

COLLEGE PENSION PLAN

Funding Policy

I. Scope

The College Pension Board of Trustees is responsible for administering the pensions and post-retirement benefits of the members of the College Pension Plan (the 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 guaranteed basic non-indexed pensions or by adjusting the indexing for pensions in pay so that it is sustainable given the contributions and 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 objectives, and therefore each account has different funding targets. The Plan Rules and the College Pension Plan Joint Trust Agreement (the JTA) set out the current contribution rates for both members and employers, as well as 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 respect 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 must 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 of the Plan, the benefits they provide, and the funding target in each case are summarized below:

<u>Component</u>	<u>Benefit</u>	<u>Nature</u>	<u>Funding Target</u>
Basic Benefit	Non-indexed pensions	Guaranteed	Fully pre-funded
Inflation Adjustment (IAA)	Future indexing	Not guaranteed	From 2011, provide indexing at a level that is sustainable based on the available assets and contributions
Non-pension benefits	Effective September 1, 2009, there are no subsidies for non-pension benefits		

II. Basic Benefit

1 Overview

- (a) Benefits are defined in the plan rules; contributions are set at the level necessary to fully fund the benefits.
- (b) Risks are shared equally by plan members and employers; plan member contributions to the Plan do not exceed one-half of the amount required to fund the promised benefits.

2 Funding objectives

- (a) The Board's overall objective is to maintain the ongoing viability of the Plan over the long term.
- (b) Benefit security is a key component of ongoing viability and is the primary funding objective for the basic account. The jointly trusted nature of the Plan, its broad public sector base, and the resulting low likelihood of the Plan not continuing all contribute to benefit security.
- (c) In addition, contribution stability is an important secondary objective. The cost of the Plan should be systematically recognized over time based on a long-term view of the Plan's assets and liabilities.
- (d) As the plan matures, contribution rate volatility could increase and so to limit contribution increases and volatility, the plan maintains a contribution rate reserve when the plan is fully funded.

3 Basic Benefit Risks

- (a) The basic guaranteed non-indexed benefits are pre-funded based on contribution rates that are revised triennially following an actuarial valuation and secured by funds in the Basic Account.
- (b) The key risks to the funding of the basic benefits are:
 - i) Poor investment performance;
 - ii) Experience differing from actuarial assumptions;
 - iii) The plan having a high ratio of retired to active members; and
 - iv) Volatility in the funded status causing unacceptable contribution rate volatility which is accentuated by having a high ratio of retired to active members.

- (c) These risks are managed through the Board's approach to investments, which is laid out in the Statement of Investment Policies and Procedures as well as other methods described in this Funding Policy. The Statement of Investment Policies and Procedures is reviewed annually.

As the Plan has a high ratio of retired to active members, the Plan's risk tolerance, reflected in the Statement of Investment Policies and Procedure, requires that the investment manager avoids investment strategies which involve excessive investment risk.

- (d) A major review of the plan's investment policy is conducted triennially. Included in this review is scenario testing and asset/liability modelling to assess the contribution requirements under different investment outcomes.
- (e) Provisions for adverse deviation are used by the actuary in assessing assets and liabilities for the Basic Account to limit any negative effects of deviations in the plan's actual experience from that assumed by the actuary.

4 Actuarial Assessment

- (a) Entry age basis to continue as underlying funding basis.
- (b) Asset values and investment returns should be smoothed over a five-year period when assessing the required contribution rates. The smoothed value of the assets should be limited to no more than 108% and no less than 92% of the market value of the assets. The actuary should monitor the difference between the smoothed and market value of assets and discuss the implications of the gap with the Board during the valuation process.
- (c) Other than where exemptions apply, the valuation and assumptions should be in accordance with the standards established by the CIA.

5 Valuation Assumptions

- (a) Given the objective of contribution stability, a long-term perspective 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, subject to the overriding objective of benefit security.
- (b) Assumptions will be based on best estimates with margins for adverse deviations, taking into account the Plan's investment policy, asset mix, expected returns from the Plan's investment managers including anticipated equity risk premiums, and the degree of asset smoothing.

