

**TRANSACTIONS OF SOCIETY OF ACTUARIES  
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**EMPLOYEE BENEFIT PLANS**

*Pension Plans*

- A. Bulletins on accounting for the cost of pension plans have recently been issued by the Accounting Principles Board of the American Institute of Certified Public Accountants and by the Committee on Accounting and Auditing Research of the Canadian Institute of Chartered Accountants. What effect will these bulletins have on the preparation of actuarial valuation of pension plans?

MR. F. EUGENE SMITH: *Opinion No. 8*, issued in November, 1966, by the Accounting Principles Board of the American Institute of Certified Public Accountants, and *Bulletin No. 21*, issued by the Committee on Accounting and Auditing Research of the Canadian Institute of Chartered Accountants, outline, for our respective countries, recommended accounting procedures for the treatment of pension plans in corporate statements. *Opinion No. 8* provides for a substantial narrowing of accounting practices and, while not completely rigid, will probably involve considerably more work for actuaries and plan administrators. *Bulletin No. 21* follows the approach of *Opinion No. 8* closely in principle but is much more general, leaving greater scope for interpretation.

Both documents provide for accrual accounting, with any difference between the charge made against current operating revenue and the amount funded being reflected as an accrued or prepaid pension cost in the company's balance sheet. Although it is made quite clear that the recommendations are intended for accounting purposes only and are not intended to affect funding arrangements, it is likely that most employers will want to use a funding approach which will conform to the accounting requirements rather than to undertake detailed and possibly awkward explanations to their employees, on the one hand, or their stockholders, on the other. If the funding approach does not conform, obviously the actuary will have to make extra calculations. This could easily develop with United States plans' having a large group of employees who have not yet completed the eligibility requirements. *Opinion No. 8* states, "All employees who may reasonably be expected to receive pension benefits should be included in cost calculations (unless their exclusion is not material)." If you cannot honestly argue the materiality of their exclusion, do you approximate the difference in cost or do you recommend to the employer that he reduce the eligibility requirements?

Both documents state that past-service costs should not be charged against surplus but spread over a period of years as charges against current operations, with *Opinion No. 8* requiring a minimum spread of ten years. This is a concept that I have always had great difficulty in accepting. Many plans, when first set up, provide for the immediate retirement of older employees, and it would appear here, at least, that the cost of providing their pensions should be charges against surplus. I believe that, in many cases, the actuary will have to contend with pressures for slower funding of past-service liability where the nature of the liability is such that fairly fast funding is desirable.

*Opinion No. 8* calls for the systematic recognition of unrealized capital appreciation and depreciation. More careful study will be required in future on many plans before the actuary can decide on an appropriate valuation interest rate. Many actuaries have deliberately avoided involvement with the investment aspects of pension plans as far as possible. I believe that this will no longer be possible, since decisions on the method of asset write-up under any particular plan should not be made without full consideration of the actuarial aspects of the plan.

*Opinion No. 8* requires unfunded prior-service liability to be reflected in the balance sheet only where it represents a direct and legal obligation of the employer. *Bulletin No. 21* appears to require its inclusion in the balance sheet whether or not it is a legal liability. Both require quite full disclosure of the financing of pension plans, and any changes in the financing approach, through footnotes to the annual statements. The actuary will have to assist the accountant in the preparation of many parts of the statements and may even be required to draft appropriate footnotes.

One of the more disturbing aspects of both of these documents is that, although they recognize that the calculation of pension costs must be made by an actuary, they require the accountant to satisfy himself that the actuarial approach is sound and that the actuarial assumptions are realistic. Many actuaries would argue that it would be more appropriate for the actuary to approve the work of the accountant than vice versa. We are involved here with another area where the responsibilities of two different professions touch or even possibly overlap. It is the responsibility of both professions to understand thoroughly the position of the other. The co-operation of both will be essential to ensure proper results.

To the extent that these two statements of accounting principles are intended to ensure consistency in the reporting of profits of a single company from year to year, they may be reasonably effective. I cannot see how either statement can achieve any reasonable comparability between

different companies having plans with different benefit levels and different actuarial approaches. On balance, I seriously wonder if the improvements accomplished by application of these principles are sufficient to justify the additional work and expense involved in compliance. Nevertheless, the principles have been stated, and, even though they may introduce an additional control element, our basic responsibility remains the same—to give the employer the best actuarial advice of which we are capable.

MR. ALEXANDER J. C. SMITH: I have been surprised at how few practical problems have arisen for the consulting actuary, or at least this consulting actuary, as a result of the Canadian bulletin. However, I do have a few brief comments.

The particularly contentious clause, “. . . the accountant should satisfy himself that such calculations are made by the actuary on a basis that will provide for the accrual of pension costs over the working lives of the employes to whom the pensions will be payable, that the basis selected is applied consistently, and that the assumptions on which the computations are based are realistic,” was interpreted for me by the research director of the Canadian Institute to mean that the company financial officer was obliged to so satisfy himself, not the shareholders’ auditor. This relieved me of a considerable anxiety that the company’s auditors would presume to check my actuarial work.

Mr. Smith mentioned a view that I had previously expressed that seems to have been borne out in practice. In some cases the actual funding of pension plans has definitely been affected by the promulgation of the accountants’ *Bulletin*. Although the *Bulletin* clearly referred to the accounting or charging for pension costs rather than the paying of them, corporate treasurers are very reluctant to have balance-sheet items reflecting either credits for pension contributions overpaid or debits for contributions due but unpaid. As a result, the amount paid to the pension fund tends to be that which is acceptable to have charged against current revenue, even when it would be advantageous to have a larger payment made. For example, past-service liabilities tend to be amortized over a period of years rather than made by payment of one or two lump-sum amounts.

