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FINANCIAL MANAGEMENT OF DEFINED BENEFIT PLANS

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- Flexible funding methods
- Plan design
- Ad hoc arrangements
- Formal funding objectives

MR. THOMAS P. BLEAKNEY: Today we will look at the subject of financial management of pension plans with a global, if not cosmic, viewpoint. Bruce MacDonald is going to give a Canadian viewpoint, I am going to give a United States viewpoint and Barry Watson will take the rest of the universe. This fits into our lines of work. I spend my time in the United States; Bruce, in Canada; and Barry, everywhere else. We will deal with the subject from our viewpoint as actuaries, from the viewpoint of plan sponsors, and from the viewpoint of plan beneficiaries. I think the three perspectives are important to a subject of this sort.

I will lead off. I am not very happy about what I see in the pension scene in the United States at the present time, and I am going to give you some of my perspectives in this regard. Business Week had a cover story August 13th, 1984 entitled "Will Money Managers Wreck the Economy?" I think the article made some very important points about managing pension plans as well as managing corporations. The primary theme of the article is in these sentences: "The money managers' power acts as a Damoclean sword over companies today, forcing chief executives to keep earnings on a consistently upward track, quarter by quarter, even if it means frustrating their long range plans. And because the low value assigned to their stocks closes equity markets to most companies, managements are borrowing more to operate their businesses." Carrying on, "The long-term implications of such corporate decisions are awesome. Fewer startup operations, less development of new products, ore bodies, or oil fields, and more service businesses at the expense of capital-intensive manufacturing could add up to the slow "deindustrialization" of the U.S. Moreover, higher short-term leveraging at the expense of equity leaves weaker companies vulnerable to bankruptcy in periods of high interest rates and business slowdowns."

Although this theme is somewhat off our topic, the concept of the short-term perspective is very important. For our clients who are investing, this also has some specific ramifications. Let me quote two other sections. "The pressures to perform have led to some bizarre investing tactics. In 1983, for example, pension funds dumped an average of 62.1% of the stocks in their portfolios and replaced them with other shares, according to SEI, the Chicago-based funds-evaluation service. Ten years ago, the average was 21%. This year the churning is swifter yet." Finally, "corporations are dismayed at the fund managers' track record. Most funds guessed wrong last year, performing far below the S&P averages.

That sorry record has been the norm for the past 20 years. Indeed, SEI discovered that the funds that churned most performed worst in 1983." Maybe that is a good sign, because it may lead to less churning but, frankly, I think that the perspective at the moment is definitely one of perform, perform, perform, and it is short term. It is oriented not only to years and quarters, but even to months and weeks.

The article also points out that, because of high interest rates, price-earning ratios are now at their lowest since 1949, about 8½ to 1. Now, from an investor's standpoint, why even bother to go into stocks if bonds are yielding so well? Recently Michael Boskin, an economist and professor at Stanford University, produced some figures reflecting a similarly disturbing trend. He related net domestic investments to the gross national product. As I understand it, net domestic investments amount to the money coming from personal savings and from outside the country, less the amount that is drawn off in governmental borrowing--in other words, the money that is invested in the economy itself. In the fifties, sixties and seventies, the percentage of gross national product invested in net personal savings ranged from about 6.5% to 7%. During 1982, 1983, and the 1985 projection, the percentage was down, ranging from 1.8% to 3.5%. The key element, of course, is what is happening to the federal budget. The average deficit for each decade never exceeded 2% of the gross national product. In the three years I mentioned, the federal deficit ranged from 4.5% to 5.5% of the gross national product. What is tapped off for the deficit can't go into the private investment sector.

I believe there are some closely related trends occurring in our pension plans. First of all, I think that short-term perspective increasingly is what we are seeing, not just in investments, but in the whole approach to the pension plan. Plans are terminating at a very high rate. Terminations are not for the reasons we had pre-ERISA, when a company was in dire straits. Plans are terminating to spill off the "excess" assets in the funds, and to do something else with that money. Plans are switching from final average to career average formulas. I think there are a number of adverse implications from all of this. I think we are going to end up with poorer retirement programs. Perhaps the bottom line is that we are going to be threatened with shifting a good deal, if ultimately not all, of the responsibilities for pensions into Social Security.