- (c) In order to achieve the objectives of benefit security and contribution rate stability, it is preferable to have a slight bias towards generating surplus. Because the Plan is maturing, its ability to absorb volatility is decreasing, which dictates either less risk taking or a larger contribution stabilization reserve (i.e. surplus) or both.
- (d) The actuary should recognize the significance of the excess investment return threshold and its linkage with indexing. Excess investment returns arise when the rolling five-year average Fund rate of return exceeds the actuarially assumed rate of return. The excess investment return earned on the portion of the Fund related to the pensioner liabilities is transferred from the Basic Account to the IAA.
 - If expected 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 the Basic Account.
 - The nominal investment return assumption and hence the excess investment return threshold may be moved down if attaining the current nominal rate becomes increasingly less likely.
 - If the Basic Account returns are less than the actuary's assumed rate of return, the negative excess interest will be calculated and expressed in dollar terms. The negative excess interest amounts will be carried forward with interest to be applied against future positive excess interest amounts.

6 Basic Account Policy

- (a) The JTA provides that if the actuarial valuation report indicates a requirement to increase contribution rates, the increase must be shared equally between plan employers and plan members. Where there is an opportunity to reduce contribution rates, the board will ensure the reduction is shared equally between plan employers and plan members.
- (b) 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 normal cost (NC)
 - (ii) if there is an unfunded liability (UL), it 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 net liability must be retained (the “PBSA minimum surplus”),
 - the remaining balance can then be amortized over not less than five years.
 - As a result of equal risk sharing, the 5% of net liability threshold effectively applies equally to both employers and members.
- (c) If there is a surplus, the JTA allows the trustees to:
- (i) increase the reserve established for stabilizing contribution rates;
 - (ii) transfer a portion of the gain to an account within the pension fund established to provide for indexing of benefits for retired plan members;
 - (iii) equally reduce or eliminate the employer and plan member contributions for a period of time;
 - (iv) make changes to the benefit provisions.
- (d) Accordingly, and subject to 6 (b), the surplus allocation policy is:
- (i) Firstly, stabilize the contribution rate by adjusting, or establishing, a rate stabilization reserve,
 - (ii) Secondly, transfer surplus to the IAA to support the indexing at the current maximum sustainable level,
 - (iii) Thirdly, consider benefit improvements or contribution rate reductions.

The actions to achieve these steps are described in sections 7 to 9 below.

7 Rate stabilization reserve

- (a) The first priority is to stabilize the contribution rate.
- (i) Calculate the contribution rate required when amortizing the surplus in excess of the PBSA minimum surplus over 25 years
 - (ii) Repeat (7)(a)(i) but amortize the surplus in excess of the PBSA minimum surplus over 15 years. This will produce a lower contribution rate than in subsection (7)(a)(i) as the surplus is being used up more rapidly.

- (iii) The amortization is to be done at each valuation using rolling 25/15 year periods, on an open group basis.
- (iv) As long as the total contribution rate is within the above range, i.e. between the rates with 15 year and 25 year amortization, then the current rate will continue unchanged, i.e. the surplus in excess of the PBSA minimum surplus is effectively used as contribution stabilization reserve.
- (v) If the current contribution rate is higher than the rate using 25 year amortization then there is an “excess basic surplus”.
- (vi) If the current contribution rate is lower than the rate using 15 year amortization then the contribution rate must be raised to the rate based on 15 year amortization.
- (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 amortization band; if the total rate falls below the 15 year (lower) band, then an increase is needed; if the total rate is larger than the 25 year (higher) band, there is excess basic 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.

8 Transfers to support indexing at the current target level

- (a) If there is “excess basic surplus” after amortizing the surplus in excess of the PBSA minimum surplus over a 25 year period, the priority will be to transfer assets to the IAA to support indexing at the current maximum sustainable level.
- (b) Surplus will be transferred from the Basic Account to the IAA as follows:
 - (i) Calculate the “required basic surplus”. This is the amount of surplus in excess of the PBSA minimum surplus that is required in the Basic Account so that the current Basic contribution rate equals the required contribution rate calculated using a 25 year amortization period. The PBSA minimum surplus, the required basic surplus and the excess basic surplus added together will equal the total surplus in the Basic Account.
 - (ii) Calculate the total assets required to keep the maximum sustainable indexing (see section III on sustainable indexing) at its current level. These “required total assets” should ideally consist of an amount in the Basic Account equal to the basic liability plus the PBSA minimum surplus, plus the required basic surplus, with the balance of the funds required to support the maximum sustainable indexing at its current level in the IAA. Accordingly,
 - (l) If the total assets are less than or equal to the required total assets, transfer the

entire excess basic surplus to the IAA.