*Opinion No. 8* has had some influence in Canada where accounts of Canadian subsidiaries are consolidated with the United States parent and must comply with the terms of the *Opinion*. However, even where there is no consolidation, there is a tendency for the subsidiary to comply with the United States accounting practice. The application of Canadian practice in almost every case meets the requirements of *Opinion No. 8*

except for the rather curious condition requiring the funding of vested benefits.

**MR. AUBREY WHITE:** Through experience we have found that extra work is required in preparing the valuation of *Opinion No. 8* concerning information with respect to vested liabilities. The accountants do not seem to care how we go about valuing a plan as long as the costs are properly controlled. They are quite concerned, however, as to the accuracy of the assumptions used in calculating the value of unfunded vested benefits. We have had to set up a separate routine for the determination of this figure and often use a different set of assumptions or at least are prepared to vary the assumptions so as to discuss intelligently the effect of changes in assumptions on this cost.

**MR. DONALD C. BAILLIE:** I am not an expert accountant, but I do want to take issue with Eugene Smith on one small point. As I understood him, he expressed a belief that the lump-sum payment for the past service of a man retiring currently under a newly formed pension plan was much closer to a capital outlay than a charge against revenue.

If the man's pension were to be paid directly, on a pay-as-you-go basis, however, it would surely be charged against current revenue, and these annual charges would be roughly the same as the payments required to amortize the past-service liability over ten or fifteen years. So, from this point of view, the lump-sum past-service payment becomes a prepayment of charges against revenue (rather than a capital outlay).

Perhaps I am splitting hairs in distinguishing between an ordinary capital outlay, designed to produce positive revenues, and a prepayment to avoid negative revenues.

**MR. DONALD P. HARRINGTON:** Eugene Smith said that in many situations it was proper to charge past-service costs against the surplus. I hope that he does not feel that is true in the case of American Telephone & Telegraph.

I would certainly maintain that past-service costs belong to the plan and not to individuals and are not allocable to these individuals, especially in our situation.

B. Is there a need for an analogous guide to assist actuaries in making proper choices of actuarial cost methods and assumptions in valuing pension plans?

**MR. F. E. SMITH:** At the 1966 Annual Meeting of the Society, it was announced that the Committee To Study Pension Plan Problems had been requested by the Board of Governors to develop a guide for pension

actuaries. The guide is to be "a fairly detailed treatise that would be used as a reference by established pension actuaries, for the education of actuaries newly entering the pension field, and for the information of others who are concerned with private pensions."

Predictably, a number of actuaries who discussed the subject expressed considerable concern at the regimentation which they felt was implied, although most welcomed the thought of a comprehensive textbook. Only a very few speakers got as far as the third purpose expressed, and they agreed that the guide *might* be useful in the education of other interested persons.

Personally, from a somewhat biased point of view, I believe that this project should be given top priority and that the Committee should be given the full support and encouragement of our whole membership. I find it difficult to assess which of the three objectives is the most important. I believe that they are very nearly of equal importance.

Considering the membership of the Committee, there should be no real worry that the guidelines will unnecessarily restrict the application of actuarial judgment. Few, if any, arbitrary rules or limits could be established in a field as complex as this one. Any experienced pension actuary knows that the multitude of factors which must be taken into consideration before valuing a pension plan, many of them not readily susceptible to mathematical measurement, prevents the establishment of any single approach, or even any narrow family of approaches, which would be applicable to all plans. I would expect that the guide will point out factors which should be considered, with some illustration of the decision-making process at least in the less obvious problem areas. Even the most experienced pension actuary should find such a document helpful in reassessing his own procedures from time to time. As a guide for the qualified actuary newly involved in pension problems, it should be invaluable, and its use as textbook for actuarial students would be automatic.

The manual should be designed in such a way that it can also be used for the education of other parties interested in pension-funding problems. Employers—with their accountants, lawyers, and investment advisers—are taking a much greater interest in funding methods and levels than ever before, often with a minimum of knowledge and a maximum of misconception. The proposed guide, backed by the Society, should be readily acceptable as authoritative by the nonactuary. If broadly circulated, it should lead to more knowledgeable discussions and decisions by those persons directly involved in the financing of private pensions. It may even be possible for the guide to have some influence at the governmental level!

Even though it could be awkward to develop a format which would be equally effective as a technical reference for actuaries and as an educational text for nonactuaries, I do not believe that these objectives are completely incompatible. The use of a basic text, supplemented by appendixes covering the more technical aspects of the problems discussed, should allow development of a guide sufficiently flexible to be of real use to a wide range of people with differing backgrounds of experience.

MR. JOHN C. MAYNARD: Two views have been expressed with regard to the value of a guide to actuarial principles and practices in the field of pensions. First, there is enthusiasm for recording the important assumptions and methods of calculation. In a changing field this would help many practicing actuaries. On the other hand, there is the fear that the guide might appear to be definitive and might restrict the actuary in his treatment of a problem because of the possibility that criticism might arise if he made deviations from the guide.

I am confident that the guide being developed by the Society's Committee To Study Pension Plan Problems will be able to avoid the fear referred to.

C. Should an actuary include or be required to include in his report on the valuation of a pension plan an opinion or certification as to the adequacy or appropriateness of the funding of that plan?

CHAIRMAN GEORGE A. COOKE: Whether an opinion or certification by an actuary should be included in a pension-valuation report depends upon the circumstances under which the report is submitted.

