

The University of New Brunswick
Shared Risk Plan for Academic Employees of
the University of New Brunswick

Funding Policy

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Overview

This funding policy (“Funding Policy”) contains an overview of key information regarding the pension funding and benefit adjustment requirements in respect of the Shared Risk Plan for Academic Employees of the University of New Brunswick (the “Plan”) which has been established upon conversion of the Pension Plan for Academic Employees of the University of New Brunswick (the “Prior Plan”) to a shared risk plan effective July 1, 2013 (the “Conversion Date”). Upon completion of the application for registration, the Plan will be registered under the Pension Benefits Act (New Brunswick).

The purpose of the Funding Policy is to provide the rules under which the Board of Trustees is required to manage the contributions and benefits under the plan.

This Funding Policy must be reviewed at least once per year by the Board of Trustees and shall only be amended with the agreement of both The University of New Brunswick and the Association of University of New Brunswick Teachers, collectively referred to hereinafter as the Parties.

I. Definitions

Any terms not defined in this document have the same meaning as defined in the official Plan document, unless the context clearly indicates otherwise.

“Benefit Improvement” means an escalated adjustment for past periods or an increase in other Ancillary Benefits allowed under the funding policy.

“Funding Deficit Recovery Plan” means the funding deficit recovery plan established under the Funding Policy, that contains both the priority order and the level of changes that may be implemented in order to recover from Funding Levels which are below the level indicated in the Funding Policy

“Funding Excess” means the amount, if any, by which the Funding Policy Assets exceed the Funding Policy Liabilities at the relevant valuation date.

“Funding Excess Utilization Plan” means the funding excess utilization plan established under the Funding Policy, that specifies when excess funds can be used for improvement of benefits and how much of the excess can be allocated for that purpose at each annual actuarial valuation of the Plan.

“Funding Level” means the ratio of Funding Policy Assets over Funding Policy Liabilities at the relevant valuation date.

“Funding Policy Assets” means the market value of assets of the Fund at the relevant valuation date, without smoothing, plus the present value of excess contributions over the normal cost for Base Benefits and Ancillary Benefits other than potential future COLA, in respect of the 15 years following the relevant valuation date.

“Funding Policy Liabilities” means the Funding Policy Liabilities of the Plan determined at the relevant valuation date in accordance with the Funding Policy and the Applicable Legislation.

“Permanent Benefit Change” means a change that is intended to permanently change the formula for the calculation of the Base Benefits or Ancillary Benefits after the date of the change, including a change made in accordance with the Funding Excess Utilization Plan.

II. Nature of Shared Risk and Risk Factors

2.1 *Nature of Shared Risk*

- (a) The purpose of the Plan is to provide secure, but not guaranteed, pension benefits to Members of the Plan with a risk focused management approach to deliver a high degree of certainty that Base Benefits can be met in the vast majority of potential future economic scenarios.
- (b) Pursuant to the Pension Legislation, all rights to future cost of living adjustments after the Conversion Date are extinguished for all Members of the Prior Plan and all rights to future increases to accrued pensions arising from the application of the best average salary formula in respect of past service under the Prior Plan after the Conversion Date are extinguished for all active Members of the Prior Plan. These future adjustments are replaced by contingent indexing under the Plan as allowed under this Funding Policy.
- (c) The required funding and risk management framework has been established by the Parties pursuant to the Pension Legislation mandating that an appropriate allocation be made within the required contribution formula to accumulate additional funds such that there is a reasonable expectation, but no guarantee, that some COLA can be granted.
- (d) The required funding and risk management framework has also been designed to result in a low probability of Base Benefits ever being reduced. The Funding Deficit Recovery Plan contains specific steps to recover from unacceptable Funding Levels that will take priority over any reduction of the Base Benefits. However, in unlikely circumstances, Base Benefits may need to be reduced and if this occurs, priority will be given to the reversal of this reduction once Funding Levels allow, as specified in the Funding Excess Utilization Plan.

2.2 *Risk Factors*

- (a) Volatility in the Plan's Funding Level in future years will arise from a variety of factors including, but not limited to, the following:
 - (i) Investment performance (e.g., poor/good stock and/or bond returns, bond defaults);
 - (ii) Liability experience different than expected (e.g., higher/lower inflation, increase/decrease in the funding policy discount rate, unanticipated mortality improvements or early retirements, tax limit increase);

- (iii) Unforeseen demographic shifts (e.g., rapidly aging workforce, reduction/increase in workforce); and
 - (iv) Unforeseen changes in pension legislation or case law.
- (b) Future contribution levels and/or benefits under the Plan may change as a result of such volatility in Funding Levels, as described in this Funding Policy.

