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PENSION PLAN DESIGN

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Comments on design of pension plans will be given from the perspective of small and large employers, for insured and non-insured plans, and for Canada and the United States. The issues to be considered are:

1. In the United States, the impact of:
   a. The 1977 Amendments to the Social Security Act
   b. The Administration's proposal in regard to integration of private plan benefits with Social Security benefits
   c. The requirement to eliminate compulsory retirement prior to age 70
   d. The remaining ERISA problems
2. In Canada:
   a. Growth of money purchase and registered retirement savings plans
   b. Impact on final pay plans of changes in regulatory funding rules
   c. Application of human rights codes to retirement provisions
3. For both countries, the continuing problem of coping with inflation for both active and retired employees.

MR. HENRY BRIGHT: The 1977 Social Security amendments operate to increase the Wage Base by about 40%, for 1982 and later. At the same time, future replacement ratios will be about 10% less than those for employees retiring today and the double indexing feature has been eliminated. Future contribution rates will be higher than under the old law, the 1982 percentage contribution rate, for example, will be almost 15% higher than the 1977 rate.

In general, the 1977 amendments will focus much greater attention on the costs of retirement benefits, including Social Security, and on re-evaluation of goals and objectives in the area of retirement benefits. The amendments will create tensions between employers' desires to offset the increase in Social Security contributions, on the one hand, and on the other hand, the desire of employees and unions to compensate for the decrease in benefits. Of course, the contribution increases are immediate and visible, while the benefit decreases are deferred and hidden, although they will show up to some extent on benefit statements.

I think it is fair to assume that the design of most plans is geared to current replacement ratios under Social Security rather than the higher replacement ratios that might have applied in the future if the old law had not changed, so that the decoupling, per se, should not have much of an influence of plan design. In fact, under many plans, total benefits might have become excessive in the future if the law had not been changed.

The impact of the Social Security changes on plan design will vary widely according to the nature of the plan and the benefit levels provided. Least affected will be the non-integrated plans, such as flat dollar plans or flat percent of pay plans. The employer's cost for Social Security will increase, however, and this will no doubt make employers more reluctant to grant further increases.

Plans most affected are those with step rate formulas geared to the Social Security Wage Base, whether they are career average plans geared to each year's Wage Base, or final pay plans geared to the maximum Average Monthly Wage (AMW). The changes would immediately reduce prospective benefits and costs under such plans by substantial amounts, but the cost reduction is not likely to fully offset the increase in Social Security costs. Under a career average plan, only those earning above the old Wage Base would be affected. Under a final pay plan, where the breakpoint is the maximum AMW, many more employees would be affected, assuming the same definition of AMW as under the old law, but based on the new, higher Wage Base.

Of course, under the new law, there is no such animal as Average Monthly Wage (AMW). Instead we have Average Indexed Monthly Earnings (AIME). And while an AMW could be calculated in the same manner as under the old law, using the new, higher Wage Base, this would no longer be the number used to compute the Social Security benefit, and would probably not even be based on the same years of earnings as the AIME. The old prospective benefit level under a step rate plan could be preserved by using an artificial base, either a hypothetical old law base, or by using 70% or 75% of the new Wage Base after 1980, but the problems of communicating and explaining this make it an unsatisfactory alternative.

Will it be feasible to use the AIME as a breakpoint for these plans? For a career average plan, this may be a possible solution, that is, the breakpoint each year would be equal to the maximum value of AIME for current retirements at age 62. Initially, this breakpoint would be less than the current Wage Base, but it would ultimately approach the new Wage Base, which means it would then exceed the level of the old law Wage Base. A modification of this would be to freeze the current breakpoint ($17,700) until the maximum AIME catches up, and use AIME from that point on.

AIME would not be practical as a breakpoint for a final pay plan; the reduction in prospective benefit would be too great, and it would probably not integrate, at least unless the excess percentage were reduced.

One possibility is to use a breakpoint geared to the first two steps of the new benefit formula, initially $1,085 monthly or $13,020 per annum. The advantage of this number is that it will increase in direct proportion to future increases in average earnings. Also, the Primary Insurance Amount (PIA) is fixed at 41.6%. Table 1 shows a comparison of this amount with other possible breakpoints, based on the assumption that national average wage increases at 6% per annum.

TABLE 1

COMPARATIVE FUTURE PROGRESSION OF SOME ALTERNATIVE BREAKPOINTS IN BENEFIT FORMULA, ASSUMING 6% PER ANNUM INCREASE IN NATIONAL AVERAGE WAGE

Year	Social Security Wage Base		Maximum Average Monthly Wage (x 12)		Max. Avg. Indexed Monthly Earnings (x 12) for Employees Retiring at Age 62	
	Before 1977 Amendments	After 1977 Amendments	Before 1977 Amendments	After 1977 Amendments	Full	Modified
1978	$17,700	$17,700	$ 8,256	$ 8,256	N/A	N/A
1980	20,100	25,900	9,214	9,405	$14,124	$13,801
1985	26,700	37,500	11,781	13,588	21,312	18,469
1990	35,700	49,800	14,729	18,190	30,900	24,716
1995	48,000	66,900	18,669	24,006	45,300	33,075
2000	64,200	89,400	25,723	34,077	66,456	44,262
2005	85,800	119,700	35,109	47,517	96,528	59,233
Equivalent Level Annual Compound Rate of Increase						
1978-2005	6.02%	7.34%	5.51%	6.70%	-	-
1980-2005	5.98%	6.31%	5.50%	6.69%	7.99%	6.00%

NOTE: Modified AIME consists of the sum of the first two "bands" of the AIME used for benefit computations in the indicated year.

However, one accomplishment of the 1977 amendments has been to demonstrate that any integration formula based on an index of covered earnings is subject to obsolescence, and since the objective is almost always, in the final analysis, to take account of the Social Security benefits in some fashion, a plan design that does this directly is likely to have more permanence. I would expect that there will be a definite trend towards offset type plans and away from the step rate approach for this reason.

For example, an offset of 1.5% of the new PIA per year of service would be reasonably comparable to a differential of .7% of final average pay up to the old AMW.