Related to the short-term perspective, in my mind, is what I call balance sheet accounting, as opposed to income statement accounting. The FASB fuss in the last two or three years has been an indication of this, but it isn't the first. Instead of looking to what, I feel, makes the most sense in the long run for managing a retirement program--a long-term budgeting process to expense the benefits that are being paid and to build up funds to pay for those benefits--we are using a snapshot approach. We are ready to jump, at a moment's notice, if that snapshot is slightly more favorable than we had expected it to be. Everybody is looking at their PBGC liabilities to see if they can sneak out of their plan and take some money with them. We also are subject to a lot of short-term actuarial gimmicks, such as dedicated bond portfolios. The October 11, 1984 Wall Street Journal addressed the subject in an article entitled "Business Reduces Pension Funding to Cut Costs, Fend Off Takeovers." One quote from this article: "Although stocks have historically outperformed bonds, their returns aren't fixed the way bond returns are. So the more corporations put into bonds, the higher the rates of return their actuaries can assume. Chrysler Corp. and Bethlehem Steel Corp. between them switched about $1.1 billion from stocks to bonds, locking in fixed returns to raise their pension plans' assumed returns. That enabled both to cut current contributions, in Bethlehem's case by $50 million a year." I have nothing against Bethlehem Steel cutting their contributions. I just hope that in the long run they are comfortable with this shift in investment goals and they are not doing it simply to narrow in on the short-term gain while giving up the long-term gain.

An article in the September 17, 1984 issue of Pensions & Investment Age discussed, among other things, the switches from defined benefit to defined contribution plans. The article was a review of a talk by Dallas Salisbury, the director of the Employee Benefit Research Institute. He said that more than half of current contributions are going into defined contribution plans, with more than one-third of the assets of private plans in the United States now in such plans. He pointed out that a good number of defined contribution plans end with cash-outs or lump-sum payments, rather than with pension payments. I guess I am being paternalistic, but I feel that there is a better chance of meeting the needs of a retiree if you, in effect, force him to take a monthly income, rather than give him the cash (the chicken farm idea) and hope for the best.

The defined contribution plan also puts the investment risk in the hands of the employee. Defined contribution plans also tend to favor the short-serviced, young employees, while defined benefit plans favor the long-serviced retiring employee. Dan McGinn's comments to the New York City Society meeting in June [Record, Vol. 10, No. 3, pp. 1385-1392] show how this works. Dan set up two hypothetical plans with identical contribution rates--one of them defined contribution, one of them defined benefit. To bend over backwards in favor of the defined contribution plan, he made the defined benefit plan give no credit for past service. So both plans start from the same point, and both have the same contributions. He used employee distributions from a plan for a mid-sized client of his, along with what appears to be a reasonable set of assumptions. Projecting forward over many years with the same amount of money coming into each plan, he discovered that the defined benefit plan provided retirement benefits which range from 135% to 165% of the retirement benefits paid under the defined contribution plan. Of course, that was made up for by the fact that the defined contribution plan provided significantly higher termination benefits. The ratio of defined benefit to defined contribution termination benefits ranged from 20% to 30%.

I believe a lesson can be learned by reviewing the evolution of defined benefit and defined contribution plans among public employee systems in the United States. In the twenties, many of the large state-wide plans that were set up in the East were defined contribution plans with a matching arrangement. The employee contribution would sometimes vary by age and sex and even by occupation, and there would be matching contributions by the employer. The rates were often chosen to generate a designed retirement allowance goal. Well, it didn't always work, and, in fact, it worked so seldom that one by one over the years the plans changed. At first the employee contribution portion continued to be handled as a defined contribution plan, but the employer shifted its contributions to a defined benefit plan. Little by little, everyone has shifted to where they now provide defined benefit programs. The reason, I suspect universally, has been that over the long haul the defined contribution plan simply does not meet the objectives that a proper retirement program should meet. It simply does not keep up with inflation and the benefits at retirement are not as originally designed.

MR. J. BRUCE MACDONALD: I think I will begin with a brief overview of what is happening in Canada. Flexible funding should certainly be flourishing in Canada as there are fewer restrictions upon it than in the United States. I know of plans where the employer has been contributing nothing, where he has been contributing less than the actuary recommends, where he has contributed more than the actuary recommends, where he has taken surplus out of the plan, and all sorts of permutations and combinations of these. As far as I know, no one has ever done a survey as to the prevalence of flexible funding and, as a result, we have merely impressions rather than demonstrations.

One thing we do not have in Canada, yet, is the problems you people in the States are having with FASB. The accountants here seem to be much more reasonable and are not suggesting that pension liabilities be put on the balance sheet. As a result, the trend to defined contribution plans has been, to a very large extent, confined to talking about switching to them. If, however, the federal budget proposals for tax reform and pension plans come about, there may well be a trend to defined contribution plans. This is not because defined benefit plans are treated unfairly, it is simply because they have heaped so much administrative work upon these plans that the employer is going to say, "Let's have a defined contribution plan; it's much simpler. I won't have to buy a new computer just to spew out the pension information." A favorite type of plan in Canada is the career average plan with periodic updates in benefit. It is a favorite device of many actuaries.

One other thing which Canadians have to keep in mind is the imminence of pension reform and its associated costs. We all know that our pension plans are probably going to cost more in the near future. In some cases, if it is a good plan, marginally more, and in cases where it is not a very good plan, considerably more. It does not seem to make sense to reduce pension costs in 1984 knowing that they are going to increase substantially in 1985 and 1986. Unfortunately, we don't know as yet what is going to be in the package for pension reform.

