



SECTION: Actuarial Reports

INDEX NO.: A050-102

TITLE: Actuarial Assumption Guidelines for Final Average Plans - Approval of Actuarial Reports, PBA, 1987 ss. 75, 89*, O. Reg. 708/87, s. 25(2)

APPROVED BY: The Pension Commission of Ontario

PUBLISHED: Bulletin 1/1 (February 1990)

EFFECTIVE DATE: October 31, 1989 [No longer applicable - Feb. 2000]

REVISED DATE: December 1993, corrected by A050-103

Note: This policy is no longer applicable. Actuaries should follow the standard practices of the Canadian Institute of Actuaries ("CIA") in their selection of actuarial assumptions and methods.

The actuarial assumptions guidelines have been prepared to facilitate the process for approving actuarial reports. They are not intended to replace generally accepted actuarial principles.

Not all assumptions are addressed in the guidelines, for instance, inflation assumptions. PCO staff reserves the right to require justification of assumptions not specified in the guidelines. Furthermore, guidelines will be developed for other actuarial assumptions as required.

If actuarial reports are prepared within the limitations as set out in these guidelines, processing for pension officers typically will be routine. However, if the assumptions of the actuarial reports are outside the guidelines, the report will be referred to the actuarial staff to review.

There is no formal guidelines on acceptable actuarial assumptions by the actuarial staff; however, the following principles are applicable:

1. The valuation must be done in accordance with generally accepted actuarial principles and practice, and must be appropriate in the circumstances.
2. Although pension officers can accept only valuations based on the projected accrued benefit cost method, the actuarial staff may accept reports based on any valuation method generally accepted in Canada.
3. For going concern valuations, the actuarial staff may accept any set of actuarial assumptions which, in the aggregate, produce results that are reasonable, consistent with a set of assumptions that is within these guidelines.

4. If the filing actuary can provide necessary justification, the actuarial staff may accept assumptions which are outside these guidelines, but may be considered appropriate when compared with the expected experience of the pension plan.
5. For solvency valuations, the actuarial staff may accept any set of actuarial assumptions which produces results consistent with the requirement of subsection 25(2) of Ontario Regulation 708/87.

If issues cannot be resolved between the actuarial staff of the Commission and the filing actuary, the report will be referred to the Commission pursuant to section 89 of the *Pension Benefits Act*, 1987. Prior to making its decision, the Commission may invite written submissions from the filing actuary. The Commission may also refer issues to the appropriate committee of the *Canadian Institute of Actuaries* (the "CIA") to obtain its view prior to making a decision. Alternatively, the filing actuary may seek the views of the appropriate CIA committee and include this in the submission to the Commission. A decision of the Pension Commission is appealable to the Divisional Court.

Enquiries from filing actuaries should be directed to the actuarial staff. We encourage filing actuaries to consult with the actuarial staff prior to filing the actuarial report if they have any questions or concerns.

The guidelines take immediate effect. Comments are welcome and will be considered in the context of necessary or desirable future amendments to these guidelines.

Guidelines for designated plans, flat benefit and career average plans are expected in the spring of 1990.

The Guidelines are as follows:

1. GOING CONCERN VALUATIONS

A. Valuation of Liabilities

Pension officers may approve a valuation of liabilities if all the requirements in this section are met.

1. Actuarial Cost Method

Pension officers may approve a valuation of liabilities based upon the projected accrued benefit cost method (projected unit credit cost method). If another actuarial cost method is used, the valuation shall be referred to the actuarial staff for review.

2. Economic Assumptions

(a) Interest Assumption

The interest assumption shall not be higher than 8%.

(b) Salary Assumption

For final average plans the future salary increase must be recognized. For any assumed interest rate, the rate of salary growth shall not be less than the following values:

<u>Interest Assumption</u>	<u>Minimum Salary Growth Rate</u>
----------------------------	---------------------------------------

8 %	7%
7.5	6
7	5
6.5	4
6	3

(c) Future Increase in CPP and OAS Benefits

Future increases shall not be greater than the assumed salary growth rate.

