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ADEQUATE FINANCING OF RETIREMENT PLANS

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- o United States: Minimum funding requirements, Internal Revenue Service audit guidelines, Pension Benefit Guaranty Corporation, Financial Accounting Standards Board 87
- o Canada: Surplus contrivances tax reform, pension reform legislation, Canadian Institute of Chartered Accountants Standards

MS. NEELA RANADE: The focus will be on defined benefit pension plans. What constitutes the right level of financing for a pension plan? One would think that as actuaries we would have figured out the answer by now. After all, we are the professionals who determine the level of funding of the pension plan and the subject of financing of pension plans is hardly a new one. Can anything new be said on the subject?

In different periods of time, however, the term adequate financing carries different overtones. The number of parties interested in the financing question may vary from one time period to another. First and foremost, the actuary is protecting the interest of the employees in determining the right level of financing of a defined benefit pension plan. However, the actuary must also consider the needs and the financial situation of the employer for whom the pension contribution is but one of the alternatives for his use of funds. In multi-employer situations the impact of the funding of one pension plan upon other employers must be taken into account. Under the new accounting requirements, namely Statement of Financial Accounting Standards 87 (SFAS 87) in the U.S., and the Canadian Institute of Chartered Accountants Standards in Canada, the extent to which a plan is funded can directly and very visibly affect the employer's balance sheet. Of great practical importance are the regulatory requirements that an actuary needs to take into account in determining the right level of funding. Another consideration may be the impact on generations of ratepayers or taxpayers.

The Committee on Pension Principles, which I am currently chairing, has taken on the ambitious task of analyzing this topic. There are different definitions of funded status, and we believe different ones are appropriate in different situations. We are fortunate today to have three speakers who will be able to give us three different perspectives on this subject.

Theoretically, given the particular situation for an employer, there should be a right level or at least a right range of financing for the employer. However, regulatory and philosophical considerations have led to different practices in different countries. We have with us actuaries from both the U.S. and Canada who will share their thoughts and viewpoints.

Our first speaker will discuss the theoretical considerations in determining the right level of funding for a defined benefit pension plan. Mr. Tom Bleakney is going to read Mr. Charles L. Trowbridge's prepared remarks. You will know Charles Trowbridge by reputation. He was the coauthor of *The Theory and Practice of Pension Funding*, and a past President of the Society of Actuaries. Tom knows Charles well and, I believe, is eminently qualified to communicate the spirit of Mr. Trowbridge's remarks.

MR. THOMAS P. BLEAKNEY: I hope that you understand that I am only giving the words that Mr. Trowbridge has written for me. I feel particularly humble in doing this because I have always admired him and I feel that what he has to say is always to the point.

In this discussion we hope to make what progress is possible towards an answer to the simple-sounding question -- what is the proper level of financing for the defined benefit retirement plan? After proposing this question, the preliminary plan booklet went on to say that, "although theoretically there should be an objective answer to this question, external restraints have a large impact." My role on this panel is to take a close look at the first part of the foregoing sentence. "Although theoretically, there should be an objective answer" -- note the emphasis on those three phrases -- I will leave the rest of the sentence, that having to do with external restraints, to the other panel members. Note particularly the verb *should be.* The sentence quoted does not say that there is an objective answer. It only expresses an opinion that there ought to be. Whether or not there should be such an answer may be a matter of opinion. However, the fact that none has developed is not open to much debate, nor are we likely to find such an answer today. Those who came under the hope that this panel will come up with a neat answer to this perplexing problem are doomed to disappointment. Even so there is much to be said on this intriguing subject.

We can consider these three questions -- all suggested by the program wording. What are the objectives of pension plan financing? What measures of funding status can we devise? What are the risks associated with inadequate financing?

If we are to make a good attempt to examine these questions, we must first learn to think in terms of the entire gamut of defined benefit pension plans. We must consider corporate plans and governmental plans, single employer plans and multi-employer plans, social insurance and plans strictly in the private sector. We must recognize that the problem is not confined to the United States or even to North America. The pension financing issue knows no boundaries.

With this as background, let us begin by examining what surely must be the most simple form of retirement plan financing, that which in North America we call pay-as-you-go or current benefit financing. The benefits promised are financed when they become due and not before. The basic simplicity of this approach commends it. Rightly or wrongly, we in North America have taken a pretty dim view of pay-as-you-go even though much of Europe has a different viewpoint. Why do we believe that pension plans should be funded? We must have some reasons, and we do; but we should not adopt this position blindly. So let us here consider this initial question -- "What is so wrong with pay-as-you-go, how do other kinds of financing improve things?"

Early in an actuary's career he or she learns that: (1) pay-as-you-go costs tend to rise over time, and (2) few employers are immortal. The combination of pay-as-you-go and (1) leads almost inevitably to poor employer accounting, while a combination of pay-as-you-go and (2) throws a dark cloud on employee benefit expectations. These are the twin difficulties that the advanced funding of pension plans and the actuarial cost methods that surround such funding seek to remedy. Other reasons for pension funding that one may hear are largely red herrings, or are related to the external restraints that I am leaving to others in order that we may concentrate on these two issues.

Now let us assume for the moment that the employee expectation reason does not exist, but that a solution for the accounting problem is sought. Is pension funding necessary to assure that the ultimate cost of the benefits emerges in a rational manner, thus keeping an employer from overcommitting himself as to pension promises and preserving equity between various generations of stockholders or taxpayers? The answer is no. What has long been called the balance sheet approach, where the employer holds a continually changing liability on its balance sheet, solves the accounting problem adequately even though the financing is still pay-as-you-go. It is an interesting conjecture, which I suspect, but cannot prove, that actuarial cost methods may have first been devised for accounting rather than funding reasons.

Only when we become concerned with the second part of the pay-as-you-go problem, that of employee pension expectations, are we led to setting money aside in a separate pension fund. The fact that pension funding can do much toward enhancing the employee expectation of security, while at the same time accomplishing the accounting objective, is one of those fortunate coincidences that we run into occasionally.