In Canada the provisions of the Income Tax Act require an actuarial certification of the liability for benefits accrued to the valuation date or the unfunded liability in the event that the entry age normal or other method of funding is used. This may or may not be included in the report to the client and may not be required for a subsequent valuation.

Insurance company actuaries, of course, must comply with the legislation applicable to their companies. This, in fully insured pension plans, may eliminate the need for certifications except in the annual statements of the companies. Where deposit administration or segregated funds are used, the question does arise whether insurance company actuaries, if they are handling the valuation of pension plans, should be required to include certificates with their reports to the clients.

Currently, the provinces of Alberta, Ontario, and Quebec, and later probably the other provinces, will require periodic certifications of the unfunded liabilities and the current and prospective normal costs, at least until the dates of the next succeeding actuarial valuations by the

actuaries who are responsible for the valuation of the pension plans. Again, these certificates may or may not be included as part of the reports to clients.

In principle, where the actuarial report is properly designed and includes all the actuarial assumptions and the results of the valuation are presented in a form that may be understood by a layman, in most cases the employer, I do not see a need for inclusion of a certificate. The report, in itself, gives the opinion of the actuary.

MR. F. E. SMITH: I would differ with George completely on this. Whether or not he is required to do so, I think that an actuary should include a certification as to the adequacy and appropriateness of the funding of any pension plan for which he is preparing a valuation report.

The guides of professional conduct have been referred to as being of some protection to the client. I wonder how many clients have read the guides. Sections 7, 8, and 9 bear directly on this question and proscribe against the actuary's reporting on, recommending for use, or in any way sponsoring an actuarial calculation which he knows to be false, materially incomplete, misleading, or about which he has qualifications as to assumptions or methods without stating the qualifications explicitly.

These guides emphasize the negative—"Thou shalt not." If we want to be considered professionals and avoid strict governmental limitations on our actuarial advice, I think that we should take a more positive position and make direct and clear statements as to the adequacy of the actuarial assumptions and the appropriateness of the actuarial techniques used in preparing any pension plan valuation report.

MR. MURRAY A. SEGAL: I feel that the whole purpose of an actuarial report is to give an opinion regarding the adequacy of the funding of the plan. Otherwise, why bother to prepare the report?

When the actuary states in a report that he estimates the unfunded liability and the current-service costs to be certain amounts, is this not essentially a certification, regardless of whether the actuary puts it in specifically the same language that is used or specifically required by various levels of government?

I question the comment made that the intelligent client can understand the significance of actuarial assumptions given in a valuation report. For example, I believe that most clients would not know whether or not a specified mortality or disability table is up to date or appropriate in a particular case.

**CHAIRMAN COOKE:** My approach to the question was that the report itself was sufficient if the report were extended to include specific wording along the lines contemplated by the question.

**MR. M. DAVID R. BROWN:** I am a little puzzled by the whole direction of the question "Should an actuary include or be required to . . . ?" The question is, by whom or in what way?

If the intention is "Should an actuary make some sort of statement in a formal way that he certifies that the results of his calculations are adequate or appropriate in some way or other?" I think that it would be difficult to use the kind of language which would be suitable for every case. Any attempt to say to the professional at large, "You ought to put in certain words at the end of every report," is either going to degenerate into something that is completely meaningless or has to allow for so much flexibility that it will not serve as an adequate requirement.

**MR. F. E. SMITH:** I interpreted this question in the same way that Dave Brown did. Even recognizing that a valuation report is essentially a matter of opinion expressed by the actuary to his client, I feel that a positive statement at the end to the effect that the actuary feels that the funding assumptions and methods are proper for that particular plan is advisable.

When dealing with the various governmental requirements, there are usually specific forms that must be completed. Sometimes these are rather vague and may be adjusted to fit the particular circumstances of the case.

**MR. LEAR P. WOOD:** As a person who, from time to time, requests actuarial reports from consultants on pension plans, I would request that the actuary make a statement that he believes the actuarial bases to be satisfactory. In dealing with all levels of management and with the unions, it is of great assistance to have an outside person categorically say that in his judgment the bases are satisfactory.

**MR. BAILLIE:** I would like to express a very, very brief opinion. If an actuary makes an actuarial report based on an assumption that he does not believe in, he has no business making it.

D. What problems are involved in comparing the investment performance of different pension funds, and how have these problems been resolved?



CHAIRMAN COOKE: First, may I draw your attention to a recent book which I have found quite helpful: *Pension Funds: Measuring Investment Performance*, by Peter O. Dietz, copyrighted by the Free Press in the United States but obtainable in Canada through Collier-Macmillan Canada, Ltd., Toronto, Ontario. Also in *Trusts and Estates* in March, 1967, there was an article captioned "Measuring Pension Fund Performance," by Randall S. Robinson, in which one conclusion is that the most appropriate measure of yields is through the determination of time-weighted rate of return.

In attempts to resolve the rather difficult problem of comparing the performance of pension funds, we have available the mechanics to aid in comparison. With computers I think we can get down to narrower periods, even to day-by-day periods, without too much difficulty. The programs for developing yield rates can produce ideally different yields for different classes of investments—equities, bonds, private-placement bonds, mortgages, and so forth—as well as yields for all classes combined. The basic formula from which the yield is calculated may involve exponentials of fairly high order, and from a computer standpoint the underlying yield is obtained by a process of successive approximations.

