

PUBLIC SERVICE PENSION PLAN

Funding Policy

I. Scope

The Board of Trustees of the Public Service Pension Plan is responsible for administering the pensions and post-retirement benefits of the members of the Public Service Pension Plan. The pensions include the basic non-indexed pensions earned plus future indexing on a non-guaranteed basis. The trustees manage the financial position of the plan by setting the required contribution rate for the basic non-indexed pensions. The trustees manage the other benefits by adjusting the indexing or post-retirement benefits so that they are affordable given the funds available. This funding policy addresses the trustees' approach to meeting their obligations in this regard.

The plan consists of a number of different accounts that support different benefits, with different guarantees, and therefore each account has different funding targets. The plan rules set out the current contribution rates for both members and employers, and the Joint Trust Agreement (JTA) specifies how changes in the various rates will be established and shared. The JTA also describes the responsibilities of the trustees and the plan partners, and the decision making powers of each with regard to benefits and contributions. Therefore, these two documents provide an important framework within which the Trustees have developed this funding policy.

In addition, the plan has to comply with the requirements of the Income Tax Act (ITA) and due to the terms of the JTA it has to comply with the going concern funding requirements of the BC Pension Benefits Standards Act (PBSA). The plan actuary has to comply with the professional standards of the Canadian Institute of Actuaries (CIA). These additional compliance requirements are also taken into account in this funding policy.

The different components, the benefits they provide, and the funding target in each case are summarized below:

Component	Benefit	Nature	Funding Target
Basic Account	Non-indexed pensions	Guaranteed	Fully pre-funded
Inflation Adjustment Account (IAA)	Future indexing	Not guaranteed	Partially pre-funded
Non-pension	EHB /Group Life	Not guaranteed	No funds, fully Pay-as- you-go

II. Plan Overview

(1) Benefit Levels

The plan provides a final average defined benefit pension. The salary upon which the benefit is based is the average of the salary in the five years that the member received their highest average salary (“HAS”).

The defined benefit pension is calculated as follows:

If the member’s HAS is greater than the Canada Pension Plan’s Years Maximum Pensionable Earning (“YMPE”), then

$$\text{Lifetime Pension} = \text{Yrs} * ((\text{HAS} - \text{YMPE}) * 2.0\% + \text{YMPE} * 1.35\%)$$

Otherwise

$$\text{Lifetime Pension} = \text{Yrs} * \text{HAS} * 1.35\%$$

In addition, retired members under the age of 65 are entitled to a bridge benefit equal to the lesser of

$$\text{Yrs} * \text{HAS} * 0.65\% \quad \text{or} \quad \text{Yrs} * \text{YMPE} * 0.65\%$$

The pension is subject to reduction if the member retires early.

The benefit described above shall be provided even if contribution rates must rise to pay for any unfunded liability for the benefit (see section III (3)).

The benefit may be increased annually to help offset the effects of inflation (see section IV).

(2) Risks

The plan has a low active to retired member ratio, and the ratio continues to fall.

The effect of the low and declining ratio of active to retired members includes:

- a) The plan pays out significantly more in pensions than it collects in contributions; and
- b) If the plan experiences an unfunded liability, the contribution rate increase required to amortize that unfunded liability is much higher than it would be if the ratio of active to retired members was much higher.

The main risks to the Basic Benefits are:

- i) poor investment performance;
- ii) experience differing from actuarial assumptions; and
- iii) volatility in contribution rates.

The main risk to the other benefits is that the funding levels for those other benefits, which are fixed by the plan partners, may become insufficient to provide the expected levels of benefits. As the ratio of active members to retired members continues to decline, the probability that the plan will be able to sustain extended health benefits at current levels will also decline. In addition to the above, excessive inflation is also a risk to the other benefits.

The Board mitigates these risks by:

- i) having an appropriate investment policy, which is reviewed annually, that limits the boards exposure to excessive investment risk;
- ii) doing a thorough asset allocation review after every actuarial valuation;
- iii) having the actuary include provisions for adverse deviation in the actuarial assumptions to increase the probability that the plan will not have an unfunded liability and will meet its funding targets; and
- iv) following other risk mitigation strategies identified in this policy.

III. Basic Account

(1) Overview

- (a) There is equal cost sharing by members and employers.