Career average step rate plans that are contributory present a particular problem. If the breakpoint is lower than the Wage Base, employees may be contributing excessive amounts to the plan and Social Security combined, on earnings between the breakpoint and the Wage Base. On the other hand, if the contribution breakpoint is set at the Wage Base, and the benefit breakpoint at a lower level, there will be complaints of inequity.

It seems likely that such plans will either change to final pay offset plans, or eliminate employee contributions and use a benefit breakpoint indexed to the 1977 Wage Base, or some other indexed breakpoint. In the process, the benefit percentage may be reduced, with employees being allowed to make voluntary contributions. If employee contributions become tax-deductible, this would become more attractive.

The Social Security changes will also provide an opportunity and a rationale for those step-rate plans which now have a fixed breakpoint, to change to a more rational plan design, such as an offset approach.

Existing offset plans are faced with a dilemma. On the one hand, the employer's costs for Social Security will increase substantially, while the reduction in PIA will result in increased cost for the pension plan too. The latter increase may be quite substantial if the Social Security projections used in prior valuations had allowed for escalation of replacement ratios. On the other hand, the total prospective benefits will be reduced even if no change is made in the plan, and any reduction in the plan benefit would accentuate this.

I expect most offset plans to retain their present formulas, with the employer absorbing the added cost, and the employee absorbing the reduction in total benefits, but it is likely that further plan improvements will be deferred for some time, and of course, some plans will take the opportunity to make changes of one kind or another, depending on the circumstances.

On the topic of the 1978 changes in the Age Discrimination in Employment Act (ADEA), the elements of major significance for pension plans are:

1) Prohibition of mandatory retirement on account of age (prior to age 70);

2) Prohibition of plan provisions requiring retirement before age 70 (effective 1/1/79), or prior to age 65 (currently).

The amendments do not require benefit credit or actuarial increases to be given for service after the normal retirement date specified by the plan. It is not clear whether a plan could provide for such an increase only for those who stay on at the employer's request. Such a provision could hardly constitute age discrimination, but it might nevertheless be held to be contrary to the spirit of ADEA, and of course it might result in prohibited discrimination under the Internal Revenue Code.

In almost all cases, the cost of providing pension benefits for an employee who stays beyond normal retirement age will be less than those incurred if he retires at normal retirement age. This is true even if the plan provides for continued accrual or actuarial increase, although of course the saving is less. However, this is likely to be a minor consideration compared to other effects of the ADEA amendments.

Under prior law, the retirement plan frequently served as an instrument of personnel policy, forcing retirement at normal retirement age, and frequently providing a means of inducing employees to retire early or inducing valued employees to remain after normal retirement age. The plan can no longer be used to force retirement prior to age 70, and it seems unlikely that it can be used to induce valued employees to stay on, without also providing a similar inducement for other employees.

In the new environment, the plan can still be used to effect personnel objectives in at least two respects:

1) Eliminating any existing benefit increases on late retirement will reduce the incentive to stay on. For valued employees, it should be possible to provide other inducements on a selective basis, outside the plan. This might take the form of an unfunded "top hat" plan, or might be by individual arrangements.

2) Subsidized early retirement can facilitate the removal of unproductive employees. This objective will take on much greater significance now that the automatic removal at normal retirement age is no longer feasible. Unfortunately, it may not be possible to do this under the qualified plan without also encouraging valued employees to leave, and of course, such employees are now more likely to be able to obtain other employment, even if they are over 65. Revenue Ruling 57-163 (later incorporated into IRS Publication 778) provides that if the employer's consent is required for early retirement, the value of the early retirement benefit cannot exceed the value of the employee's vested benefits at that time.

Despite Revenue Ruling 57-163, and despite the criticism that a subsidy aimed at getting unproductive employees off the payroll is a reward for inefficiency, I believe that employers will be attempting to develop ways to use early retirement subsidies either in the plan, or outside the plan, to remove unproductive employees from the payroll. It is apparent that the ADEA amendments will result in greatly increased emphasis on performance review and evaluation (at all ages), as well as an expansion of litigation, so that any means of reducing exposure to litigation will be carefully considered. Obviously, the more generous the early retirement provisions, the more likely is an employee to agree to early retirement. It may be possible

to provide for early retirement subsidies under the plan for lower paid employees only, with arrangements outside the plan for other employees.

Provisions for disability retirement have considerable potential as a means of inducing early retirement. Disability retirement benefits are not subject to the requirements of Revenue Ruling 57-163, and at the same time, the usual provision for suspension of benefits if the participant accepts other employment can deter employees from abusing the plan. Certainly the Civil Service Retirement System has found that liberal disability benefits can get people to retire early even when the mandatory retirement age is 70.

In the present environment, the prospect of continued inflation is one of the major deterrents to early retirement, and also to retirement prior to age 70. This may lead in some cases to experimentation with temporary indexing of benefits, for example, providing cost of living adjustments in the period between early retirement and normal retirement date, and/or in the period between normal retirement date and age 70. The latter would probably not be justifiable on the basis of cost, but indexing up to normal retirement age could be so justified, at least in a typical final pay plan (since the ultimate benefit level would be less than if the employee had remained in service).

We may see an increased prevalence of lump sum payments (subject to consent), and to arrangements for phased retirement (reducing work time gradually over a period of years, with a corresponding phasing-in of retirement plan benefits), as devices to encourage retirement before age 70, and possibly to encourage valued employees to stay on beyond normal retirement age. The increases in the Social Security earnings limit will facilitate such a "phased retirement" approach.

Plans with benefits frozen as of normal retirement date have some practical problems related to the joint and survivor provisions of ERISA. For example, since surviving spouse coverage applies automatically between normal retirement date and retirement, should (or can) the benefit at late retirement be reduced to cover the cost? Similarly, upon actual retirement, the "true" actuarial reduction for a joint and survivor benefit is greater than it would have been at normal retirement date. As a practical matter, in such a plan, it is preferable to freeze all benefits, so that whatever the option elected, the benefit ultimately payable is no less than it would have been for retirement at normal retirement date. This is simple and understandable, and still costs less than the cost if retirement had not been deferred.

