within the profession or a particular firm. That is, one office may be overzealous in its inquisitiveness

while another office will be satisfied with a limited number of questions. If we find ourselves extremely involved in responding, we usually inform the client that we are making additional charges because of the increased work. The client needs the accountant to sign off on the corporate annual statement, so he usually asks us to be as responsive as we possibly can.

Recently, the FASB published its exposure draft on Accounting and Reporting by Defined Benefit Plans. In it they require a Statement of Net Assets Available for Benefits and a Statement of Accumulated Benefits. They seem to want the Accumulated Benefit Statement as of the date of the corporate annual statement and based on mortality and interest assumptions in accordance with the PBGC rates. Having to produce the valuation as of the annual statement date could cause some problems, as in many instances the annual valuation will not be completed.

With respect to the PBGC rates, some actuaries are concerned that the PBGC mortality and interest assumptions might become the "benchmark" or "standard." Personally, I do not think this will happen as PBGC rates were meant for non-participating close-out or termination situations and never intended as a bench mark or standard.

All these requirements are having and will have a substantial impact on the administrative costs of a plan. While the larger plans will be able to bear the additional expense, there is some concern that smaller plans will be unable to continue.

MR. JOSEPH P. MACAULAY: It is my intention to cover primarily the operations of the group pension actuary in insurance companies, including where possible information from John Hancock as well as other life insurance companies. Nothing in the area of Individual Policy Pension Trust will be included because there is a separate concurrent session for it. I shall talk primarily about the work of the actuaries themselves, with mention of areas where actuaries are assisting other parts of companies.

Asset Valuation Methods. Because ERISA requires the reporting of a funding value of assets which takes into account market value, it is necessary to develop asset valuation methods for equities. The end result has usually been one method used for all plans of a company. We at Hancock use a write-up or write-down of 40% of the appreciation or depreciation which had not been taken into account in the previous valuation. This approach uses book value only at the time of the start of the method and does not refer again to book value. The only values needed at any given time are funding value for the previous year brought up with income and outgo for the year, and the market value. We know many other actuaries use variations of five-year average methods or some total yield methods.

Investment Strategy Analysis. Some actuaries have done work in developing the products that companies may be marketing for provision of investment services, such as new investment facilities, discretionary investment advisory accounts, and services involving determination of investment mix. In the mix area we at the Hancock are examining use of a computer simulation model of a pension plan's cash flow and future valuations to see how much variability is caused by different mixes and how it relates to employer tolerance of variability of contributions. This may be used to advise plan sponsors on investment mix, to determine the most desirable asset mix where the insurance company has been delegated this responsibility, and possibly as a marketing tool. Other companies have also developed

advisory accounts using various models. For simulation of these the actuary has to provide basic plan data and analysis. In general, actuaries are not directly deciding investment strategy or analysis within life insurance companies. Occasionally actuaries are working in the investment operations of life insurance companies, but this is not an activity which normally would involve a large number of actuaries.

Special Calculations. The organization of the various companies providing actuarial services under ERISA is quite different, and this affects the direct involvement of the actuary in special calculations. At the Hancock all of the FSA's in the group pension operation are Enrolled Actuaries and, with the exception of senior management, do valuations of pension plans and associated minimum funding determinations. This work is being done in a somewhat different way than previously. Of course, the reports are much more detailed, with a thorough analysis of assumptions and items valued. This is primarily because of the requirements of the law and the personal responsibility of the Enrolled Actuary. At the Hancock we have produced for the last ten years a gain and loss analysis by components as a by-product of the valuation, which is very useful now because of the requirements of the law. Using prior years' analyses and a set of rules which were developed primarily by one actuary, in consultation and agreement with the others, we have developed a framework for selecting actuarial assumptions. All of the actuaries use this approach prior to exercising judgment. The method makes use of underlying inflation, interest and salary scale assumptions. It then fits plans to the appropriate salary scale by taking into account variations of this plan from current economic experience. For both interest and salary scale we are in general on an explicit assumption basis. For the turnover assumption we use a Sarason-style table combined with a short-term funding eligibility period. A combination is chosen to represent experience of the past three years, with drastic fluctuations removed, and the expected future experience of the plan. For small plans we generally use industry averages. We recognize that for both small and large plans the outside economic climate must also be taken into account.