(2) Actuarial Assessment

- (a) Benefit security is the primary funding objective for the basic account. In addition, contribution stability is an important secondary objective.
- (b) The joint trustee nature of the plan, its broad public sector base, and the extreme unlikelihood of the plan not continuing all contribute to benefit security; therefore the valuation can give significant weight to the secondary objective of contribution stability. Accordingly, contributions should be set on the basis of a going concern valuation.
 - (i) The plan is exempted from the PBSA with regard to solvency requirements. This is appropriate given the public sector nature of the plan. The plan rules and JTA do not contemplate wind-up in any way. Solvency should not be taken into account when setting contribution rates.
- (c) Actuarial valuations will be carried out every 3 years. In addition, in the year before the next valuation is due, a projection of the valuation results at the next valuation date should be prepared on the basis of actual investment returns in the past two years and expected returns in the remaining year. The implications on valuation assumptions and results of changes in the economic environment should also be considered. The intent is to provide the trustees with an early warning as to the possible direction and magnitude of any required changes to contribution rates.

(d) The entry age funding method will continue to be used as the underlying actuarial funding method.

(e) Assumptions

- Given the objective of contribution stability, a long term view on assumptions is appropriate; assumptions should not be unduly influenced by short term conditions and should take into account the expected long term returns on the plan's assets. However, this should be balanced by the overriding objective of benefit security.
- The plan is maturing and therefore has a decreasing ability to absorb contribution volatility; the level of risk taking should take this, and the size of any contribution stabilization reserve (i.e. surplus), into account.
- The IAA is funded partially by allocated contributions and partially by excess investment return transfers over the valuation investment return assumption on pensioner liabilities in the Basic account, i.e. on that part of the Basic account that covers pensions in payment. The actuary should recognize the significance of the excess investment return threshold and its linkage with indexing; the excess investment return threshold has benefit design considerations and the investment return assumption should take this into account:
 - e.g. if investment returns increase, then the excess beyond the current (existing) threshold should go to the IAA to cover future indexing, rather than adjusting the investment return assumption upward to retain more in, and thereby reduce costs to, Basic.

- the investment return assumption and hence the excess investment return threshold may be moved down if the nominal rate becomes an increasing challenge.
 - Continue with asset value/investment return smoothing over 5 years with the provision that the smoothed value of the assets be within 8% of the market value of the assets.
- (f) Other than where exempted, the valuation and assumptions should be in accordance with the standards established by the CIA.

(3) Basic Account Policy

- (a) While exempt under the PBSA statute, the JTA requires that the plan comply with the PBSA - going concern valuation requirements, i.e. PBSA requires:
- (i) Pay the normal cost (NC) – i.e. the entry age normal cost
 - (ii) If there is an unfunded liability (UL), this should be amortized over 15 years.
 - (iii) If there is a surplus (S):
 - There is no PBSA restriction on the use of surplus to reduce member contributions.
 - Employer contributions can be reduced subject to the following constraints:
 - a surplus cushion equal to 5% of the liability must be retained, and
 - the remaining balance can then be amortized over not less than five years.

- As a result of equal cost sharing, the above 5% of liability threshold will effectively apply to both employers and members.

(b) Subject to section III (3) (a), the surplus allocation policy is:

- (i) Calculate the contribution rate amortizing the surplus over 25 years.
- (ii) Repeat subsection (3)(b)(i) but with a 15 year amortization of the surplus. This will produce a lower contribution rate than in subsection (3)(b)(i) as the surplus is being used up more rapidly.
- (iii) The above is to be done at each valuation using rolling 25/15 year periods, on an open group basis.
- (iv) As long as the total current contribution rate is between the rates calculated in subsection (3)(b)(i) and subsection (3)(b)(ii), i.e. between the 15 year amortization rate and the 25 year amortization rate, then the current contribution rate will continue unchanged, i.e. the full surplus is effectively used as a contribution stabilization reserve.
- (v) If the current contribution rate is greater than the (higher) rate with a 25 year amortization of surplus (i.e. the rate calculated in subsection (3)(b)(i)), then there is an excess surplus.
- (vi) If the current contribution rate is less than the (lower) rate calculated with a 15 year amortization of surplus (i.e. the rate calculated in subsection (3)(b)(ii)), then the total rate must be raised to the level of the rate calculated in subsection (3)(b)(ii).
- (vii) Thus there is a "neutral" contribution zone where no change is made to the current rates if they fall within the 15 to 25 year surplus band; if they fall below the 15 year (lower) band, then an increase is needed; if they are larger than the 25 year (higher) band, there is excess surplus, and other

uses may be considered for the excess. The idea is to increase contributions gradually to the normal cost level before the surplus is fully used up, so as to prolong intergenerational equity and to prevent a very large "cliff"-like increase. See the numerical example in Appendix 1 and the graphical illustration in Appendix 2.