Thus was born the now strongly touted principle of advanced funding of defined benefit retirement plans. Obviously, government policy has a lot to do with the infant's growth, first by encouragement of pension funding via the tax code, and later by the practical elimination of pay-as-you-go plans in the private sector via the Employee Retirement Income Security Act of 1974 (ERISA). However, pension funding began before the government got into the act. To my thinking the objectives of any good plan of pension financing are: (1) the enhancement of employee benefit security, and (2) the promotion of sound employer accounting. This part of the overall problem I find the least perplexing.

I am going to break in just a moment with my own comments. Many of you know that I wrote a book called *Retirement Systems for Public Employees.* In the course of writing this book I tended to mix those two key points: (1) employee benefit security, which could be translated into building up the funds or paying of costs, and (2) the promotion of sound employer accounting. I remember Dan McGill straightening me out on that and I find again that it helps to make this distinction. This again is what Trowbridge is doing. And let me also make one other comment -- when he says sound employer accounting, I think it is fair to say that his viewpoint is of accounting in the generic sense -- how we measure the costs -- rather than the very narrow sense that we seem to be squeezed into because of some of the actions of the Financial Accounting Standards Board. (End of Tom Bleakney, back to Trowbridge.)

Let us now pass on to ways of financing retirement benefits under the advanced funding principle that has clearly become the norm in North America. The student of pension funding soon becomes aware that there is a continuum of solutions to the pension funding problem with pay-as-you-go at one extreme and heaven knows what at the other, differing from each other only in their degree of conservatism. In this sense, a more conservative method or set of assumptions is one that makes the charge to the employer earlier and hence builds up substantial funds, while a less conservative approach charges the employer less in the early years and builds up a lesser fund. It is to be noted that the words *conservative, more conservative, less conservative,* and so forth are not used here as value judgments. I do not mean that conservatism is good or the reverse, but I do suggest that our search for an objective funding standard is really a question of how much conservatism is enough.

We need now to recognize what factors lead to more conservatism and which to less. It is not simply a matter of the actuarial cost method, although method will play a part. All other things being equal, a projected benefit method usually is more conservative than an accrued benefit method, but even this generality is not necessarily true. A projected cost method, where normal cost is computed as a level percentage of pay, can be less conservative than an accrued benefit cost method of the pro-rata form.

Pension funding is full of these exceptions to what we have come to think of as general principles, but the actuarial cost method is not the only factor controlling the degree of conservatism and, hence, what we may call the pace of pension funding. The speed with which the initial unfunded accrued liability is amortized plays a part no less important, at least in the early days of a plan's existence. Actuarial assumptions also play a role. Pessimistic assumptions and the spreading of the actuarial gains associated with such assumptions lead toward the conservative end of the continuum, while optimistic assumptions, particularly if losses are spread, point the other way.

If you buy the foregoing, you must agree that the degree of conservatism in any particular pension situation is most difficult to assess. However, this is only part of the problem. Suppose we were able to assign a conservatism index to any given funding pattern. Would we be much further ahead? When is more conservatism desirable? Who can say?

Perhaps we can begin to get at this latter question by looking at pension funding from several points of view. Can we agree, for example, that from the point of view of employee benefit security, more funding is a good thing?

Certainly it would seem so on the surface, but even here we run into questions. Suppose the choices are between a conservatively funded and hence initially expensive plan of modest benefit level, and a less well-funded but more generous plan that from an employer's viewpoint bears a similar current price tag. Would you as an employee opt for the former over the latter?

We can revise meaningful measures of funding status by looking at funding from the employee viewpoint. Employees should be satisfied if the assets are and will remain at or above the value of all benefits earned to date. They may be satisfied with a lesser level of funding if the assets will always be at least equal to the present value of vested benefits, since funding is not intended to offer additional protection to pensions that can disappear through termination of employment. Employees can perhaps be expected to understand that the asset levels suggested above can hardly be expected to be attained quickly and that the employer would be reluctant to undertake or to liberalize any defined benefit plan recognizing past service if he were required to fund at these levels immediately. Rather than secure but clearly inadequate pensions, less secure but more adequate benefits may well be in the employees' interest.

If we seem to be reaching no definitive conclusion as to how much funding is appropriate when we look only to employee security, perhaps we should look in another direction. Is it advantageous from the employer viewpoint to fund a plan conservatively? This must depend to a great extent on the relative attractiveness of the other purposes to which employer funds could be devoted. Some employers will find it advantageous to fund a plan conservatively; others won't. Many have no idea as to where the advantages lie. Again, we seem to be up a blind alley.

We can, however, identify the risks related to inadequate financing. There are basically two, related to the two basic reasons for pension funding. First, because he is mortal, an employer may go out of business. If he does so at a time when pension assets are less than the value of pension benefits earned, employee pension expectations may be thwarted. Second, if an employer does not adequately recognize the emerging cost of his pension obligation through reasonable pension accounting, he may find that rising pension costs result in his plan being unaffordable and, hence, in it being curtailed. The risk that poor pension accounting may result in future financial disaster is not to be ignored.

To this point we have devoted our attention to single employer plans in the private sector, and here we have found no clear cut answers. When we look in other directions, we find even less. Consider these matters:

1. Is there any point to even considering advanced funding for plans for federal government employees? Is there any real question of employee security if the federal government is the employer? Will government accounting, hardly a model in any case, be improved?

2. Plans for the employees of state or local government have some, but not all, of the characteristics of plans for federal employees. What funding considerations are appropriate here?

3. Is there any doubt that social security must be run on principles close to pay-as-you-go? Arguments for advanced funding of social insurance have been put forth repeatedly but have never prevailed.

4. Have North American actuaries really looked into the European repartition arrangements? These are essentially large, multi-employer plans in the

> private sector with very little advanced funding. Under certain, not too implausible, economic conditions, it can be demonstrated that advanced funding causes a plan to cost more. How indeed can we make even a start in judging the degree of funding of a multi-employer plan?