We also do a closed group projection of the cash flow needs as dictated by the contract forms, and for certain large contractholders we have provided more refined cash flow projections. Projected benefits based on the funding assumptions are computed for each individual as part of the valuation process, but these benefit projections are not normally provided to participants. We have a participant statement service that can be used if desired by the contractholder. Benefit projections for this service do not utilize a salary scale, but usually freeze salaries at the current level.

We have not had much experience handling plan terminations or mergers, although we have been consulted frequently by accountants and lawyers with respect to the levels of liability in pension plans that are merging.

We have not experienced increases in the number of pension valuations that we do. However, the amount of work in each valuation has increased significantly, and we now find that we are including much more information in our valuation reports for both the small and large plans to try to make the contractholders more aware of the significant factors affecting the financing of their plans. This is being accomplished by using a model report which contains approximately the same amount of information that was in the reports previously used for the larger plans, plus of course the minimum funding

requirements and other information reflecting the requirements of ERISA. We thus now have greater standardization of reports because we have brought the information content of the small plan reports up to the level of the large ones. Of course, many larger plans continue to get additional commentary. They also more frequently call the actuaries and discuss items with them.

We have had few problems with contractholders in changing assumptions to a more explicit basis, although there has been occasional dialogue about the level of our interest or salary scale assumptions. In a few final average salary plans the salary scale assumption have caused large increases in cost levels, and the contractholders or fieldmen have sometimes objected. In many companies the contact with the contractholder has become more direct, frequently by telephone.

Services in Non-Actuarial Areas. In the John Hancock a full range of pension plan services is provided, but those that are non-actuarial are not primarily provided by actuaries. Rather, these services are normally provided by our Customer Service Department and field service representatives. Since we now have regulations for the preparation of summary plan descriptions, which will basically replace employee booklets, the personnel in our Customer Service Department will be preparing initial drafts of those descriptions for many of our plans. We do not prepare the drafts of plans themselves unless they are included in the group annuity contract. For a plan funded entirely with our company, the administrative group prepares most of the numbers going into the basic parts of the Form 5500 to be provided by the insurance company. We also prepare the data for other submission forms. However, we do not prepare the forms themselves.

Volume. A very interesting area is the ways in which we are meeting the heavy volume of ERISA-related work for pension plans. At John Hancock we have done this by reorganization of valuation work. Previously FSA's were involved only in a small number of large plans whose valuations they reviewed and for which they prepared custom-designed reports. The small plans were valued in an Actuarial Review Unit which was staffed by actuarial students, normally at the associate level, who were there as part of a rotation in our Actuarial Development Program. These students would review the work which was done by administrative people and technicians utilizing our computer program, and prepare the valuation reports. If they had difficulties they could consult with one actuary who had specific responsibility for all of the funding policy work. There was a post-audit of this work by three FSA's who read all valuation reports and reviewed anything that looked suspicious. This was after mailing, not during the actual work flow.

Now we have the requirement that every plan have an Enrolled Actuary. Students cannot qualify. In addition the complexities of ERISA are such that all of the Enrolled Actuaries within the division who are Fellows of the Society of Actuaries are now involved in valuations. We have also added two Enrolled Actuaries who are not members of the Society of Actuaries. Actuarial students do some preliminary work to give us a starting point for the Enrolled Actuary's determination of assumptions. So, in order to cope with the increased demands of ERISA, we added two actuaries to the staff, and caused a dislocation for the remaining actuaries by requiring that a greater proportion of their time be devoted to valuations.

Our organization is set up so no Fellows are working exclusively on valuations. Of course, other companies have different arrangements. One company has valuation actuaries doing no other work because of a concern about conflict of interest. Other companies have a "consulting" operation with the actuaries handling most of the plan design work and being the primary contact.

We have a unit headed by an actuary which works on underwriting policies and procedures, and reviewed what had to be done to bring our underwriting practices and sample plans into line with ERISA. Of course, as you all know, a lot of changes have occurred over time in the regulations, and this has caused some problems.

