

CARLETON UNIVERSITY RETIREMENT PLAN

*ADDENDUM TO STAGE 1 PROGRESS
REPORT AS AT JULY 1, 2013 PREPARED
PURSUANT TO TEMPORARY SOLVENCY
FUNDING RELIEF MEASURES FOR
CERTAIN PENSION PLANS IN THE
BROADER PUBLIC SECTOR*

JANUARY 2014

UPDATED

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Introduction

At the request of Carleton University, we have conducted an actuarial valuation of the Carleton University Retirement Plan (“the Plan”), sponsored by Carleton University, as at July 1, 2013 in order to prepare a Stage 1 Progress Report pursuant to the Temporary Solvency Funding Relief Measures for Certain Pension Plans in the Broader Public Sector.

This report is an addendum to the Stage 1 Progress Report as at July 1, 2013 dated December 2013. The December 2013 report was updated to reflect membership data as at July 1, 2013.

Purpose

The purpose of this valuation is to calculate the metrics necessary to demonstrate that Carleton University has achieved the criteria required to be approved for Stage 2 of the Temporary Solvency Funding Relief Measures for Certain Pension Plans in the Broader Public Sector. Specifically, Carleton University has achieved both of the following:

- Employer and members share more equally in the normal cost going forward;
- Adjustments to pension benefits/ancillary benefits in respect of future service/and or realignment of employer and employer normal cost going forward satisfy the Savings Target.

Governance of the Plan

The Plan became effective July 1, 1958. A history of the Plan is included in Section 8. The Plan is a single-employer hybrid pension plan with a defined contribution money purchase component and a defined benefit minimum guarantee component. The Plan is sponsored by Carleton University who is responsible for all matters relating to the administration of the Plan.

Carleton University established a Pension Committee for the purpose of administration of the Plan. The Pension Committee is required to be comprised of the Director of Pension Fund Management, the Director of Human Resources or designate and members appointed or elected by the various university associations (academic and non-academic), collective bargaining agents and Board of Governors. All members of the Pension Committee are voting members.

Therefore, the Pension Committee works to ensure that the promised benefits can be delivered to Plan members during retirement. The Pension Committee does not make University human resources and/or operating decisions. Recommendations of the Pension Committee are subject to the approval of the Board of Governors upon the recommendations of the Finance Committee of the Board.

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Plan Changes

Recognizing the importance of a financially-stable Plan for all current and future Plan members, the Pension Committee researched a number of possibilities for managing the situation, including changes to the benefit design, funding policy, and investment policy of the Plan. The result of this work is the following amendments which have been approved by the University's Board of Governors and have been filed with the Financial Services Commission of Ontario (FSCO) and Canada Revenue Agency (CRA) on March 17, 2011:

- Effective July 1, 2011, increase members' contributions by up to 2% of pensionable earnings to the Minimum Guarantee fund until the earlier of 10 years or until such time as special payments to the Plan cease; and
- Effective July 1, 2012, make the early retirement reduction factors used in calculating Minimum Guarantee pensions equal to the actuarial equivalent factors currently being used to calculate Money Purchase pensions.

In addition to the above plan changes that were effective within 2 years of the Stage 1 valuation date of July 1, 2010, the plan was amended effective July 1, 2003 as follows:

- Bridge benefits have been removed from the Plan for members who had not attained age 55 (or who were not within 10 years of their normal retirement date) with 10 years of service as at July 1, 2003.
- For service and contributions on and after July 1, 2003, the non-reduction guarantee for pensions in payment no longer applies.

Pensions accrued prior to July 1, 2003 are guaranteed not to be reduced once in payment. Pensions accrued on or after July 1, 2003 may be increased or decreased based on the plan's annual pension adjustments (being the difference between the four-year arithmetic average fund rate of return and 6%). The removal of the non-reduction guarantee for pensions in respect of service on and after July 1, 2003 will result in greater reduction in both future university costs and pension plan's risk as more of the accrued service for plan members is after July 1, 2003.

Furthermore, Carleton University has reduced the pension plan's risk relating to post-retirement mortality by requiring Money Purchase account balances to be converted to Money Purchase pension using GAR-1994 generational mortality table instead of GAM-1994 static mortality table. This change in mortality table was phased in over 4 years from 2007 to 2010.