If I (Trowbridge) have left you with the impression that at least one actuary who has devoted much effort to this problem finds himself in a morass, I suppose that has been my intention. Unfortunately, this is one area in which it is very difficult, even for actuaries, to substitute facts for appearances and demonstrations for impressions.

The problem, put as simply as I know how, is that we have no tools, or at least no simple tools, by which to measure the degree of funding of the typical defined benefit pension plan. Even if we had such a tool, we would not know how to employ it in deciding upon the proper level of financing.

If your thinking has led you to the conclusion that there is no objective standard by which pension funding can be judged, you have passed beyond the first level of ignorance. But, if there is no objective standard which we can set, we must not be surprised if external constraints develop, as indeed they have. These are the subject of much of the rest of the panel discussion.

MS. NEELA RANADE: You now have an idea how difficult the topic of defining the adequate level of financing for a defined benefit pension plan can be. In the Pension Principles Committee's work on the subject, we are attempting to narrow the scope of what the right level of funding is.

In determining the right level of funding, some parties are more interested than others in making sure that the pension plan is not underfunded. One of these, naturally, is the Pension Benefit Guaranty Corporation, (PBGC) which, in the U.S., is the agency which picks up a defined benefit plan's liabilities if the plan terminates in an underfunded position.

Mr. Ron Gebhardtsbauer, who is our next speaker, is the Chief Actuary of the PBGC. At this time there is extensive reform in the works at the PBGC and, in addition, the Reagan Administration's proposal on surplus assets is attracting a great deal of attention. Ron is right in the midst of all the action at Capitol

Hill, and I am sure that what he has to say will be of a great deal of interest to all of you.

Ron previously worked as Enrolled Actuary for the Civil Service Retirement System (CSRS) and before that he worked at The Wyatt Company. He is aware of the different perspectives of public and private plan actuaries.

MR. RONALD GEBHARDTSBAUER: As Neela said, I want to talk about the subject of adequate funding of pension plans from my perspective as Chief Actuary of the PBGC. In my talk I will: (1) relate my past experience to the subject; (2) discuss what current practices of underfunding are like; (3) give three examples of very badly underfunded plans that have terminated and come to the PBGC; and (4) discuss solutions and how we need your help.

But first I digress a bit. I've worked as an actuary in four areas: in insurance, pension consulting, the federal government's pension system and now the PBGC. Each of those areas has given me a different perspective on the issue of funding. You probably don't want me to talk about how my insurance experience might suggest that pension plans should immediately fund all promises. I'll bet there was a lot of resistance back in the last century when a lot of poorly funded mutual benefit societies were turned into fully funded insurance companies. However, I am not sure that I believe in fully funding pensions immediately anyway. So I will skip that for now; I don't think I'm for it.

My last job was as the enrolled actuary of the CSRS, which showed me a totally different view of pensions from what I had known as a consultant at The Wyatt Company. The additional perspective outside of ERISA gave me much more insight into what was possible for pension plans. The CSRS was deemed a qualified plan and thus we didn't really need to follow ERISA, even though I argued for voluntary compliance. We also assumed the U.S. government would never go bankrupt. We joked about including the probability of a nuclear holocaust in our assumptions, but pension plans wouldn't be needed then, anyway. The CSRS didn't have to comply with ERISA's minimum funding standards and our trust fund was inside the government's unified budget, thus the Treasury's contribution to the trust fund was also a receipt, and hence had no effect on the U.S. budget or annual deficit. For these reasons, however, soundness or funding adequacy was a very ambiguous goal at the Civil Service. If you never go bankrupt, what is the purpose of covering termination benefits by a sound fund? As it turns out, however, it would have been helpful if the CSRS had been funded adequately with a separate trust fund outside the unified budget of the U.S. government. Why? Because new federal employees are now going into a thrift plan at the same time that the old CSRS system is paying benefits to its retirees. Thus one generation of taxpayers (you) will be paying for both federal plans at the same time. Another point is that the fund has much psychological value to the participants. Funding also encourages better decisions by Congress when they are thinking of improving benefits.

Later I will be mentioning funding for shut-down benefits. The CSRS also had shut-down benefits and automatic provisions for early retirement windows. Actually, we called them a number of things: major agency reorganization, major reduction in force or RIF, involuntary leave, loss of a political job, or loss of an election. These happened with such regularity that we funded for them in advance. We assumed that approximately 1% of the people between the ages of 40 and 60 who are eligible for these benefits would get an immediate benefit with little or no reduction for early commencement. Thus the value of the pension approximately doubled. Of course, these events happen in cycles, some of which match political cycles, rather than on an annual basis.

Recently, I changed hats to become the Chief Actuary at the PBGC and am happily digging into the details of ERISA again. As you might expect, the plans that we trustee are not healthy. I was hoping that when I spoke I would come as a prophet speaking to the actuarial community; however, I may be like a psychiatrist who sees nothing but sick patients and assumes the whole world is sick. Please forgive me if I do this to you. It is not my intention. Most plans are not sick.

The part of my new job at the PBGC that has reawakened my passion is my concern over the soundness of America's pension plans. Wearing this new hat I find myself much more aware of the consulting actuary's responsibility for adequate funding. You should all be concerned, too, even if you don't have any weak plans. Currently, your healthy plans subsidize the weak ones through PBGC premiums. Your premiums help Wheeling-Pittsburgh Steel have an unfair advantage over its rival companies, because your plans are paying for their unfunded pension benefits. Because of LTV and Wheeling-Pittsburgh, the $8.50

premium developed in 1982 is not adequate. It does not even pay for LTV retiree benefits. But, back to funding.

Now I would like to ask you all to go back to when you were studying for the actuarial exams. You most likely read a study note on the soundness of pension funds. Like me, you may have thought it was pretty vague. I have a confession to make, I did pass the exam, but I didn't fully appreciate the subject. In comparison, ERISA's cookbook of a 30-year amortization of unfunded liabilities was very easy to understand, and it seemed a good idea to mandate this minimum funding. I never thought back then that minimum funding could be a disservice. Why? Because there will always be people who will do just the minimum. In that situation the minimum had better always be enough.