In the determination of the gross yield of a fund in succeeding years and comparisons from one year to another, we may produce results of considerable assistance and merit. However, trust companies, insurance companies with segregated funds, and investment counsel understandably are reluctant to see one fund compared with another without careful consideration of the basic differentials between the funds. For example, one fund may grant the trustee unlimited investment powers, while others may permit the trustee to act only and primarily as the custodian without any investment decisions' being entrusted to him. A true comparison of one investment medium with another should include considerations not only of yield rates but also of the quality of investments selected.

MR. F. E. SMITH: I do not have very much to add to what George has said. It has appeared in the past that any fund manager could find some method of comparing the results on his particular fund with some other independent measure in such a way that it would show his performance as being topnotch, whether it was being compared with a Dow-Jones type of average, some mutual-fund statistics, or what-have-you.

One of the main problems to date has been the lack of recognition of the importance of the incidence of investment. It is entirely possible for two funds to invest in exactly the same securities from time to time, but,

by varying the amounts invested, to end up with two entirely different results. In pension plans, the timing of the investment is not within the jurisdiction of the fund manager generally, and his performance may appear to look better than average or worse than average through something that is not within his control.

This point, I think, is becoming well recognized now; I think that the work of Randall Robinson, to which George referred, is well on the way to developing the techniques which will cover this issue effectively, particularly with modern mechanical equipment.

**MR. HARRINGTON:** We have had the problem of making comparisons among the various trustees in the Bell System.

We were able to use an effective rate of interest, which was mentioned before as the yield rate, if the following conditions existed: the funds were relatively mature, they all had similar investment instructions, they had received the money at the same time, and they had the same liquidity requirements.

In revising the measures of performance now in use, we have been working with Dietz's book. As a matter of fact, Illinois Bell has retained him as a consultant for measuring performance. He has emphasized a few additional problems that we did not have. Aside from determining the yield which the actuary requires since he is using this as an assumption in valuing the pension fund, if the various times when the trustees receive the money are different, then any advantage deriving from this must be eliminated. To do this, he develops a quarterly or even daily yield rate and then multiplies them together. This geometric approach to the problem eliminates the effect of timing in measuring performance.

- E. What practices are followed in furnishing information to covered employees concerning the amount of their accrued pension benefits? What would be the advantages and disadvantages of including an indication of the extent of funding of the individual employee's benefit? How should it be done?
- F. To what extent are the foregoing matters influenced by the pension benefits legislation now in effect in Ontario, Quebec, and Alberta?

**CHAIRMAN COOKE:** In the interest of better employee relations, the trend is for employers to produce statements, at least annually, which show the amount of accrued benefits under pension plans, as well as other employee benefits, such as those available in the event of death, disability, and so forth. With the increasing use of computers in actuarial valuations, these statements usually can be prepared as by-products of the valuations, and there has been considerable promotion of these by-products.

When a pension plan is of the final-average-pay type, there are some problems. We have to be particularly careful about any legal commitment that might involve the employer in any liability with respect to information given in such statements. Our legal associates appear to have mixed views on this. An extensive or complete qualification in the statements could minimize the sales and employee relations appeal of the statements.

An indication of the extent of funding of an individual employee's benefits could be risky even on a qualified basis, particularly in segregated fund or trustee type plans where investments are in securities, the market value of which may vary from time to time, and where funds are not credited to individual employees.

MR. CONRAD M. SIEGEL: The proposal of advising employees of the extent of funding seemed like an appealing alternative to some of the less desirable suggestions that had been made with regard to reinsurance, compulsory funding, regulated actuarial assumptions, and so forth. The union-negotiated, multiemployer, cents-per-hour plan is usually set up on a basis to provide reasonably adequate pensions to those who retire in the early years. If the union negotiator is relatively new to the pension field, he often thinks in terms of a savings account or a money-purchase plan where each 10 cents per hour paid on behalf of an employee is put into an account for him with full vesting on death or termination of employment. Unless the negotiator changes his outlook concerning the money-purchase plan, he will not be able to retire the older employees on a pension of more than \$1 or \$2 a month. Usually the negotiator changes his mind on this point and establishes a plan granting past-service credits.

A problem arises on reporting the extent of funding to a group of, say, 200 union members, where the ten older employees are told that they have \$60 a month of pension, of which all \$60 is funded, while the 190 other people have lesser amounts of accrued monthly pension, of which little or nothing is funded. The negotiated contributions which the members might have chosen in lieu of additional wages do not appear to be there. I do not see any real solution to this problem but can easily see that, at the next negotiating session, the entire pension plan might be thrown out by a vote of 190 to 10.

CHAIRMAN COOKE: Would anybody care to comment on the effect of the provincial legislation in Canada where, because of requirements as to funding, the situation which Mr. Siegel envisioned might not occur to the same degree and ultimately might not occur at all.

MR. F. E. SMITH: I think that we may be going too far in suggesting that the report to the employee under a pension plan indicates the extent to which his benefits are funded. The over-all solvency of a plan on a trustee, deposit administration, or separate account basis is what we are concerned with rather than individual solvency. This is part of the basic principle of insurance reserves which the solvency requirements in provincial legislation and in the United States are attempting to provide. The employee should be in a position to know that the total benefits under the plan are reasonably funded, but it would lead to potential misunderstanding to tell each individual how much of his own benefit is funded.

MR. BROWN: In connection with the cents-per-hour plan under the provincial legislation, the only protection that an employee has under a plan that becomes insolvent is that it will be amended to make it solvent. Thus, the legislation does not really prevent a plan from going wrong. Since judgment on all actuarial assumptions is not necessarily going to be perfect, we are opening ourselves to the possibility of greater misunderstanding if we start issuing statements of any kind regarding the fund.

