AGENDA

Board Trustees
Brandon University Retirement Plan

Thursday, February 16, 2017
1:00 PM
Clark Hall Room #427

1.0 Call to Order

2.0 Approval of Agenda and Minutes

- 2.1 Approval of Agenda of February 16, 2017
- 2.2 Approval of Minutes of November 17, 2016

3.0 Connor, Clark & Lunn Investment Management Ltd

- 3.1 Investment Performance Review
- 3.2 SRA Overview

4.0 New Business

- 4.1 Brandon University Retirement Plan – Audit Plan 2016 (Todd Birkhan of BDO Canada)

5.0 Eckler Ltd (Andrew Kulyk)

- 5.1 2017 Pension Increase
- 5.2 Updated Financial Position of Plan as at December 31, 2016 & Estimated 2017 University Contributions
- 5.3 2016 Actuarial Valuation Assumptions
- 5.4 CPP Expansion
- 5.5 Longevity Risk Management

6.0 Continuing Business

- 6.1 Review of Pension Trust Agreement

7.0 Correspondence

- 7.1 Invoices – CIBC Mellon

CIBC Mellon Invoice 171637. Custodial fees for Sept '16	$8,330.63
CIBC Mellon Invoice 173264. Custodial fees for Oct '16	$8,771.69
CIBC Mellon Invoice 174577. Custodial fees for Nov '16	$8,802.50
CIBC Mellon Invoice 176166. Custodial fees for Dec '16	$9,034.00

7.2 Invoices - Eckler Ltd

Eckler Ltd invoice 0192BUN01/0325 for Professional Services For the period covering July to September 2016	$612.94
Eckler Ltd invoice 0194BUN10/0351 for Administration Services For the period July to September 2016	$12,271.46
Eckler Ltd invoice 0192BUN01/0419 for Professional Services For the period covering October & November 2016	$1,322.41
Eckler Ltd invoice 0194BUN10/0446 for Administration Services For the period October to December 14, 2016	$13,017.80
Eckler Ltd invoice 0192BUN01/00007 for Professional Services For the period covering December 2016	$488.25

7.3 Invoices – Connor, Clark & Lunn

CC&L invoice 229056-1241 for Management Fees For the period covering October 1 to December 31, 2016	$120,403.20
CC&L invoice 229706-1241 for Management Fees For the period covering January 1 to March 31, 2017	$119,495.54

8.0 For Information

8.1 February 1, 2017 Engagement Letter from The Office of the Auditor General
8.2 List of Pension Trustees

9.0 Upcoming Meeting Dates

June 8, 2017 (Clark Hall Room #427)
November 9 or November 23, 2017 (?) – Decision to be made

BRANDON UNIVERSITY

Brandon University Retirement Plan

Board of Trustees

Meeting Minutes

Thursday, February 16, 2017

Present: Heather Gillander (Chair), Tanya Cantlon, Ian Smith, George Manby, John Rice, Scott Lamont (recorder), Sharon Hooper

Regrets: Shawn Chambers, Todd Fugleberg, Becky Lane

Guests: Brent Cuvelier, Lori Satov and Tim Bradshaw of Connor, Clark & Lunn

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1.0 Meeting called to order at 1:05 pm

2.0 Approval of Agenda & Minutes

2.1 Approval of Agenda of February 16, 2017

Motion: Moved and Seconded (Cantlon/Manby)

BE IT RESOLVED THAT THE agenda of the meeting of the Brandon University Pension trustees for February 16, 2017 be approved.

CARRIED

2.2 Approval of Minutes of November 17, 2016

Motion: Moved and Seconded (Smith/Rice)

BE IT RESOLVED THAT THE minutes of the Brandon University Pension trustees for the November 17, 2016 meeting be approved.

CARRIED

3.0 Connor, Clark & Lunn Investment Management Ltd (Lori Satov)

3.1 Investment Performance Review

The following points were highlighted in the presentation:

- Markets
  - In 2016, markets fell in the first part of the year and then the market rose to year end.
  - Bonds – people moved out of bonds as interest rates rose, especially in the fourth quarter.
  - Equities – laggards from 2015 outperformed in 2016, such as energy and materials. Dividend paying stocks (defensives) outperformed in 2015 but lagged in 2016. Value stocks have not performed as well since 2008. Value p/e, p/cf, p/bv (p/bv) are the three factors that identify value stocks, such as Magna
  - CC&L will show both the old funds and new ones (per the agreed changes) for the next few periods, for the information of Trustees.
  - Bonds outperformed last quarter, for the year, and more
  - Equities – SRA really outperformed as it is Value based
  - International equities – NS partners performed very poorly – looking for liquidity – over and underweights were wrong calls
  - Asset mix – right on benchmark at quarter end 2016, overweight equities in 2017.
  - Economy had already turned prior to the US election so is not entirely due to the business-friendly President.
  - Markets are expansionary in Developed and Emerging markets.
  - Interest rates are rising and the Fed is looking to raise rates
  - Interest rates are rising because of pick up in the economy and not particularly because of Trump.
  - Risks exist as well and CC&L is watching. Markets have priced in Trumps rhetoric on many business friendly policies. What is not priced in are backlash from protectionist and immigration policies. How will tax cuts to corporations be spent? Companies are cash rich but they are not investing back into the business and instead are rewarding shareholders. Reflects uncertainty in the market.

No significant changes at CC&L have occurred in the last quarter but did mention that Larry Lunn will officially retire in March 2017.

In accordance with what the Pension Trustees and the Board of Governors approved in December 2016, CC&L transitioned the asset mix and the changes are reflected in the current reports.

4.0 New Business

4.1 Brandon University Retirement Plan – Audit Plan 2019

Todd Birkhan of BDO Canada spoke to the pension trustees about the 2016 audit plan. Mr. Birkan represents BDO as well as the Provincial Auditor and they are independent of the University. The following points were highlighted:

- BDO does the front end work following their audit plan and then BDO sends their work to the Provincial Auditor who issues the opinion on the statements, which come back to the Trustees.
- The Auditor General who is governed by the Auditor General Act reports to the Legislative Assembly

- GAAS standards guide the audit process, with room for customization for each business.
- BU has to have systems in place to capture and effectively operate so that information is captured and reported to the BOG, Trustees, etc.
- BDO/AG - are the statements good enough to allow the management and Board to make decisions?
- Test transactions based on size of transactions, and risks (such as disclosures in the Notes of the Statements. Assets and Liabilities are the two major items that are tested. An error a couple of years ago that misstated the discount rate has led to a change in the way the audit is done to ensure that type of error doesn't occur again. Auditor and Actuary work as a team.
- Within Eckler they have checks and balances that ensure error that no one else can catch are caught within Eckler before the numbers leave the firm. Likewise, they rely on the systems in CIBC Mellon that feeds information into the BURP Financial Statements.
- BDO tests Financial and Registration Services systems for BU but relies on the quality of Eckler's processes generally, without testing.
- Materiality has been set at $1.5 million, the same as for 2015.
- Audit reports are presented to the Trustees at the end of the process, particularly if anything has changed.

The Trustees thanked Mr. Birkan for his presentation and noted that they did not have any questions or concerns.

5.0 Eckler Ltd

5.1 2017 Pension Increase

The Pension Plan provides for an automatic pension increase for pensioners effective July 1, 2017 when the rate of return on the investments in the Plan exceed 6% for the year ended December 31, 2016. The increase is based on the "excess return" up to the rate of CPI, also measured December 31, 2016 for the previous year. In addition, if there is more excess return than what is needed to meet CPI, and if there had been previous years when the pension increases did not meet CPI, a supplementary pension increase may be authorized by the Board of Governors, on the recommendation of the Pension Trustees.

The Pension Trustees recommended a supplementary increase of 0.21% on top of the CPI increase of 1.5% for a total pension increase of 1.71%.

5.2 Updated Financial Position of Plan as at December 31, 2016 & Estimated 2017 University Contributions

Andrew Kulyk of Eckler Ltd prepared an estimate of the going-concern financial position of the Brandon University Retirement Plan as at December 31, 2016 and University contribution for the 2017 calendar year.

Using a 5.55% interest rate, the estimated 2017 University contribution would decrease from 2016. It was noted that the investment asset mix does affect the assumption in the Plan valuation.

5.3 2016 Actuarial Valuation Assumptions

Andrew Kulyk of Eckler Ltd highlighted the following items in a presentation on the process for the upcoming valuation of the Plan:

Valuation refresher

Relevant environment

Valuation assumptions

The following motion was moved and seconded (Rice/Manby)

BE IT RESOLVED THAT THE discount rate be set at 5.55%.

CARRIED

A second motion was moved and seconded (Rice/Lamont)

BE IT RESOLVED THAT THE Brandon University Pension Trustees recommend to the Board of Governors to increase the pension top-up to a maximum of $100,000.

CARRIED

5.4 CPP Expansion

In October 2016, the federal government introduced Bill C-26, an Act to Amend the Canada Pension Plan, the Canada Pension Plan Investment Board Act and the Income Tax Act.

The expansion will be phased in over seven years starting in 2019. Any changes to the BU Plan in response will have to be negotiated between the employer and BUFA. Without changes to the Plan, pensions will increase, however, both members and employer will have to contribute more to CPP.

5.5 Longevity Risk Management

There is a new plan available to insure for longevity risk in pension plans. Scott, Mike Emsley and Bernie from of U of M went to Winnipeg to hear the Eckler expert from Club Vita. The issue is whether the BURP is better to buy an insurance policy to ensure future payments relative to life expectancy or to allow the Plan to fluctuate and absorb it over time. Club Vita will do additional calculations which will help determine whether the insurance premiums are a good deal compared to our estimate of those future payments from the Plan.

6.0 Continuing Business

6.1 Review of Pension Trust Agreement

The sub-committee have met and considered the Trust Agreement.

7.0 Correspondence

Invoices for agenda items 7.1 through 7.3

Motion: Moved and Seconded (Rice/Smith)

BE IT RESOLVED THAT THE Brandon University Pension trustees approve the payment after the fact of the invoices from agenda items 7.1 through 5.3.