I think, then, it might be useful to give a sketch of the constraints under which we operate in Canada with respect to funding. I intend looking only at broad principles, and not at details. I shall confine my initial comments to what can be done, not the requirements for doing it. For example, I refer later to "experience deficiencies," but I don't intend to discuss "test valuations" that may allow experience deficiencies to be funded over a longer period than five years.

In Canada we have two sets of pension supervisory authorities. On one hand, there is Revenue Canada, whose concern is primarily with the tax aspects. They wish to ensure that a pension plan is really a pension plan, and not too much money is contributed on a tax-free basis. They are then concerned with maximum contributions.

On the other hand, there are six provinces with pension benefits acts (seven if we count Newfoundland whose act becomes effective next January) plus the federal act which applies to corporations that fall exclusively under federal jurisdiction. These acts are concerned primarily with protecting the rights of plan members, and so tend to set minimum contribution levels.

We might have real problems someday if the minimum was ever higher than the maximum, but I have not yet heard of this happening.

The federal requirements are contained in the Income Tax Act, and in more detail in Information Circular 72-13R7. The circular sets maximum pension benefits and terms, and all contributions that the actuary thinks necessary to fund them are tax deductible. For the benefit of the Americans, the maximum pension is 2% of the average of the best three consecutive years of earnings, to a maximum of 35 years, and to a maximum pension of $1,715 per year--overall maximum $60,000. The total current service cost is deductible and any unfunded liability can be contributed in one year if the plan sponsor wants to do so.

There are no restrictions on actuarial funding methods. With respect to the actuarial assumptions, it is stated that normally the long-term assumption for the salary scale should not exceed the long-term assumption for the rate of return on assets, and that for pension benefits indexed with the cost of living after retirement, the assumed rate of return on assets should exceed the rate of increase in the CPI "by at least two percentage points."

With respect to surplus, it is stated that any surplus in excess of the required contributions by the employer for current service in the next twenty-four months should either be refunded to the employer or used to reduce the employer's contributions until the surplus comes down to the specified level.

The method used to determine the surplus is not specified, and I have wondered what would happen if the actuary eliminated the surplus by switching to the aggregate method of funding. In any event, Revenue Canada only receives actuarial reports when applications are being made to make special payments to retire unfunded liabilities (and plans with surpluses do not make such payments), or if they request them. Thus, it is quite possible for a surplus in excess of the maximum to develop without Revenue Canada ever being aware of it. This isn't to say that a tax auditor might not pick this up.

When we come to provincial requirements, it's a bit different. The pension benefit acts are usually interpreted as requiring that the minimum contribution for current service should be computed under the accrued benefit method, and that the unfunded actuarial liability should be determined on that method as well. Unfunded liabilities normally must be funded over no more than fifteen years once the act "is mature", i.e., in effect at least ten years, but those unfunded liabilities classified as "experience deficiencies" normally must be funded over five years.

There are no regulations with respect to actuarial funding methods, though it is usually necessary to demonstrate that the recommended contributions in total exceed those under the accrued benefit method. The Ontario Royal Commission on Pensions said some nasty things about the aggregate method. There are no specified requirements with respect to actuarial assumptions, though some authorities look askance if the interest assumption exceeds 7%, and sometimes you have to justify your assumptions to them.

There is, however, a curious regulation in some provinces with respect to the indexed pensions. As such an "adjustment is not capable of being determined with certainty," the estimated future cost of the indexing may be excluded from the funding requirements. Why the actuary is supposedly capable of determining everything else, but not this, escapes me.

When we come to the utilization of surplus, there is considerable variation. All authorities allow surplus to be used to reduce employer contributions. Quebec will not allow a refund of surplus in any circumstance. Ontario and Nova Scotia limit refunds of surplus to the excess of the actual surplus over that attributable to employee contributions plus the greater of 25% of the employers' portion of accrued liabilities, or two years' employer current service contributions. How these amounts are determined is left to the actuary. The other provinces apparently allow for refunds in excess of two years' employer current service contributions, which is exactly the federal position.

There is another provision of the acts which could create problems. Section 20(b) of the Nova Scotia Act (and there is an identical provision in the Ontario Act) states "the provision for computation of the employer's contributions...shall not be variable at the discretion of the employer, unless in the opinion of the Superintendent the circumstances of the plan warrant otherwise." While this has never been used to limit flexibility in funding, could it?

The actuary has a very high degree of flexibility in determining the funding method and the actuarial assumptions. He has less flexibility in determining the period over which unfunded liabilities must be amortized, normally with a maximum of 15 years, compared with the United States, but funding can occur over much shorter periods than in the United States. Surplus can always be used to reduce contributions, and it can often be refunded to the employer. With the imminence of pension reform and its assorted costs, refunds of surplus may be ill-advised, but that is a different subject. Conversely, substantial surpluses can be built up.