Audits of Actuarial Calculations. By virtue of the type of operation we have, we do not expect that we will be doing any audits of pension plans, because we provide actuarial services only to plans funded with the John Hancock. We have, however, experienced at least two audits of valuations we have done. These cases were handled directly by the actuaries concerned. The outside actuary contacted our actuaries who had done the valuation work. We have found that so far this has been done in an extremely professional manner. There is usually a fair bit of discussion about assumptions and our choice of methods, and we have not yet experienced any serious critiques.

New Services. I do not foresee a significant increase of the services to be provided to small plans. However, plans which can afford equity investments will probably be able to obtain a much broadened amount of services from insurance companies. These additional services will include investment mix options which will utilize simulation approaches or capital market theory. There is also a strong possibility of data maintenance services.

MR. SMITH: Thank you Joe. When the panel discussed the growth of pension services at our pre-panel meeting last evening, we concluded that there was not much new, just a lot more. More work, more demanding clients and customers and certainly a greater-than-ever need for first-class professional error-free work. The comments of the panel this morning reflected that conclusion of last evening. Now it is time for comments from the audience.

MR. JAMES F. A. BIGGS: I have a question for Joe Macaulay. At the Enrolled Actuaries' Meeting in Washington, an attorney spoke about the problem of fiduciary responsibility of the actuary. In particular, he said that in order to avoid being classed as a fiduciary, the actuary should emphasize his role as an advisor, outline the alternatives to the client and the consequences of the alternatives, and see to it that the client is the one who makes management decisions. Now it seems to me this is a lot easier for a consultant than for an actuary in a home office situation. I wonder whether the things you were talking about in terms of more comprehensive reports and telephone discussions with your policy-holders are at least in part motivated by a desire not to be classed as a fiduciary. Also, do you have any indication from your counsel that the things you are doing will in fact keep you from being classed as a fiduciary under ERISA?

MR. MACAULAY: In general, we do not expect to be classed as fiduciaries. The motivation behind our new procedures was providing proper service to the client. We do require the contractholder to select the funding method, with our concurrence, and the funding policy. In the choice of assumptions, we feel there is no variability allowed to the client. The only true input the client might have is his philosophy on pay levels. This is taken into account in determining the assumptions.

MR. LEROY B. PARKS, JR.: Also a question for Joe Macaulay. I am interested in your comment that you use explicit assumptions in the area of salary scales and interest. Do you also go so far as to use an explicit charge for the actuarial services that you render?

MR. MACAULAY: The basic expense levels that we expect the plan will generate are put into the assumptions, regardless of the contract form. But the way in which charges are assessed depends completely upon contract form. In IPG contracts, they are assessed by our expense formula and deducted from the fund. In other contract forms they flow through the dividend formula.

MR. ROWLAND E. CROSS*: I was interested in that comment you made a moment ago, Joe, about the fact that apparently your client selects the actuarial cost method. At the first meeting of Enrolled Actuaries in Washington in the Spring of 1976, I noted in the course of some comments on "Best Estimates" that I construed the law to include the actuarial cost method as well as the actuarial assumptions (and, also, the asset valuation procedure, for that matter) as being what the actuary must be responsible for. Since then, there has been some reaction from those who prefer to leave the selection of the cost method up to the plan sponsor, but the various arguments that have come to my attention on this point are not very persuasive. It may be a while yet before the Internal Revenue Service adopts an official position on the subject, so if any of you do harbor strong feelings in this regard, please convey them to me (preferably in writing) and I shall be glad to see that they are put into the hands of those responsible for the regulations.

MR. MACAULAY: The end result has been that most of them are choosing the frozen initial liability method, which produces a reasonable cost flow. We must satisfy ourselves that the method is reasonable. If we object to it, we make these objections known and perhaps refuse to do the work. For example, final salary plans with unit credit funding would be totally objectionable to us. Our attitude with respect to client responsibility for choosing the funding method was to some extent based on our own readings of the different discussions behind the law and the committee reports.

MR. PAUL F. SAUNDERS: I have a question for the panel. The gain and loss analysis allows the actuary to monitor the adequacy and reasonableness of his assumptions, usually in the aggregate. I believe this practice is fairly widespread among the larger pension accounts but wonder to what extent the ERISA best estimate requirement has initiated greater activity for experience studies with respect to valuation decrements such as turnover, retirement utilization and mortality. Would the panel please comment on experience study activity.