MR. GILBERT V. I. FITZHUGH: I will discuss the impact of administration's proposal about integrating private plans with Social Security. First, let me briefly review the key points of this proposal and the reasons for them.

The administration would prohibit any plan with benefits based only on earnings above Social Security covered compensation. For example, a money purchase plan may now contribute 7% earnings above covered compensation and nothing on lower earnings; such a plan would be prohibited. But a plan which contributes 13% of covered earnings and 20% of excess earnings could be continued. Most offset plans, which provide a fixed level of benefit minus the Social Security primary insurance amount, would be prohibited. A defined plan providing only a life annuity can now pay 10% of salaries up to a Social Security integration point and 47 1/2% of salaries above that point; this plan would be prohibited.

The administration proposes that any qualified pension plan provide some contribution or benefit on the first dollar of earnings. For every dollar of contribution or benefit based on covered earnings, the plan could provide $1.80 of contribution or benefit on excess earnings. For example, a defined contribution plan could contribute 10% of covered earnings and 18% of excess earnings. A defined benefit plan could provide 30% of final average pay up to covered earnings and 54% of final average pay above covered earnings. For offset plans, there could be subtracted from the benefit the same percentage of the primary Social Security insurance amount that the benefit itself was of earnings. That is, a plan providing 50% of earnings could subtract 50% of the primary insurance amount; a plan providing 90% of earnings could subtract 90% of PIA, etc. If a fully-integrated plan were contributory, the contributions on excess earnings would also have to be 80% greater to avoid formula adjustments in the employer contribution or benefit. Otherwise, the proposal does not modify the 10/18 relationship for ancillary benefits such as a pre-retirement death benefit or an annuity with a certain period.

Why is the administration making this proposal? First, it's important to recognize that it is not doing so to raise revenue. The Treasury has admitted that it cannot project the revenue impact, which may be negligible. On the one hand, it says that some plans may provide smaller pensions for higher paid employees in order to provide more for lower paid ones. On the other hand, it suggests that simplifying the rules may encourage integration of some previously non-integrated plans. The real reason for the proposed change is that it's disturbing to a populist government that, in the words of a Treasury position paper: "Retirement plans still afford substantial tax advantages which are more beneficial to a person in a higher tax bracket, because the higher-paid person, for whom more dollars are contributed, defers paying tax on more dollars, and also because deferral provides a greater tax subsidy per dollar for persons in higher tax brackets." The administration feels that a higher percentage of pre-retirement earnings is needed as a pension for low-paid people than for high-paid ones. It challenges the approach that integration permits contributions or benefits to be the same percentage of pre-retirement earnings for everybody. It says that if Social Security provides adequate retirement benefits for lower-paid people, there is no need for tax subsidized private pensions. In other words, we can all afford to live at the level of people on Social Security. If Social Security is inadequate, the administration asks why there should be a disproportionate tax break for higher-paid people just to encourage adequate retirement pay for everyone.

What is the effect of the administration's proposal? Let's look at an example provided by the Treasury. It postulates an existing defined benefit plan providing 16 1/2% of the first $11,004 of compensation and 54% of the excess. Under the proposal, if the employer wanted to keep benefits of 54% above $11,004, it would have to increase the percentage of lower compensation from 16 1/2% to 30%. Under the existing plan, again using Treasury figures, the existing private pension alone provides 26% of total earnings to a $15,000 employee and 48% of earnings to a $75,000 employee. The proposed plan would provide 36% of total earnings to a $15,000 employee and 50% to a $75,000 employee. To continue roughly the same pension to a $75,000 employee, contributions for a $15,000 employee would have to go up about 40%. In a large company, the vast bulk of the employees are relatively modestly paid. If we assume that $15,000 is the 1978 salary for a typical

long-term employee who will stick around long enough to vest, we're talking about increasing the cost of pensions by something like 40%. Few companies could increase pension contributions that much very quickly, especially if they were still adjusting to the faster funding required by ERISA. A large company could probably keep its pensions for the rank and file at a steady level, or sweeten them somewhat. It might be forced by union pressure to sweeten them significantly. It could establish unfunded non-qualified plans for its top executives. The people in the middle would be squeezed. ERISA funding standards apply to non-qualified pension plans except for top management. Either the company would have to pre-fund benefits for middle managers, at a high after-tax cost, or middle managers' benefits would have to be reduced.

The picture would be quite different for the very small corporation. It may now have a pension plan funded with individual insurance policies, possibly with a side fund, sold by an agent. Here the Treasury is quite right. The motivation to establish the plan was that the owners of the business could get themselves good pensions on a tax deferred basis while minimizing the cost of pensions for their employees. Whether that ought to have been the motivation is not my point. It was, and remains, the motivation. The magic phrase is "tax deduction". For a lot of small employers, the magic phrase would disappear and so would their pension plans. For other small employers, the magic phrase would look better than it does now, and the so-called abuses in favor of the rich would be magnified.

What would be the overall impact on the individual qualified business? Probably less than we might think. There would be no effect on tax deferred annuities or IRA's. In fact, collateral proposals to expand IRA's and to permit tax deductions for employee contributions to pension plans might expand the individual qualified market. There would be no reduction in Keogh plans, because they aren't integrated now. There might be even more business written on professional corporations which can now afford generous pensions for their highly-paid. For instance, a medical clinic consisting mostly of doctors could have a more integrated plan under the proposal than it can now. If it wanted to contribute 25% of excess earnings to a money purchase plan, it could contribute as little as 13.9% of covered earnings under the proposal. Now it must contribute at least 18% of covered earnings. If it wanted to pay 100% of final excess earnings in a defined benefit plan, it could pay as little as 56% of covered earnings. Now it must pay at least 62 1/2% of covered earnings, and still more if there's a post-retirement death benefit. Likewise, some corporate business is essentially a one person show. If there are no rank and file employees, there's nothing to be gained or lost by juggling the integration rules. What we will lose is the labor-intensive corporations headed by middle-class businessmen who are not professionals. That is, the hardware stores, grocery stores, restaurants, construction companies and others which hire relatively low-paid help. At the moment, these plans are heavily integrated so as to favor the boss. Under the proposal, it will favor the boss to abandon the plan (or not to set one up), buy an IRA and throw the troops to the wolves.