Within the few constraints described, the contributions can be varied by changing funding methods, by changing actuarial assumptions, and by utilizing surplus. The supervisory authorities rely upon the integrity and the competence of the actuary, who must be a Fellow of the Canadian Institute, which is relied upon to set appropriate standards.

There is one additional topic which has given rise to heated debate within the Institute. A number of its members have suggested that in final average salary plans, it is sufficient to project salaries to the next valuation date, rather than to retiement, and wish this to be embodied as a minimum standard. The majority of members favor projection to retirement. The subject was extensively debated half a dozen years ago, and apparently rejected. It was, however, raised again at a recent meeting of the Institute. If this proposition is adopted, there then will be even more scope for flexible funding methods.

MR. CHRISTOPHER S. MOORE: I was going to make this comment, Tom, after your initial discussion, but I thought Bruce might bring it up. My comment concerns the discussion on the move from defined benefit to defined contribution plans, which, of course, will have a significant effect on financing pension plans. In Canada, a significant move to defined contribution plan design is being encouraged by certain pension reform proposals that would require termination benefits to be at least 50% funded by employers. Would that requirement change the projected cost comparisons of the type that Dan McGinn made, to make defined contribution plans relatively more attractive when they are compared with defined benefit plans? We are concerned that this rather artificial requirement for a minimum employer funded termination benefit would result in a major shift to defined contribution plans, even though they otherwise might not be desirable for employers and employees.

MR. BLEAKNEY: Let me point out one thing. Dan McGinn's study was a comparison of non-contributory plans. In the United States a very high proportion of the plans are non-contributory, and that does tend to distort that kind of relationship.

MR. MICHAEL COHEN: First, I could answer the question you just posed from the Canadian point of view. In fact, the reform proposals would affect non-contributory plans as well. The proposals include, at least at the federal level, two-year vesting and a degree of indexation of deferred benefits, so that even for non-contributory plans the proposals would have a very significant effect on the credits for non-vested terminations; they would almost disappear. I was going to make a comment about Bruce's very succinct, and I believe mostly very accurate, observations of the Canadian scene, but the question of indexation is one where I think I must disagree with him. Only Ontario and Nova Scotia allow that rather strange funding of indexed benefits. At the federal level, we certainly insist on the full funding of indexed plans. We have a few of these plans, mostly government crown corporations. I think the reason for that rather strange provision in the Ontario and Nova Scotia Pension Benefit Acts is that, apparently, there was a conflict between the Revenue Canada circular and the Pension

Benefits Act. Until some time in the mid-seventies, Revenue Canada appeared to forbid the pre-funding of indexed benefits, even if these were formally promised in the plan, and I think that was the reason for the provision in the Ontario Act. The Haley Report, which is yet another of these reports on pension reform that came out a couple of years ago, in fact, suggested that provision be abolished. It's a dinosaur that became extinct at least 10 years ago.

MR. MACDONALD: By bad luck, I only checked the Nova Scotia and the Ontario Acts. I'll make a prediction that Newfoundland is going to copy one of them with its Act. Actually, it's not in the Act, it's in the regulations.

MR. BLEAKNEY: The initial exposure draft that evolved into FASB 35 got into this business about not putting a value on guaranteed postretirement benefits. FASB later backed off, but it was a matter of trying to clarify something which the accountants didn't quite understand. I also should clarify that the McGinn study had 100% vesting from the very beginning of both the defined benefit and defined contribution plans, so as to avoid a potential bias. The benefits payable to terminated employees were the actuarial values of the full accrued benefit on the defined benefit plan. They were the full accumulated contributions on the defined contribution plan.

MR. M. DAVID R. BROWN: Just to close the circuit on the comment you made, Tom, it seems to me that the effect, from the Canadian point of view, of this 50% employer input requirement is perhaps not so much to encourage defined contribution plans as to encourage non-contributory plans, because that solves the 50% problem right away. In fact, there has been over the last 10 or 15 years a very strong trend in that direction anyway, except in the public sector. We already have this 50% employer input requirement in two provinces in Western Canada, and it's part of some of the pension reform proposals and not part of others. I think the federal government, for example, left this out of one of their versions. But it seems to me that the effect would be more on whether the plans continue to be contributory or not. That has mostly to do with another historical accident, namely that employee contributions are tax deductible in Canada. That's up for grabs; the whole tax treatment of retirement savings in Canada is undergoing some rethinking. I don't think there is anything necessarily sacred about the deductibility of employee contributions.

MR. RICHARD G. SCHREITMUELLER: Just a comment on plan design in the U.S. these days. We had a session yesterday about benefit levels in light of the higher retirement age projected under the U.S. Social Security program and the fact that some of the benefits are going to be taxed (an increasing proportion of them as time goes on). But, under the current law, the replacement rate at a given retirement age is being cut back gradually. Does this mean that benefits under pension plans will follow suit, and also be cut back; or, does it mean that the employer will make up the difference? I think the consensus was more the second, that there doesn't seem to be any impetus yet to cut back at all on pensions, despite mortality trends, etc. Yet, what we're hearing, at least from Tom, is that there are other things at work here, that down the road for the private plans the traffic is in the direction of less liberal benefits at retirement and in favor of using the money sooner for other purposes.