I sometimes wonder how many other actuaries like myself had trouble fully grasping soundness. Post-ERISA Fellows have always lived in an environment which mandates a minimum funding standard and also provides a safety net for underfunded plans, called the PBGC. Most pension actuaries send letters to their clients setting forth the minimum contribution, the maximum deductible contribution and something in between, such as 30-year funding. However, 30-year funding would not have saved Allis-Chalmers, which is a plan we have taken over.

The actuary should be the champion of adequate funding. However, many actuaries use some of the following ways to lower contributions, if pressed by the plan sponsor. First, switch to the unit credit method and change to a career average formula. Often this is done under the guise of being able to control runaway costs due to uncontrollable inflation. Highly paid employees may still get about the same pension benefit because updates just happen to occur right before they retire. These are the people, of course, who have the lowest withdrawal rates, and the highest present values, and therefore the ultimate cost of that pension plan may not be that much different. However, funding is delayed. Are we being honest here, or are we just trying to get around the minimum funding standards? Does the actuary have a responsibility here to anyone but the plan sponsor's wishes?

There are many other ways to lower contributions to meet your client's demands. On large plans the actuary can do the following: determine his or her best estimate of the future and then increase the interest rate assumption by 400 basis points. That may still be within the IRS audit guidelines. What about using age 65 for expected retirement age when really age 60 would have been better, or assuming a 0% probability of plant shut-down? The audit guidelines may not be very good at catching these abuses. As you can see, we at the PBGC look at the audit guidelines in a different way than you look at them. You worry about falling outside of them; we feel that it is probably too easy to stay within them if you have a large pension plan.

If the contribution needs to be lowered further, dedication of assets may help. If all else fails, get a waiver. Maybe we need tighter standards on actuarial assumptions for large pension plans or quicker amortization of losses. For waivers, security and stipulations on future funding have been helpful. What do you think of not allowing accruals when you have a waiver? How about eliminating the use of waivers?

Some of these ways to lower contributions may be rationalized if the plan is well funded and the employer needs help to get beyond a couple of bad years. In that situation, you will be glad that you have a soundly funded pension plan. The greater goal here might be to keep the pension plan and company alive through those two years. But what if the pension plan is a wasting trust where plan assets are decreasing each year? Should you use all those methods? What if retirees take their contributions in lump sums, almost wiping out the fund? What if assets don't even cover the liabilities for retirees or if the work force is small and decreasing?

Another vexing problem for actuaries is how to handle shut-down benefits. We must solve these problems. When the possibility of a shut-down appears on the horizon, it's too late to start recognizing its possibility in your assumptions. I'll bet if you were an insurance company actuary you would have had assumptions for shut-down benefits, and they would probably have been conservative if you were insuring those benefits. Remember, no industry is forever immune to shut-down. Steel companies used to be very strong. Maybe shut-down benefits don't belong in pension plans.

Doesn't the actuary still have a responsibility to participants and soundness, post-ERISA? Maybe the actuary has a responsibility also to the future integrity of the plan for the corporation, for its future owners and future consumers. I think I am finally understanding soundness a little better. This is exactly where we need the expertise of the actuaries, and it may take many years to learn. Thirty-year amortization and minimum funding is cookbook by comparison and can be done by lots of people. Analyzing soundness is a much more productive, exciting area for the actuary than trying to figure out how to get the minimum contribution down.

Let's look at the termination insurance provisions. If an underfunded plan can terminate under our new distress rules, participants will get their benefits from the PBGC. So, maybe a plan doesn't need to be sound. Everyone is going to get the same benefit, won't they? Well the answer, as you know, is no. Employees in plans with amendments or cost-of-living adjustments within the last five years may not get their full amended benefit; neither will participants with benefits over the maximum, nor will substantial owners. Other benefits not guaranteed are supplemental benefits, future shut-down benefits, disability benefits, preretirement death benefits, and certain subsidized benefits. Also, PBGC guaranteed benefits do not get any protection from inflation after plan termination, nor will participants get the benefit of future productivity gains prior to retirement, nor will they benefit from any excess gains due to interest earnings.

Some people may say that having just a little bit more in assets will not help the participants. Actually, having a little bit more assets could help them because of the way in which assets are allocated to priority categories. For example, employees in plans with no assets will probably not get a full refund of their employee contributions. A little more in assets could have helped them. If assets had only been a little greater, then people whose benefits had been in pay status for three years could have gotten their full benefit. And, finally, everyone could have had their full accrued benefit if the plan had been fully funded. In fact, employees might still be participating in a pension plan if it had been adequately funded from the start. Participants in terminated plans also have to deal with a distant bureaucracy to work out the details of their benefits, which can take them a lot of time and be quite an inconvenience to all parties concerned, including you, the plan actuary, and me.

As I mentioned earlier, I deal only in sick plans. Your plans are probably in much better shape. A recent study by The Wyatt Company shows that 80% of defined benefit pension plans are fully funded for all accrued benefits. Actuaries are doing an honorable job. The study also showed that only 9% of plans are funded for less than 75% of the accrued liabilities. However, if you look just at plans whose benefits are unrelated to pay, that number jumps to 24%. That shouldn't surprise us since these plans are frequently amended and the amendments may be funded over 30 years. According to the same survey, these plans also used higher interest rates. I was surprised by that one. I think their interest rate should be lower, if anything. A lot of underfunded plans which we get at PBGC are of this type: dollar times service plans. The funding of these plans does seem to need a solution. An actuary can assume future benefit increases as long as they don't do it in the maximum. How can we do this in the context of collective bargaining? Is there a solution? One possibility would be perhaps to mandate shorter amortization periods for updates to unit dollar benefit plans (dollar times service) and also for career average plans.

Now let us look at plans that come to the PBGC. Most of the plans we get now are even more poorly funded than was Studebaker, and that plan was one of the primary reasons for the passage of ERISA. I would like to talk about a few of these plan terminations. They are now a matter of public record so none of this is confidential information. They are Allis-Chalmers, Wheeling-Pittsburgh Steel, and LTV Steel.