CHAIRMAN COOKE: I had in mind the legislative requirements in some Canadian jurisdictions that pension benefits must be funded currently and that, in the event of a plan being terminated, the order of priority required would be somewhat different from what Mr. Siegel described. Because of the legislation, there could be those who might be entitled to some vesting priority in deferred pensions. Those having ten years of service and aged 45 or older in certain cases presumably would have priority in the funding of their deferred vested pensions, whether or not they terminated employment when the plan is wound up.

MR. HARRINGTON: At American Telephone & Telegraph we have the problem of furnishing information to covered employees. It becomes somewhat unrealistic in a final-pay plan to take very young employees and project their final pay without allowing for improvement in current wages.

Furthermore, our studies of historical wage scales indicate that wages have been roughly increasing between 5 and 6 per cent per year. It becomes difficult to try to incorporate this experience into the information furnished the employees without bringing in greater problems.

Another problem arises in attempting to show the cost of these benefits. The Bell System is using a modified aggregate cost method to determine

one accrual rate as a percentage of wages. Can you take this accrual rate and multiply it by their pay? Certainly this would not be representative of the cost of each employee's benefits.

MR. LAURENCE E. COWARD: I feel that employees should always get regular annual statements of their position in the pension fund. These are helpful and reassuring to employees and meet one requirement of the provincial pension benefits acts. However, I very much doubt whether the statements should include projected figures, primarily because of the difficulty of estimating future earnings. Moreover, an excessively detailed statement including all the various retirement options and comments on the funding ratio would probably be more confusing than helpful.

In Ontario, pension plans have to meet legal solvency requirements to ensure a reasonable degree of funding. With a going concern, the degree of solvency at any particular point of time may not be of great significance. On winding up, the amount and allocation of the funds are very important.

The Ontario Pension Commission would greatly appreciate receiving help from actuaries in attacking a problem that may arise on winding up. Perhaps a simple and rather exaggerated example will clarify precisely what the difficulty is.

Let us imagine a small concern in which the employer is the controlling shareholder, the pension fund is solvent and operating in a satisfactory manner, and the pension of a retiring member is purchased from an insurance company. If the employer wished to favor certain members of the fund, he could make retroactive increases in benefits and then terminate the service of these members, say, by early retirement. In theory the entire fund could be applied to purchase annuities for them. Thus, it is possible for the whole fund to be absorbed by this procedure and for the other employees, even those with vested rights under the law, to receive nothing.

Is this the sort of risk that the Pension Commission should attempt to guard against? Certainly such an occurrence could be politically embarrassing for the government which is attempting to protect the interest of all employees, particularly those who have reached age 45 and completed ten years of service. We must therefore consider whether further legislation or regulation is required and, if so, the form that it should take. I repeat that the suggestions of any actuary would be very welcome.

MR. WHITE: The suggestion that I have is neither new nor perhaps appropriate. I wanted to mention that the United States approach has been in operation for a long time and represents one of the major problems

under pension plans involving executives and their friends and relatives. If a plan is terminated, the higher-level employees, those among the twenty-five highest paid, must go to the back of the line and are specifically prevented from taking more than a relatively modest proportion of the funds away with them.

As for the question of reporting to employees, I am strongly against including the extent of funding of individual benefits for the reasons others have mentioned.

*Group Life and Health*

- A. Is there an increasing interest in level-premium life insurance in connection with employee benefit plans? What kinds of sales situations are being encountered, and what types of level-premium insurance plans are being offered separately or in conjunction with group term life insurance? What underwriting, actuarial, and other problems are encountered in the design and marketing of such plans?

MR. JACK W. ROBERTS: For many years the position of the United States IRS regarding group permanent plans was not clear. However, the IRS recently issued regulations which clarify the situation somewhat; under certain conditions, set out in the regulations, employer contributions to a level-premium plan are not considered taxable income to the employees, and the employer contributions are deductible as a business expense in the normal way.

The sales approach used on individual employees merely involves pointing out the advantages of permanent life insurance over term insurance. In addition to the usual advantages, the employee enjoys the benefit of an employer contribution with no tax disadvantages. An additional sales point arises out of the realization that an employee who participates in a plan of group ordinary life insurance is really taking advantage of the conversion provision found in any regular group life insurance policy, with the advantage that conversion is really being accomplished at an original age instead of an attained age.

There are no specific underwriting or actuarial problems as long as the usual fundamental underwriting restrictions governing regular group term life insurance coverage are followed. Care must be taken to ensure that a standard level of group mortality be attained, and to this end all of the usual rules about nondiscriminatory schedules of insurance and the usual participation requirements must be fulfilled. So long as the over-all participation is all right, a satisfactory level of mortality should emerge. For rate-making, it is necessary, of course, to use regular group mortality assumptions as well as the normal group expense factors. It is easy to incorporate the special remuneration levels into the calculation of premium rates. The choice of interest rates will be influenced by the rate used for a company's regular ordinary series but may depend on the nature of the rate guarantee provided in the master group contract.

So far, the above considerations all apply to United States business. The unsatisfactory tax position appears to inhibit the sale of this type of coverage in Canada.

MR. KENNETH T. CLARK: The interest in group permanent insurance today centers around the product that is variously called "group ordinary" or "group permanent in lieu of term" or the like. About half a dozen companies are prominent in the market, and others are making it a point to enter the market.

The plan presents some interesting actuarial problems. What are the accounting and administrative problems of permanent insurance in the group line? Will the ordinary premium rates and values stand the higher group mortality? What kind of disability benefit shall be offered, and how shall it be priced? How will dividends and experience-rating returns for the group term permanent package be determined? When an employee who is in a hazardous occupation converts, how do you get the needed extra hazard premium built into the ordinary conversion policy premium? How do you quote in advance a premium for the group term insurance when you do not know how much term there is going to be (since you do not know how many employees will take the permanent option)? For those companies doing business in New York State, what is the effect of this plan on Schedule Q?