MR. MAHONEY: We are making preparations to do this annually with each assumption on a computerized basis. This is being done to make sure that we have chosen appropriate assumptions as well as to provide service to the client.

MR. SMITH: I have always thought it was a major aspect of actuarial technique in any event, and have strongly advocated experience studies on a regular basis even prior to the Pension Reform Act.

*Mr. Cross' remarks are his own and do not necessarily represent the views of the Internal Revenue Service or the Joint Board for the Enrollment of Actuaries.

MR. THOMAS D. LEVY: I think the biggest expansion of service that we are providing is education. For the first time, our clients must read and understand what their plans say. So we must spend much more time going through their plans, explaining what the language means and why it is there. We are encouraging them to do more of the things like tax form preparation themselves, and spending our time educating them to do it. On the other hand, we are also getting calls from junior accountants who really want us to explain the entire body of actuarial pension knowledge to them. Our clients are not terribly enthusiastic about paying the time charges for this, so we encourage them to ask the partner in charge of the case about it and have him call us if he needs additional information. We are also getting many more requests to provide information on cash flow and benefit projections, generally for investment advisors who want to know precisely what the cash flow will be for the next 10 years. It seems to us that some of that is the cart leading the horse, as we expect them to do the best investment job possible. Our interest assumption will reflect their results. They seem to think that if they meet our interest assumption they have done their job satisfactorily. If we are assuming 5% and 7% on two cases managed by the same advisor, the advisor often feels his performance should be measured against 5% for one and 7% for the other. One final concern is a comment from the panel that conservatism is in the best interests of the participants. This may be interpreted to mean that a higher cost per unit of benefit is in the best interest of the participants. An employee will not think it in his best interest if the actuary limits him to a two dollar a month per year of service benefit when a more realistic assumption could support a four or five dollar benefit. The employers do look carefully at cost in setting benefit levels. Although I do not think we should go to the opposite extreme, I feel there is such a thing as being too conservative. If your best estimate is a reasonable one, then I do not think that a more conservative set of assumptions which produces a higher cost is a better set of assumptions, or in the interest of the plan participants.

MR. MAHONEY: Maybe I can clarify that. I do not think I said being conservative was the best, just being overly liberal could not be as good. I agree that you cannot be overly conservative in your assumptions. The basis is really the vitality of the corporation or the plan sponsor and that is a thing I would consider. I did not mean to imply that the only course of action is to be "conservative". It is foolish to hold down the level of benefits by being overly conservative.

MR. LEVY: One of the things that I have trouble reconciling with the words "best estimate" is that it is possible to make your best estimate quote and know, through experience with the plan, that the number is too high or too low for this set of circumstances.

MR. CARLTON: I think you can greatly help the employer in that respect, not by expecting him to think in terms of twenty years but by expecting him to think in terms of three to five years and saying, if you use this level of funding, then in five years' time under, say, high inflation or low inflation, you will be in these two positions while if you use an alternative level of funding, then over three to five years you will be in two other positions and each of those funding levels would have a minimum rate of return requirement associated with them to keep the plan solvent. I do not think it is too difficult to make almost back-of-the-envelope calculations over a relatively short period like that and get quite useful financial numbers that the employer can understand, to which he will reply "Well, I can see that under-funding or at least paying less is going to require such a high rate of return that is is not safe to fund at that level, so I shall fund at a different level."

MR. ROBERT L. BEIN: I think the growing magnitude of services to pension clients includes an emphasis on error-free work. We have heard from Joe Macaulay on what one insurance company has done to institute quality control procedures. Can we have some comments from the consultants? This would cover three areas: valuations, cost estimates and individual benefit certification.

MR. CARLTON: As regards valuations, it is extremely important that a very simple reconciliation check be made of participants in the prior valuation and participants in the current valuation.

MR. MAHONEY: We have similar type of controls. In many cases we do try to trace the data every year. We also try to determine the accuracy of the data base. We look at sample calculations or have the computer give us sample cases at key points to test that the computations for various situations are correct. All valuations must be signed by an FSA. We are not relying on "Enrolled Actuary" as the only designation.