Allis-Chalmers, a farm equipment company, was only 3% funded when it terminated, even though they followed all the minimum funding rules, they never used any waivers, and they never cheated on their actuarial assumptions. How could this happen 12 years after ERISA?

Well, the answer is quite simple. Imagine a heavily underfunded plan for retirees existing on January 1, 1974. The minimum funding law allows the unfunded liability to be amortized over 40 years. If these are typical retirees, they are not going to live half of the 40 years, so the fund could be empty in 10 years. Ad hoc cost-of-living adjustments in retiree benefits are amortized over 30 years, making the situation even worse. Add a declining work force, and you have Allis-Chalmers. Thus our current minimum funding rules don't guarantee anything.

ADEQUATE FINANCING OF RETIREMENT PLANS

A recent survey by The Wyatt Company shows that half of the plans surveyed amortized retiree benefit improvements over 30 years. I don't call that advanced funding at all. I was also surprised to note that 41% of companies pay less than the ERISA minimum. This leads to the question: "Could minimum funding rules be changed to fix these underfunded situations without adversely affecting the well-funded plans?" Thirty years certainly seems too long a period to amortize retiree increases. Canadian plans, as you will hear later, amortize liabilities much faster. For active participants, I suppose 30 years is enough to fund most benefits in advance, but I don't think that it always attributes the costs to the appropriate time period.

FASB suggests the appropriate period is the future working lifetime. Well, now you say: "But actuaries don't make the contributions to the plans, employers do." I say: "You can change the minimum funding laws. The law is not static." If actuaries are professionals concerned about the soundness of plans and not just technicians calculating the minimum funding standard account, then their voices need to be heard on Capitol Hill. Dr. Kathleen Utgoff, Executive Director of the PBGC, has recently testified on Capitol Hill on both minimum funding and risk related premiums.

New Reagan Administration proposals (developed by the Department of Labor, Department of Treasury, the IRS, and the PBGC) call for faster funding of underfunded plans. Well-funded plans won't be affected, because why fix something that is not broken? Plans that are almost fully funded won't be affected very much so there won't be a cliff. Poorly funded plans will be affected much more, unless the demographics are dominated by young, active employees. The worst case situation happens when the assets are small and plan liabilities are quite mature. In that case the contribution would approximately equal unfunded termination liabilities divided by a angle 3. Each year, as the funded ratio improved, the new minimum would be less severe. The proposed funding standards will substantially increase the required contributions of the most poorly funded plans. A reasonable set of transition rules should balance the avoidance of premature plan termination with maintenance of the long term effectiveness of the proposed standards. However, the transition rules should also reflect the principle that plans should be responsible for their pension promises.

The economic assumptions used by us vary a lot. If we actuaries won't say that a set of assumptions is bad, then we can't complain when the government or accounting bodies do decide to draw a line. The administration's proposal will mandate faster amortization of experience losses.

A third, very large termination just happened recently because the plan had no cash available for the next monthly payment. How can an actuary be using a reasonable funding method and have this happen? One reason is that over 90% of recent retirees of this underfunded plan at LTV chose lump sum cash-outs. The administration proposal handles this problem by mandating that contributions must be at least equal to outgo.

Thus, actuaries have to take a step back and take a look at what we have done. We need to come up with solutions. I really like the idea of pro bono work for the government. A prominent actuarial consulting firm has helped the PBGC with some very good pro bono work and there are also firms with the public interest in mind such as the Employee Benefits Research Institute. One of the marks of a profession is that it regulates itself for the benefit of the public. Canadian actuaries now do this. Accreditation has helped in the field of education. Wouldn't it be better if we, who understand the business, are the ones who regulate ourselves rather than being regulated by an outside body?

Let's get back to creating the solutions. As we are a profession, like others with a responsibility to the public, let's not be exclusively biased for our current clients, but be concerned for the soundness of our pension plans for the good of the participants, the future owners, the insurance system and society. You can do this by influencing the minimum funding debate on Capitol Hill.

At this moment there are quite a few groups that are studying funding adequacy. One of them is the Society of Actuary's Committee on Pension Principles and Related Research. The topic of our meeting this week is a paper on funding adequacy. We also hope to get ideas from you.

A group of pension actuarial firms are studying the issue of funding, especially with respect to shut-down benefits. Also, the Interim Actuarial Standards Board of the American Academy of Actuaries is currently considering an opinion on the issue of funding for nonpooled catastrophic events, such as a shut-down. The

PBGC has been studying funding adequacy with the help of an outside actuarial firm, pro bono, and the Administration has put forth some proposed legislation. The General Accounting Office, as well as Capitol Hill, is also doing separate studies on minimum funding. It looks like this may be a hot topic and changes will come. We need your input.

Last century, actuaries helped the common good by developing new insurance products and changing ill-funded benefit societies to well-funded insurance companies. Today, President Reagan is encouraging private sector initiative and solutions to some current social problems. So I ask you as actuaries, with all your talents and the resources available to you, to help be part of the solution.

MS. RANADE: Many of the examples Ron spoke of are ideal for modeling, and we expect to make them a part of the committee's work on this subject.

We have all heard stories about America having lost its lead in manufacturing, with Japanese and German cars and cameras flooding our markets. I have to report that not only have we lost the lead in manufacturing, we have also lost the lead in regulation, at least pension regulation. These days many of our proposals in the pension area seem to come to us from the other side of the Atlantic; i.e., England, by way of Canada. The more socialistic edges of this legislation do get rubbed off by the time we make it our own. Specifically, I am thinking of proposals currently pending on pension portability, as well as the Reagan Administration's proposal on withdrawal of excess assets from ongoing pension plans. Canada has had this type of legislation for a number of years, and is in fact now having second thoughts about it. In addition, Canada recently went through extensive pension reform which has definite implications for the financing of defined benefit pension plans. I will let our next speaker say more on that, however.

Mr. Christopher "Kit" Moore has had a distinguished career. He was an Actuarial Vice President at Manufacturer's Life before coming to Mercer Canada where he is now Principal in the Toronto office. He also is Past President of the Canadian Institute of Actuaries and has chaired or worked on several of its committees.