It appears, then, that the administration's proposal is a punitive device instigated by people who resent the fact that well-to-do folk can get a tax break. In large companies it would squeeze the pension benefits provided to the middle and upper-middle levels of management. In small

companies with blue collar employees and modest earnings, it would probably eliminate pensions for everybody. In small wealthy companies, it would increase the tax benefits of the highly-paid relative to the lower-paid. This reaction would be precisely contrary to the result the administration seeks.

I've also been asked to comment on the elimination of compulsory retirement before age 70. My comments here will be solely from the standpoint of the small prototype plans. In a word, I don't think it will make any difference at all. Prototypes won't have to be changed except to eliminate any need for employer consent to stay on beyond age 65. Even in defined benefit and target plans, there is no real problem. The plan will define a normal retirement date which can be 65, 70 or some other age. At that time a fair benefit will have been bought and funded for everyone. An employee may stay beyond the normal retirement date but, in a defined benefit or target plan, employer contributions will stop. The employee's retirement benefit will be his accrued benefit on the normal retirement date, improved with interest and applied to buy an annuity when he actually retires.

Finally, I'll comment on the remaining ERISA problems as they affect the design of small prototype plans.

The status of pre-ERISA subchapter S defined benefit plans is still in suspended animation. I feel like a biblical character wandering in the desert and crying out: "Lord, give me a sign!" Many agents think there's a market for Keogh defined benefit plans. The need for regulations here is less acute, because there is no significant problem of converting pre-ERISA plans.

Small corporate plans continue to be burdened with 4-40 vesting. There's virtually no chance that a small employer can persuade the Service to allow a less costly schedule.

The joint and survivor rules are still troublesome. It's true that acceptable language has been approved for prototypes. But it's likely that small employers with poor records and no expertise won't always give employees the necessary notices and record their choices. These omissions may leave employers and insurers open to suits.

The Service refuses to permit a prototype which combines associated employers into one common plan. It does approve individually drawn plans which cover a controlled group. The insistence on separate plans with separate records complicates annual plan service for employers using prototypes. The cost of plan service goes up.

There is still an urgent need to modify the draconian penalties for making excess contributions to an IRA endowment. It ought to be possible to continue paying premiums in years in which the owner is ineligible for a deduction. The non-deductible contributions ought to be investment in the contract and recovered tax free at settlement.

MR. M. DAVID R. BROWN: In order to discuss the subject of pension plan design in Canada, I think it's worthwhile, even necessary, to sketch some current developments as background to what I'm going to say later on. To those of you who are familiar with this background: please bear with me. To those who aren't: please don't tune out: you might just learn something useful.

Private pension plans in Canada are currently experiencing a period of quiet which could be likened to the eye of a hurricane. After a period of intense public debate and controversy over the past two or three years, the system is now being subjected to a number of major public studies, the most significant being an internal task force at the federal government level which is just at the point of completing 18 months of work with a report to the federal cabinet, COFIRENTES +, an independent commission appointed by the Quebec government, whose report was made public early in March and the Ontario Royal Commission on Pensions, which is nearing the completion of its first year of work and also the completion of an extensive round of public hearings.

The political aspects of pensions in Canada reflect the constitutional tensions and occasional instabilities which afflict the country in so many other areas. The status quo is that all the provinces except Quebec have ceded to the federal government the direct provision of retirement income through public programs, i.e. the Canadian counterparts of Social Security in the U.S. Six of the ten provinces (including all the largest except British Columbia) have enacted legislation to supervise the operation of private pension plans, mainly in the areas of funding, vesting, disclosure and investments, i.e. the Canadian counterparts of ERISA in the U.S. The federal government has similar legislation covering certain sectors of employment under its jurisdiction (e.g. transportation, banking, broadcasting). Completing the picture is the supervision of all private plans by the federal taxing authorities in establishing rules for the tax on benefit accruals and non-taxation of pension plan investment income.

When all of the major government studies of the system are complete (sometime in 1979) we will undoubtedly move out of the eye of the hurricane into some very stormy times indeed. One possible casualty is the delicately-balanced federal-provincial power structure in the pension area which I have just described.

The principal criticisms of the existing private structure have been its limited coverage, inadequate vesting provisions and inadequate compensation for the effects of inflation. Some of the critics (chiefly in the labor movement) have pointed to expansion of the wage-related publicly-operated Canada and Quebec Pension Plans as the logical solution in all three areas, and the report of COFIRENTES + to the Quebec government includes as a major recommendation an increase of roughly 50% in the retirement benefits to be provided by the Quebec Pension Plan. However, the mood of the country in the 70's is increasingly conservative and it is by no means clear that a majority of the people would consider an increase in the role of government as direct provider of benefits to be the preferred solution.

As an alternative to expansion of the Canada and Quebec Pension Plans, a surprisingly frequent proposal during the public debates about the pension issue has been the proposal of mandatory private plans, with an employer contribution on the order of 2% or 3% of payroll. The rationale for this proposal is that it would provide universal coverage and if properly designed, would also provide portability. Proponents of the scheme dismiss the third area of criticism of the present system (inadequate benefit value maintenance in face of inflation) as insoluble, so their solution does not purport to deal with that problem. The advocates of this whole idea do not always admit that such an arrangement would almost necessarily

be on a money-purchase basis, but that would almost surely be the case. If so, it would have the added appeal for small (and not-so-small) employers of a known, limited cost. Of course it would also suffer from the usual disadvantages of money-purchase plan design, in that the benefits provided bear no particular relationship to the replacement of pre-retirement earnings. I will come back to these considerations in a minute, in reviewing the changes which have actually been taking place and those which might be expected in the future.