Perhaps the income tax problem is the most intriguing one. The cost of the plan is shared between employer and employee. It is obviously desirable that the employer's share not be considered taxable income to the employee. But this requires that the employer's contribution be for term, not permanent, insurance. Somehow, therefore, the employer contribution has got to be attributable to term insurance, with the employee contribution attributable to permanent insurance.

This plan has had a generally enthusiastic reaction from agents, which is not surprising. The closing rate is very high among employees exposed to the presentation. Compensation is the same as that for ordinary insurance.

Frequently the initial employer contribution is more than the complete premium for noncontributory group term insurance. He may save money in the long range, but the long range is not always uppermost in his thoughts; and, anyway, savings can be wiped out by high employee turnover.

My own view is somewhat neutral on these points. There is one area, though, in which I think this plan has an advantage. With it, we are getting some interesting experience in the effect of mass marketing of permanent insurance through an employer sponsorship. This may lead to interesting future developments. I suspect that the pricing and the unit



agency compensation practices which emerge in the future will be more favorable to the buyer, but what we have at the present should not lightly be scorned.

MR. WALTER SHUR: I would like to comment on the actuarial aspects of group ordinary insurance that I believe point up some of the questions and problems which require careful consideration and examination. It will be helpful to first review the general operation of the group ordinary plan.

Consider a simple case of twenty lives (and this product seems to be selling in the small-case market) and suppose that you write a group term plan with each employee insured for \$10,000 of group term insurance. Under the group ordinary plans being offered, any one of the employees can elect to change that term insurance into whole life insurance. The plan generally requires at least three employees starting with whole life insurance, but reports have been that frequently 50 per cent or more of the employees initially make such an election.

When an employee elects to change his term insurance into whole life insurance, the insurance company then receives its regular whole life premium with respect to that employee, and it receives group term premiums with respect to employees who have not so elected.

When the employee terminates employment, he can continue the whole life insurance as an ordinary policy by paying the original age whole life premium. This will eventually involve issuing ordinary policies on series that have been discontinued many years in the past.

In some of the plans being offered, if the group plan itself terminates within a few years, an employee cannot continue his whole life insurance unless he presents satisfactory evidence of insurability at that time. One of the plans being offered requires such satisfactory evidence no matter when the group plan terminates. So the employee is really never quite sure whether or not he will be able to continue the whole life insurance—an act of his employer (i.e., terminating the group plan) may force him to “surrender” whole life insurance toward which he has made substantial contributions.

When you begin to analyze the group ordinary plan, it becomes apparent that it is closely related to a guaranteed issue plan. For example, suppose you write a twenty-life case and all twenty employees elect whole life insurance at the outset. Suppose further that this group ordinary plan terminates four years later, all twenty employees continuing their ordinary insurance. What you have done in this case is to issue twenty whole life policies with no underwriting of any kind.

In analyzing the group ordinary plan actuarially, then, it is natural to break the group case into two parts. One part would consist of those employees with the group term insurance, and the other part would consist of those employees with the whole life insurance.

The whole life premium provides for select mortality, for certain expenses, for surplus and contingencies, and, in a participating company, for dividends. Since there has been no underwriting, the mortality will clearly be higher, on the average, than provided for in the whole life premium; a group mortality level would be a reasonable first approximation. If the group ordinary plan is to work out financially, there has to be an offset to this excess mortality beyond that realized by the elimination of individual underwriting.

Now the offset could come from lower commissions, and the plans that are around do pay commissions that are lower in the first year than those on individual policies. But they do not appear to be low enough to cover the kind of excess mortality that we are likely to experience.

The second place you look to for an offset is in the area of expenses. Perhaps you can achieve savings through the economies of group administration. However, the group ordinary plan is moving away from group administration and involves a number of typically "individual" transactions. Individual records are required to know the amount of each employee's permanent insurance, when he elected it, and the premium-paying history. There are complex transactions on termination of employment, individual policies to issue, ordinary reserve valuations to be made, cash-value quotations and payments (while employed), and so forth. There is no question but that, when one writes a group ordinary plan, he is getting a little bit into the ordinary business from an administrative point of view. It is very hard to see how any offsets to the excess mortality are going to come from the administrative area. Even if there were administrative savings compared to individual policy handling, they would be realized only during the period an employee was under the group ordinary plan. After he terminated employment, or the group ordinary plan terminated, the usual individual policy expenses would be incurred for any employee who continued his whole life insurance.

One of the arguments made for group ordinary insurance is that it provides permanent insurance, and we all know that permanent insurance has many advantages over term insurance. I think this is true when you are talking about individual, one-year term insurance versus permanent whole life insurance. There is a great advantage to the whole life insurance because the premium is level and the individual does not get forced out of

the insurance when he reaches the older ages and the premium increases substantially.

This argument is not as applicable in the case of group ordinary insurance, because the heart of the group mechanism itself is the fact that the premium for an employee stays level no matter how old he gets. In fact, he cannot pay more than 60¢ a month per thousand of insurance. And while the group one-year term premiums increase by age for each employee, the average term premium for the group as a whole stays quite level year after year.

One marketing approach being used for the group ordinary plan may be a little misleading to the employee. This is the approach in which, when the employee elects whole life insurance, the employer share of the whole life premium is set at the attained age group term premium then applicable to that employee—and the employee pays the balance of the whole life premium. For example, if an employee aged 35 elects whole life insurance, the employer might pay about \$5 a thousand and the employee about \$20 a thousand toward a whole life premium of \$25.