(d) Expense Assumption

No expense assumption is required.

3. Other Experience Assumptions

(a) Mortality Tables

Pension officers may approve a valuation of liabilities based on any of the following mortality tables:

1983 Group Annuity Mortality Table 1983, Group Annuity Mortality Table with the 10% Margin Removed, Progressive Annuity Table 1971, Group Annuity Table, 1971 TPF&C Forecast Mortality Table, Wyatt Company table based on 1971-GA (projection to 1976 and later years) 1986 Wyatt Mortality Table, GBB Mortality Table (1974 and later years)

Age set-back is permitted. If age set-forward is assumed, the report will be referred to the actuarial staff.

The mortality tables used shall be either on a sex distinct basis or with male mortality rates set back at least 4 years for females.

(b) Termination Rates

The termination rates by age shall not exceed the Medium Termination Rate in the Second Report of the Ontario Committee on Portable Pensions. A copy of the table is attached as an appendix.

(c) Early Retirement Assumptions

If there are significant subsidies for early retirement benefits and bridging benefits, the assumed retirement age shall not be greater than 2 years prior to normal retirement age.

If a range of probability of retirement is given on a age-by-age basis, the average age of retirement shall not be greater than 2 years prior to normal retirement age.

Pension plans that provide for benefits reduction of at least 6% per year prior to normal retirement date are not considered to have significant subsidies for early retirement benefits if no other retirement benefits or bridging benefits are available.

(d) Disability Rate

For those pension plans with disability benefits, there shall be allowances for the cost of disability.

(e) General

Pension officers shall always check the actuarial reports for experience gain or loss related to death, termination, retirement and disability. If there is a net experience loss related to these items, the reports shall be referred to the actuarial staff for review.

B. Asset Valuation Methods

Pension officers shall refer to the valuation to the actuarial staff under any of the following conditions:

- o All actuarial reports using the discounted cash flow method for the valuation of assets.
- o The method of asset valuation is changed from the previous actuarial report.
- o The value of the assets is averaged over a period of more than 5 years.
- o The actuarial value of the assets is more than 105% of the market value of the assets.

II SOLVENCY VALUATION

A. Valuation of Liabilities

Pension officers may approve solvency valuation if all the requirements in this section are met.

1. Actuarial Cost Method

Only the accrued benefit cost method is permitted.

2. Economic Assumptions

Either one of the two following options is permitted:

First Option

(a) Interest Assumption

The interest assumption shall not be higher than the average bond yield of the over 10 years Government of Canada securities (CANSIM B14013) for 15 years and 6% thereafter.

(b) Salary Assumption

No salary increase assumption is required.

(c) Inflation, Future Increase in CPP and OAS Benefits

No inflation assumption is required under the current Regulations.

(d) Expense Assumption

No expense assumption is required.

Second Option

(a) Interest Assumption

The interest assumption shall not be higher than the average bond yield of the weighted long-term provincial securities (CANSIM B14047) for 20 years and 6% thereafter.

(b) Salary Assumption

No salary increase assumption is required.

(c) Future increase in CPP and OAS Benefits

No inflation assumption is required under the current Regulations.

(d) Expense Assumption

An expense amount of \$500 per employee is required.

3. Other Experience Assumptions

(a) Mortality Tables

Only 1983 Group Annuity Mortality Table with the margin is accepted, either on the sex distinct basis or with male mortality rates set back at least 6 years for females.

Age set-backs are permitted. If age set-forwards are assumed, the report shall be referred to actuarial staff or review.

(b) Termination Rates

No termination rate is permitted.

(c) Early Retirement Assumptions

Employees who meet the requirement of section 75 of the Act must assume to retire at such an age that will result in the highest liability.

(d) Disability Rate

No disability assumption is required.

B. Asset Valuation Method

The asset valuation method must be market value related with an averaging period of not more than 5 years. If the method of asset valuation is changed from the previous actuarial report, it shall be referred to the actuarial staff.

*PBA, R.S.O. 1990, s. 74 and s. 88