In order to look at what has actually been happening, I propose to review briefly some of the major findings of a recently-released federal government report on a census of "Pension Plans in Canada 1976." The initial overall impression given by that report is of relatively little disturbance in the status quo. In contrast to this rather placid picture, one might try to look ahead a few years, to discern some likely future trends, in other words to substitute some impressions for facts and appearances for demonstrations.

Looking first at the factual evidence provided by the Statistics Canada survey, the most interesting developments from a plan design point of view are the dramatic growth of Registered Retirement Savings Plans, the continued trend toward non-contributory plans among private sector employers and the relative growth of final-pay and flat-benefit plans at the expense of career-average and money-purchase plans. The survey also makes reference to (but does not document very clearly) the growing trend to provision for unreduced early retirement provisions. Each of these developments deserves some comment, even though the overall picture is one of trends which appear to contradict one another.

Registered Retirement Savings Plans (RRSP's) were first introduced as a result of an amendment to the Income Tax Act in 1957. They were intended to permit the self-employed to accumulate tax-sheltered savings for retirement income on a basis comparable to that available to an employee participating in a company-sponsored pension plan. In fact, the plans are available to all taxpayers, but the tax-deductible contribution limits are lower for those taxpayers who participate in a registered employer plan than for those who don't. The limits currently are $5,500 for the person not covered by an employer plan and $3,500 less employee contributions to employer plans for those covered by them, subject to a maximum in either case of 20% of taxable income.

For quite a few years after its introduction in 1957, the RRSP seemed to be nothing much more than a useful tax gimmick for the sophisticated life insurance agent to use in presentations to self-employed professional people. In the late 60's and early 70's, it began to blossom as a very popular tax-sheltering device as banks and trust companies began to promote the sale of such plans quite actively. The Statistics Canada survey reports 1,078,155 contributors to RRSP's in 1975, as compared to 757,925 only two years earlier, an increase of 42%. By comparison the coverage of employer-sponsored pension plans grew from 3,424,245 employees to 3,902,498 or only 14%. Also of interest is the survey's analysis of RRSP contributors into participants and non-participants in employer-sponsored pension plans and in each case by income level. About 40% of RRSP contributors were covered by employer plans and they tended to be concentrated at middle-income levels ($10,000 - $20,000) whereas non-participants in

employer plans were much more heavily weighted in the higher-income brackets (over $25,000).

What does this popularity of RRSP's tell us? One message that comes through strongly to me is that people are not afraid of the money-purchase concept, provided they know exactly what amount of money is invested in the plan and how it is invested. Secondly, in combination with the continuing decline in popularity of money-purchase employer-sponsored plans, there is clear (though indirect) evidence that the small employer is tending to favor the RRSP for himself as a tax-sheltered retirement income vehicle, rather than the company plan for himself and possibly other employees. The RRSP gives him greater investment freedom, complete flexibility as to his contribution commitment, and no requirement of "locking-in" as with the employer plan in jurisdictions having pension benefits legislation. Thirdly, the so-called "uncovered area" should be measured not in terms of the number of people with some private plan coverage (regardless of its adequacy) since many of the lower paid may have adequate coverage through the public system. The real test of the performance of private plans is the adequacy of income replacement for middle and upper income earners.

The second benefit-design item of note in the Statistics Canada survey is the continuing gradual trend towards non-contributory plans. In 1960, 38.3% of covered employees in the private sector were in non-contributory plans. In 1976, the comparable statistic was 46.8%. The text of the survey report suggests that recent growth in non-contributory plans can be traced to the number of negotiated multi-employer plans which have been established in the construction industry in the past few years. I would add a personal observation that union negotiators in other sectors have continued to make non-contributory plans a bargaining objective. I must confess to some sympathy for that strategy, especially where the vesting and locking-in provisions of provincial pension benefits legislation apply. These provisions are almost meaningless for contributory plans but do have some significance for non-contributory plans.

The portion of the Statistics Canada survey report which is probably of greatest direct relevance to a discussion of plan design is that devoted to type of benefit. As measured by percentage of employees covered by all plans, a comparison of 1960 survey results with those for 1976 shows significant increases for final-average and flat-benefit plans, at the expense of career-average and money-purchase, but with significant differences in the relative proportions for private-sector employers.

	1960	1976	Private sector 1976
Final-pay	49.8%	56.2%	29.0%
Career-average	25.1	17.5	24.6
Money-purchase	13.0	4.7	7.8
Flat benefit	9.5	19.7	35.3

The reported statistics do not permit a direct comparison of 1960 with 1976 for private-sector plans but it is clear from a comparison of this survey with the last one two years ago that the final-pay plans in the private sector have been holding steady at about 29% of covered employees, while flat benefit plans have expanded from 31.6% to 35.3% and career average plans have declined (from 27.3% to 24.6%) as have money-purchase plans (8.1% to 7.8%).

The statistics from this part of the survey, together with those which show a dramatic increase in flat benefit rates (from a median rate of $7.25 in 1974 to $10.10 in 1976) would appear to support the following account of recent trends in benefit design.

1. In a period of rapid inflation, final-pay plans have won out as the logical design for earnings-related plans. Changes in provincial funding rules make a further acceleration of this trend seem likely.

2. Where a plan is not directly earnings-related, the logical design is flat-benefit with frequent renegotiation of the benefit level.

3. Employer-sponsored money-purchase plans are either being converted to final-pay or flat benefit plans, or else are being wound up in favor of RRSP's.

Now in deference to the announced topic wording, I am bound to make at least some attempt to relate these comments about what has been happening to pension plan design in Canada to the advertised topics for discussion.

First, on the so-called "growth" of money-purchase plans and RRSP's, it's clear from what I've been saying that the growth is in RRSP's and not in money-purchase employer-sponsored plans. However, the current debate about how to solve our pension problems lends itself to some kinds of money-purchase plan designs as possible solutions. I want to come back to these in a minute.