The employer will clearly realize savings in this case because as long as the employee remains in the group the employer continues to pay \$5 a thousand instead of the increasing group term premiums he would have paid if the employee had not elected the whole life insurance.

The deal looks good to the employee because it appears that he is getting a \$25 whole life policy for \$20. Of course, the fact is that he is not. He is paying \$20, but he is giving up the \$5 that the employer was contributing on his behalf. The following year he is giving up still more because the employer would have been putting up more money for him; by the time he gets to be, say, age 62, he has given up quite a bit by changing his group term insurance into permanent insurance. In this type of group ordinary plan, the savings realized by the employer are largely at the expense of the employee.

The group term mechanism has been a highly successful one. Most people need group term insurance as well as permanent insurance. Probably 90 per cent of the people who replace their group term insurance with permanent insurance could have obtained a standard, ordinary policy which would have been in addition to their much-needed group term insurance.

I have touched on a number of aspects of the group ordinary plan. The most difficult, to me, is the financial one. Extra mortality costs at age 55 are likely to be in the neighborhood of \$55 per thousand—and over \$100 per thousand at age 65. It is hard to see where the offsets to these costs are going to come from.

MR. CARMAN A. NAYLOR: I just wanted to ask a question, if I may. We do not do business in the United States, and I am not quite clear on the income tax position there. Can an employer pay the full YRT premium as it increases with age without creating any income tax liability on the part of the employee and also without creating any such liability if he is entitled to a surrender value upon termination of insurance?

MR. ROBERTS: I believe that the answer to the first question is that he can continue to pay YRT premiums because the regulations, I think, use the words "properly allocable term cost." And I think that the insurance company can state that, if it were to provide a regular plan of group term insurance for this cost, it can certainly submit that this is a properly allocable term premium rate for any individual.

I do not believe that there is any particular tax liability arising out of the availability of the cash values; no more so than is present under ordinary policies written in the United States.

MR. ROBERT E. SHALEN: From the employee's standpoint, the permanent coverage leaves a lot to be desired, in that if he dies before retirement, which many do, all the money that he has put in is fully forfeited. His family gets no more than if he had made no contribution and less than if he had put the money into a savings bank or into other life insurance.

Furthermore, if the employee terminates his employment after becoming insured and discontinues the permanent insurance, which will happen very often (among the groups where this insurance is going to be most frequently sold, namely, to smaller groups, employee turnover rates are upward of 25 per cent), he will generally have a substantial loss.

The average duration of employment cannot be more than five or six years, and I have not seen any set of rates, dividends, or cash values that will produce anything but a loss in case of such termination.

I saw one letter, from a general agent of a good company, saying that he was most enthusiastic about this product because it would be very easy to show the advantage of this permanent insurance as compared with the group insurance. Permanent insurance is a fine thing, but when you offer the agent a tremendous financial incentive to persuade the employee that group insurance is not right for him and that what he should have is something that will cost him more money and, except for the occasional employee who stays with the same employer until he retires, will give him no more benefits, I think that we have set up a most unfortunate conflict of interest within our business.

MR. ROBERTS: If you use group mortality in the computation of your rates for group ordinary insurance and if your group mortality rates on your regular group term coverage are sound, then there is no way that your group ordinary rates can be inadequate.

The speaker from the New York Life pointed out the great problems that would be involved if a twenty-life group terminated and if all the twenty lives converted their coverage. We would then be on what, in effect, are ordinary life insurance rates without the advantage of initial underwriting. However, nobody would allow a twenty-life group under regular group term insurance to convert all their coverages; this is not allowed under group ordinary life either.

It is true that we will allow conversion on termination of employment, just as we offer conversion of insurance on termination of employment under group term insurance. We are prepared to charge \$65 against the term experience of the group that has group ordinary life insurance coverage.

In the expense considerations, I indicated that in the calculation of the premium rates you must use group expenses. Double them if you think it is going to be a little more expensive for you to administer these individual billings. That is no problem these days with computers. I know of many companies that are considering moving all their group billings to individual listings. This helps a great deal in the record-keeping and keeping up to date the participation in the plan, the development of the plan. It helps in claim purposes and so on. I cannot see any disadvantage at all in listing billings for individual participants in a group ordinary life plan.

The speaker from the Equitable indicated that this was a dangerous step and that we may be sorry for it. I would be the first to agree with him except that the companies are not doing a good job in the \$5,000 and \$10,000 life insurance area. Here we have an ideal method for mass marketing of ordinary life insurance, and we are going to provide insurance coverage to those people who are not going to get approached by individual agents.

All you have to do is to look at the decline of industrial insurance. It just is not selling any more. People do not have time to sell it, and agents evidently do not have time to sell a \$5,000 ordinary life policy; they can, however, provide the advantages of permanent insurance for \$5,000 by using this mass-marketing approach.

B. In the light of the possibility of federal Medicare legislation in Canada, what is expected to be the market for medical care plans, including vision care, dental care, drug expense, and other major medical benefits?

MR. ROBERTS: When Parliament gave final approval to a bill setting up a system of Medicare for all citizens of Canada, a last-minute amendment permitting the federal government to include funds for services of dental surgeons, optometrists, podiatrists, psychologists, physiotherapists, chiropractors, osteopaths, and naturopaths was included. Thus it is highly unlikely that there will be any significant market for vision or dental care. This assumes, of course, that the legislation actually is implemented. There is still a considerable amount of work necessary by the provinces. It is not yet clear whether coverages in effect under private plans will enable provinces to obtain approval for their plans under the federal act. At least three provinces will probably want to continue arrangements now in effect so long as qualification can be obtained.