CARRIED

8.0 For Information

8.1 February 1, 2017 Engagement Letter from The Office of the Auditor General

Shared with Trustees for information

8.2 List of Pension Trustees

Shared with Trustees for information

9.0 Upcoming Meeting Dates

June 8, 2017
November 23, 2017

10.0 Adjournment

Meeting was adjourned

CONNOR, CLARK & LUNN
INVESTMENT MANAGEMENT

FOURTH QUARTER 2016 REVIEW

Lori Satov

February 16, 2017

BRANDON UNIVERSITY RETIREMENT PLAN

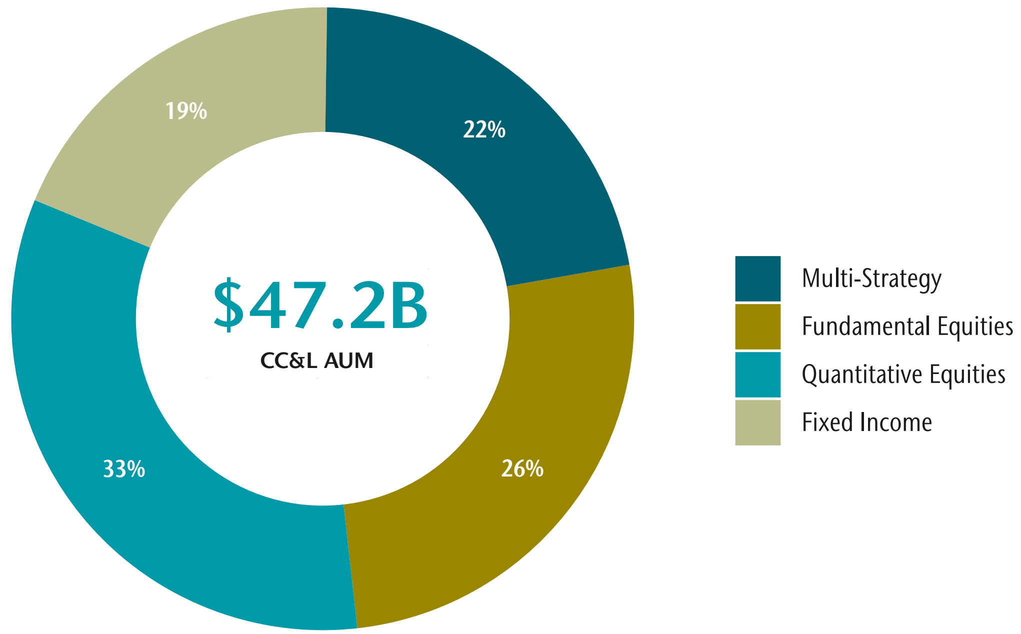
CC&L ORGANIZATIONAL UPDATE

December 31, 2016

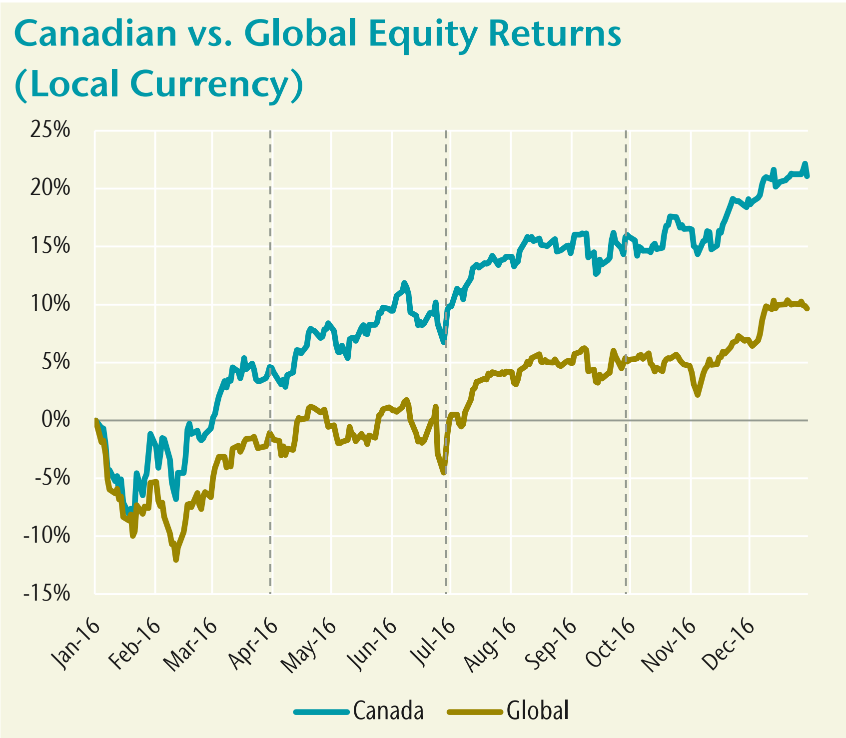
OWNERSHIP

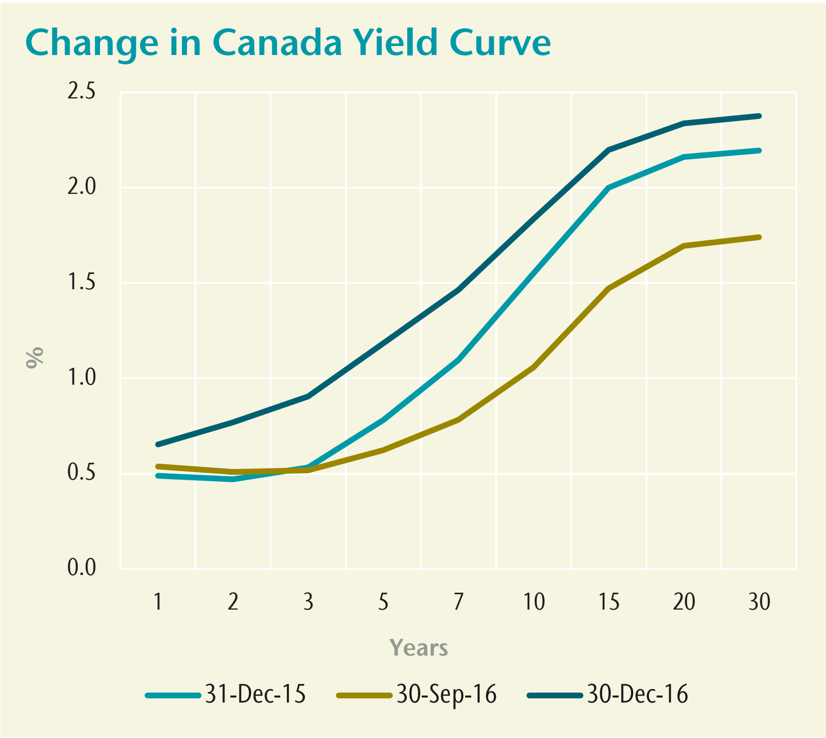
- No changes to structure
- Partner-owned
- Succession plan

CC&L AUM Breakdown by Strategy



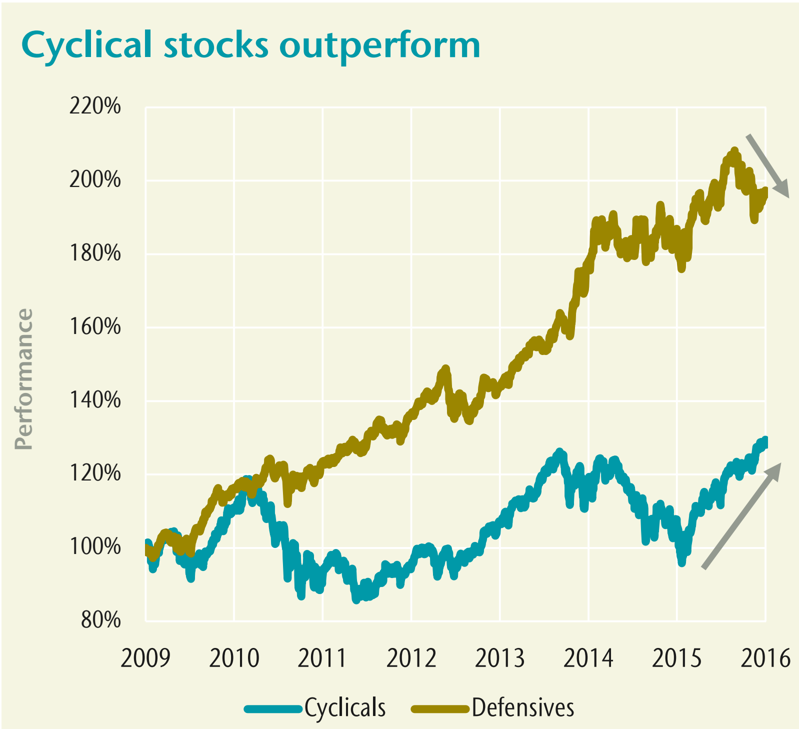
FINANCIAL MARKETS POST SOLID GAINS



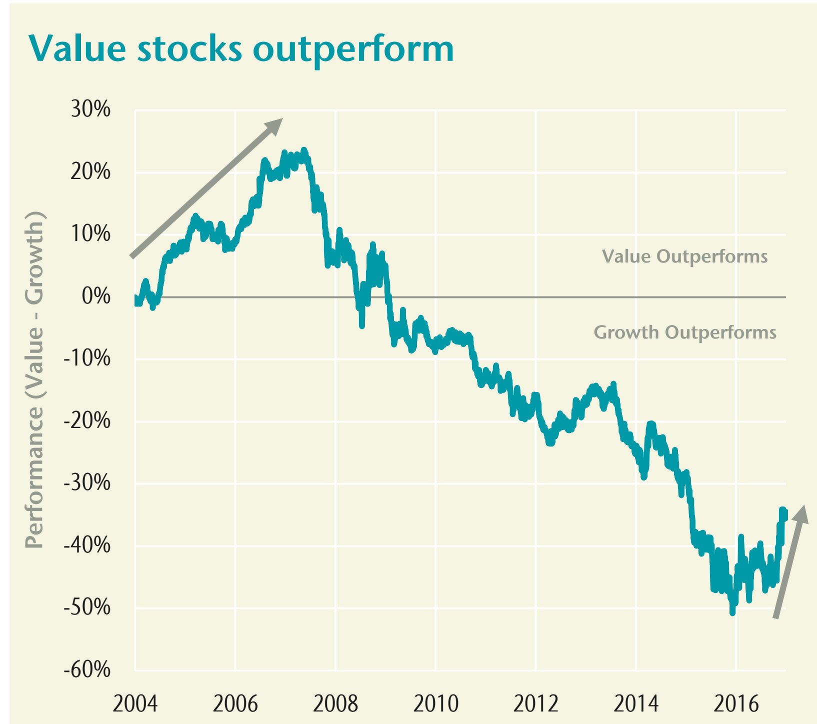


Source: Thomson Reuters Datastream, MSCI Barra

ROTATION IN MARKET LEADERSHIP



Equal weighted. Cyclicals: Energy, Materials, Industrials, Financials, Technology, Consumer Discretionary. Defensives: Consumer Staples, REITs, Telecom, Utilities. Excludes Health Care



Relative price performance of the Russell 3000 Value Index less the Russell 3000 Growth Index

Source: Thomson Reuters

INVESTMENT PERFORMANCE

	Q4 2016	Since Inception[1]	1 yr	2 yr	3 yr	4 yr	5 yr	10 yr
			Annualized Returns to December 31, 2016 (%)					
Brandon University Retirement Plan	**1.8**		**8.5**	**6.4**	**7.2**	**9.6**	**9.6**	**5.6**
Benchmark*	1.6		9.0	6.0	7.4	8.7	8.5	5.2
Added Value	**0.2**		**-0.5**	**0.3**	**-0.2**	**0.8**	**1.2**	**0.4**
Fixed Income	**-2.7**	**1.2**	**2.9**	**3.3**	**5.1**	**3.7**	**3.9**	**5.1**
CC&L Bond Fund**	-3.3		2.3	3.0	4.9	3.6	3.8	5.1
FTSE TMX Canada Universe Bond Index	-3.4		1.7	2.6	4.6	3.1	3.2	4.8
CC&L Long Bond Fund		1.3						
FTSE TMX Canada Long Term Overall Bond Index		1.3						
CC&L High Yield Bond Fund		0.7						
High Yield Benchmark***		0.6						

All returns are gross of fees. Added Value may differ due to rounding to one decimal.

[1] Performance shown Since Inception December 19, 2016.

* 25% S&P/TSX Composite Index & 15% S&P500 Index (CAD$) & 15% MSCI EAFE Index (CAD$) & 5% MSCI Emerging Markets Net (CAD$) & 1.5% Merrill Lynch US High Yield Cash Pay BB Index (CAD$) & 1.5% Merrill Lynch US High Yield Cash Pay BB Index (Hedged to CAD) & 1.5% FTSE TMX Canada Universe BBB Bond Index & 0.5% Merrill Lynch Canada BB-B High Yield Index & 35% FTSE TMX Canada Long Term Overall Bond Index.

Benchmark effective December 19, 2016. Previous benchmark was 35% S&P/TSX Composite Index & 12.5% S&P500 Index (CAD$) & 12.5% MSCI EAFE Index (CAD$) & 35% FTSE Canada Universe Bond Index & 5% FTSE TMX Canada 91 Day Tbill Index.

**CC&L Bond Fund transitioned into CC&L Long Bond Fund on December 19, 2016.

*** 30% Merrill Lynch US High Yield Cash Pay BB Index (CAD$) & 30% Merrill Lynch US High Yield Cash Pay BB Index (Hedged to CAD) & 30% FTSE TMX Canada Universe BBB Bond Index & 10% Merrill Lynch Canada BB-B High Yield Index.

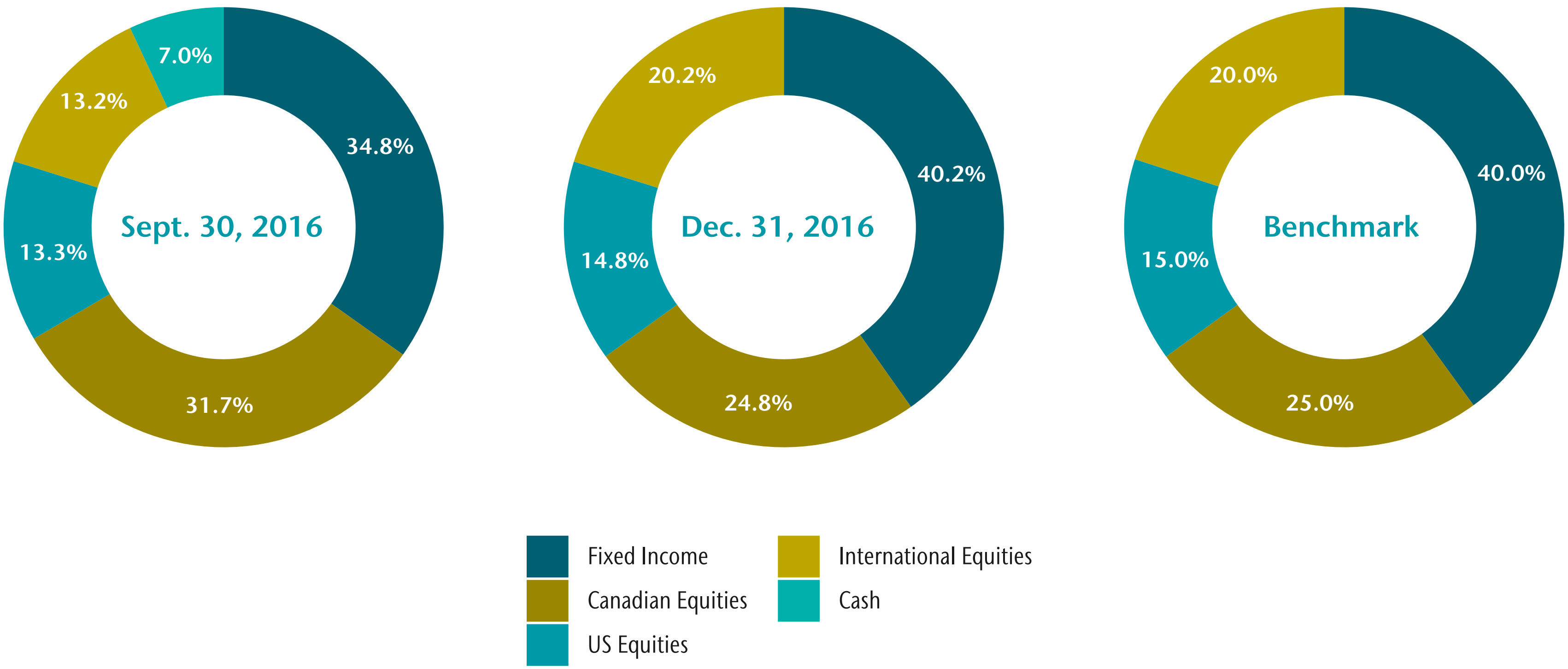
**** CC&L Canadian Q 120/20 Fund transitioned into CC&L Q Equity Extension Fund on December 19, 2016.