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Savings Target

The development of the Savings Target was shown in March 2011 application for Stage 1 funding relief, as follows:

The effective date of the Stage 1 valuation was as at July 1, 2010 and the effective dates of three previous valuations filed with the Financial Services Commission of Ontario were as follows:

- July 1, 2007
- July 1, 2006
- July 1, 2004

The Savings Target is calculated in the table below.

Valuation Date	Funded Ratio	
	Going Concern (A)	Solvency (B)
July 1, 2010	0.854	0.804
July 1, 2007	0.999	1.000
July 1, 2006	0.989	0.967
July 1, 2004	0.987	0.984
Average	0.957	0.939

$$\begin{aligned}
 \text{Savings Target} &= 1 - \text{minimum} (A , B) \\
 &= 1 - (\text{lesser of } 0.957 \text{ and } 0.939) \\
 &= 1 - 0.939 \\
 &= 0.061 \text{ or } 6.1\%
 \end{aligned}$$

The required reduction in present value of future university costs or in accrued liability from changes in contribution rates and/or changes in benefit provisions is 6.1% of the present value of aggregate benefits as at July 1, 2013 (the Stage 1 progress valuation date) for active members only in respect of past and future service.

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Valuation Results

In accordance with the requirements of the Temporary Solvency Funding Relief Measures for Certain Pension Plans in the Broader Public Sector, all the present value of future service benefits (PVFB), present value of future normal cost (PVFNC) and accrued liabilities have been determined as at the Stage 1 progress valuation date of July 1, 2013 based on membership data as at July 1, 2013 and using the same actuarial assumptions used in the Stage 1 valuation as at July 1, 2010. These amounts have been calculated based on provisions of the Plan as at July 1, 2010 and again based on the amended provisions of the Plan as at July 1, 2013.

Valuation Results as at July 1, 2013

In \$millions	Based on Plan Provisions as at July 1, 2010	Based on Plan Provisions as at July 1, 2013
a) PVFB	\$260	\$236
b) PVFNC	\$260	\$236
c) University portion of PVFNC	\$161	\$113 ⁽¹⁾
d) Employee portion of PVFNC	\$99	\$123 ⁽²⁾
e) Accrued liability	\$408	\$394
f) Ratio of University PVFNC to Employee FVFNC ((c) ÷ (d))	162%	92% - 138% ^{(1) (2)}

(1) Does not include University special payments with respect to past service funding deficits.

(2) Includes members' contributions to the Minimum Guarantee fund for 10 years. If special payments to the plan cease and no members' contributions are made to the Minimum Guarantee fund, then the ratio of University PVFNC to Employee PVFNC will be 138%.

The present value of aggregate benefits as at July 1, 2013 before any plan changes, for active members only in respect of past and future service, is estimated to be \$668 million. Therefore, the required reduction in present value of future university costs or in accrued liability from changes in contribution rates and/or changes in benefit provisions is estimated to be \$41million (6.1% of \$668 million as at July 1, 2013).

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The present value of future normal cost (employee portion) of the amendment to increase members' contributions, to be made to the Minimum Guarantee fund, is estimated to be \$24 million as at July 1, 2013.

The present value of aggregate benefits is estimated to decrease by \$37 million as at July 1, 2013 (\$23 million in respect of the present value of future benefits and \$14 million in respect of accrued liability) due to the amendment to change the early retirement reduction factors.

Therefore, the actual reduction in present value of future university costs (\$24 million from change in employee contribution rates plus \$23 million from change in benefit provisions for a total of \$47 million) and in accrued liability (\$14 million from change in benefit provisions) from the two amendments effective July 1, 2011 (change in contribution rates) and effective July 1, 2012 (change in benefit provision) total \$61 million which exceeds the required savings target.

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Satisfaction of Criteria for Approval to Stage 2 Funding Relief

As detailed in this application for Stage 2 relief under the proposed temporary solvency funding relief measures for certain pension plans in the broader public sector, the Carleton University Retirement Plan should meet the eligibility criteria to enter Stage 2 as:

- the Plan provides defined benefits;
- the Plan is not a multi-employer pension plan;
- the Plan is not a jointly-sponsored plan;
- the Plan is sponsored by Carleton University which is a broader public sector employer;
- Plan members continue to accrue defined benefits under the Plan;
- the Plan's Stage 1 valuation report as of July 1, 2010 indicated a ratio of assets to liabilities on both going-concern and solvency bases of less than 0.9;
- this application contains details of changes made to the Plan towards making it more sustainable in the long term and achievement of the Savings Target as of the Stage 2 valuation date of July 1, 2013.