It is still too early to give up the battle, but if the insurance companies are forced out of the medical, vision, and dental care field, there still will exist a market for drug-expense coverage and certain major medical benefits, such as nursing care; however, it is unlikely that companies will find it economically feasible from an expense point of view to offer these coverages.

C. Is there any evidence of an increasing lag in the presentation of claims for (a) health care expense benefits and (b) weekly indemnity benefits? What are the factors that may be contributing to such a trend? How can companies deal with this matter?

MR. ROBERTS: There is some indication that an increase in the lag in presenting health care claims has occurred. In general, it appears that claims experience in the industry improved slightly in 1966, and some theorists maintain that this resulted from an increasing lag. Possible explanations for the increasing lag include the effects of Medicare legislation on hospital-administration procedures and the effects of an increasing emphasis on co-ordination of benefits. It is expected that the lag due to inadequate hospital methods will settle down by itself, but an improvement in the lag due to the COB provision will require improved co-operation among insurers. My own company has experienced several examples of complete lack of co-operation in this connection.

I am not aware of any increasing lag in the presentation of claims for weekly indemnity benefits and am looking forward to the discussion of this subject.

MR. SHALEN: I would like to offer one thought on this subject. It is a very real problem. Most of us in the States had it in analyzing our earnings last year, and what we have done is to study a sample of each month's

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paid claims, by type of coverage (employee and dependent, hospital, surgical, and major medical). We studied the length of time elapsed from the date the claim was incurred until it was presented to us for payment and found that by the 1966 year-end these lag periods had gone up by approximately 10 per cent. We have continued to follow the lag to see when it might level off, but so far the uptrend appears to be continuing.

MR. NAYLOR: As far as I am aware, I do not think that we see any evidence of an increasing lag in either health care benefits or weekly indemnity benefits. In fact, I hope, as far as health care benefits are concerned, particularly medical, that perhaps there is the opposite trend to some extent. We have had in our company, and this is probably true of most companies in Canada, a great deal of our medical-surgical business written on the direct-claims-payment basis, under which claims are submitted to the company directly by the doctor rather than going through the employee and the administrator of the group; along with this change, we have seen a definite increase in our claims experience which we cannot really explain too well. My hope is that part of this is that claims are being submitted more quickly.

We have seen this demonstrated to some extent by the factors that we have developed for incurred claims. Between the end of 1965 and the end of 1966, we have found a significant reduction in the reserve required for the outstanding claims liability for medical-surgical plans. For weekly indemnity there has not really been any significant change in the reserve factor. I see no indication, therefore, of any increase in lag for this benefit.

*Survivors' Benefits*

What are the advantages and disadvantages of providing widows' and survivors' benefits as part of (1) a group life insurance plan and (2) a qualified pension plan?

MR. JACK W. ROBERTS: A general statement here is difficult. The level of benefits is important. If the survivors' benefits include return of employee and employer contributions, a qualified pension plan is better. If the benefit is to be in the form of a life annuity equal to the benefit otherwise payable at retirement, a life insurance policy might be better. A large claim when benefits are funded by a deposit administration plan could cause an awkward fluctuation in the assets.

State limitations on amounts of group insurance may prevent the furnishing of adequate survivors' benefits. Expected liberalizations here may remove this disadvantage. The federal limit of \$50,000 on group life represents another potential difficulty.

None of these difficulties are present when funding is under a qualified plan, but if survivors' benefits are payable as a lump sum, the insurance benefits must be "incidental only" to the pension benefits. This points up another advantage of group life, that is, government approval is not needed if survivors' benefits are funded outside the pension plan.

Premium tax considerations imply that the pension plan is better than group life, since group life premium taxes tend to be higher than premium taxes on pension contributions.

As to taxability of proceeds, under group life the lump-sum value generally is included for estate tax purposes. When funding is through a pension plan, estate taxes are not a consideration, but income benefits are taxed as income when received. Which is preferable depends largely on the financial circumstances of the individuals involved.

CHAIRMAN GEORGE A. COOKE: With pension plans there can be a sudden increase in liability which can have a marked effect on smaller plans. This, in conjunction with legislation that experience deficiency disclosed must be funded over the next succeeding five years, could create problems.

MR. KURT K. VON SCHILLING: The amount of benefit provided is quite large. What is the feeling of the ordinary agency force about the provision of these benefits through group means?

MR. ROBERTS: I guess this position is applicable to the large amount of group life being offered. Agency associations are opposed to liberaliza-



tion of the higher amounts of group insurance, but I see no difference between the two situations. Agency forces are not going to like that.

MR. ROBERT E. SHALEN: Our agency force was enthusiastic about this benefit when we provided it for them and their widows.

MR. BARRY F. H. GRAHAM: Relative to the Canadian situation, I think that we will be forced into the position on July 1, 1968, of having only a very small group health market left to us in weekly indemnity and long-term disability. Therefore, it seems natural to expand our group life market by selling a widow's benefit. The latter is an inherently sound plan which is tied to the individual's needs and has the effect of selling large amounts of group term insurance.

MR. DAVID A. WRIGHT: Providing widows' benefits through the pension plan would involve lower costs, particularly for larger funds, because there is the opportunity to combine the contingency reserves necessary for both widows' and retirement pension benefits.

The large reserve represented by the pension fund represents a suitable cushion for the risk involved in the widows' benefits.