PANEL DISCUSSION

MR. CHRISTOPHER S. MOORE: My part in today's discussion relates to financing of defined benefit pension plans in Canada and recent activity affecting that financing.

When Neela mentioned that her introduction would focus to some extent on legislative influences, I thought it might be appropriate to begin with a comment made by one of my associates last year, at a New York seminar on the subject of international benefits. This particular consultant had managed to boil down the legislation in various countries into one line each.

It went something like this:

- In the United States you can do it provided it's not forbidden;
- In Germany you can do it if it's allowed;
- In France you can do it <u>even</u> if it's forbidden;
- In Russia you <u>can't</u> do it even if it's allowed;
- In Switzerland if it isn't forbidden it's compulsory;

and to put my presentation in perspective I have to add that in Canada, if it's not compulsory, we are probably just waiting for the legislation to be announced!

Financing of pension plans has traditionally been more conservative in Canada than in the United States, and so there has tended to be a smaller spread in the assumptions used. While Canadians are sometimes accused of being more conservative than Americans, the real reason for this narrow range in funding assumptions is the split of pension regulation between: (1) the federal taxing authorities, whose major concern is tax revenue, and who therefore become concerned if tax deductible pension plan contributions appear to be excessive; and (2) provincial pension commissions whose main function has been the protection of pension plan members and who therefore become concerned if pension plan contributions appear insufficient to adequately fund the plan's benefits.

In either case, the regulators, in addition to reviewing a new plan's provisions before approving it for registration, must assess the methods and actuarial assumptions used to value the pension plan. The effect on funding methods and assumptions has been to compact them into a narrower range than would otherwise be the case. The tax authorities watch over the conservative end of the scale, while the pension commissions tend to restrain the actuaries at the more liberal extreme.

As an example, the Pension Commission of Ontario published a 1984 survey showing that for a sample of 219 large, trusteed pension plans all but three were valued using interest rates of 5% to 8%, only a 3% spread in the valuation interest assumptions. Neela Ranade tells me that a more recent survey of large pension plans in the United States showed disclosure rates that varied from 3.5% to 13%, a spread of almost 10% -- and with very little difference between the disclosure rates and the funding rates.

In recent years, there have been a number of important developments that have affected funding of pension plans in Canada, including the following specific issues:

1. Strengthening of actuarial standards in Canada
2. Changing economic climate and corporate environment
3 Issues surrounding an employer's use of surplus assets in pension funds
4. Introduction of new accounting standards for pension costs and obligations
5 Proposals to change the taxation of various types of retirement savings in Canada
6. Development of legislation intended to "reform" Canadian pension plans

To a greater or lesser extent, many of these issues extend to valuation of U.S. pension plans as well; however, my comments will relate to the Canadian scene with which I am far more familiar. I'll spend the remainder of my time just discussing each of these points in turn, and how they have affected funding methods and assumptions for Canadian pension plans.

ACTUARIAL STANDARDS IN CANADA

Two years ago the Canadian Institute of Actuaries (CIA) held a general meeting of members devoted to the subject of actuarial standards. One of the meeting's purposes was to discuss the need for strengthening of actuarial standards and to solicit our members' input before making specific proposals. While we in Canada did not opt for an Actuarial Standards Board, we did agree to put more teeth in our standards. It was evident that if the CIA failed to strengthen its role as a self-regulating body, then government authorities would naturally increase their regulation of actuarial assumptions and methods.

So far, this move to more stringent standards has not led to narrower ranges of assumptions and methods for funding of pension plans. One reason may be the point that I mentioned earlier -- the regulators in Canada have already done some narrowing for us. Another reason is that we have so far not seen wide-spread abuse of standards. Where questions have been raised, we have resolved those questions in a manner we feel has been satisfactory for our profession and for the other concerned parties.

One further point -- we have, in Canada, elected to make use of a CIA Committee on Review, which is available to regulators and auditors to review particular situations. The purpose is not to provide a second opinion of an actuary's valuation work, but rather to provide the regulator or auditor with a better understanding of our actuarial standards, to insure the standards are indeed working effectively, and if necessary, to recommend changes in our standards.

My point here is that, in Canada, the range of funding assumptions and methods used by actuaries is somewhat constrained by our regulatory environment, and is subject to further review and regulation by the profession itself.

CHANGING ECONOMIC CLIMATE AND CORPORATE ENVIRONMENT

There is no question that the very attractive pension fund returns or interest rates of recent years, and in some cases both at the same time, have led to increases in interest rate assumptions used for funding of pension plans. In Canada, we have seen the average interest assumption for funding valuations in Ontario grow from an average of 4.8% in 1972, to 5.4% in 1978, and 6.3% in 1983 based on official surveys carried out by the Ontario regulators. Unofficial surveys carried out in 1986 showed an average interest assumption in excess of 6.6%.

In my view, it is unlikely that the increase would have been as large without the recent disputes over pension plan surplus ownership, the impending introduction of new accounting standards and the increasing pressures on corporations to improve their bottom lines. Many employers have been encouraged to develop and make use of whatever pension plan surplus they could while they could, before the doors were shut. If for example, we were to say that acceptable interest rates for funding range somewhere between 6% and 8%, there has been more inclination in recent years to move towards the 8% rate.

For the same reason there has been some hesitancy to move to the more conservative 1983 Group Annuity Mortality Table, and it appears that a majority of pension plans in Canada have continued to use the 1971 table.

SURPLUS CONTROVERSY

In Canada, as in the United States, there's been considerable controversy around pension plan surpluses, but much of the action has been with regard to ongoing pension plans where surplus reversions have generally been allowed. In recent years, a number of highly publicized surplus refunds to employers have given rise to legal proceedings, in some cases resulting in reversions of surplus reversions.