Secondly, the Ontario, Quebec and federal funding regulations have all been amended in the past year-and-a-half to permit experience deficiencies arising from salary increase experience to be funded over 15 years (like other unfunded liabilities) rather than over 5 years (like other experience deficiencies). These funding rule changes are not identical in the three jurisdictions and the differences among them could be the topic for a fascinating (if rather technical) paper on some future occasion. In any event, it seems quite likely that the result will be a continuation or even an acceleration of the trend away from career-average plan design (with the necessity of periodic updating of benefits to reflect current salary levels) and towards final-average pay plans.

Thirdly, the statistical survey does not speak in any material way to the question of how human rights codes (and social attitudes) are likely to affect retirement age provisions. However, the survey does note very significant growth in the provision of unreduced special early retirement, especially in larger plans. In 1976, fewer than 4% of the plans in the survey included such provisions but they covered nearly 40% of plan members, as compared to 30% two years earlier. As for the effects of human rights or other legislative prohibitions against mandatory retirement practices, the effects of any such measures in Canada appear to be in the future rather than the past or present.

To finish up these remarks with some "impressions" or speculations about the future, I should relate briefly the story of the pension plans for public sector employees in the province of Saskatchewan. The end result of the story is factual and a matter of public record but the beginning of the

story is possibly apocryphal. However, it's at least as interesting as the public record part so I'll relate it, too. It seems that the premier of Saskatchewan, who is also his own minister of finance, was in New York a couple of years ago, negotiating a substantial loan for the province. When he was routinely asked by the Wall Street people about the funded status of the pension plans for provincial employees, he discovered that no one in his government knew the answer to the question. Not only were the plans not being funded, there had been no actuarial review to estimate costs for about 15 years. As a result, the government set up a new plan on a money-purchase basis which existing employees may join and new employees must join. Existing employees have the option of continuing to participate in the old plan, which provides a pension based on 2% of final average earnings times years of service, but the rates of employee contribution have been substantially increased. I tell this story more as a symptom of some of our present problems than as a suggested model of plan design for the future.

One plan design which may be closer to a suggested model is the type of arrangement now in effect at a number of Canadian universities. These plans provide a basic money-purchase benefit with full, immediate vesting, very much on the pattern of TIAA-CREF at U.S. colleges and universities. However, they also provide a minimum benefit, usually based on a final-average pay formula. This dual benefit design was originally introduced for historical reasons - most universities had defined benefit plans and needed to protect older, long-service employees when the money-purchase plan was introduced. However, after the money-purchase plans had been operating for a few years, it became clear that providing a formula minimum also protects employees at or near retirement during a period of disturbed or depressed investment markets. At the same time, the money-purchase contributions with full immediate vesting provide a satisfactory proxy for complete portability.

The negative aspect of such a dual plan design is from the employer's viewpoint. If investment experience is favorable, the employees benefit through higher money-purchase pensions. If it is unfavorable, it is the employer who suffers because he picks up the additional cost of formula benefits.

However, it seems to be quite likely that some element of money-purchase will become a more prevalent feature of pension plan design in Canada, apart from any possibility of mandatory private plan coverage. If some modification to the dual plan design for universities could be devised which would afford some protection to the employer against indefinite increases in cost, I think the result would be a very attractive solution to many of the plan design problems besetting us now and over the next few years.

* * *

On the subject of coping with inflation, this whole question has been obscured in Canada by the emotional intensity of the debate over the indexing of federal public service employee pensions. Their indexing adjustments are provided through a separate piece of legislation from the basic pensions, and I think it's safe to say that most actuaries in Canada feel that the arrangement is inadequately financed. In the background is the introduction of collective bargaining in the federal public sector a few years ago, and the feeling of many private sector employees that they cannot match a public sector compensation package which includes this underpriced indexed pension component.

However, the emotional character of the debate has been such as to minimize serious analysis by private-sector employers of how best to meet the problem of benefit value erosion by inflation. The simple fact is that the public sector has given indexing a bad name in Canada, and it is now the received, conventional wisdom among private employers that only governments can afford it.

The facts, I think, are rather different. Of course indexing, expecially open-ended unlimited indexing for the full increase in the Consumer Price Index, is expensive, and the cost is not only significant but highly volatile bacause the incidence of inflation itself is so volatile. However, the cost is finite, not infinite, and the volatility can be controlled through appropriate limitations on full indexing and through a commitment to devote the inflationary element of investment income on pensioner liabilities to meeting whatever the costs may be.

I believe we have a responsibility as actuaries to help everyone concerned with this problem to approach it in an objective, unemotional way and to find solutions which are financially feasible and realistic. It is incumbent upon us to use our professional training and expertise to find such solutions and to influence plan sponsors to implement them.

MR. ROBERT J. MYERS: I am afraid that Mr. Fitzhugh made a false assumption that the Treasury Department's computations for illustrative cases under the proposed integration were correct. As a matter of fact, I questioned these figures at hearings before the House Special Committee on Aging, and I have a letter from Mr. Daniel I. Halperin, Tax Legislative Counsel of the Treasury Department confirming my views. In brief, the Social Security replacement ratios shown should have been 14% higher relatively. The error arose because the Treasury figures did not take into account the cost-of-living increases (at the assumed rate of 4% per year) between ages 62 and 65 (the indexing of the earnings record being done only to age 60).

Although Mr. Halperin states, in submitting the corrected figures to the House Committee, that "the difference is not enough to affect our proposal", I do not believe that this is the case. The higher replacement levels resulting mean that there is less needed from private pension plans for those with low earnings to bring the total retirement income (including Social Security) up to an "adequate" level. In fact, for those with the very lowest earnings, no supplementation over Social Security seems necessary. Accordingly, the proposed integration rules should have no requirement of any private pension supplementation on, say, the first $300 of monthly earnings, so that then there would be, in essence, a 3-step formula. Thus, a plan would be required to provide nothing on the first $A of earnings (with indexing of $A in future years), X% between $A and the integration level, and some multiple of X% above the integration level.

In connection with the new federal legislation prohibiting mandatory retirement by employers before age 70, it is interesting to note that, in this respect, there is another law moving in the opposite direction. The Supplemental Annuity portion of the Railroad Retirement system (which provides flat-rate pensions based on years of service, ranging from $23 to $43 per month) requires that such benefits must be applied for on the basis of retirement before the end of the month following the month of attainment of age 65.