- (II) If the total assets are more than the required total assets, transfer the portion of the excess basic surplus that is sufficient to ensure that the maximum sustainable indexing remains at its current level when taking into account only the PBSA minimum surplus, required basic surplus and the assets in the IAA (after the transfer).
- (III) The remaining balance of the excess basic surplus may be used as described in (9) below.

9 Other use of surplus

- (a) If there is any excess basic surplus remaining after adjusting the rate stabilization reserve and making any transfers to the IAA to support indexing at the target level, the trustees may:
 - (i) Make a further transfer to the IAA account to increase the target level of indexing or strengthen the likelihood of maintaining the target level
 - (ii) Increase benefits
 - (iii) Reduce the contribution rate
 - (iv) Leave it as an additional contribution stabilization reserve.
- (b) Given the expectation that a situation where there is a remaining balance of excess basic surplus will not arise in the near future, the trustees have not set further priorities for excess surplus use at this stage.
- (c) The treatment of excess surplus is, of course, subject to the ITA rules regarding permissible contributions to a plan. In particular, the ITA does not allow contributions if the surplus exceeds certain levels. At all times, the surplus must be managed so that the contributions to the plans are permissible in terms of the ITA.
- (d) 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 at the current maximum sustainable level and will require that an appropriate amount be allocated to the IAA account to meet this cost.

III. Sustainable Indexing

1 Application

- (a) Thereafter, sustainable indexing will be provided in accordance with section 73 (4) of the Plan rules. In other words, sustainable indexing will be the lesser of:
 - (i) the increase in the average CPI for the 12 months ending October 31 over the highest average CPI for any previous 12 month period ending October 31, and,
 - (ii) the maximum sustainable indexing rate set by the Board,
provided there are sufficient funds in the IAA to meet the cost of the increase.
- (b) The maximum sustainable indexing rate will be set by the Board, based on the advice of the actuary, every three years as part of the triennial valuation.
- (c) Pensions will not be reduced in years of deflation.
- (d) In years immediately following a period of deflation, pensions will only be increased as described above once there is net positive inflation over the period since the pensions were last increased.

2 Objective

- (a) The key objective is to offer a maximum sustainable indexing rate that, as much as possible, minimizes intergenerational inequity.
- (b) The maximum sustainable indexing rate is the level rate of indexing that is estimated to be sustainable indefinitely taking into account the overall resources of the Plan.
- (c) It is anticipated that the maximum sustainable indexing rate will vary every three years as a result of experience gains or losses, or actuarial basis changes.
- (d) A key objective is to provide indexing fairly to members over time.
- (e) An important secondary objective is to stabilize, to the extent possible, the maximum sustainable indexing rate. In other words, it is desirable that the maximum sustainable indexing rate does not change significantly from one valuation period to the next.

3 Risks to Sustainable Indexing

- (a) The main risk to sustainable indexing is providing indexing at a rate that is too high in the short to medium term, causing the Inflation Adjustment Account to become depleted and indexing to future generations of pensioners to fall significantly. This is addressed by means of the sustainability framework described in this funding policy.
- (b) Sustainability can be negatively affected by poor real investment returns (i.e. poor investment returns in excess of inflation). Poor real investment returns could cause the sustainable level of indexing to drop to a level that causes the purchasing power of the pensions provided to significantly erode over time. This risk is managed by means of the plan's investment policy.
- (c) In addition to adjusting the sustainable indexing rate as part of the triennial actuarial valuation, as described below, scenario testing of the IAA is carried out annually using a simplified model of the IAA and its ability to provide indexing at the sustainable level.