III. Risk Management Goals

3.1 *Primary Risk Management Goal*

- (a) The primary risk management goal for the Plan shall be that there is at least a 97.5% probability that past Base Benefits will not be reduced in any year over a 20-year projection period, after taking into account the following:
 - (i) The Funding Deficit Recovery Plan (as defined in Section VI), other than the reduction in Base Benefits; and
 - (ii) The Funding Excess Utilization Plan (as defined in Section VII).
- (b) A test of the position of the Plan relative to the primary risk management goal shall be conducted each year. However, in accordance with the regulatory requirements, the primary risk management goal shall only need to be met on:
 - (iii) the Conversion Date;
 - (iv) the date a Permanent Benefit Change is made;
 - (v) the date a Benefit Improvement is made; and
 - (vi) the date cumulative increases or cumulative decreases in contribution rates exceed the adjustments described in paragraph 5.2(a).

3.2 *Secondary Risk Management Goal*

- (a) The secondary risk management goal for the Plan shall be that the total COLA expected to be provided, on average over a 20-year projection period, as a percentage of the total eligible Base COLA, will not be less than:
 - (i) 75% of the cumulative percentage increase in CPI for each year on or after the Conversion Date in respect of the accrued benefits for members who have not retired, terminated employment or died; plus
 - (ii) 75% of the cumulative annual indexing that would have been provided if the Prior Plan had not been converted to the Plan in respect of:

- (A) Pensions in payment for members who have retired, surviving spouses or beneficiaries in receipt of a pension; and
 - (B) Pensions payable for Members with a deferred pension entitlement.
- (b) A test of the position the Plan relative to the secondary risk management goal shall be conducted each year. However the secondary risk management goal shall only need to be met on:
- (i) the Conversion Date; and
 - (ii) the date a Permanent Benefit Change is made.

IV. Risk Management Procedures

4.1 Application of Risk Management Procedures

- (a) A funding policy valuation must be performed at least once every 12 months to determine the Funding Levels and whether or not any actions set forth in this Funding Policy are required to be taken.
- (b) The primary and secondary risk management goals set out in Section III must be tested at least once every 12 months using a stochastic asset/liability model. Such tests must take into account the current Funding Policy, including the Funding Deficit Recovery Plan and Funding Excess Utilization Plan set out under Sections VI and VII, respectively. The results of such tests shall show the probabilities associated with the risk management goals.

4.2 Stochastic Asset/Liability Model

- (a) In accordance with Pension Legislation, the model must be approved by the New Brunswick Superintendent of Pensions and be based on at least 1,000 economic scenarios over a 20-year projection period, resulting in a minimum of 20,000 observations of the financial position of the Plan.
- (b) The model must forecast the Funding Policy Liabilities of the Plan using membership data from the plan's most recent actuarial valuation under each simulated economic scenario. The liability forecasts must be combined with asset portfolio simulations to generate integrated financial results on a stochastic basis.
- (c) The model must capture the funding policy requirements and risk management framework applicable to the Plan. Specifically, the model must determine what funding policy actions would be triggered in each year over the 20-year projection period, based on the projected funding policy valuation results for each simulated economic scenario.
- (d) For each scenario and for each year, the funding policy financial position of the Plan must be calculated and a decision consistent with the Funding Deficit Recovery Plan or the Funding Excess Utilization Plan, as applicable, must be modeled.
- (e) If, in any given year of a given scenario, the application of the Funding Deficit Recovery Plan would trigger a reduction of Base Benefits, a failure must be recorded. In order to meet the primary risk management goal, no more than 2.5% of the simulated scenarios can result in a failure.

- (f) For each scenario, the total cumulative conditional indexing granted at the end of the 20-year projection period must be compared with the total percentage increase in CPI and the amount of indexing that would have been provided under the Prior Plan prior to conversion. In order to meet the secondary risk management goal, the ratio of the total conditional increase granted over the expected increase must be at least 75%.
- (g) For the purpose of testing the risk management goals, once COLA has been granted in a given year, it forms part of the Base Benefits for the remaining years of that simulated economic scenario.
- (h) Details on the assumptions used for the funding policy valuation and asset/liability modeling as at the Conversion Date are provided in the Appendix.

4.3 Limitations of the Risk Management Procedures

- (a) Because of the nature of the primary and secondary risk management goals established for the Plan pursuant to Pension Legislation, the modeled results may be acutely sensitive to changes in the assumptions employed and the model used.
- (b) While the asset/liability model and the assumptions employed will need to be approved for use by the New Brunswick Superintendent of Pensions, it is important to note that other acceptable models and assumptions could in theory produce different results.
- (c) The results presented in any actuarial report are not intended nor should they be interpreted to represent a guarantee or warranty with respect to the future financial condition of the Plan.
- (d) Moreover, any determinations of probabilities based on the model represent simulated outcomes and should not be interpreted as being actual probabilities.