INVESTMENT PERFORMANCE CONT'D

	Q4 2016	Since Inception[1]	1 yr	2 yr	3 yr	4 yr	5 yr	10 yr
			Annualized Returns to December 31, 2016 (%)					
Canadian Equities	**5.3**		**21.9**	**6.5**	**6.8**	**9.9**	**10.0**	**5.5**
CC&L Q Equity Extension Fund****	2.7	0.2	22.2	9.2	10.9	14.9	14.0	
SRA Canadian Equity Fund	9.6		28.0	8.7	7.2	8.9	9.4	4.7
PCJ Canadian Equity Fund	3.5		18.4	5.0	6.2	8.8	8.9	5.2
S&P/TSX Composite Index	4.5	0.3	21.1	5.4	7.1	8.5	8.2	4.7
CC&L US Equity Fund	**7.1**		**9.5**	**15.0**	**17.4**	**24.3**	**22.5**	**9.0**
S&P500 Index (CAD$)	5.9		8.1	14.6	17.7	23.2	21.2	8.5
NS Partners International Equity Fund A	**-0.6**		**-8.2**	**6.7**	**5.2**	**11.1**	**13.0**	**2.7**
MSCI EAFE Index (CAD$)	1.3		-2.0	8.2	6.8	12.5	13.1	2.7
CC&L Q Emerging Markets Equity Fund		1.1						
MSCI Emerging Markets Net		1.7						

All returns are gross of fees. Added Value may differ due to rounding to one decimal.
[1] Performance shown Since Inception December 19, 2016.
* 25% S&P/TSX Composite Index & 15% S&P500 Index (CAD$) & 15% MSCI EAFE Index (CAD$) & 5% MSCI Emerging Markets Net (CAD$) & 1.5% Merrill Lynch US High Yield Cash Pay BB Index (CAD$) & 1.5% Merrill Lynch US High Yield Cash Pay BB Index (Hedged to CAD) & 1.5% FTSE TMX Canada Universe BBB Bond Index & 0.5% Merrill Lynch Canada BB-B High Yield Index & 35% FTSE TMX Canada Long Term Overall Bond Index.
Benchmark effective December 19, 2016. Previous benchmark was 35% S&P/TSX Composite Index & 12.5% S&P500 Index (CAD$) & 12.5% MSCI EAFE Index (CAD$) & 35% FTSE Canada Universe Bond Index & 5% FTSE TMX Canada 91 Day Tbill Index.
**CC&L Bond Fund transitioned into CC&L Long Bond Fund on December 19, 2016.
*** 30% Merrill Lynch US High Yield Cash Pay BB Index (CAD$) & 30% Merrill Lynch US High Yield Cash Pay BB Index (Hedged to CAD) & 30% FTSE TMX Canada Universe BBB Bond Index & 10% Merrill Lynch Canada BB-B High Yield Index.
**** CC&L Canadian Q 120/20 Fund transitioned into CC&L Q Equity Extension Fund on December 19, 2016.

PORTFOLIO STRUCTURE – ASSET MIX STRATEGY



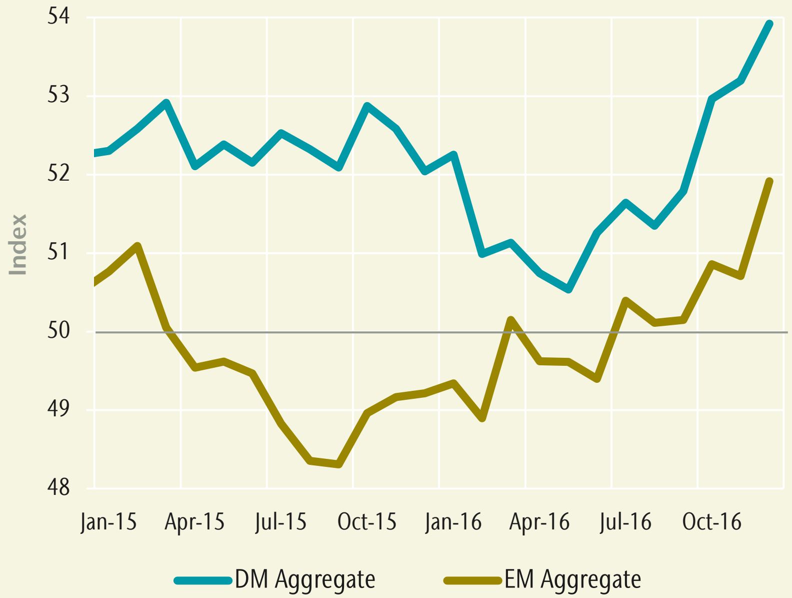
Source: Connor, Clark & Lunn Financial Group Ltd.

ECONOMIC & FIXED INCOME MARKET OUTLOOK

POSSIBLE SYNCHRONIZED EXPANSION

Activity has picked up around the world

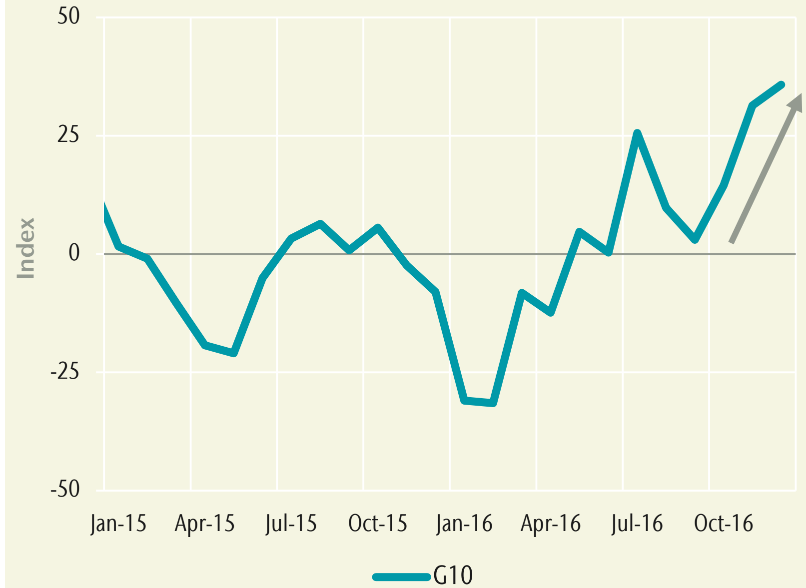
Markit Purchasing Managers Indices



Source: IHS Markit Economics

Economic data stronger than expected

Citigroup Economic Surprise Index

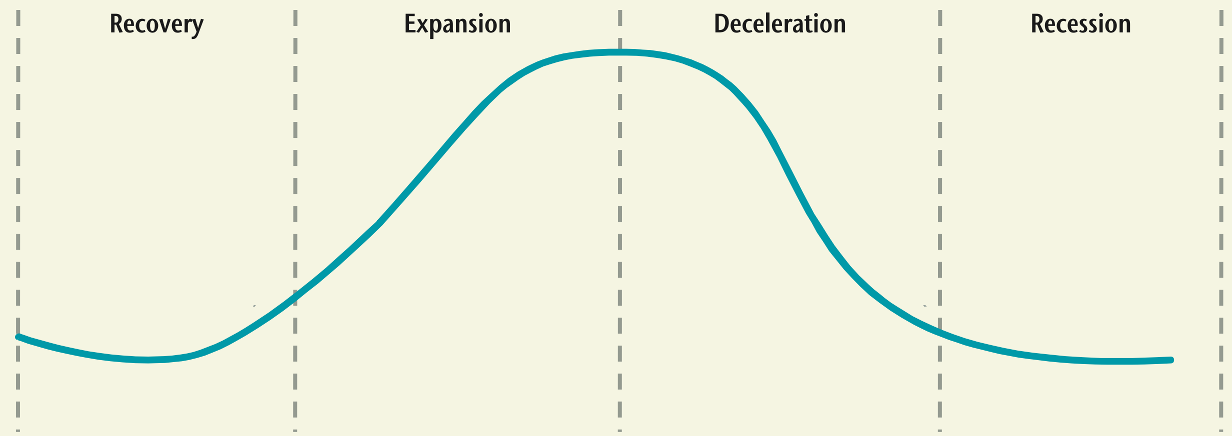


Source: Citigroup Global Markets Inc., Bloomberg

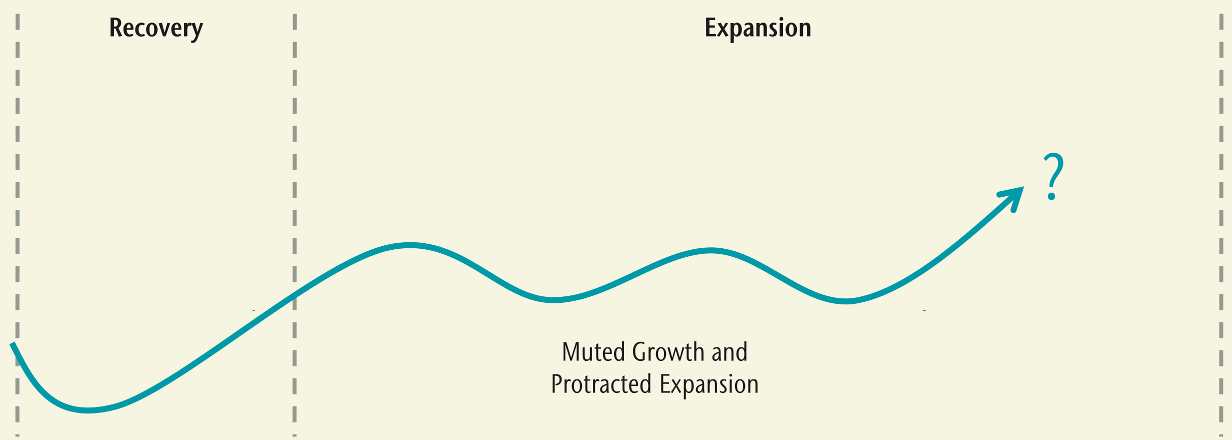
Economic indicators turning higher and surprising to the upside

SHIFT TO HIGHER GROWTH ENVIRONMENT?

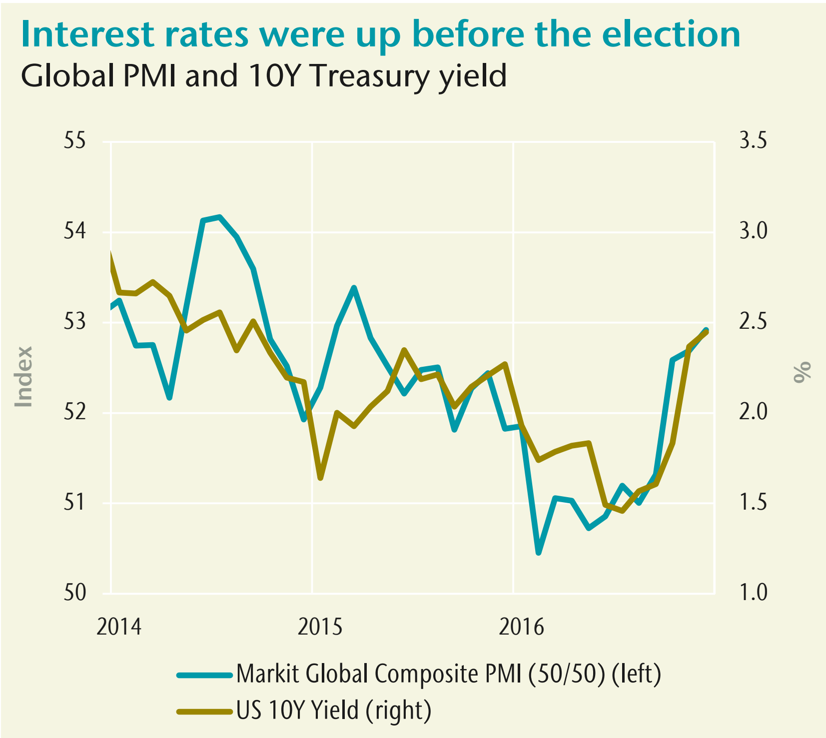
TYPICAL CYCLE



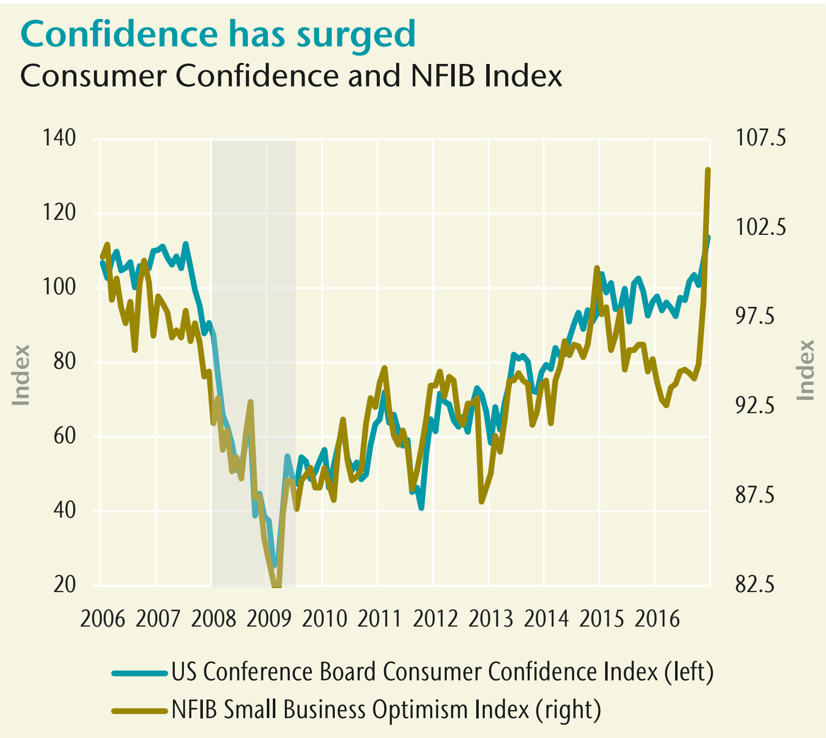
CURRENT CYCLE



YIELDS ARE HIGHER: ECONOMY OR POLITICS?