The subject has rapidly become a political hot potato, in fact so hot that some regulators have prohibited refunds to employers, and others have placed a moratorium on surplus refunds from ongoing pension plans. In one situation, a major Canadian employer was challenged in the courts on its intention to use existing pension plan surpluses to reduce current service contributions to the plan, a common procedure in Canada. The employer won, but only by a 2-to-1 decision. A key factor in the employer's favor was the wording contained in the most recent actuarial valuation report.

The net effect of the controversy has been to generate increased concern among employers about the availability of surplus in the future to reduce pension plan costs, directly or indirectly. Employers have been encouraged to look for ways of reducing future surplus accumulation in pension plans, including the use of more liberal funding assumptions and methods in the valuation. Employers have also tended to make greater use of existing surpluses to pay current service contributions and to reduce or eliminate past service liabilities and experience deficiencies.

PANEL DISCUSSION

NEW ACCOUNTING STANDARDS

In Canada, January 1, 1987 was the effective date for most companies to follow new pension accounting standards just introduced by the Canadian Institute of Chartered Accountants (CICA). These standards require the use of assumptions that are management's "best estimate." The standards are similar to those recently introduced in the United States and are drawing management's attention to funding assumptions and methods now used in their pension plans. In many cases, management is torn between the desire to keep accounting costs and obligations down by using liberal "best estimate" assumptions, and the need to provide adequate and appropriate funding without having to prepare two entirely separate valuations each year. At the very least, there is concern among some employers about having sizable differences between the two valuations and carrying significant accounting adjustments to reflect those differences.

So far, the CIA has not developed specific standards dealing with pension plan valuations prepared for accounting purposes. In fact, at present, our valuation work done in accord with the CICA handbook requirements would apparently not follow the CIA's recommendations for valuation of pension plans for funding purposes. This matter is now under discussion within the CIA.

As I said in a recent address to a group of accountants on this particular issue, "It is the work of the wise to repair the work of the well intentioned."

TAX REFORM

Tax reform in Canada has focused on the fact that, until now, members of money purchase pension plans and individual retirement savings arrangements have been at a serious disadvantage regarding tax shelter opportunities, compared with members of defined benefit pension plans. Tax shelter opportunities are now being significantly improved for members of money purchase pension plans and nonmembers of pension plans.

As a result, many clients will make cost/benefit comparisons between money purchase plans and defined benefit plans and could well make their decision to move to a money purchase plan after comparing their costs on the money purchase plan with funding levels under the defined benefit plan. It will be increasingly important that employers be made fully aware of the differences between costs and funding, particularly in Canada where funding assumptions and methods have been relatively cautious compared to the United States. This increased awareness, combined with the discussions regarding assumptions and methods for accounting purposes and the concerns about availability of surpluses, will encourage actuaries to focus on the less conservative end of the range of acceptable assumptions and methods.

PENSION REFORM LEGISLATION

New pension legislation is having a major effect on a wide range of plan provisions, covering such aspects as minimum termination and death benefits, maximum vesting periods, portability, discrimination by sex or marital status, and indexing.

Pension reform affects funding methods and assumptions in a number of areas:

1. The potential cost savings from termination of employment will be lessened or eliminated, now that most jurisdictions in Canada are legislating two-year vesting and requiring that the employer finance at least 50% of vested termination benefits. In the past, vesting periods were often much longer, and many terminating employees, both vested and nonvested, received only their own contributions with interest.

2. A similar comment will apply regarding the reduced need for separate determination of preretirement death benefits, which in most jurisdictions will simply be the commuted value of vested benefits, subject also to minimum 50% employer financing.

3. Most jurisdictions will require pension plans to provide for portability of the commuted value of vested benefits on an employee's termination of employment, allowing for a tax-sheltered transfer of the commuted value to another pension plan or to an individual locked-up retirement plan. While this requirement may not affect funding directly, it does require an actuarial basis for determination of commuted values. In this regard, the CIA has developed recommendations for determination of minimum transfer values of deferred pensions, with a view to having these standards referenced in

new legislation and regulations (and in fact that view is being expressed in some of the current legislative proposals).

4. Now that legislation specifically prohibits discrimination by sex, it appears that any conversions of income options or determination of transfer values will have to be done using unisex tables. One jurisdiction has even gone so far as to require that the commuted value of a single life pension must equal the commuted value of the same amount of joint and survivor pension for a given situation. Even though that requirement has some basis in actuarial theory, it is a major departure from accepted traditional practices and will entail cost increases for many pension plan sponsors.

5. One of our major regulatory bodies, the Ontario provincial government, has stated its commitment to mandatory inflation protection of pensions; in other words, indexing of pensions. This commitment could become law within the year. Inflation protection will be a costly item, even if it is limited to less than the full cost-of-living adjustment, and will lead many employers to reassess the assumptions and methods used to fund their pension plans.

6. In fact, Ontario's pension reform proposals include a new approach to funding and solvency, which is expected to have an even more direct and significant impact on pension plan financing. Under these proposals, a regular pension plan valuation would be accompanied by a so-called solvency valuation, determined as if the plan were wound up. Liabilities would be valued without salary projections, but could be required to include significant increases to cover unreduced early retirement benefits. Assets would include invested assets valued at market or on a market-related basis, and would include the present value of future unfunded liability payments, but only those due in the subsequent five-year period. Also, if a plan's solvency valuation produces a deficiency, any additional liability resulting from benefit improvements would have to be funded within the next five years rather than the present 15-year period permitted in Ontario. All these new requirements arising from solvency valuations will mean increased levels of financing for pension plans, particularly career average earnings plans and flat benefit plans.

7. Not surprisingly, Ontario has also increased the annual assessment for its pension benefits guarantee fund. That assessment, which was originally intended to be 1/10% of the plan's unfunded liability, was actually established as 2/10% when the concept was introduced a few years ago. The new annual assessment will be 2/10% of the plan's solvency deficiency, based on the new solvency valuation requirement, plus $1 per member.