4 Method

The maximum sustainable indexing rate will be set following each valuation as follows:

- (a) The rate will be based on a valuation of the total Plan, i.e. the Basic account plus the IAA will be taken into account.
- (b) The actuarial basis for this assessment will be the same as that used for the corresponding Basic Funding valuation, but using best estimate investment return and inflation assumptions, i.e. with the margins for adverse deviations in the investment return and inflation assumptions removed.
- (c) As for the Basic Account assessment, asset values and investment returns should be smoothed over a five-year period. To prevent the IAA from being run down faster than appropriate in periods of extremely weak investment returns, the smoothed value of all the assets should be limited to no more than 105% of the market value of the assets. The actuary should monitor the difference between the smoothed and market value of assets and discuss the implications of the gap with the Board during the valuation process.
- (d) The actuary will calculate the level rate of increase that can be sustained over the lifetime of the current members of the Plan, taking into account:
 - (i) The smoothed value of the assets in the Basic and IAA accounts,

- (ii) The value of the contributions to the Basic Account at the rate required by the corresponding Basic Account valuation,
 - (iii) The current contributions to the IAA, and
 - (iv) Any future increases already approved by the Plan Partners.
- (ii), (iii) and (iv) together are referred to as the "available contributions"
- (e) In assessing the sustainable indexing rate, the contribution rate required to fully fund the Plan at the maximum sustainable indexing rate must be set equal to the long term level equivalent of the available contributions. The required contribution at the maximum sustainable indexing rate will consist of the entry age normal cost of the Plan when benefits are indexed at the sustainable rate, plus the amount required to amortize any resulting surplus or unfunded liability over an infinite period, on an open group basis, i.e. based on the current payroll of the Plan membership allowing for increases at the assumed salary increase rate. The effect of this approach is that at the maximum sustainable indexing rate, the required contribution rate will be a level rate that is expected to be sustainable indefinitely into the future.

5 Funding levels

- (a) Pursuant to JTA, the Board does not have the authority to raise overall contribution rates except in the case where the Plan must increase contributions to the Basic Account due to a requirement of the PBSA. As a result, the Board cannot raise overall contribution rates to improve the funded status of the IAA and thus it is impossible for the Board to guarantee any level of inflation protection. The Plan will, however, adjust pensions annually by the amount the actuary determines can be paid sustainably.

Given that, the Board is satisfied that capping inflation adjustment levels at the sustainable rate set by the actuary is sufficient to meet the objective of maintaining the funded ratio as is.

- (b) In the event that, given the current and known future expected contributions to the IAA, the actuary determines that there are more assets in the IAA than are necessary to make full inflation adjustments on a sustainable basis, the contributions directed to the IAA will continue to be made at the same level so as to create an asset cushion that increases the probability that the Plan will be able to continue making full inflation adjustments on a sustainable basis even if the returns on assets are less than expected.

IV. Communication

The Funding Policy will be posted on the College Pension Plan website. The Board will also maintain a plain language publication titled “How Your Pension is Funded” to clarify this policy for plan members.

V. 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 Date:	September 1, 2009
Revision Dates:	December 9, 2009 September 18-19, 2012 June 6-7, 2013 December 3-4, 2015 March 22-23, 2016 June 9-10, 2016

Appendix 1

Illustrative example of Basic contribution rate setting (purely hypothetical)

- NC (normal cost) = 17% total
- current rate = $2 \times 6.5\%$ = 13% total
- Surplus (on entry age basis) is such that NC (i.e. 17%) minus amortization of surplus gives us a required contribution rate of
 - (i) 15% over 25 years
 - (ii) 12% over 15 years
- in this case, the current 13% rate is greater than the minimum 12% threshold, so continue with 13%
- if instead, the 25-year rate is 16%, and
the 15-year rate is 15% say
then the contribution rate must be increased to 15%
- if the 25-year rate is 12%, and
15-year rate is 11%
then Trustees may consider further reduction to 12% or other usage of excess surplus after first transferring funds to the IAA to maintain the current maximum sustainable indexing.

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

Threshold Rates	Actual Rates
Normal Cost	
Normal cost reduced by 25 year amortization	If current rate here – excess surplus, consider options, after first ensuring sustainable indexing is maintained at its current level
Normal cost reduced by 15 year amortization	If current rate here – no change
	If current rate here – increase to 15 year rate