Source: IHS Markit, Datastream



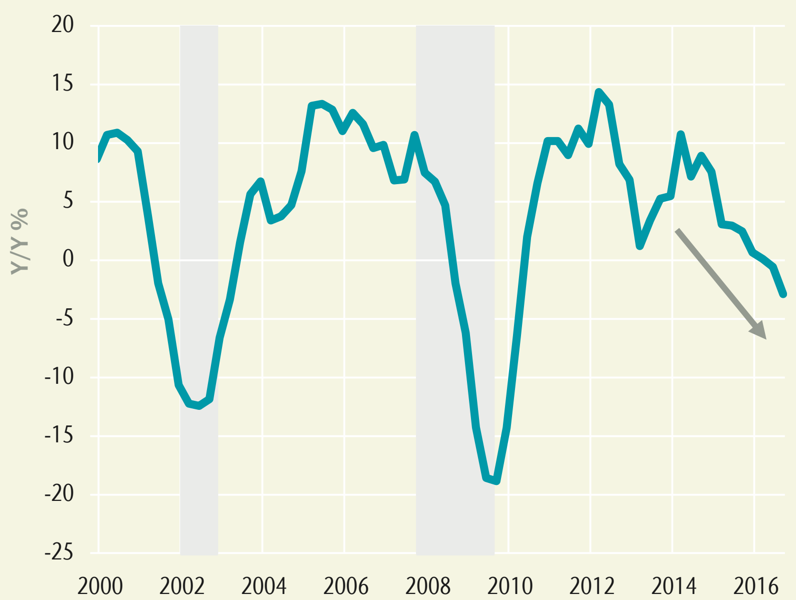
Source: US Conference Board, National Federation of Independent Businesses
* Grey area denotes US recession

Sense of optimism in the US recently, but things looked better before the election

WHAT WE WILL WATCH TO SEE IF THIS UPSWING LASTS

Businesses have not boosted productivity

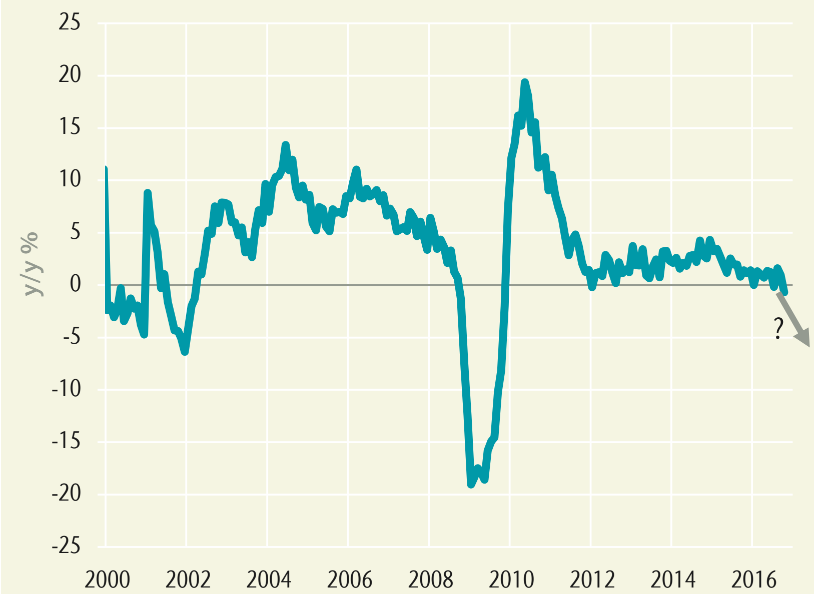
US non-financial business fixed investment



Source: Datastream, Bureau of Economic Analysis
* Grey area denotes US recession

Biggest risk: protectionism

World trade volumes



Source: CPB Bureau for Economic Policy Analysis

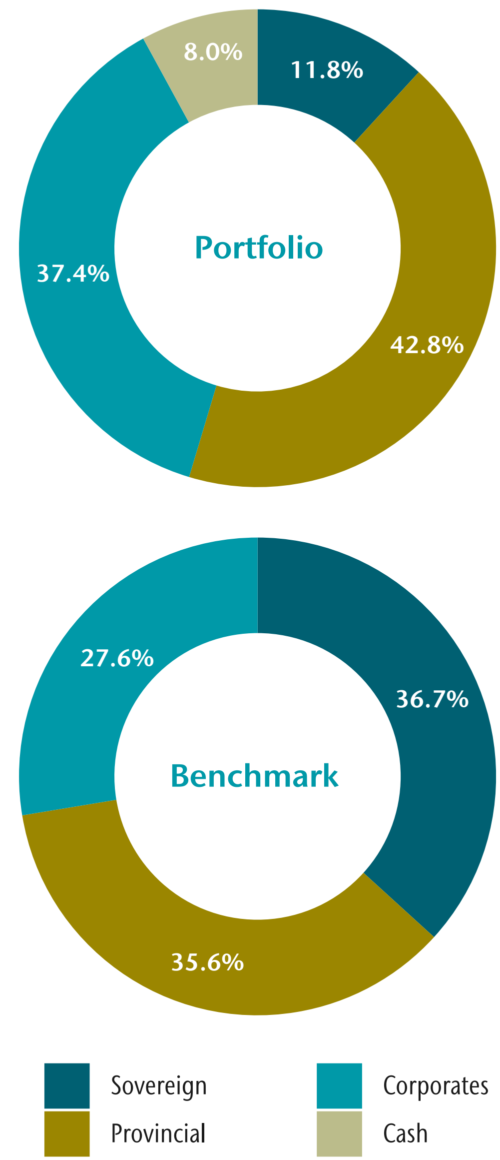
- What will businesses do with newfound tax cuts or repatriated earnings?

- World trade volumes have flatlined, but could be headed for contraction

Q4 FIXED INCOME STRATEGY REVIEW

Investment Themes

- Interest rates have moved higher, but risks remain
  - » Downsides from US policies
  - » Financial conditions have tightened
  - » Structural problems ongoing
- Further yield curve steepening expected
- Credit premium
  - » Near term benefits from nominal GDP growth
  - » Longer term risk from international factors
  - » Prefer higher quality assets



Q4 CANADIAN EQUITY STRATEGY REVIEW AND POSITIONING

PCJ – Growth Strategy

- Anticipating pro-growth reflationary policies will benefit economically cyclical sectors.
  - » Underweight defensive sectors (telecom and utilities)
  - » Overweight banks due to steeper yield curve and deregulation
  - » Overweight exploration and production companies

SRA – Value Strategy

- Portfolio positioned to benefit from strong U.S. economic growth and rising rates
  - » Overweight the basic materials, integrated energy, banks and consumer discretionary sectors
  - » Avoiding overvalued perceived safety stocks: pipelines, utilities, and REITs

CC&L Q Equity Extension Fund

- Overall level of investment opportunity in-line with longer term
  - » Value and Quality opportunity continue to increase
  - » Momentum aligned with neutral economic outlook.

Q4 CANADIAN EQUITY STRATEGY POSITIONING

December 31, 2016

	Portfolio Weight	Index Weight Under/Over
Energy	20.2%	-1.2%
Materials	12.3%	0.5%
Industrials	10.2%	1.4%
Consumer Discretionary	6.0%	0.9%
Consumer Staples	2.8%	-1.0%
Health Care	0.1%	-0.5%
Financials	38.8%	3.8%
Technology	2.3%	-0.5%
Communication	4.2%	-0.6%
Utilities	1.8%	-1.1%
Real Estate	0.7%	-2.4%

Benchmark: S&P/TSX Composite Index. Cash = 0%
Source: Connor, Clark & Lunn Financial Group Ltd.

Q4 US EQUITIES STRATEGY REVIEW AND POSITIONING

- Increased tilt towards cyclical rather than defensive market environment.
  - Increased regional banks and industrials to overweight
  - Reduced overweights in gold and consumer staples

Sector Position as at December 31, 2016

	Portfolio Weight	Index Weight Under/Over
Energy	4.0%	-3.6%
Materials	5.1%	2.3%
Industrials	10.6%	0.3%
Consumer Discretionary	10.2%	-1.8%
Consumer Staples	13.0%	3.6%
Health Care	8.3%	-5.3%
Financials	16.8%	2.0%
Technology	20.1%	-0.7%
Communication	2.9%	0.2%
Utilities	4.1%	1.0%
Real Estate	4.5%	1.6%

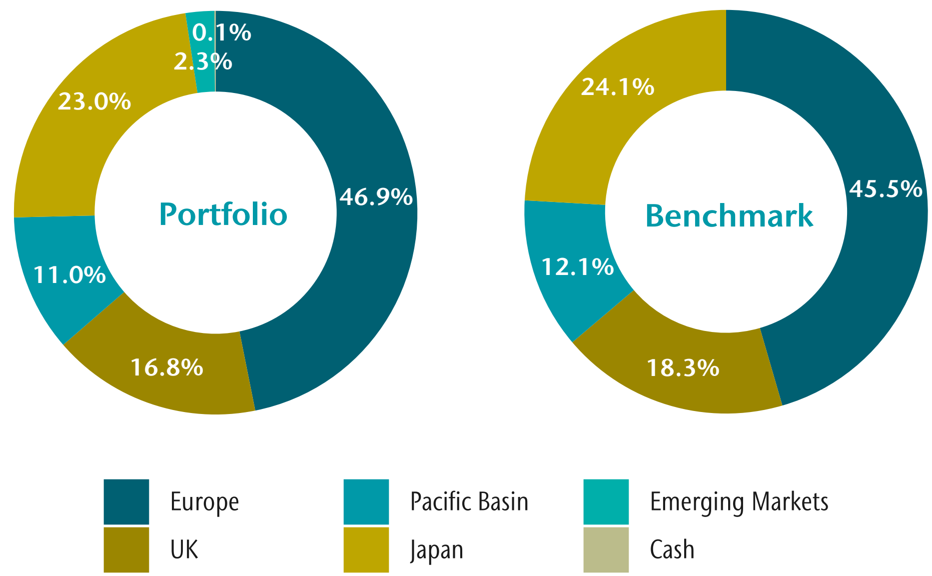
Benchmark: S&P/TSX Composite Index. Cash = 0.5%
Source: Connor, Clark & Lunn Financial Group Ltd.

Q4 INTERNATIONAL EQUITY STRATEGY REVIEW AND POSITIONING

	Portfolio Weight	Index Weight Under/Over
Energy	5.0%	-2.3%
Materials	10.7%	5.7%
Industrials	12.0%	0.8%
Consumer Discretionary	12.3%	0.0%
Consumer Staples	9.3%	-0.4%
Health Care	10.4%	-1.6%
Financials	21.2%	3.2%
Information Technology	10.0%	-4.6%
Telecommunications	6.2%	2.9%
Utilities	0.0%	-3.2%
Real Estate	2.7%	-0.5%

Benchmark: MSCI All Country World Index, Cash = 0.1%.

- More cautious approach to equity markets for 2017
- Overweight UK and Japan due to developed savings industries which perform better during volatile markets
- Sector exposure
  - Overweight materials, with a focus on companies that benefit from increased infrastructure spending
  - Underweight energy, with no exposure to service or exploration companies



Source: Connor, Clark & Lunn Financial Group Ltd.