MR. BLEAKNEY: Come back 30 years from now and we'll have the answer.

Our next speaker is Barry Watson. Barry specializes in international pension plans for the Wyatt Company. Even though he hangs his hat in Washington, D.C., he spends a good deal of his time elsewhere and he will give us a very broad perspective on some of the other approaches to the kinds of things we're talking about.

MR. CHARLES BARRY H. WATSON: As Tom said, I am going to talk about countries other than Canada and the United States. I will just startle you by saying that other countries are different. They are very different. They are so different that there is absolutely no point in giving an overview of what is happening in them, global or cosmic, because it would take longer than any of you would want me to take. However, I will try to discuss a few points which will indicate what we can perhaps learn from the experience of other countries: in terms of potential future developments in the financial management of plans, in what we may see happen in Canada and the United States in the areas of funding constraints and flexibility and financing constraints and flexibility (of course, as we all know, financing is different from funding), and perhaps even in plan design. I will assume we're talking abut an ordinary company, a single employer in the private sector, and I will ignore the considerations arising out of parent-subsidiary relationships because they often have a very special impact in other countries.

Let's look first at funding constraints. Very frequently they don't exist in other countries, at least not through government rules and regulations. You often don't have any special rules pertaining to past service liabilities; you don't even have to determine them. Even if you do determine past service liabilities, there usually is no requirement that you fund them over a fixed period of time. You don't have to worry about an x-year period for funding amendment liabilities and a y-year period for funding losses. This means usually you can make your funding decisions on the basis of flexibility and the tax status of the company. Is the company making profits, or losses, or is it perhaps enjoying a tax holiday? This sort of flexibility is very handy but, as you will see, it also can give rise to problems. From these problems, I think we can learn some lessons.

I gather from Bruce's remarks that accountants in Canada are not too active in actuarial areas. I would remind you, though, that many Canadian companies which are subsidiaries of U.S. parents will still be subject to the various FASB dicta, including those that may prescribe funding constraints.

Aside from this, the major funding limitation you will meet outside of North America is a general requirement that there be enough money in the fund to cover the liabilities for the people receiving benefits, and, sometimes, the vested benefits of people not in a payee status. Of course, even if this may not be required by law, as an actuary you should be concerned if the employer says he's funding his plan, or wants to fund the plan, and doesn't have enough money in the fund to cover these liabilities. Therefore, one of the first things you must worry about is how to persuade the employer to live up to this obligation. You also should be concerned about fairness to employees.

It has been said that in Canada there may be a trend away from contributory plans. That is certainly not true in other countries around the world. Almost invariably in developed countries, employee contributions are tax deductible, with the singular exception of the United States. It is possible that, as in other matters, Canada will follow the example of the United States. However, if it follows the example of other developed countries, it will continue to allow tax deductions for employee contributions. As I said, though, you must be fair to employees. And some rather interesting situations can arise. In Ireland, where new operations can be granted a ten-year tax holiday, there is no situation under which a tax can be paid on the first ten years of operations. Therefore, the employer certainly wants to minimize the amount of money put in the plan during these ten years because no tax will be paid on profits, even after the ten-year period. So, the Irish actuaries have come up with some very clever funding devices which do indeed minimize the amount of employer contributions, sometimes to the extent that the required total contributions are less than the employee contributions. As a result, what you have during the tax holiday period is a situation where the employees are contributing money to the plan, which is then used to provide working capital for their employer. The employees usually are not informed of their benevolence, but this is the true state of affairs.

Where funding constraints are absent, there can be a significant impact on the choice of cost methods. Aggregate funding methods are very common outside North America, partly because there is no need to separate out the past service liability. You must modify the aggregate method appropriately to make sure enough money is contributed to cover the liabilities for the retirees. If there are many retirees now or there will be many in the near future, you may have to make the funding period for their liabilities shorter than the average future working lifetime of the entire employee group.

The lack of funding constraints can also affect the choice of assumptions. There is a greater tendency, I think, to favor the use of implicit assumptions. As there is no need to worry about the specific funding of gains and losses, the actuary may be willing to be somewhat imprecise and choose assumptions that he thinks will offset one another. However, very often, and this is certainly common in the United Kingdom, the result is to end up with assumptions that are too conservative. Then the actuary at some point takes a look at the situation and says, "My, this plan is wonderfully funded; you, Mr. Employer, have done an absolutely smashing job of putting money in the plan. Why don't we use the fund excess to improve the benefits?" That is being fair to the employeees with a vengeance. To my mind, proper financial management always argues in favor of using explicit assumptions, at least as explicit as you can get.