MR. MARC M. TWINNEY: I have two comments. One is about the age discrimination. Initially, we thought there would be a possible savings in the cost of the retirement plan. We were thinking along those lines. But the more we checked into our benefit program and our compensation, the more we became convinced that deferring retirement was probably going to cost the company money. The reason is that there is such a wide range in the pay scales within a certain salary grade and between different grades. We determined that it only took about half of the salary difference in our typical salary grade to eat up all of the cost savings in the deferment of pensions. Since our recent austerity in employment, we find that we very often can do the same job with a salary grade one lower let alone a half a grade higher. So all these people waiting to retire are probably going to be at a very high point in their grade, and we think it will probably cost us money.

MR. PRESTON C. BASSETT: Marc, do you give additional benefits during that period of deferment?

MR. TWINNEY: No. They have earned all the benefits by that time. There is one exception. Our UAW plan provides credit for service under the pension plan until age 68 and that may become modified to 70. I suppose that is one of the things that UAW would like to advocate, but even that is not really the issue. The issue is that both the hourly and salary workforce if you hypothesize that these people are in the higher paying jobs, and they are, we are going to have a workforce with more high paid people in it if the rate of retirement declines. Of course, what that means is, I guess, that maybe some of these early retirement provisions didn't cost us as much as we thought. We saw the pension costs if we could measure, but nobody ever wanted to measure the wage and salary tradeoff.

The other point I would like to mention has to do with our surprise in applying the proposed integration rules. We find that for our salary plans we have a ratio of about 1.7 and we cannot get the integration level up past $800 because of all the requirements which reduce the integration level because of the ancillary benefits we provide. We have so many early retirement, survivorship, etc. We think that if the new rule went in today we could probably go to the wage base and not change any other benefits, which is a stunning kind of an outcome. I don't see how that matches up at all with the marvelous social policies behind the idea.

MR. MICHAEL MUDRY: Henry Bright, I have a question of you. You mentioned that it is not necessary to accrue pensions after age 65 under age discrimination. The question was raised in one of the workshop sessions yesterday as to whether that applies to money purchase plans, also. In other words, under money purchase plan is it possible for an employer not to contribute once 65 is reached if the employee continues to work beyond then?

MR. BRIGHT: I would assume from the letter written by Donald Elisburg to Senator Williams that such would be the case. That letter seemed to state explicitly that pension plans do not have to accrue additional benefits after age 65, and it seems to me that this would extend to defined contribution plans also, unless there is something to the contrary that I am not aware of.

MR. CHARLES W. JACOBY: I think there is some amplification on that in the Congressional history exchanged between Senators Javits and Williams on March 24 which seems to indicate that you don't have to do anything to

your basic pension plan after 65. If it is defined benefit, you can if you wish freeze the pension. If it is defined contribution you can, if you wish, stop employer contributions after 65, but not for a supplemental defined contribution plan. That is, if you have a defined benefit pension plan and also a thrift plan, you can freeze the pension plan at 65, but must continue contributions under the thrift plan to age 70. It seems to be what the exchange was saying. I think we are going to have to wait for the Labor Department interpretations. I have heard that this was planted by TIAA/CREF, but I don't know if this is true.

MR. BRIGHT: It seems to me that it would be very inconsistent to say that, for a basic defined contribution plan, you don't have to continue contributions, but for a supplemental defined contribution plan, you do. And, you know, I can't see how that position is going to hold up. It seems to me that either there will be no requirement for benefits or contributions after age 65, or the entire position will be reversed and that you will have to accrue after age 65 in all cases. By the way, I think that is a very significant possibility eventually, anyway.

MR. JACOBY: I think most people would agree. However, I personally think this is a reasonable solution. Of course, even if the basic plan is defined contribution and the employer can stop contribution at 65, the pension produced under the plan at later retirement is hard because of the age factor, so it is not exactly equivalent to a pure freeze under the defined benefit plan. But it is about as close as you can get. Considering one's view of the rationale behind most of what comes out of Congress, including ERISA, this is almost a model of logic.

MR. FITZHUGH: I hope that in coming up with regulations they clarify the difference between corporate and Keogh plans if there is going to continue to be a difference. Under present law a Keogh plan has to benefit each employee with 3 years of service. In all our plans, and I think in everyone else's, if you have someone working for you in a money purchase Keogh plan beyond the normal retirement date, you have to continue contributions. It sounds as though we are getting a lot of overlapping opinions as to what the new mandatory age retirement rules mean. It would be very nice if everyone got together.

MR. BASSETT: I would like to turn to topic three. We have no prepared presentation for topic three, instead I thought it might be interesting to work this more like we do a workshop. That is, to have more of a discussion of what is going on in the way of inflation as far as pension plans are concerned, what is being done, what are some of the alternatives and some of the problems? I decided to pose some questions to the panelists and to the audience and see where we stand today and what might be done about it. In order to keep it a little on track and not go too wild, I would like first to talk about the problems in regard to pension plans for active employees. More specifically, let's start with the non-negotiated pension plans for active employees and what is being done in this area. Dave in his talk mentioned that there is a trend in Canada away from career pay plans to final pay plans in this area. Henry, what do you see in the United States?

MR. BRIGHT: I think career pay plans have a number of problems. One of which, of course, is the new Social Security changes. But they have had problems before this, the major one being due to the erosion of the benefits

by inflation. The traditional response to that is to periodically update the plans by recomputing the accrued benefits based on some modified final average formula, and this has worked fairly well, and, of course, it is good employee relations, because each time you make that change it comes through as a plan improvement. But it gets into fairly extensive administrative work any time you do it and each time you do it, you have to explain it. So it is troublesome. I think that the trend in the future with respect to the benefit formula for active employees is going to take perhaps one of two forms. One, there will be pressures to change to a straight final pay type formula, probably with an offset approach. Alternatively, you may see a retention of some kind of career average formula with the addition of a final pay related minimum. And I think those will be the directions that many of these plans will be going.