SRA

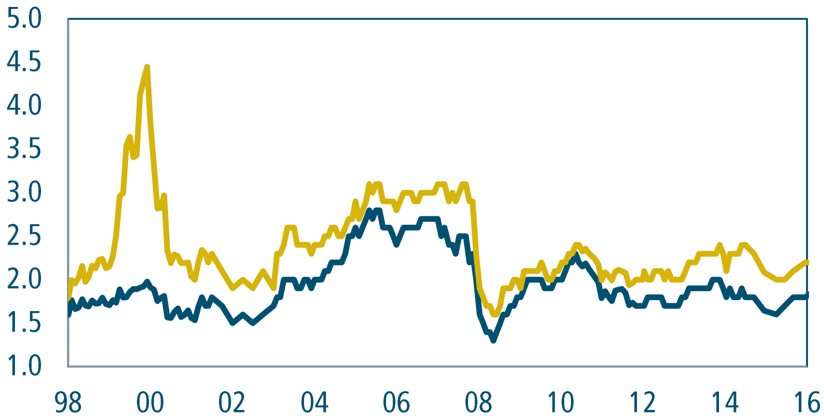
Value Characteristics

True value portfolio, consistently at lower valuations versus the market

Price/Earnings (x)

Price/Cash Flows (x)

Price/Book (x)



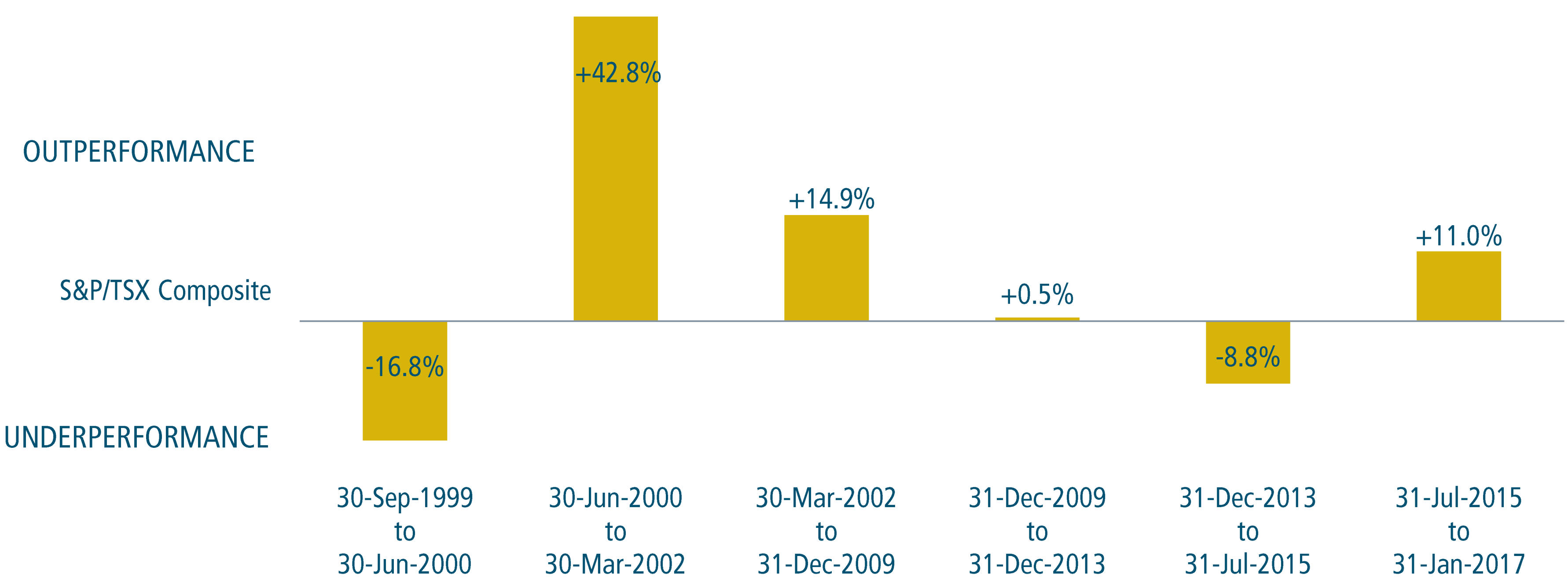
— Scheer Rowlett

— S&P/TSX Composite

Source: Scheer Rowlett & Associates; Thomson Reuters Datastream
Updated to December 31, 2016

Consistent application of investment approach rewards longer term

SRA Canadian Equity Relative Performance (Time Periods Below)



Number of Years	**0.75**	**1.75**	**6.75**	**4.0**	**1.58**	**1.5**

Source: Scheer Rowlett & Associates
All returns are gross of fees except where noted.
Since Inception: December 31, 1995

SRA's opportunity for additional outperformance

Portfolio Overweight Positions

Ticker	Portfolio Overweight	Fwd P/E (P/CF*)
CM	3.6%	10.9X
RY	3.1%	13.1X
WJA	2.3%	9.6X
AGU	3.2%	22X
SU	2.5%	7.5X*
MG	2.6%	8.1X
Total	**17.3%**	

Portfolio Underweight Positions

Sector	Portfolio Underweight	Fwd P/E
Pipelines	-4.1%	25X
Real Estate	-2.7%	28X
Utilities	-1.8%	21X
Total	**-8.6%**	

TOTAL > 25.9%

Source: SRA Canadian Equity Fund, December 31 2016

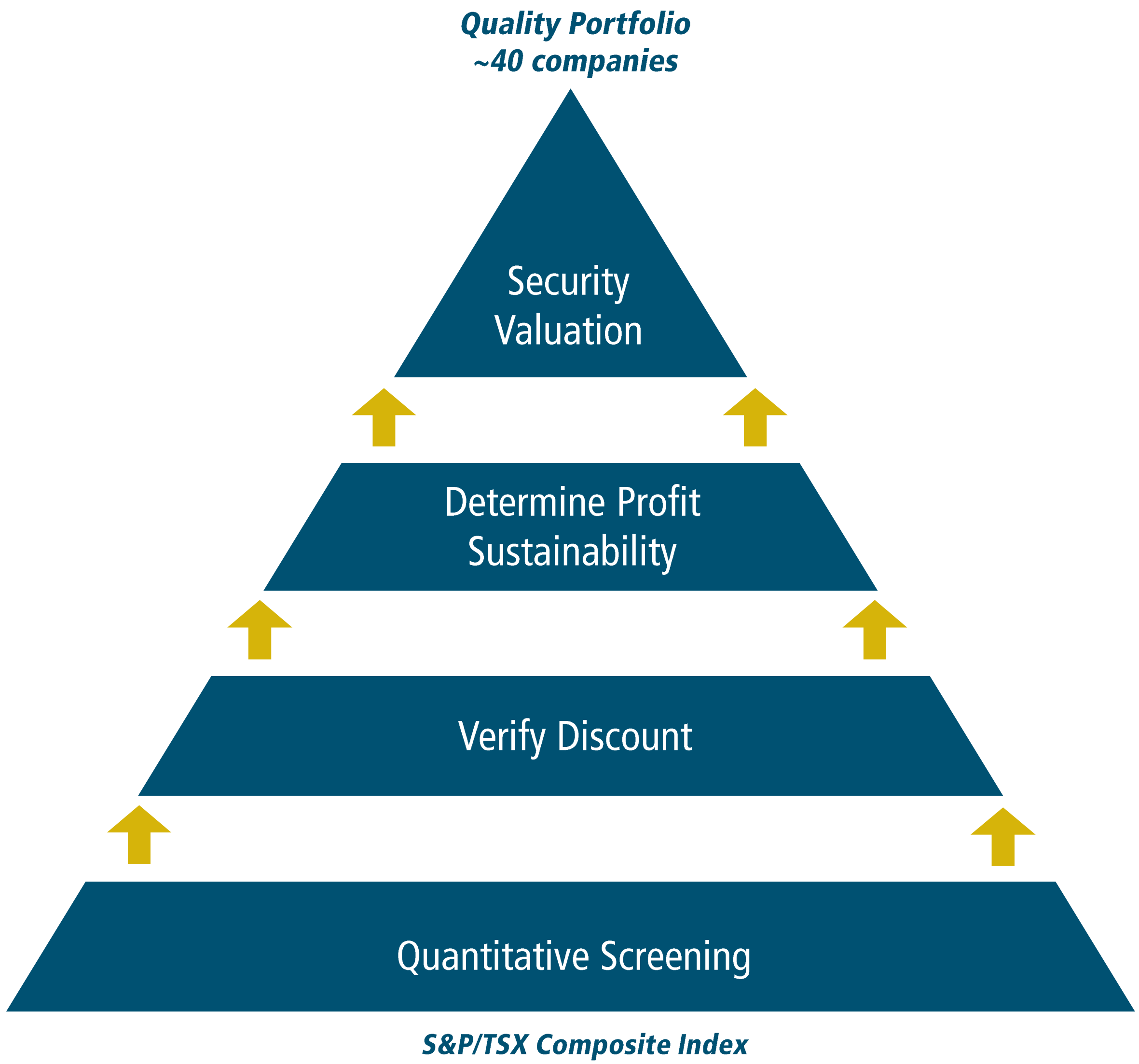
ABOUT SRA

History

1990	Founded by Crown Life Insurance Company
1998	Name changed to Scheer Rowlett & Associates
1998	Investment professionals and Connor, Clark & Lunn Financial Group acquire equity interest
2001	Crown Life Insurance sells remaining interest to Connor, Clark & Lunn Financial Group
Current	Scheer Rowlett & Associates 49.75% owned by the portfolio managers, 50.25% owned by Connor, Clark & Lunn Financial Group

Canadian Equities – Investment Process

4-step process to maximize value



Stability of investment team

Name	Educational Designations	Title/Role	Industry Experience	Firm Experience
Lloyd Rowlett	BComm, FICB, CFA	President & Lead Portfolio Manager	30	20
Robert Dionne	BAdmin, CFA, CPA, CMA, DMS, FCSI	Portfolio Manager	23	20
Scott Merriman	BComm, CFA	Portfolio Manager	17	13
Sarosh Nanavati	BComm, MBA, CFA	Portfolio Manager	28	4
Drew Thiessen	BComm, CFA	Equity Analyst/Trader	8	7
Bill Mullett	BComm	Client Service	32	8
Tim Bradshaw	BComm, MBA, CFA	Client Service & Compliance Officer	29	5

APPENDIX

BRANDON UNIVERSITY RETIREMENT PLAN CASH FLOWS

October 1, 2016 Market Value	**$**	**166,523,978.26**
Contributions	$	1,744,112.56
Withdrawals	$	1,996,942.40
Investment Gains	$	2,919,315.57
December 31, 2016 Market Value	**$**	**169,190,463.99**

Total Rate of Return	**1.81%**

Investment Management Fees:	119,495.54

www.cclinvest.com | more_info@cclgroup.com

CONNOR, CLARK LUNN

INVESTMENT MANAGEMENT

OFFICE OF THE
AUDITOR GENERAL
MANITOBA

Brandon University Retirement Plan
Audit Plan
December 31, 2016

Table of Contents

Introduction **2**

Our responsibilities and audit limitations **2**

- Audit objectives 2
- Auditing standards and limitations 3

Management responsibilities **3**

Governance responsibilities **4**

- Board of Trustees responsibilities 4

Audit planning **5**

- Risk assessment 5
- Audit approach 5
- Materiality 6
- Compliance with authorities 7

What we will report **7**

Audit timing **8**

Audit team **8**

Audit quality assurance **9**

Review of annual report **9**

Independence **9**

Appendix 1: Auditor's report **10**

Auditing standards and limitations

1. We will perform the audit in accordance with Canadian generally accepted auditing standards (GAAS). Those standards require that we meet ethical requirements, and plan and perform the audit to obtain reasonable (not absolute) assurance about whether financial statements are free from material misstatement.
2. The audits may not find every material misstatement because there are inherent limitations in the audit process, such as the use of judgment and selective testing of data. In addition to the inherent limitations in the audit process, collusion and forgery may prevent material error, fraud, or illegal acts from being detected. Our audits are not design to detect immaterial error or fraud.
3. To design appropriate audit procedures, we consider the internal controls, but we do not express an opinion on their effectiveness.
4. Our responsibility under GAAS for expressing an opinion on the financial statements does not relieve management and governance authorities of their responsibilities.
5. Per section 10(2) of *The Auditor General Act*, we will report to the Legislative Assembly matters that we consider "should be brought to the Assembly's attention". We will keep all other non-public information confidential.

Management responsibilities

Management will:

1. prepare and present fairly the Plan's financial statements under Canadian accounting standards for pension plans.
2. ensure proper internal control for preparing financial statements, free from material misstatement due to fraud or error.
3. comply with legislative authorities.
4. correct any material misstatements in the financial statements that we find during the audit.
5. provide us:
   - prompt access to all relevant information used to prepare the financial statements, such as records, documentation, and other matters.
   - additional information that we request.
   - unrestricted access to staff involved with the Plan.
6. provide us information on fraud or suspected fraud involving:
   - management.
   - employees.
   - other parties, if the fraud could affect the financial statements.

7. give us written representations that they:
   - have prepared and presented fairly the financial statements under Canadian accounting standards for pension plans and that the financial statements reflect all transactions.
   - believe the effects of unrecorded misstatements are immaterial, individually and in total, to the financial statements as a whole.
   - have given us all relevant information and access.
8. give us a draft annual report and obtain our approval before reproducing our auditor's report, in any format.
9. reproduce accurately and completely our auditor's report and the material we have reported on.

Governance responsibilities

Board of Trustees responsibilities

The Board will:

1. oversee the Plan's financial reporting process and the credibility of the Plan's financial statements.
2. understand the Plan's financial and business risks and oversee management's internal control framework.
3. oversee our work, including reviewing and providing input into the planned audit approach.
4. review matters we raise with appropriate levels of management and report their findings to us.
5. direct us on extra work it asks us to do because of its concerns or information the audit reveals.
6. tell us of any problems with disclosure and corporate governance, fraud or illegal acts, and non-compliance with laws or regulatory requirements that the board knows of.
7. review and approve the Plan's financial statements.

Audit planning

Risk assessment

Our audit approach is risk based. First, we update our knowledge of the Plan's business. Then, we use this knowledge to identify factors that could create a risk of material error in the Plan's financial statements or non-compliance with specified authorities. We focus on the identified risks and tailor our audit to complete it effectively and efficiently. In response to our risk assessment, we will perform:

- tests of controls to assess if certain controls operated effectively.
- substantive tests of details to detect material misstatements in account balances and transaction streams.
- substantive analytical procedures to identify differences between recorded amounts and predictable expectations in larger volumes of transactions over time.