I should add that some countries prescribe limitations on the actuarial cost method and assumptions--sometimes strange ones. Germany, for example, defines rigidly the cost method and the set of assumptions to be used--including forbidding allowance for future salary increases which are not contractually guaranteed even under a final pay plan (which is almost invariably the case in Germany). A similar situation exists in the Netherlands. This has a rather tortured impact on the contributions, and it means you must define your funding objectives separately from your funding constraints.

The choice of financing medium is also of major importance to the financial management of the plan. Outside North America, you can evaluate various alternatives on the basis of availability, tax status, and degree of security. Sometimes, sponsor preconceptions can control, e.g., some sponsors (and here I am talking of multinationals) will say, "I don't care where the plan is--I want a trust fund." Well, that's very helpful if trust funds don't exist in the country. But you can get creative.

There are, as one might expect, three basic types of financing media. Insured arrangements are available almost everywhere; in fact, in some countries, governments, thinking perhaps of the security of the employees, require the use of insured arrangements. I don't think it is likely that this will happen in the United States and Canada. However, if the funds in trusteed arrangements tend to be directed, shall we say, to satisfy the interests of the employer, we may see some problems in this area. Insured arrangements are usually inflexible and may place rather peculiar constraints upon the financing method. They usually have a very favorable tax status. The Philippines is unusual in that no current tax deduction is permitted if you use an insured arrangement but there is one under a trust fund.

The other major financing medium is the self-insured approach--trust funds as we call them, but ASBLS in Belgium, foundations in the Netherlands, etc. Sometimes they closely resemble our trust funds, sometimes they don't.

What we are beginning to find in foreign countries is the imposition of legal constraints on the administration and control of a self-insured fund. In developed countries such as those in the Common Market, we find more and more governments requiring employees to have a defined role on the board of trustees that manages the plan. This can be true for both insured and self-insured arrangements. However, if an insurance company handles the funds and makes the decisions about investing the assets, then employees really can have an impact only on plan design, and, perhaps, plan administration. In a self-insured arrangement, though, employee trustees can have a role in determining how funds are invested: don't invest in South Africa, nuclear power plants, or polluters. They also can apply constraints to the use the sponsor might want to make of the funds: no loans to the sponsor and no purchase of employer securities, because the pension fund should be kept totally separate from the employer. They may ask for a lot of information about the investments; if investment in employer securities is permitted, this means a lot of information about the employer's activities. I think there is a grave danger that there will be severe constraints on the power of the sponsor to control the investments of the fund.

The third financing medium often found is book reserves. Here, I mean a segregated pension account on the books of the company. It may or may not be invested in earmarked funds. Allocations to book reserves may or may not be tax deductible. Whether using a book reserve is desirable will obviously depend on this; it may or may not depend on whether the employer is in a borrowing mode. It is possible, taking all these things into consideration, to end up with a rather interesting mathematical exercise to determine the break-even yield differential between a self-invested fund and a book reserve which will define the best form of investment for the employer. Of course, in the United States and Canada, book reserves are not tax deductible, but I foresee a possibility of increasing use of book reserves even for pension plans that otherwise would be tax-favored--and of course for plans that are not tax-favored.

Next, let's take a brief look at constraints on investment of assets. Such constraints of course exist in Canada. A very high percentage of plan assets must be placed in investments that are permitted for use by Canadian insurance companies. The intent here is to enhance the security of the employees. Similar restrictions, although perhaps not to the same degree, apply in other countries.

Sometimes, the preference is to put assets outside the country. A good current illustration is Hong Kong. What will happen in 1997? If you are putting your money in Hong Kong, you are not that interested in long-term yield; you want to get a good short-term yield and be able to get out. In Hong Kong it is now standard practice to have what is termed an alternate trustee. If 1997 comes and problems develop, under the terms of the plan you can transfer the management of the funds to an alternate offshore trustee (one who is not in Hong Kong). Presumably you rush your investments out on the last plane to Bermuda or somewhere like that.

In many countries, there is a risk of seizure of the plan assets; this risk can differ depending on the financing medium used. In Spain, on at least one occasion, funds of private plans were taken over by the government and used to finance the social security system.

And then, of course, you have all the normal concerns about dedication and immunization.

I mentioned earlier that there can be a conflict between funding constraints and funding objectives. Where there are many constraints, you might wonder how much money <u>really</u> should be put into the fund--if you didn't have to worry about what the government required, or about FASB, or about the types of financing media available. Accordingly, you find many companies operating outside the United States and Canada that have a separate valuation run which attempts to define how much they really should be setting aside for pensions, over and above what legally is permissible. Sometimes they do set it aside in a book reserve, sometimes they put it into earmarked investments. For this valuation, you can choose assumptions that have the proper degree of conservatism. (I might add that, unlike the situation talked about earlier, I very often carry out valuations where the rate of salary increase is properly greater than the interest rate.) You can make an appropriate choice of cost method. You can allow for salary increases in Germany; you can allow for postretirement increases in benefits even when the plan provisions do not require them; in England, you actually can do this on a tax deductible basis. And you can also allow for what is likely to happen to social security in the future.