(viii) If there is excess surplus, the trustees will determine how it is to be used.

These uses may include:

- A transfer to the IAA to strengthen the likelihood of it continuing to provide full inflation protection.
- Benefit increases
- Contribution rate reductions
- Leaving it as an additional contribution stabilization reserve.

(ix) Given the expectation that excess surplus will not arise in the near future, the trustees feel that it is inappropriate to set priorities for excess surplus use at this stage.

(x) The treatment of excess surplus is, of course, subject to ITA rules regarding excess surplus.

(xi) Benefit increases can arise either as a result of excess surplus or as a result of a decision by the plan partners to increase the benefits and meet the cost either by making a lump sum payment or increasing the contributions. When considering a benefit increase, the trustees will consider the attendant cost of indexing and require that an appropriate amount be allocated to the IAA account to meet this cost.

Inflation Adjustment Account

(1) Overview

- (a) New inflation indexing is currently provided each year to pensions in payment to the extent that there are sufficient funds in the IAA to meet the capitalized cost of the increase in question.
- (b) The contributions to the IAA are fixed by agreement and do not change depending on the funded position of future indexing.

(2) Actuarial/Assessment

- (a) The trustees maintain a macro model generating cash flow projections of the IAA. The model is updated after each triennial actuarial valuation. Assessment of the long term ability of the IAA to provide full indexing is to be done by means of this model.
- (b) The assessment should be done annually.
- (c) Modeling should include a range of scenarios to enable the trustees to understand the sensitivity of the IAA to different outcomes.
- (d) The base case model assumptions should be long term in nature and consistent with those used in the most recent actuarial valuation.
- (e) The capitalized cost of indexing granted each year is based on the assumptions used in the most recent actuarial valuation.

(3) **IAA Policy**

The current practice of providing full CPI increases each year provided there are sufficient funds to cover the cost of the increase will continue until April 1, 2017.

Non-pension Benefits

- (1) Subject to some qualification requirements, the plan provides extended health and life insurance benefits for retired members (post retirement group benefits, or PRGB). These will continue to be funded on a pay-as-you-go basis, with no funds accumulated.
- (2) As and when needed, the benefits will be adjusted so that the total cost of PRGB will not exceed 1% of payroll.

Review

This policy will be reviewed every three years, or whenever there is a significant change to the plan structure or benefits, or whenever there is a change in legislation or professional guidance relating to funding.

Effective: March 9, 2006

Last Revised: March 8 and 9, 2016

Appendix 1

Illustrative example (purely hypothetical) of funding policy

For this example assume that the plan has a surplus and that:

the Normal Cost (NC)	=	17% of salary
current employer basic contribution rate	=	6.5%
current employee basic contribution rate	=	6.5%
total basic contribution rate	=	13.0%

To assess the required contribution rates, we first calculate the rates amortizing surplus over 15 years (the “15 year rate”) and 25 years (the “25 year rate”) respectively. The shorter the period over which the surplus is amortized, the greater the reduction in the required contribution rate, therefore the 15 year rate is always less than the 25 year rate.

Situation 1

If we calculate that:

the 25 year rate is 15% (i.e. the amortization allows a 2% reduction from the normal cost), and the 15 year rate is 12% (i.e. the amortization allows a 5% reduction from the normal cost),

then, as the current rate falls between the 15 year and 25 year rates, no change is required to the current rate.

Situation 2

If we calculate that:

the 25 year rate is 16%, and
the 15 year rate is 15%,

the plan will have to increase the contribution rate to the 15 year rate, i.e. to 15%.

Situation 3

If we calculate that:

the 25 year rate is 12%, and
the 15 year rate is 11%,

then the trustees could consider reducing the contribution rate to 12%, or using the excess surplus for other purposes.

Appendix 2

Summary of Basic Account Contribution Rate Calculation:

If there is an unfunded liability

Amortize over 15 years; Contribution rate = normal cost increased for amortization

If there is a surplus