Audit approach

Our audit approach requires significant auditor attention in areas of higher assessed risk of material misstatement, or for other significant risks identified in our risk assessment. Significant auditor attention is required for areas involving complex auditor judgments because of significant management judgment (including accounting estimates with high estimation uncertainty) and the effects of significant events or transactions during the year. The table below summarizes the areas that will require significant auditor attention in the audit.

Areas	Audit approach
Investments The Plan's investments are the most significant asset class and are carried at fair value. CIBC Mellon is the custodian of the investments and Connor, Clark & Lunn Investment Management Ltd is the Investment Managers for the Brandon University Retirement Plan. They provide the fair value of investments based on International Financial Reporting Standards (IFRS 13).	We will confirm balances, including cost and fair value, with the custodian and investment manager. We will use the CSAE 3416 Audit Report on Controls at a Service Organization (CIBC Mellon - custodian). We will review reconciliations – manager to custodian to general ledger. We will compare fair values reported by the custodian and the investment manager.
Pension Obligations Obligations for pension benefits are the most significant liability of the Plan and are determined using an actuarial valuation. The valuation is used as an accounting estimate and requires significant management judgment regarding the assumptions adopted, including the discount rate. In the prior year an incorrect discount rate was used in the valuation prepared by the actuary. As a result, a new valuation was prepared and the necessary corrections were made to the financial statements.	We plan to use the work of the Plan's actuaries; we will perform an assessment of the reasonableness of the actuarial assumptions and changes in actuarial gains and losses. We will review the plan data provided to the actuaries. We will also review the reasonableness of the actuary's output. We will make the necessary inquiries of the actuary to assess the risk of an error similar to the prior year.

Materiality

The concept of materiality recognizes that the size of errors, individually and combined, is a factor in fairly presenting the financial statements under Canadian accounting standards for pension plans. We examine the total of all misstatements in the financial statements, and consider them material if they would probably influence the decision of a person relying on the statements, with a reasonable knowledge of business and economic activities. One step in establishing materiality is to learn who the key users of the financial statements are. In evaluating misstatements, we also consider qualitative factors that may cause misstatements of relatively small amounts to materially affect the financial statements.

Considering the likely users of the Plan's financial statements, we established a materiality of $1.5M (2015 - $1.5M).

Compliance with authorities

GAAS deals with authorities that may materially affect the Plan's financial statements. As legislative auditors, our duty is broader: we may consider the Plan's compliance with any authority you are subject to. Significant authorities include the text of the Retirement Plan and the *Pension Benefits Act* and regulations. We will consider reporting significant non-compliance that we find.

What we will report

1. We will communicate our audit results to management and the board, including:
   - our views of management's accounting policies, accounting estimates, and financial statement disclosure.
   - misstatements resulting from non-trivial errors.
   - disagreements with management.
   - the existence of fraud or possible fraud.
   - the existence of illegal or possibly illegal acts.
   - significant deficiencies in the design or implementation of internal controls to prevent and detect fraud or error.
   - related-party transactions not in the normal course of operations and involving significant judgments by management on measurement or disclosure.
   - matters that significantly affect the qualitative aspects of accounting principles used in the Plan's financial reporting.
   - other matters from the audit that are important and relevant to the board.
   - matters relating to our independence, including disclosure of our fees for audit and non-audit services.
2. We will give the board a draft copy of the following items for its review:
   - written representations from management.
   - significant matters arising from the audit that are the subject of correspondence.
   - a management letter, if the audit has any significant findings. We will review all management letter points with management before communicating with the board.
   - audit opinion.
3. We plan to issue the draft auditor's report in Appendix 1. We will talk to management and the board if we need to significantly change the auditor's report.

Audit timing

Summary of audit work	Dates
Planning	January 2017
Present our audit plan to the Board of Trustees	February 16, 2017
Perform year-end procedures	March - April 2017
Present the audit results to the Board of Trustees	June 8, 2017
Issue audit opinions	June 2017
Issue management letter, if any	June 2017

Audit team

OAG Team

Name	Position
Norm Ricard, CPA, CA	Auditor General
Tyson Shtykalo, CPA, CA	Deputy Auditor General
Brendan Thiessen, CPA, CA	Principal

BDO Team

Name	Position
Todd Birkhan, CPA, CA	Client Service Partner
Rachel Waldner, CPA, CA	Manager, Detailed Reviewer
Colton Easton, CPA	Audit Senior

Audit quality assurance

Name	Position
Greg MacBeth, CPA, CA	Assistant Auditor General, Professional Practice and Quality Assurance

Review of annual report

We will review the Plan's annual report by:

- ensuring that the financial statements and our report on them have been accurately reproduced.
- reading the other information in the annual report and considering whether any information is inconsistent with the financial statements—and if so, suggesting corrections.
- notifying management of any information that, although not inconsistent with the financial statements, has material misstatement of facts.

Independence

GAAS requires us to communicate with you at least annually on all relationships between you and us that, in our professional judgment, may reasonably affect our independence. We have to consider relevant rules and related interpretations of the appropriate provincial institute and legislation. Such relationships include our:

a) holding a financial interest (direct or indirect) in you.
b) holding a position (direct or indirect) with the right or responsibility to significantly influence your financial or accounting policies.
c) immediate family, close relatives, partners or retired partners having personal or business relationships (direct or indirect) with you.
d) economic dependence on you.
e) providing services in addition to the audit.

We are not aware of any relationships between you and us that, in our professional judgment, may reasonably affect our independence. So we confirm that we are objective about you within the Code of Professional Conduct of the Chartered Professional Accountants of Manitoba.

We charged $7,950 (before taxes) to the Plan for audit services for the 2015 financial statements.

Appendix 1:
Auditor's report

INDEPENDENT AUDITOR'S REPORT

To the Legislative Assembly of Manitoba
To the Board of Trustees of the Brandon University Retirement Plan

We have audited the accompanying financial statements of the Brandon University Retirement Plan, which comprise the statement of financial position as at December 31, 2016, the statements of changes in net assets available for benefits and changes in pension obligations for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian accounting standards for pension plans, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of the Brandon University Retirement Plan as at December 31, 2016 and the changes in net assets available for benefits and changes in pension obligations for the Plan for the year then ended in accordance with Canadian accounting standards for pension plans.

Office of the Auditor General
[Date]
Winnipeg, Manitoba

Brandon University
Supplementary Pensions

Brandon University Pension Increases - Reflecting 13/01 amendment (effective starting with increase on July 1, 2013)

	Net Investment Return (Market Value)	Four-Year Geometric Average Return	Excess of Average Return over 6%	Dec. CPI	Increase in CPI	Actual COLA	COLA Enhancements for prior years' capped increases	Effective Date of COLA Increase	Calculated Excess above CPI
2012	9.38%	8.45%	2.45%	121.2	0.8%	1.39%	0.59%	01-Jul-2013	1.65%
2013	16.22%	8.45%	2.45%	122.7	1.2%	1.70%	0.50%	01-Jul-2014	1.25%
2014	8.53%	7.93%	1.93%	124.5	1.5%	1.50%	0.00%	01-Jul-2015	0.43%
2015	3.93%	9.43%	3.43%	126.5	1.6%	1.60%	0.00%	01-Jul-2016	1.83%
2016	7.90%	9.06%	3.06%	128.4	1.5%	1.50%	0.00%	01-Jul-2017	1.56%
2017 breakeven	*3.75%*	*6.00%*	*0.00%*					*01-Jul-2018*	

* Note: pension increases are also applied to pensions in pay and deferred pensions

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TO	:	Brandon University Pension Trustees
FROM	:	Andrew Kulyk, Eckler Ltd.
CC	:	
DATE	:	February 13, 2017
RE	:	**Pension Plan Extrapolated Financial Position as at December 31, 2016**

I have prepared an estimate of the going-concern financial position of the Brandon University Retirement Plan as at December 31, 2016 and University contribution for the 2017 calendar year. Please note the results provided are estimates only and should not be relied upon to determine actual funding requirements for the 2017 plan year.

	5.55% Estimated Dec. 31, 2016	**5.45% Estimated Dec. 31, 2016**	**Dec. 31, 2015**
Going concern surplus / (unfunded liability)	($5,533,000)	($7,668,000)	($10,326,000)
	2017	**2017**	**2016**
Estimated University current service cost	$3,148,000	$3,248,000	$3,004,000
Estimated minimum special payment for the unfunded liability	$723,000	$1,019,000	$1,291,000
Total Estimated University Contribution	$3,871,000	$4,267,000	$4,295,000

Based on a valuation interest rate of 5.55%, the estimated minimum 2017 University contribution would decrease from the 2016 University contribution by $424,000. Adding 10bp of margin for adverse deviation, thereby reducing the valuation interest rate by 10bp, would result in approximately the same level of contributions for 2017 as were made in 2016.

These results are based on an extrapolation of the liability from the funding valuation as at December 31, 2015. Our extrapolated liability is adjusted for the following:

- We have used the same actuarial assumptions as the December 31, 2015 valuation.
- We have assumed that 2017 pensionable payroll will increase by 3% overall from 2016 estimated pensionable payroll. The 2016 estimated pensionable payroll was determined in our December 31, 2015 actuarial valuation. The estimated 2017 pensionable payroll is $35,765,000.

July 1, 2017 Pension Increase

The estimated December 31, 2016 unfunded liability shown above reflects a pension increase of 1.5% effective July 1, 2017. The estimated increase in the liability due to the increase is $715,000[1] as the actual increase exceeds the assumed increase of 0.75%.

[1] The estimate is based on a valuation interest rate of 5.55%.

Brandon University – Actuarial Assumptions for the December 31, 2016 Valuation

Presentation to Trustees – February 16, 2017

Presented by:
Andrew Kulyk, FSA, FCIA

Eckler
CONSULTANTS + ACTUARIES

Agenda
Valuation as at December 31, 2016

1. Valuation refresher
    a) Going Concern Valuation
        a) Methods
        b) Economic assumptions
        c) Other assumptions
    b) Hypothetical Wind-up & Solvency Valuation
2. Relevant environment (changes)
3. Valuation Assumptions

Valuation Refresher

Going-Concern Valuation

- Plan is ongoing
- Long-term view
- Projections
- Funding basis (minimum)

Wind-up Valuation

- Plan-wind-up basis
- Assets valued at market value
- Required by actuarial standards
- Maximum funding per ITA

Solvency Valuation

Similar to hypothetical Wind-up
Prescribed by legislation
Not used for funding – MB solvency exemption

Minimum and Maximum
Cash Funding Contributions

Pension Trustees
select margin

Actual Contributions

Solvency Ratio

Valuation Filing Frequency

Valuation Refresher
Going-concern Valuation

> Actuary's best-estimate assumptions with or without margin for adverse deviation

> Economic assumptions:
  – Future investment return
  – Inflation, salary increases

> Demographic assumptions:
  – Retirement
  – Mortality
  – Termination

> Margins are added based on Trustees input
  – Funding policy (implicit or explicit)
  – Plan provisions

Valuation Refresher
Going-concern Valuation

Funding requirements:

> Current Service Cost
  - Plan Formula Contribution, Matching 8%/6.2%/8%
  - But not less than cost of benefits accruing for service in the period following the valuation

> Funding Shortfall
  - Amortized over 15 years
  - Monthly special payments are required
  - One-time catch-up payment/relief for period between valuation date and filing date

Going Concern Valuation Methods

> Liability valuation methods

- Accrued benefit method
  - Required to determine minimum contributions under Pension Benefits Act
- Aggregate benefit method
  - Value of assets + future projected contributions = accrued liability + future accruing benefits
    - Solve for contribution rate
- Other Methods

> Asset valuation methods

- Market Value
- Smoothed Value

Valuation Refresher
Hypothetical Wind-up & Solvency Valuation

- Assume plan is wound-up and all benefits are settled
- Prescribed assumptions are used
  - Little or no flexibility in setting assumptions
- Economic assumptions:
  - Settlement rates (Commuted Value Standard, Annuity Proxy)
- Demographic assumptions:
  - Assume all members terminate or retire on date of valuation