Speaking of social security brings me to plan design. In other countries, there can be many regulatory constraints on plan design. The United Kingdom, for example, is definitely considering requiring indexing of vested benefits, as apparently is Canada. In a number of countries, in the event of divorce, pension accruals are divided up on the basis of years of service, of both the employee and the spouse. There is perhaps a strong tendency toward defined contribution plans in many countries. They are often called provident funds. (I suppose Tom would call them improvident funds.) You also find many updated career average plans for, I think, much the same reasons that apply here, and you have a great amount of alarm about the future of social security. In many countries, they just don't believe that social security will provide even what it promises now, and, as a matter of fact, I doubt that we really believe it in the United States anymore. As a result, there is much concern about social security offset formulas because if you have an offset formula and social security doesn't produce, you suddenly must pick up additional benefits under the private plan. My personal belief is that employees will not be happy to see the provision of any more benefits handed over to the social security system.

I could make a few comments on ad hoc arrangements. However, I think I will close with one important distinction in foreign countries. Outside the United States and Canada, discrimination is very often permitted, and even encouraged, even in the United Kingdom. You find many examples of what are called "top hat" schemes designed to benefit only executives. One thing you, as an advisor, must be very careful of, especially if you are advising a company that is going to take over another company, is what special arrangements exist for executives. Some of them are almost unbelievable.

MR. FRANKLIN B. DANA: I have a question for Barry Watson. You have said there is a definite tendency toward defined contribution plans in other countries. Of course we know that's true in the United States. I attributed that largely to the onerous demands made on defined benefit plans. Now, in view of the relaxed funding requirements in foreign countries, I am surprised that the tendency would be toward defined contribution plans. Is there any particular reason for that?

MR. WATSON: I perhaps have misspoken in saying that there is a trend. In the European countries, for example, there is a standard pattern of defined benefit final average pay plans. On the other hand, in the Far East, Middle East and Africa, where plans are just beginning to develop, there basically are defined contribution plans, and plans which deliver lump sums to employees, because the employees there tend to think of retirement funds only as savings funds.

MR. BROWN: There is a feature that has come to us recently in Canada that you have had in the U.S. for some time. I thought Barry might mention it overseas. It's called the PBGC in the United States or the Guarantee Fund in the province of Ontario. I don't know what effect it is going to have around here in terms of peoples' thinking about the financial management of their pension plans, but I think it is going to be a factor sooner or later. We have some rather different kinds of features in our Guarantee Fund in Ontario. One of them is, I think, analogous to what they've tried to do with the multiemployer plans in the United States, i.e., if the plan terminates but the employer continues in business he has a residual obligation to keep funding for any unfunded vested benefits. The plan is financed in Ontario by assessments on employers with plans that have unfunded liabilities in proportion to those liabilities rather than on a per capita basis. This was an attempt to try to associate the financing with the risk. I think there are some European countries that have versions of this kind of arrangement. The only perceptible effect that I've seen in Canada on plan sponsors' management of their plans is their willingness to try and squeeze every cent of surplus out, since there is less reason than there used to be for long-term prudential concerns. The safety net of the Guarantee Fund will be there if anything should go wrong down the road. This reinforces Tom's initial comments about the short-term focus. The Guarantee Fund is, perhaps, reinforcing that to some extent. I wonder whether any of the panel would care to comment on that.

MR. BLEAKNEY: Dave, I'm curious. How is that unfunded liability calculated? At the actuary's whim?

MR. BROWN: The whole thing is administered by the Pension Commission of Ontario. What you do is take the unfunded liability as reported by the actuaries to the Pension Commission in the most recent actuarial report and that, in effect, is the base against which the assessment is calculated.

MR. BLEAKNEY: If you have a final salary plan could you use unit credit without projection, for example?

MR. BROWN: One of the regulations latches onto an earlier regulation which permitted final salary plans to do a "test valuation" to determine what amounts to a windup solvency test. It's a valuation on a unit credit basis which does not project salaries. The plan sponsor has the option of using the test valuation results as the basis for determining whether he has any unfunded liability on which to base contributions to the Guarantee Fund. There has been a tremendous upsurge amongst final salary plan sponsors in having test valuations done when they never had considered them previously.

MR. MACDONALD: I can add that I haven't had one client who, when we got around to doing a test valuation, had to pay anything into the fund.