MR. SMITH: There are really two points here, the first being what the individual actuary does to make sure his work is error-free. I have always felt that the best technique for that was reconciliation. The second is what a firm does to make sure that it has a standard of work that satisfies it. That is a particularly big problem for larger firms that operate in multiple locations. We have, I think largely in response to the Pension Reform Act, increased standardization in terms of the form of the report from coast to coast. We have increased monitoring of the reports to make sure that the actuarial valuations are always completed by somebody who is not only apparently qualified but also is experienced, and finally we have started making sure that our peer review procedures are not only in place but in operation.

MR. MACAULAY: Most actuaries in insurance companies are more particular about the data they are willing to accept. Reconciliation is used in many places and definitely at the Hancock. The companies are trying to institute peer review procedures. Probably the strongest force at the moment is the personal responsibility of the actuary signing the report.

MR. DAVID GRAVITZ: We also have had additional involvement caused by the accountants' audits of the plans and the funds. In addition, some accounting firms that do not have actuarial branches have been employing us to do audits of original actuarial reports, and conversely have been employing other firms to do audits of our actuarial reports. Clients are not happy about this, since it means two sets of actuarial fees plus the accountant's fee. I wish to disagree with a statement made with respect to the recent Financial Accounting Standards Board (FASB) exposure draft, which imposes Pension Benefit Guaranty Corporation assumptions in calculating accumulated benefits. We feel this is an infringement of our rights as actuaries to choose assumptions, even though we do not certify to this particular calculation on Schedule B of Form 5500. We see it as the imposition of a single set of assumptions. The accumulated benefits under the FASB proposal, according to the accountants, are more than just a termination calculation. They have aspects of an ongoing plan. We object strongly to that aspect of the FASB exposure draft. I would like to have comments on these items.

MR. MAHONEY: Although some people are saying these requirements will set a standard for valuation assumptions, I do not feel they will. I do think we should be able to use our own assumptions, and that we should respond again to the FASB on this matter. I think also that we shall have to compromise. I do not find this proposal as bad as some parts of the first discussion draft which came out last year.

MR. SMITH: What about the accounting profession in Canada, Colin? Are they more reasonable?

MR. CARLTON: They have only just got through figuring out how to account for life insurance companies, and really have not yet got around to the pension funds, but I think there will be a fairly reasonable approach taken by accountants in Canada. At the moment accountants tend to fall into two categories. They either simply ask for a number and accept what is given without question, or send an enormous list of questions which seem to be derived mainly from U.S. sources. It is rather distressing that there is not a Canadian attitude on the subject. The only real problem with accountants seems fairly obvious, that of distinguishing between the liability if the plan is wound up today and there are no future salary increases, versus the liability if the plan is continuing. Of course these are two enormously different questions. But I think these problems are becoming better understood by accountants in Canada, simply by general exposure to actuaries over a period of time.

MR. ROBERT J. SCHNITZER: I am interested in one of the services Mike mentioned, computerized benefit calculation systems. Would you please elaborate on what those systems are intended to perform, and particularly how they handle final pay plans.

MR. MAHONEY: We have one or two in operation, and one is a final pay plan. It was a problem getting the back salary history. The system is intended to administer the pension plan on a day-to-day basis, producing benefit computations and projections. All the basic data are stored in the computer and supervised by the actuary in conjunction with data processing individuals. The data are accessed by means of a cathode ray tube. One function is to produce a printed form for the participant. We do not project salaries. If a participant is age 60 and requests an estimate of his benefit at 65, we use current salary for all future years so as not to falsely anticipate salary increases.

MR. CARLTON: Do your projections include any Social Security projection?

MR. MAHONEY: Yes, they do, although these can be improved somewhat.

MR. CARLTON: My concern is that many plans in both Canada and the U.S. are integrated in some way and they are communicated to employees as being integrated with Social Security or Canada Pension Plan or Old Age Security or whatever. Then when the employee requests benefit information, he is told only what the private plan benefit is, whereas all the prior communications were structured on the basis of total income available from all sources.

MR. MAHONEY: We generally provide only the private plan benefit during day-to-day operations. When we print the benefit statement annually, however, we estimate Social Security according to the then existing law.