University is exempt from funding on solvency basis

What Happened Since Previous Valuation
at December 31, 2015

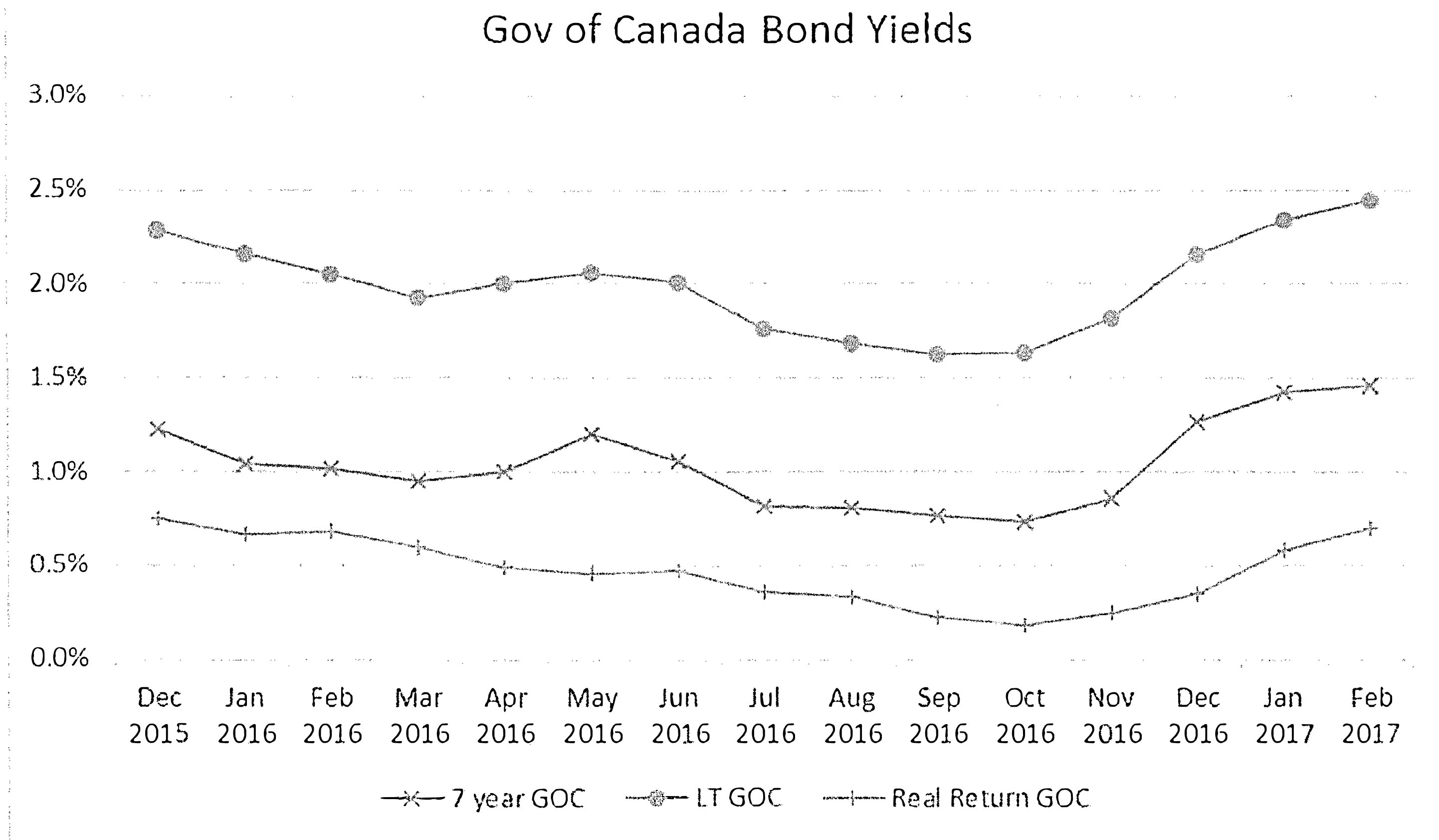
> Net fund return in 2016:
  - Market value return: 7.90%
    - Median balanced fund return = 7.69%
    - 75^{th} percentile = 9.42%
  - Actuarial value (smoothed) return: 8.68%

> Change in CPI in Canada of 1.5%

> Manitoba issued a new temporary solvency relief regulation

> Bond yields decreased during 2016, then rebounded sharply in 4th quarter following US election

What Happened Since Previous Valuation
at December 31, 2015



What Happened Since Previous Valuation
at December 31, 2015

> Increase in annuity purchase rate:
  - Based on preliminary guidance (subject to change)
  - Decreased annuity purchase liability

> Commuted valued rates roughly the same:
  - Select CV rate (first 10 years) increased 10bp
  - Ultimate CV rate (after 10 years) decreased 20bp

Going Concern Valuation
Economic Assumptions

	31.12.2015	31.12.2016	Relative Impact on Liability
Investment Return	5.8% p.a. before margin 5.55% p.a. after margin	Unchanged	Nil
Increases in CPI	2.0% p.a.	Unchanged	Nil
Salary increases	3.0% p.a. plus merit & promotion (if applicable)	Unchanged	Nil
YMPE increases	3.0% p.a. from 2016 level of $54,900	3.0% p.a. from 2017 level of $55,300	Nil
Pensioner indexing	0.75% p.a.	Unchanged	Nil

Going Concern Valuation
Demographic Assumptions

	31.12.2015	31.12.2016	Relative Impact on Liability
Mortality	CPM2014Publ without size adjustments. Full generational improvements using scale CPM-B	Unchanged	Nil
Termination	30 – 16.8% 35 – 9.6% 40 – 6.6% 45 – 5.1% 50 – 3.6% 55 – 0% Commutation assumption included	Unchanged	Nil
Retirement	55-57 – 5.0% 58 – 7.5% 59-61 – 10% 62-63 – 15% 64 – 25% 65 – 35% 66-69 – 25% 70+ – 100%	Unchanged	Nil

Considerations in setting the Investment Return Assumption

> Components of the Investment return assumption (5.55%):
  - Asset mix
  - Return assumption for each asset class (weighted average 5.8%)
  - Rebalancing and diversification (0.5%)
  - Expenses (-0.50%)
  - Margins (-0.25%)

Considerations in setting the Investment Return Assumption

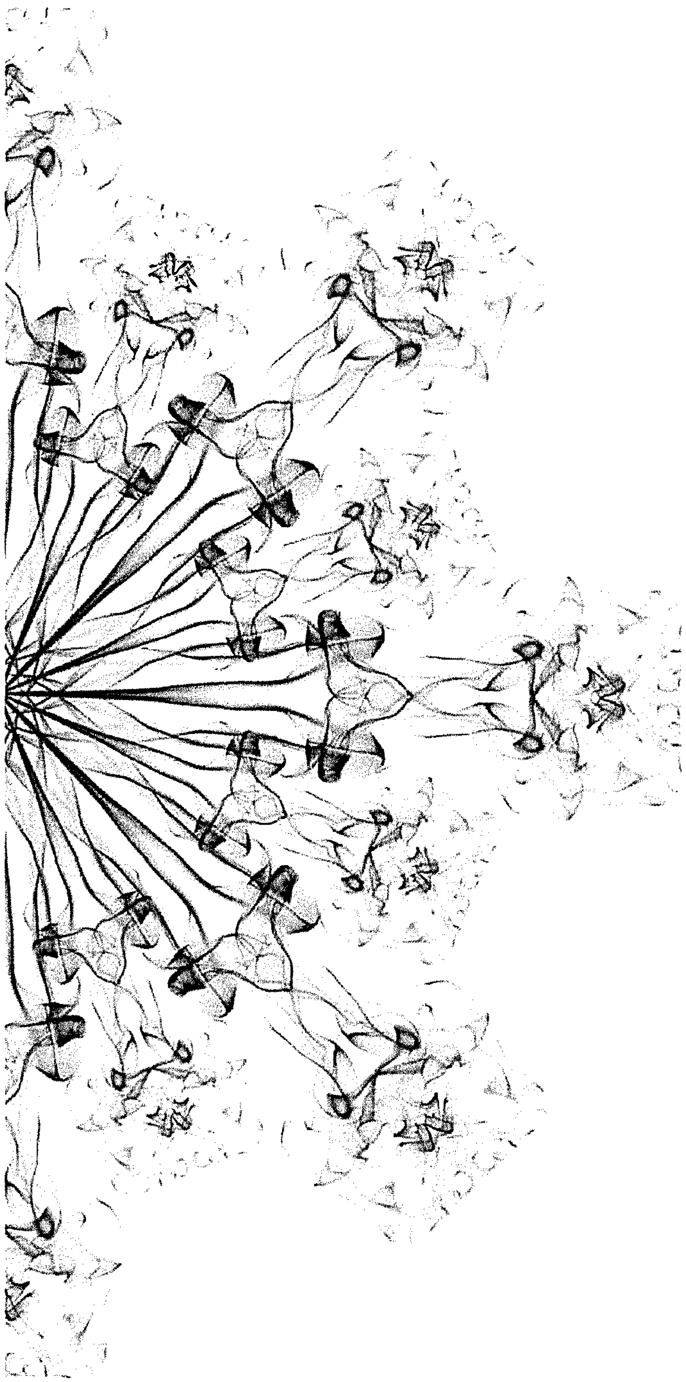
> Margins are used to facilitate the funding policy/objectives. The challenge is to strike a balance between conflicting objectives:

- Desired level of benefit security
  - Additional margins reduces future deficits/increases future surpluses
- Stability of funding requirements
  - Ex. Start with bigger margins and adjust each year as return expectations fluctuate
- Affordability

Valuation Assumptions
Solvency Valuation

	12.31.2015	12.31.2016
Commuted Value – 1st 10 years	2.1%	2.2%
Commuted Value – ultimate	3.7%	3.5%
Annuity Proxy	3.00%	3.10%*
Mortality Table	CPM2014	CPM2014

* *Annuity proxy rate of 3.10% is an estimate and is subject to change before the valuation is completed*



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CONSULTANTS + ACTUARIES

October 28, 2016

CPP Reform Moves Ahead

On October 6, 2016, the federal government introduced ***Bill C-26**, An Act to Amend the Canada Pension Plan, the Canada Pension Plan Investment Board Act and the Income Tax Act*. The bill reflects amendments to the various statutes required as a result of the June 20, 2016 ***CPP reform agreement*** reached between the federal government and the nine provincial governments that participate in the Canada Pension Plan (CPP). (For more information on the agreement, read Eckler's June 21, 2016 ***Special Notice: Expanded CPP — R.I.P. ORPP?***)

This *Special Notice* recaps the history of CPP reform to date, provides an overview of Bill C-26's key provisions and discusses the impact on employer pension plans.

How did we get here?

Here is a summary of the key milestones on the road to CPP reform:

Date	Milestone
December 16, 2013	Federal and provincial finance ministers fail to reach agreement on expanding the CPP. Despite federal claims that increasing payroll taxes to fund higher pensions would hurt the Canadian economy, Ontario vows to proceed with its own solution. Other provinces indicate they may follow Ontario's lead.
May 1, 2014	The Ontario Budget introduces the Ontario Retirement Pension Plan (ORPP) — a provincial solution to address concerns about retirement income adequacy. While the Ontario government acknowledges it would prefer an expanded CPP, it notes that it is introducing the ORPP due to continued federal inaction.
May 24, 2015	During the federal election campaign, the Conservative federal government announces it will conduct consultations on the possibility of adding a voluntary top-up to the CPP.
October 19, 2015	The Liberal party wins a majority in the federal election. The party's campaign platform includes a promise to work with the provincial and territorial governments, as well as other stakeholders, to enhance the CPP.
February 16, 2016	The Federal and Ontario finance ministers announce they will cooperate on CPP enhancement discussions, with the goal of presenting options at the June 2016 Finance Ministers' meeting.
March 22, 2016	The Federal Budget states Ottawa will continue discussions with the provincial and territorial governments, with an aim of reaching a collective decision on possible CPP enhancements by the end of the year.
June 20, 2016	The federal government and eight provinces sign the agreement to enhance the CPP. Ontario indicates it will abandon the ORPP if the agreement is implemented. Manitoba subsequently signs on, and British Columbia (which had already signed) undertakes public consultations.
October 4, 2016	***Notice of Ways and Means Motion*** is introduced to amend the *Income Tax Act* (ITA) to make additional CPP contributions tax-deductible and increase the Working Income Tax Benefit, as outlined in the agreement. British Columbia completes consultations and announces its support for the agreement.
October 6, 2016	Federal government introduces Bill C-26 (outlined in this *Special Notice*).

Overview of Bill C-26

Bill C-26 sets out a two-step process to increase CPP contributions, starting in 2019.

Step 1: First Additional Contribution — This is an extra contribution on eligible earnings between the year's basic exemption (YBE) and the year's maximum pensionable earnings (YMPE). Contribution rates start at 0.15% for both employers and employees in 2019 and will ultimately reach 1.00% in 2023. (Self-employed workers will contribute an amount equal to the combined employer and employee contribution rates.)

Step 2: Second Additional Contribution — This is an additional contribution on earnings above the YMPE but below the newly defined year's additional maximum pensionable earnings (YAMPE). The YAMPE will eventually equal 114% of the YMPE. Second additional contributions — at a rate of 4% for both employees and employers — will start in 2024.

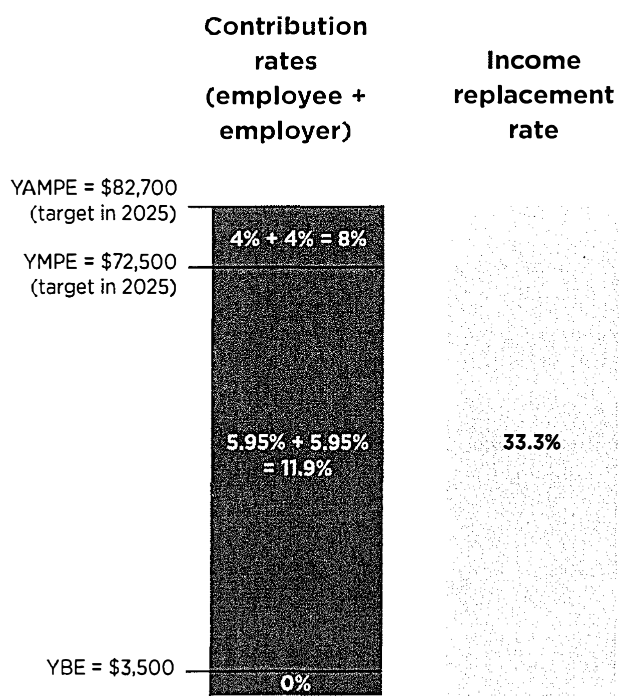
The contribution rates for both steps are subject to change if an actuarial review indicates that contributions are insufficient to fund the enhanced benefits.