V. Contribution Requirements

5.1 *Initial Contributions*

(a) Subject to applicable limits under the *Income Tax Act* and Sections 5.2 and 5.3, with effect from the Conversion Date, each Member who is an Academic Employee and who is not in receipt of a retirement pension shall be required to contribute to the Fund of the Plan by payroll deduction Initial Contributions equal to the sum of:

(i) X% of Pensionable Salary up to the Y.M.P.E.; plus

(ii) Y% of the Pensionable Salary up to the Post-Conversion Maximum Pensionable Salary, in excess of the Y.M.P.E.

The above X and Y rates shall be determined by the Board of Trustee as of the Conversion Date and for each year thereafter so that:

(i) Y% is equal to X% plus 1.7%; and

(ii) the estimated total contributions made by the Members for each year or part thereof equal 11.5% of total Pensionable Salary limited to the Post-Conversion Maximum Pensionable Salary for that period.

(b) Subject to Sections 5.2 and 5.3, the University shall contribute Initial Contributions equal to the total of the Members' Initial Contributions determined in accordance with paragraph 5.1(a).

5.2 Contribution Adjustments

- (a) The contribution requirements established under paragraphs 5.1(a) and 5.1(b) above for the Members who are Academic Employees and the University, respectively, may be adjusted by the Board of Trustees from time to time subject to the triggering mechanism and limitations imposed by the Funding Deficit Recovery Plan and the Funding Excess Utilization Plan, the applicable limits under the *Income Tax Act* and paragraphs 5.3(a) and 5.3(b) below, and the conditions that the contribution requirements:
 - (i) established under paragraph 5.1(a) above for each Member who is an Academic Employee shall not be increased or decreased by an amount greater than 2.25% of Pensionable Salary; and
 - (ii) for the University shall, at all times, be equal to the total of the Members' contributions, including any adjustments made in accordance with paragraph (i) above.
- (b) The timing of any change in the contribution rates in accordance with Sections V, VI or VII must be implemented within 12 months of the review date of the most recent actuarial valuation report that identified a need for an increase or decrease in contributions.

5.3 Contribution Holidays

- (a) Contribution Holidays will only be permitted if required under the *Income Tax Act* and after all actions permitted under the Funding Excess Utilization Plan in Section VII have been implemented.
- (b) Contribution Holidays will apply to both Members who are Academic Employees and to the University equally and will only be applied to the extent required under the *Income Tax Act*.

5.4 General Contribution Provisions

- (a) Member and University bi-weekly contributions shall be remitted by the University to the Board of Trustees as required by the Board of Trustees in compliance with Applicable Legislation from time to time.
- (b) The contribution rates were established at the Conversion Date to provide the security levels for both Base Benefits and Ancillary Benefits in accordance with the risk management goals described in Section III, taking into account the risk management procedures described in Section IV.

5.5 Permanent Benefit Changes

- (a) The Initial Contributions defined under paragraphs 5.1(a) and 5.1(b) shall be recalculated if a Permanent Benefit Change is made. Such change must be approved by both parties and will require both risk management goals to be met on the date the Permanent Benefit Change is made.
- (b) If the amount of Initial Contributions recalculated under paragraph (a) is higher than the amount in 5.1(a), the Permanent Benefit Change shall not be made unless approved by the Superintendent.
- (c) If approved by the Superintendent, the initial Contribution rates shall be increased to the level recalculated under paragraph (b) no later than 12 months after the review date of the first actuarial valuation report that included the Permanent Benefit Change in the Funding Policy Liabilities.
- (d) In the event that a future negotiation between the Parties should result in the adoption of a materially different PTR Adjustment scale, this change will be considered a Permanent Benefit Change for the purpose of paragraph (a). For greater certainty, annual increases made to the PTR Adjustment scale to reflect economic adjustments shall not trigger this provision.