It's interesting to look back 10 or 15 years in the actuarial literature, and to read our members' discussions of funding of pension plans during those years. At that time, a mere decade ago, the concern was often directed at underfunding of pension plans -- that is, the problem of high inflation and low investment returns -- rather than at excess assets and the need for reduced funding. It's not unlike the story that our current CIA President Ken Clark told recently about a Society of Actuaries specialty meeting on inflation some years ago. One of his own actuary partners said to him: "I'm really glad that the actuaries are having that meeting, because it means that inflation must be just about over." Perhaps we should now look ahead a few years and determine what the real funding issues are that we should be dealing with today.

MR. LEROY B. PARKS, JR.: The gentleman from the PBGC suggested some possible ways we could accelerate the funding of pension plans. A couple of ideas that were either explicitly stated or suggested were: (1) to recognize future benefit increases either for non-pay-related plans or career average plans; and (2) to simply accelerate the funding on the unfunded liability.

In both instances it's pretty easy to run afoul of the maximum contribution requirements as far as the Internal Revenue Service is concerned. I know in many of the plans that I work on, there isn't a very large range running from the ERISA minimum to the IRS maximum. My specific question is, are the PBGC and the IRS involved in any dialogue that might allow for greater contributions to the pension plan, which would get an immediate deduction for those larger contributions?

MR. GEBHARDTSBAUER: Yes, in putting together the Administration's proposal, we worked with the Department of Labor and the IRS and the proposal will allow greater deductible contributions for underfunded plans. We, at the PBGC, don't have it quite as easy as in Canada; the provinces are a little bit more autonomous from the revenue agency and appear to have been able to increase their funding. We are a new agency and we were pleased that the IRS went along with the quicker amortization periods.

I appreciate your point about being careful not to run afoul of the maximum deductible amount.

MR. MICHAEL A. ARCHER: I have a comment for Ron. It seemed like you were characterizing career average pay plans as kind of villains in this whole thing. To me, career average pay plans may actually enhance the PBGC's financial position in the long run, especially if actuaries are allowed to project future increases. A second positive change could be to the IRS audit guidelines. My point is that under the audit guidelines we are prohibited from using more conservative assumptions to prefund for updates. The updates themselves give employers a unique opportunity to grant increases only when they can afford them. In the long run, this would seem to me to be a policy which would lessen the probability of plans becoming underfunded. It would seem that the ability to project the updates and the ability to use more conservative assumptions than permitted by the IRS audit guidelines would make for an even greater opportunity.

MR. GEBHARDTSBAUER: My speech does not cast the career average pay plan as the villain. I just said that we should fund them better. I think that if you, as an actuary, are unconstrained by the current regulatory situation and decide what is accurate and appropriate for this plan, your immediate reaction is to figure out that there will be future increases someday. I think that is what the actuary is called on to do. While you do have the regulatory constraints, I am also here to say that we need to change those regulatory constraints. My earlier comment about the PBGC and its strength compared to the IRS is accurate, thus the more help we have from the actuarial profession, the better we can deal on the Hill.

MR. WAYNE E. DYDO: I know that this is a session about funding, but how about benefits? In particular, is the PBGC guaranteed benefit level too high? Would your deficit be as big as it is if the guaranteed benefit on an hourly plan were related to the service of the individual as well as the average benefit unit of a well-funded hourly plan, with a similar concept for salary plans?

MR. GEBHARDTSBAUER: I caught the first part. As far as the maximum benefit being too high, the PBGC does not have a position. I know that when Congress passed the Single-Employer Pension Plan Amendments Act, if anything, they were going in the other direction; they created the Section 4049 Trust so that participants had a possibility of getting more than just a PBGC guarantee. There is now another creditor in bankruptcy, the Section 4049 Trustee, who fights for more money from the bankrupt corporations so that they can give benefits out greater than the guarantee.

I just saw something recently in my work, about two months ago, that I thought was interesting. If you figure out what the present value of a PBGC guaranteed benefit is, it comes out close to $100,000; I wondered if maybe in developing ERISA they were looking at the FDIC guarantees.

MR. DYDO: Are you going to try and do something about decreasing the benefit guarantee through this agency?

MR. GEBHARDTSBAUER: Not to my knowledge.

MS. RANADE: One of the tools that has become available now is a computer modeling technique used to determine what the right level of funding for a pension plan should be. For large plans or large clients a consultant will often do a projection where they look at different levels of funding measures under different conditions. Ideally, if one did that instead of blindly following the 30-year amortization rules, one would get around the kind of situation Ron described. What I wanted to know is how many of you use those kinds of techniques in practice? Is that something that is done only for the largest clients? For your information, we do it for our larger clients, but it is expensive to do. Can the committee help by generalizing some concepts and coming up with some rules?

MR. MOORE: In Canada there hasn't been as much of the forecasting of contributions as there probably has been in the United States. Because of the conservative assumptions that we have been using, there hasn't been the same concern about the position of the fund until recently, when the accountants came out with their proposals and introduced another element of concern among employers. We have had considerable activity among the larger clients in wanting to see what the impact of moving to different assumptions and methods would be upon their bottom line, particularly upon the change-over period from the old accounting standards to the new. That was one area where there has been quite a bit of interest generated, and that may continue with employers wanting to see the impact of changes in their so-called best estimates.

MS. RANADE: I would like to summarize the session. We found out first that adequate funding can mean different things in different circumstances. In the U.S. we've got the perspective of a government actuary who is very much concerned about the underfunding of some pension plans. Kit Moore informed us how the legislative environment has affected funding in Canada. Since many of the Canadian proposals filter down to the U.S. and are adopted in some other guise, I think that what we heard can be very illuminating in terms of what the future might bring. In fact, things like portability or risk-related premiums which are there in Canada and which we are discussing here today, are just signs of what will come.

The questions which are simplest to ask are often hardest to answer. For instance, if you ask how you make money in the stock market, you know the answer is to buy low and sell high. How do you adequately fund a pension plan? I made up something to answer it. It's simple, "Pay Peter but do not rob Paul." Fund enough to make benefit payments to employees but not so much as to risk upsetting the employers, shareholders or regulators. The question is, how much is enough and how much is too much? That is why we had this panel discussion and that is why we are working on this paper.