MRS. ELSBETH T. ERBE: We do a lot of benefit administration in our office, both maintaining records and computing benefits. In most cases we have more records related to the plan than our clients do. In order to ease the burden of benefit computations under ERISA, particularly with respect to option information, the qualified joint and survivor as well as other options, we have computerized most of the computations in one of two ways. One system produces the entire calculation, which is possible when we have complete salary and employment histories of the participants on file. All desired calculations are done and printed on a form readable by the partici-

part. In other cases, the initial calculation of the accrued benefit is done manually and fed to the computer program, which makes the option computations only and prints a form. These systems have helped us to reduce our work load and processing time. One feature that has been very helpful in answering questions is the design of the computer-printed form. The front shows benefits under a number of different circumstances, at different times and under different options, but without the elements of the computation. The back shows each step in the computation as well as the underlying data; that is, all the information that is necessary to answer questions generated in meetings with the participant. One important feature of administration work that has caused us to change some of our employment practices in recent years is the complexity of the ERISA plans. People who did benefit computations ten years ago are not of the caliber needed to do them today. In particular, we find that one or two people may become very specialized in certain plans and they are the only ones who are qualified to make computations on those plans, either because the service definitions are so complex and have so many variations, or because of other oddities in the plan formula. Because we have had to be very selective in the types of persons doing the benefit computations now, these people are very helpful to us in many other ways. They can devise good administrative forms, and read plan drafts to identify problems related to administration.

MR. BIGGS: I sympathize with Tom Levy and some of the others who have mentioned problems of educating people in the accounting firms. We are doing our best to alleviate this by trying to recruit as many qualified actuaries as we can. We are also concerned about requests from accounting firms in widely different formats requesting widely different things, a problem which was also expressed in the Washington meeting for Enrolled Actuaries. We had on our panel at that time a very distinguished member of the accounting profession who had been chairman of the Accounting Standards Committee of the Institute. He took note of this and has already initiated efforts within the Institute to attempt to devise, with actuarial input, standardization in terms of requests that accounting firms make, both with respect to ERISA audits and with respect to employer audits.

MR. SMITH: Is there any chance that standardization also will mean maximization? In other words, will the new approach require the most possible information?

MR. BIGGS: This certainly was not the direction in which the individual involved intended to proceed, and I certainly hope that this is not the result. One other comment with respect to the concern over the FASB's promulgation of a standardized set of assumptions is that it is important that everyone recognize the purpose for which they are promulgating PBGC assumptions is not pension plan valuation purposes. It is not for employer cost determinations, but for the very limited purpose of reporting to plan participants their benefit security status in the plan. I am still not sure that PBGC assumptions should be the only permitted measure of this, but certainly their use is not intended as an effort to mandate standardized valuation assumptions for actuaries.

MR. SMITH: It seems a bit typical of the accountant in that he thinks that the actuary's province should be limited to the actuarial valuation. Actuarial calculations and techniques can and should be applied in a much more broad way in the pension field. Do we have any comment on the legal profession? It seems to me that the accounting profession has been, on the whole, a contributor to growth in the actuarial profession recently, rather than an inhibitor, even if sometimes at the expense of our clients. But an inhibiting factor in the growth of pension services by the actuarial profession has been the ever-expanding definition of unauthorized practice of law.

MR. JEFFREY J. FURNISH: I am an attorney. I think the distinction as to what is and what is not an unauthorized practice of law is a very fine line which is not very clear to attorneys, let alone to people outside the legal profession. It appears that the specific drafting of documents, drafting of administrative manuals, drafting of disclosure booklets, does not in itself constitute unauthorized practice of law. What does constitute the unauthorized practice is suggesting to the client that it is your opinion, your expert opinion, that these things comply with all known ERISA and other legal requirements. I worry about this probably more than anybody else in the room, simply because I am an attorney as well as a corporate employee, and therefore am not in a position to say to a client that my opinion constitutes a legal opinion, since I do not work for a law firm and am not a sole practitioner. As long as you make it clear to the client that your advice is not intended to be constituted as a legal opinion, and urge him to consult with his attorney, you avoid a great many of these problems. In terms of drafting, or the question about why things go more quickly when the actuary does the first plan draft and the attorney reviews it, that is probably because actuaries have more administrative experience. In addition, in the case where an actuary does the first draft, it is quite often because the attorney involved does not have the time or the experience to do it so he is willing to refer it to us.

