Costing of the Recommendations Pertaining to the Judicial Annuities

As requested, we have estimated the cost of the Commission's recommendations relative to the judiciary's recommendations and the related costings prepared by the Chief Actuary.

There are corridors of professionally acceptable answers for the costings. For purposes of preparing these cost estimates, we have relied upon the estimates prepared by the Chief Actuary. Considering the fact that we do not have access to the detailed membership database, no attempt was made to verify the Chief Actuary's results. Further, we could only make rough estimates by applying rule of thumb adjustments in order to reflect the anticipated differences between the judiciary's and the Commission's recommendations.

In terms of the bases used by the Chief Actuary in his January 20, 2000 letter, those estimates are in line with both bases I and III; our approximation models not being accurate enough to differentiate between these two bases, which tend to produce similar results. In our opinion, the basis II is a less appropriate basis for purposes of the present cost estimates; no attempt was made to adapt our results under its application.

Summary of Results:

	Estimated Increase in Accrued Liabilities	**Estimated Increase in Annual Cost***
	($ millions)	($ millions)
1. Cessation of contributions	-----	2.30 to 2.50
2. Supernumerary status	(2.10 to 3.50)	(0.30 to 0.50)
3. Early retirement	1.00 to 1.40	0.20 to 0.28
4. 60% Survivor Pension	0.00 to 0.60	0.00 to 0.06
5. 75% Survivor Pension	0.00 to 1.00	0.00 to 0.10
6. Article 44 (3)	0.30 to 0.50	0.03 to 0.05
	(0.80 to 0.00)	2.23 to 2.49

Note (*): The estimated annual costs in the second column represent the costs for benefits accruing each year.

Methodology to arrive at the cost estimates

All the cost estimates are based on a $178,100 annual salary base, to be consistent with the Chief Actuary's calculations.

1. Cessation of contribution

   Using the age/service distribution presented in the last actuarial report prepared by the Chief Actuary as at March 31, 1998, we have projected that in the year 2000/2001, there would be 253 judges entitled to a full pension but continuing their active duties, including some 43 judges hired before February 1975. Should their contributions be reduced to 1% of salary, the reduction in the total contributions would amount to about $2,400,000 in the year 2000/2001.

   Restoration of the contribution room

   The restoration of the contribution room does not affect the financials of the judicial annuities. If all of the 253 judges referred to above would contribute the maximum allowable contributions to their RRSPs, their taxable income would be reduced collectively by $3,400,000.

2. Supernumerary status

   The Chief Actuary estimated that the availability of the supernumerary status from age 55 with 15 years of service would produce a reduction in accrued liability of $5.5 MM and a reduction in annual normal costs of $800,000. The Commission's recommendation is defined in terms of eligibility to a full pension, therefore with 15 years of service and a sum of age and service equal to 80. In both cases it replaces the age 65 rule to opt for the supernumerary status. We have estimated the impact of the proposal at approximately 50% of the impact estimated by the Chief Actuary.

   The Chief Actuary noted that the cost reduction would be offset by an increase in payroll. In our model, about 83 additional judges would be entitled to the status. Should a high proportion, say 75%, elect the status, 31 additional judges would be required if each election resulted in a 50% reduction in workload:

   31 judges at $178,100 represents an expense of $5,500,000 per annum.

3. Early retirement

   The early retirement privilege may end up being used by about 5% of the judges. The Chief Actuary has calculated that the normal cost of the early retirement program proposed by the council/conference was $400,000 per annum. The early retirement program recommended is more restrictive:
   - The penalty is 5% per annum instead of 3%.
   - The prorating is calculated on the period required to become entitled to a full pension, instead of 15 years.
   - The eligibility begins at age 55.
   - The pension is indexed to the Consumer Price Index during the deferral period.

   Based on approximate models, it is expected that the cost of the recommended program will be in the neighborhood of 60% of the cost of the proposal, therefore $240,000 per annum.

4. Survivor protection at 60%

   The actuary will have the choice between two valid approaches:

   i) Assume that the offer of the 60% survivor protection causes no additional cost, since the pension is adjusted by actuarial equivalence. This is the commonly used approach; it is based on the assumption that choosing between a 50% or a 60% survivor protection leads to no significant anti-selection, or efficient decisions of the retiree with regard to the state of his/her health versus his/her spouse's state of health. Alternatively, the actuary may calculate the actuarially equivalent pension assuming that the retiree asking for an enhanced survivor protection is less healthy than an average person of same sex and gender. Under all these assumptions, the cost is nil.

   ii) Assume that any increase in survivor protection gives room for anti-selection, that is efficient decisions on the relative state of health of the retiree and of the spouse. We agree that if the choice is in terms of a 50% or a 100% survivor protection, it is acceptable and practical to assess the potential cost at $700,000 per annum, as the Chief Actuary quoted in his January 20th letter. When, the difference between the options is so large, the other considerations leading to the decision become less important, and the potential for anti-selection is more important.

   With this line of thought, we have to assign a value to the impact of a small increase (from 50% to 60%) as compared to a substantial increase in the survivor benefits (from 50% to 100%). Technically, the anti-selection would be minimal at first, growing slowly initially, and more rapidly as we depart significantly from the 50% level. In other words, the impact of the anti-selection will grow exponentially, as opposed to linearly.

Under this approach, we estimate the increase in normal costs at about $40,000 per annum.

5. Survivor protection at 75%

Based on the considerations discussed above, using the approach 4 ii), we estimate the additional normal cost at about $100,000 per annum for the recommendation. Yet, the actuary could calculate the actuarial equivalence assuming the spouse has an above average state of health, given his/her age and gender, and the availability of the option would be cost free through proper actuarial equivalence.

6. Article 44(3) removed

The actuary will have statistics with regard to the number of survivor pensions that have been denied by the application of the clause. In the absence of statistics, we can only build a simplistic model to advance an estimate.

If 80% of the retirees die with a surviving spouse, of whom 1%* remarry with a judge, of whom 60% will survive the second spouse, the denial of the survivor pension would occur in ½ of 1% of the deaths of retired judges.

The increase in the cost of the total program would be in the neighborhood of $^{1}/_{10}$ of 1%. We assume the clause is changed only with regard to future widows.

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* Note: According to Statistics Canada (Marriages 1995, Catalogue no. 84-212-XPB), unmarried males at ages above 65 remarry at the rate of about 1% per annum, whereas only 0.2% of unmarried females do. It means that over the years, about 2% of the widows of male judges will remarry, a fraction thereof with a judge. Should half of such widows remarry with a judge, the 1% assumption would be acceptable.