MR. WATSON: There are a few European countries that have similar arrangements. Germany and Sweden spring immediately to mind. I believe there is also one in Finland. Now these are all countries which have constraints upon funding. Germany, as I mentioned, basically defines (especially for book reserves) the cost method, the actuarial assumptions, etc. For insured plans they do something similar. In Germany, there is a quasi-governmental type of insurance corporation, much like the PBGC, which insures all book reserve plans on the basis of their liabilities, which, of course, can be clearly defined because the law says how they are to be calculated. In the case of insured plans, the amount of insurance is based solely on the amount of loans which have been taken out against the insurance contracts to give money to the employer. (You actually can do this under insured arrangements in Germany.) You have two media for financing a plan in Sweden. One is through a quasi-governmental insurance company, the other, through a book reserve. However, the insurance company determines the amount of allocations to the book reserve and therefore you know there the amount of the liabilities. These book reserve liabilities are insured with another quasi-governmental insurer. There is, of course, no need to have any insurance where the liabilities already are insured. Finland's situation is much the same as in Sweden. The only one of these three countries that has added liability insurance in recent years is Germany and it did it, oddly enough, in the same year as ERISA. So there is no obvious trend in that direction.

MR. DAVID B. ACKERMAN: You suggested that some countries are considering a requirement for indexing benefits after termination. I am not aware of any similar proposals in the U.S., but it sounds like an idea that could become more important. Could you comment on it?

MR. MACDONALD: I can comment on what has been suggested in Canada. This is the position which I think has been taken by the federal government and also the Province of Ontario, but not necessarily the other provinces: benefits earned after the effective date of the legislation, which may be January 1, 1987, must be indexed at 60% of the increase in the cost of living with a maximum of 8%. This applies to deferred benefits during the period of deferral and also applies to all pension benefits once they become payable, but only to those benefits earned from 1987 on. At the moment, there is no proposal to make this retroactive. It will increase the current service cost in the future but won't create an unfunded liability.

MR. WATSON: Outside the United States and Canada a few of the developed countries are moving toward requiring indexed benefits. The United Kingdom is the most recent one to consider such a move. There is a proposal by a good conservative government which would require indexing what they call preserved (vested) benefits when you leave the company. It would operate along much the same lines as Bruce was suggesting. Oddly enough, you would have to index the benefit only up to the time of retirement. Postretirement indexing is not required. Some other countries handle this problem by requiring the new employer to provide any increase in benefit because of salary increases, even an amount based on service with a prior employer. This is proposed in the Netherlands. It certainly would make you worry about hiring someone at an advanced age who has a long period of service within the Netherlands' employment scene. Other countries such as Sweden and France handle it through what amounts to countrywide or sector-wide pension plans. People transfer from one employer to another, and there are techniques built into the premium system to handle this. You basically charge all employers a small amount of additional premium which goes into a fund to finance transfers. I would imagine that someone in the United States soon is going to start talking about something like this.

MR. BLEAKNEY: I can give one example in a public employee system. The State of Idaho has a contributory plan. If the employee withdraws his contributions, the benefit is forfeited. The law also provides that, subject to a maximum of the increase in the Consumer Price Index during a year, there is an automatic 1% cost of living increase for retirees and a discretionary increase (up to an additional 5%) to the extent that it is actuarially covered by the existing contribution rate. Every time either the mandatory or a discretionary increase is given to retirees, the same increase is given to the vested benefits of those terminated employees who have left their contributions with the fund. There is also a minimum benefit which has the same automatic increase.

MR. COHEN: Just to continue that thought and perhaps show why these so-called provident funds that end up with lump sums may be, as Barry was saying, improvident funds, the federal government in Canada has an even better provision for its deferred benefits than the Idaho fund. There you vest after five years and you're entitled to a Consumer Price Indexed deferred benefit. It's indexed after retirement and it's indexed before retirement. I have forgotten what the exact percentage is, but something like 96% of the people who are entitled to that in fact take their own contributions with 4% interest (and, of course, grumble about the 4%) unless they are actually locked in by law. I think this illustrates how, given the chance, people will take the money and run even if it's obviously to their own worst interest. [Mr. Cohen subsequently checked the 96% figure and found that it has fallen in the last few years but is still in the range of 70% to 80%.]

MR. WATSON: I think that's true. Interestingly, though, in some countries, it is a matter of tax considerations. For example, in Australia, lump-sum benefits are basically untaxed whereas pension benefits are taxed as ordinary income, so an employee who reaches retirement age is foolish if he doesn't take a lump sum and run down the street to his neighborhood insurance company to buy an annuity. An annuity is taxed only on the interest component, so he is bound to achieve a better rate of after-tax return. Thus, some of those improvident people are actually being very clever.

MR. BLEAKNEY: For several years, the State of Washington had a provision that an employee at retirement could withdraw his or her contributions and forfeit the rest of the benefit. The employee's own contributions tended to be anywhere from 15% to 40% of the total value. Nevertheless, roughly 10% of the people were electing refunds. I guess we can quibble back and forth about providence and improvidence; I doubt any of these people were taking their refunds down to their neighborhood insurance company and buying annuities.