MR. MAHONEY: I understand what you are saying. In the real world, however, the client asks us to draft a plan document. He surely does not expect something which does not comply with ERISA. It is a problem where this client asks whether the plan does in fact comply with ERISA and we must say we cannot answer that, only your attorney can give such an opinion.

MR. FURNISH: I simply suggest that you insist on the involvement of competent counsel for that sort of opinion. I do a great deal of drafting and absolutely refuse to suggest that what has been done can be submitted with full confidence that all legal requirements have been met. I am particularly sensitive to this issue because most people assume that, since I am an attorney, I can give a legal opinion. If a non-attorney, an actuary drafting a plan, encounters problems with the legal profession on unauthorized practice of law, he will generally have to be taken to court. Because I am an attorney, on the other hand, I can be disbarred, which is an internal proceeding much more likely to occur. So in any of the consulting firms where there are attorneys employed, there will probably be as much caution as I am expressing here about the involvement of the attorneys.

MR. MAHONEY: We do of course recommend the involvement of counsel, but in some situations it has not been sought, primarily to save the fee, and a letter of determination has been issued.

MR. FURNISH: I feel that my responsibility ends with urging the client strongly to go to counsel if he is concerned about having a competent legal opinion. If he chooses not to do that, he assumes the risk at that point.

MR. SMITH: It seems to me as a matter of business prudence you have to be very careful indeed. In fact, I thought that your statements were braver than most of the advice I get from attorneys in our firm who seem to be very much afraid, not only of the disbarment procedure, but also that it will be expected of them that they would know what unauthorized practice of law was, whereas a rather dumb actuary might not be quite so clear in this distinction. That seems to them to constitute an extra hazard for them personally and for the firm.

MR. IRWIN T. VANDERHOOF: I strongly believe that actuaries must accustom themselves to the idea of getting their hands dirty by looking into the assets. Mr. Carlton already mentioned the importance of reasonable estimates of future interest earnings on the fund without knowing whether none or all of the assets of the fund are going to be re-invested this year, or whether they will be re-invested in short term paper or long term bonds or common stocks. This seems an essential element in any kind of a determination of the future interest earnings of the fund. Actuaries should also look at measuring investment performance in the same way they look at investigating mortality. As a matter of interest, a paper was presented at the last International Congress with a simple version of the restructuring of immunization equations in terms of inflation.

MR. CARLTON: With respect to the assessment of an appropriate valuation rate of return, I agree that one must take some view on the existing assets in the portfolio, but a rather simple approach might be to make a conservative assessment of interest rate returns, say, on long term bonds, which might be an appropriate interest assumption over the longer term, and state that other vehicles such as equities, if used wisely by the investment manager, should produce higher rates of return over the long term. The difficulty is that the investment manager could sell the entire portfolio and restructure it. I attempt to get my clients to adopt something in the nature of a long term normal mix appropriate for the risk propensity of the sponsor and the risk involved in the plan itself. Having got that long term mix, the fund manager has some freedom to vary the assets either side of it, but nevertheless has been given a long term expectation. As regards the measurement of performance over a period of time, I agree that it must be examined but it is hardly fair to the fund manager to evaluate him in any way unless there is a pretty specific formula given to him as a minimum target, not as his total objective but as a minimum component of the objective.

MR. GREGG L. SKALINDER: My personal view is that plan drafting under any circumstances except by request of either a corporate attorney or an outside attorney is practicing law. The key to the issue is enforcement. Nobody knows what unauthorized practice of law in the pension area is because there has never been enforcement. There has been none to my knowledge in Illinois except for one very informal proceeding with the Chicago Bar Association. Regardless of what is propounded, until there are cases dealing with the issue no one will ever know what the unauthorized practice of law is.

MR. SMITH: The bar appears to regard the drafting of any document as a practice of law. You can, of course, think of yourself not as drafting a document but as writing an operating outline of a pension plan which in due course can be turned into a draft document. That is a sensible function for the consulting actuary, and may be more so now than it ever has been because of the need to have a document that will actually work.