MR. BASSETT: Let's take a look at final pay plans where we now have pretty good protection against inflation in the traditional way for the past several years, at least, to provide active employees with protection against inflation. Do we see any changes in final pay plans because of the more rapid inflation we have had in the past few years. Has there been any changes. Gil, have you seen any in your area of the small plans?

MR. FITZHUGH: The most popular benefit formula we have in our individual defined benefit prototypes is a final pay formula. In order to keep the funding from getting astronomical, we freeze out the last five years of earnings. There just isn't time to fund a reasonable benefit it you count earnings right up to the final gun. But if you assume greed is the principal motivation, and you've got a couple of key people about to retire, who are making a lot of money and want to shelter it and they are running the plan as much as possible for themselves, they will modify the plan in any way then can so that when they go out the door, they've got the fattest benefits they can get. It is quite different from the use of a pension plan as a personnel tool in a large employer.

MR. BASSETT: Gil, do you see a movement from an average of five years to an average of three years earnings?

MR. FITZHUGH: Well, we haven't seen any demand for this. Our current prototypes don't have that formula in them. If we got a demand like that, I am sure it would come from our agents. They would say you have to change the prototype because it is not competitive with the XYZ's prototype. We have not yet heard such a thing.

MR. BASSETT: Any comments from the audience as to what they have seen happening in the final pay plan area recently?

MR. BRIGHT: I would add a comment. I have seen some trend towards using a shorter averaging period, changing to three years instead of five. Also, a trend towards using the last 36 months or the last 60 months in plans that perhaps previously defined the benefit in terms of the five year average computed using the rate as of January 1 of each year, and that makes a significant difference, also. On the matter of including extras, certainly the IRS these days has been putting on a lot more pressure and raising a lot more questions if you don't base benefits on total compensation.

MR. BASSETT: What you are saying is that the bonuses and so forth are being included in the wage base.

MR. BRIGHT: Yes, and of course, on the IRS Form 5300, if the benefit is not based on total compensation, you are supposed to supply additional information. So, obviously, they are looking more closely at this aspect.

MR. HAROLD R. BRIGADE: Just a comment on going to three year averaging. I have seen a little bit of it in my work. Certainly the most common situation has been where employee plans are being set up to benefit principals who are looking for maximum benefits under the maximum benefit regulations, which are defined in terms of three years, anyway. The only other cases I have ever seen going to three years have been where the client had a lot of money to spend, basically, and he is looking for ways to improve benefits as much as possible.

MR. FITZHUGH: In our prototypes in the small plans, and I presume those of you who are in that same business have the same situation, the IRS will let us exclude odd kinds of compensation like bonuses and overtime if we don't integrate. But if we do integrate, we have to include all compensation.

MR. BROWN: The tax laws were changed in Canada in several respects last year. One of them was to change the basis of the maximum pension formula from a five year average to a three year average, which suggests that there is some trend in that direction. I have seen very few myself, but at least it is permitted now.

MR. BASSETT: One other area before we move away from this is, do we see any increase in supplemental type plans? In other words, do we leave the pension plan as is but because of the need to provide greater benefits, introducing an addition of a profit sharing or thrift or savings plan. Do we see any of that that we might attribute to inflation? I guess the answer to that one is "no".

Let's turn to the negotiated plans. Here, of course, being negotiated the probability is that every time they come around they increase the benefit to compensate for inflation. Have these increases been in proportion to inflation or have they been in excess of inflation? Has the labor force been keeping up, do you think? Or getting ahead?

MR. BRIGHT: If you take a period of 6 or 7 years, I would say they have been getting ahead, at least in terms of gross benefits. Whether, if you factor in the tax considerations, they are really ahead or not, I am not sure. But certainly you have a lot of situations even today where the flat benefit plans are very modest ($3, $4, $5) in certain parts of the country. There has been a trend for these plans to attempt to catch up with the national pattern plans which are presently at the level of $10 to $15, I guess.

MR. TWINNEY: First of all I suppose I could relate briefly the special one-time lump sum payment that was paid last year under the 1976 agreement. Would you like me to take a moment to do that?

What we face in the auto industry is a long history of having paid cost of living allowance to the hourly worker, and then also to the salary worker or lower grades. And, so when these people retire they have a natural question of why can't we have cost of living too? This kind of demand has come up in negotiations every three years. It culminated at 1976 in a situation where, because of the 1973 agreements to provide the 30 and out

over 6 years, we were not open to bargain on all of the pension items. The UAW came up with the idea of providing a one-time lump sum payment outside the pension plan for cost of living to the people who had retired before the 1976 agreement. We came up with the idea to take the cost of it out of the cost of living allowance. That was one of the reasons I think there was a strike. It's not the main reason, but it was one of the reasons. I think the exact amount was something like $600 for the maximum case. It should be $20 a year for 30 years and the spouses got $11, 55% of the $20. We had spouses writing in and requesting a check, and of course, they didn't have an effective option at the time their husband died. We think that this may have some bearing on the negotiations in 1979 so we will be studying these kinds of ideas in 1979. You have to bear in mind that this demand was successfully made against the background of very high inflation, and also against the background of substantial increases in the benefits for retirees. We have retirees whose pensions are almost three times what their last wage was - living 20 years on retirement. There is only about a dollar an hour difference between the people who retired under this contract and the people who retired before 1973. They haven't been left back there at $3 or $4, it has been kept up to date. There are increases each year, in the flat monthly rate per year of service, usually 25¢ to 60¢, depending on which year it was. So you add that to all the very substantial increases in Social Security during the same period. Social Security has gone up like 120% over the last 10 years and the cost of living has gone up 80%, so I think it is very hard to make a case that our people needed it. In fact, when they took a survey of retirees, the biggest question which came back was, why can't they have a deal where the company will buy you a new car?

MR. BASSETT: Along this line, I note that in the Williams - Javitz proposed legislation under the funding section, if I read it right, they are saying that if you negotiate an increasing pension benefit over the 3 year period, you know, $10 this year and $10.50 or $11 next year and $12, that you are now going to have to fund that along with your regular funding. You can't stagger the funding for the increase for plans that do that after 1980.