VI. Funding Deficit Recovery Plan

6.1 *Funding Deficit Recovery Plan*

- (a) If two future successive annual valuations reveal a Funding Level of less than 100%, this Funding Deficit Recovery Plan shall be implemented.
- (b) Within 12 months of the review date that caused the implementation of the Funding Deficit Recovery Plan, the Board of Trustees shall submit to the Superintendent a report that details how the Funding Deficit Recovery Plan will be applied and demonstrates to the satisfaction of the Superintendent that the Plan is expected to meet the primary risk management goal referred to in Section III.
- (c) The Funding Deficit Recovery Plan shall require the following actions be applied in succession until the applicable funding objectives and risk management goals established under Section III are met:
 - (i) Increase contribution rates in accordance with Section V;
 - (ii) Reduce Base Benefits on a proportionate basis for all Members regardless of membership status for both past and future service in equal proportions.
- (d) If the Funding Deficit Recovery Plan is implemented, the actions taken under (c) above shall be sufficient to meet both:
 - (i) The primary risk management goal established under Section III; and
 - (ii) A Funding Level of 105%.
- (e) If the Funding Deficit Recovery Plan has been implemented, then before any future COLA is granted, first priority must be given to reversing the actions under (c) above, in reverse order of application.

- (f) Any decrease in Base Benefits in accordance with paragraph (c)(ii) above, must be implemented no later than 18 months of the review date of the most recent actuarial valuation report that identified a need for the implementation of the funding deficit recovery plan, unless sufficient improvement has occurred after that review date such that it can be demonstrated to the satisfaction of the Superintendent that the reduction is not required.

- (g) The timing for any increase in contribution rates is covered under Section V.

VII. Funding Excess Utilization Plan

7.1 *Funding Excess Utilization Plan*

- (a) This Funding Excess Utilization Plan shall be applied when an actuarial valuation reveals a Funding Level greater than 105%.
- (b) Subject to paragraph (h), the following actions shall be applied under the Funding Excess Utilization Plan, in order of priority:
 - (i) Reverse any reductions in Base Benefits previously made in accordance with paragraph 6.1(c)(ii), in respect of future payments only, subject to the condition that the Funding Level remains greater than 105% after such action is applied.
 - (ii) Eliminate any contribution increases previously made in accordance with paragraph 6.1(c)(i), subject to the condition that the Funding Level remains greater than 105% after such action is applied.
 - (iii) Provide Base COLA, in respect of future payments only, based on the COLA determined for the current year and for any past year for which it was missed or only partially granted, in accordance with paragraph (c) below.
 - (iv) The following actions shall be applied with equal priority:
 - (A) Provide PTR Recapture, in respect of future payments only, in accordance with paragraph (d) below.
 - (B) Decrease contributions in accordance with paragraph (e) below.
 - (v) Maintain any additional Funding Excess in the Fund of the Plan, subject to any Contribution Holidays required under the *Income Tax Act*.
- (c) Subject to the priority of actions defined in paragraph (b), Base COLA granted under paragraph (b)(iii) above shall be subject to the following conditions:
 - (i) The annual allocation of Funding Excess for purposes of granting Base COLA is the sum of:

- (A) 17% of the Funding Excess, if any, that makes up the difference between:
 - (1) the lesser of the Funding Level at the actuarial valuation date and 140%; and
 - (2) 105%; plus
 - (B) If the Funding Level is greater than 140%, 100% of the Funding Excess, if any, that makes up the difference between the Funding Level at the valuation date and 140%.
- (ii) The amount of eligible Base COLA permitted in respect of a given year shall be comprised of:
- (A) Eligible Base CPI COLA, for a Member who was not retired, terminated employment or died at the relevant date, determined in accordance with the formula set out under paragraph 10.03 of the Plan for that year and for any prior year that such Base CPI COLA was missed or only partially granted since the Conversion Date.
 - (B) Eligible Base Pension COLA, for Members who retired, surviving spouses or beneficiaries in receipt of a pension and Members with a deferred pension entitlement at the relevant date, determined in accordance with the indexing formulae set out under paragraph 10.04 of the Plan for each year that such indexing was missed or only partially granted since the later of the Conversion Date, the date of retirement or termination or the date of the last full Base Pension COLA was granted by the Board of Trustees.
- (iii) Base COLA applies to all Members in equal proportion regardless of status at the date the Eligible Base COLA is granted. If the Funding Excess is not sufficient to grant 100% of the Eligible Base COLA, a prorata portion of all Eligible Base COLA will be granted to each eligible Member.
- (iv) Notwithstanding the foregoing, in no circumstances shall the amount of Base COLA granted to any Member exceed the maximum increase permitted under the *Income Tax Act*.
- (d) Subject to the priority of actions established under paragraph (b), PTR Recapture granted under paragraph (b)(iv)(A) above, shall be subject to the following conditions:

- (i) The annual allocation of Funding Excess for purposes of granting the PTR Recapture is 50% of any amount remaining under paragraph (c)(i) after the maximum Base COLA has been granted in accordance with paragraph (c)(ii)
 - (ii) The amount of eligible PTR Recapture permitted under the Funding Policy for a given year is equal to the amount required to increase the Indexed PTR Adjustment and the Indexed Professor Salary Ceiling to the actual PTR Adjustment and salary ceiling of the rank of Professor, respectively, in accordance with the Collective Agreement in effect on the relevant date.
 - (iii) Notwithstanding the foregoing, in no circumstances shall the PTR Recapture granted to any Member exceed the maximum increase permitted under the *Income Tax Act*.
- (e) Subject to the priority of actions under the Funding Excess Utilization Plan, any contribution decreases implemented under paragraph (b)(iv)(B) shall be subject to the following conditions:
- (i) Initial contribution rates will be subject to a decrease should a future valuation reveal a Funding Level of 140% or over, excluding any such contribution decrease from the Funding Policy Assets.
 - (ii) The annual allocation of Funding Excess for purposes of granting the contribution decrease is 50% of any amount remaining under paragraph (c)(i)(B) after the maximum Base COLA has been granted in accordance with paragraph (c)(ii).
 - (iii) Once a future actuarial valuation reveals a Funding Level of less than 140%, any such contribution decrease will be eliminated or reduced on a prorata basis until the Funding Level returns to at least 140%, excluding any such contribution decrease from the Funding Policy Assets.
- (f) Any benefit increase resulting from Base Pension COLA, Base CPI COLA or PTR Recapture will be provided effective January 1st of the next calendar year following the review date. References to “given year” and “year” are to be read in that context.
- (g) The timing for any decrease in contribution rates is covered under Section V.
- (h) Notwithstanding the foregoing, if in the opinion of the Board of Trustees, further to discussions with the plan actuary, an amount of Funding Excess would have a negligible impact on either the contribution rate or the members’ benefits, such

amount may, at the Board of Trustees' discretion, remain unattributed and be maintained in the Fund of the Plan.

VIII. Expenses

- 8.1 All expenses for the Plan shall be paid from the fund of the Plan unless otherwise agreed by the Parties.

IX. Funding Policy Assumptions

9.1 *Funding Policy Assumptions as at Conversion Date*

The funding policy valuation and risk management tests conducted in respect of the Plan as at the Conversion Date shall be carried out using the assumptions summarized below.

Discount rate	4.5% per annum
Mortality basis	UP-94 Generational Table using a projection scale modified to reflect life expectancy for professors.
Retirement rates	The retirement assumption shall be the same as that used for the actuarial valuation of the Prior Plan as at July 1, 2012 ("2012 Valuation")
New entrants	Retiring and terminating members are assumed to be partially replaced by new entrants such that the active population will decrease by 5% over the 20-year projection period. The membership profile for future new entrants was determined based on the membership profiles of the actual new entrants identified in the 2012 Valuation.
Capital market assumptions	Reflects Towers Watson's capital market model assumptions as at July 1, 2013.
Other valuation assumptions	Reflects the assumptions used for the Prior Plan 2012 Valuation.

Additional details on the assumptions described above shall be provided in the initial actuarial valuation report of the Plan as at the Conversion Date.

9.2 *Annual Review Process*

Unless otherwise noted, the economic and demographic assumptions may be changed by the Board of Trustees upon advice from the Plan's Actuary.

In general, the economic assumptions should be reviewed annually based on current market conditions and future expectations and updated as required. The demographic assumptions should be fully reviewed at least once every five years (or more frequently if deemed necessary) to ensure they remain consistent with recent plan experience and future expectations as determined by the Board of Trustees based on information provided by the Parties.

The table below provides additional considerations for reviewing specific assumptions for the purpose of future valuations.

Discount rate	This assumption must remain unchanged for at least the first two funding policy valuations after the Conversion Date. Future discount rates will be determined in a manner consistent with the objectives of the Plan and will include margins for adverse deviation. It is expected that the discount rate will remain fairly stable over the long-term.
Mortality basis	This assumption should be reviewed annually. Future changes to the mortality basis will be considered in accordance with guidance from the Canadian Institute of Actuaries and will be subject to the approval of the Superintendent.
Retirement rates	The retirement rate assumption will be changed as may be required in the future to reflect any material changes in retirement patterns resulting from changes in the unreduced retirement date from 85 points to age 65.
New entrants	<p>New entrant profiles should be reviewed at least once every three years (or more frequently if deemed necessary) based on the profile of actual new entrants identified in prior actuarial valuations and future expectations determined by the Board of Trustees based on information provided by the Parties.</p> <p>The assumption regarding future changes to the size of the workforce should also be reviewed annually based on information provided by the Parties.</p>