Additional contributions will be held separately from other CPP contributions in a newly created Additional Canada Pension Plan Account (ACPPA). Bill C-26 contains amendments to the Canada Pension Plan Investment Board Act to allow the transfer of funds from the Canada Pension Plan Investment Board to the ACPPA and to provide appropriate accounting, review and reporting for the new account.

Bill C-26 also amends the ITA so that first and second additional contributions will be tax-deductible for employees. Employees will continue to receive a tax credit for basic CPP contributions, and all employer contributions will be deductible.

Because of the additional contributions, the CPP retirement, survivor and disability pensions — as well as the post-retirement benefit — will increase to reflect the additional contributions. The maximum level of pensionable earnings will increase by 14% by 2025. Information from the Office of the Chief Actuary indicates that partial additional benefits will be accrued for each year of additional contributions. A full benefit enhancement is expected to be available after 40 years of contributions.

The following graphic illustrates the ultimate contribution rates and income replacement rate for the new CPP benefit, once the new provisions are fully phased in.



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The enhanced CPP benefits are intended to be entirely self-financed by future additional contributions, with no subsidies between older and younger generations of workers. However, when the CPP was originally launched in the 1960s, initial contributions were considerably lower than the cost of benefits earned by the first cohorts of CPP recipients. To make up for this financing shortfall, the CPP was reformed in the 1990s, increasing contribution rates to a combined steady-state rate of 9.9%.

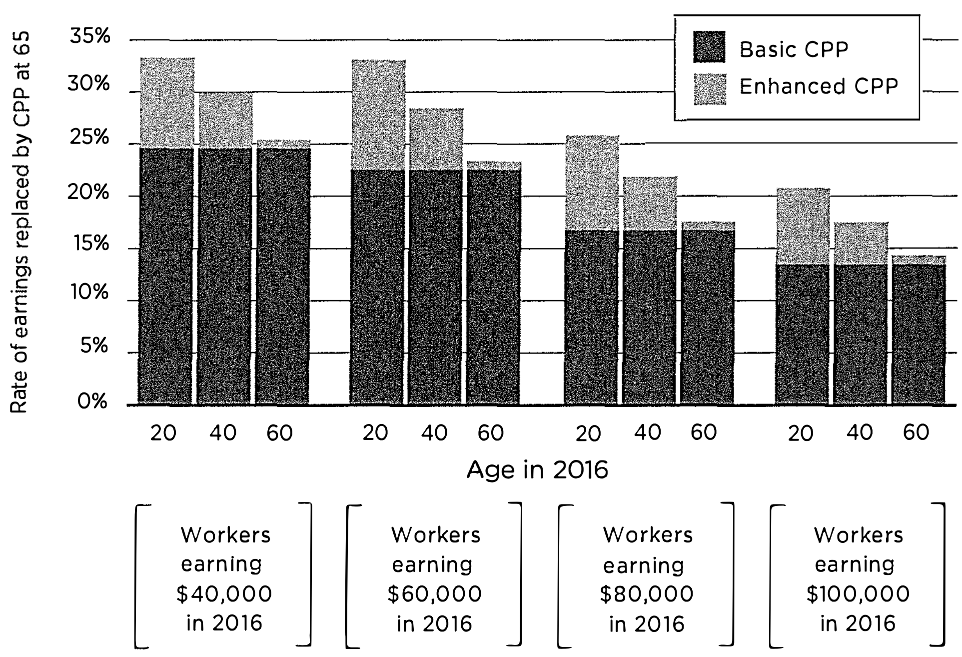
Because there was a historical shortfall on contributions up to the YMPE, the ultimate combined contribution rate of 11.9% on earnings up to the YMPE is higher than the ultimate 8% combined rate on the new band of covered earnings between the YMPE and the YAMPE.

Impact on pension plans and next steps

By 2023, all employees and employers will be required to contribute at least 1% more on pensionable earnings between the YBE and the YMPE. For employees earning above the YMPE, the portion of their earnings between the YMPE and the YAMPE will attract a 4% CPP contribution. Employees and employers will need to prepare for these increased contribution requirements.

Canadians nearing the end of their career will not earn much of a CPP enhancement. However, early-career Canadians who make 40 years of enhanced CPP contributions will see more of their income replaced by CPP benefits in retirement. For Canadians earning above the YAMPE, the CPP does not replace as significant an amount of earnings.

CPP replacement ratio at 65



Note: Assumes all workers start contributing to the CPP at age 20.

Pension plan sponsors may eventually wish to integrate CPP benefit improvements into their own plan designs. For example, if a sponsor's defined benefit formula for future service currently integrates with CPP by providing a lower accrual rate on earnings up to the YMPE and a higher rate above the YMPE, the sponsor might consider:

- Widening the band of earnings at which the lower accrual rate applies, up to the new YAMPE; and
- Reducing the accrual rate on earnings up to the YAMPE by 0.2% of earnings for each year of service. This adjustment equals 8% of CPP-covered earnings after 40 years of service, which is approximately equal to the difference between the new CPP income replacement rate of 33.3% and the existing income replacement rate of 25%.

If the plan requires member contributions at varying rates above and below the YMPE, corresponding changes could also apply to the member contribution formula.

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Backgrounder: Canada Pension Plan (CPP) Enhancement

Introduction

Middle class Canadians are working harder than ever. But many are worried that they won't have put away enough money for their retirement, and fewer and fewer Canadians have workplace pensions to fall back on.

To help Canadians achieve their goal of a safe, secure and dignified retirement in the face of these challenges, the Government of Canada committed to working with the provinces to strengthen the Canada Pension Plan (CPP). Cooperative efforts as joint stewards of the program led to Canada's Ministers of Finance reaching an historic agreement in principle on June 20, 2016 to enhance the CPP.

This document provides further background on the analysis conducted by federal, provincial and territorial officials in advance of the June 20th Finance Ministers Meeting, and which provided the basis for discussions towards the agreement in principle reached at that meeting.

What the Agreement in Principle Means for Canadians

- Once fully in place, the CPP enhancement will increase the maximum CPP retirement benefit by about 50 per cent. The current maximum benefit is $13,110. In today's dollar terms, the enhanced CPP represents an increase of nearly $7,000, to a maximum benefit of nearly $20,000.[1]
- Enhanced benefits will accumulate gradually as individuals pay into the enhanced CPP. Young Canadians just entering the workforce will see the largest increase in benefits.
- To fund these enhanced benefits, annual CPP contributions will increase modestly over 7 years, starting in 2019. For example, an individual with earnings of $54,900 will contribute about an additional $6 a month in 2019. By the end of the 7-year phase-in period, contributions for that individual would be about an additional $43 per month.[2]
- To ensure that eligible low-income workers are not financially burdened as a result of the extra contributions, the Government of Canada will enhance the Working Income Tax Benefit, an existing benefit that is designed to help keep people in the workforce and encourage others to join it.
- Enhancing the CPP will significantly reduce the share of families at risk of not saving enough for retirement and the degree of under-saving.
- The CPP will always be there for Canadians: It helps to fill the gap for those who do not have a workplace pension plan, and it is portable across jobs and provinces.

Overview: How Canadians Save for Retirement Today

Canada's retirement income system provides a balanced mix of public pensions and voluntary savings opportunities to enable Canadians to save for their retirement. The retirement income system is based on three pillars:

1. The Old Age Security program (OAS) provides a basic level of retirement income, along with additional support for low-income seniors through the Guaranteed Income Supplement (GIS). It is funded from government revenues;
2. The CPP and the Quebec Pension Plan provide a basic level of earnings replacement for workers. They are financed by contributions from workers, employers and self-employed individuals.
3. Voluntary tax-assisted private saving opportunities, such as Registered Pension Plans (RPPs), Pooled Registered Pension Plans, Registered Retirement Savings Plans (RRSPs) and Tax-Free Savings Accounts. Individuals and their employers may contribute to these savings vehicles.

In addition to saving through the retirement income system, Canadians may also choose to draw upon other financial and non-financial assets for retirement income. These include, for example, financial assets held outside tax-assisted registered plans, housing equity and small business equity.

Overview of the Current Canada Pension Plan

The CPP is a contributory public pension plan that provides a basic level of earnings replacement in retirement for workers throughout Canada, except in Quebec. Workers in Quebec are covered by the Quebec Pension Plan, which provides similar benefits.

The CPP is financed by employer, employee and self-employed contributions, as well as income earned on CPP investments. The contribution rate is 9.9 per cent of earnings between a basic exemption of $3,500 and the Year's Maximum Pensionable Earnings ($54,900 in 2016). The maximum CPP contribution in 2016 is $2,544.30 for the employee and the employer, respectively. The self-employed pay both shares.

The CPP retirement benefit currently replaces a maximum of 25 per cent of earnings up to the Year's Maximum Pensionable Earnings, which approximates the average Canadian wage and is indexed to average wage growth annually. The CPP is a "career average plan", meaning that earnings over an entire career (with certain exclusions) are taken into account when calculating benefits. A full CPP retirement benefit is available at age 65; however, it can be taken up as early as age 60 with a permanent reduction or as late as age 70 with a permanent increase.

In 2016, the maximum new retirement benefit payable at age 65 is $13,110 per year. However, due to variability in earnings levels amongst Canadians, not all contributors receive the maximum CPP retirement benefit. The average CPP retirement benefit that was paid in December 2015 to new CPP beneficiaries aged 65 was $7,552 per year, or about 60 per cent of the maximum benefit.

There is also a post-retirement benefit paid to recipients of the CPP retirement benefit who continue to work and make contributions to the Plan.

In addition to retirement benefits, the CPP also provides supplementary benefits, including:

- Disability benefits—a monthly benefit provided to those who have made sufficient CPP contributions and whose disability prevents them from working at any job on a regular basis and a monthly benefit for their dependent children;

- Survivor benefits—a monthly benefit provided to the surviving spouse or common-law partner of a deceased contributor and a monthly benefit to their dependent children; and
- A death benefit—a one-time, lump-sum benefit usually paid to the estate of the deceased.

The Government of Canada and the provinces are the joint stewards of the CPP. Major changes to the federal legislation governing the CPP require the formal consent of the Parliament of Canada and at least 7 out of the 10 provinces representing two-thirds of the population of the 10 provinces.

Federal, provincial and territorial Ministers of Finance review the CPP every 3 years. As part of this triennial review process, the Office of the Chief Actuary prepares a report on the financial state of the CPP. In his latest report, the Chief Actuary of Canada assessed that the CPP is sustainable at its current benefit and contribution levels for at least the next 75 years.

Why Enhance the CPP?

1.1 million families approaching retirement are not saving enough

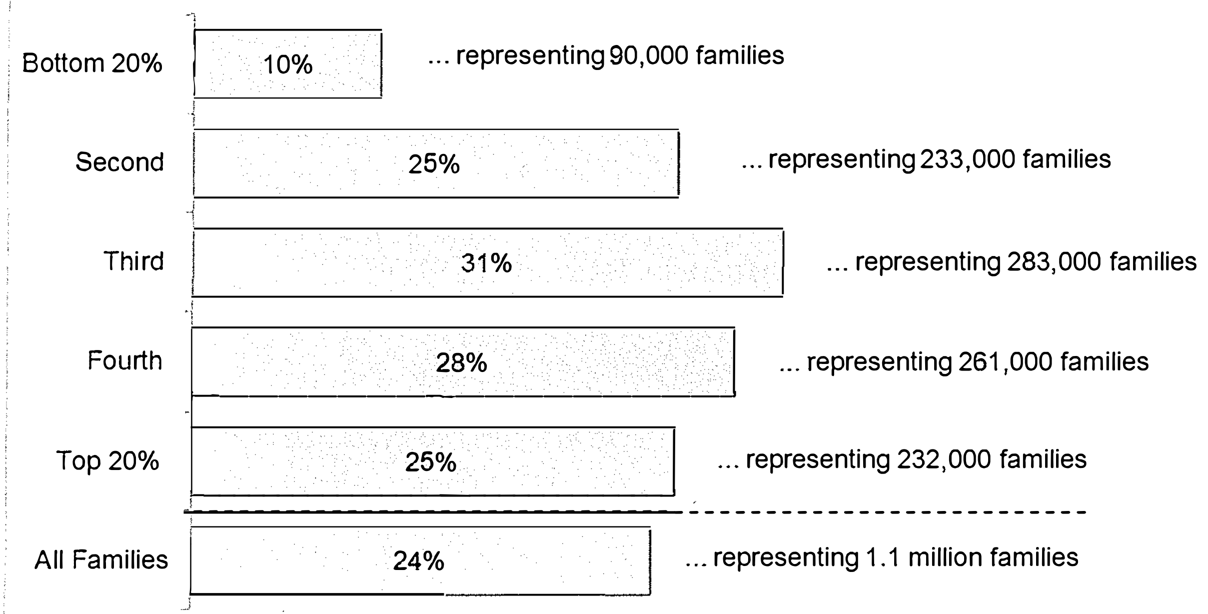
Middle class Canadians are working harder than ever, and many are worried that they won't have set enough money aside for their retirement. Young Canadians in particular are facing the challenge of securing adequate retirement savings at a time when fewer can expect to work in jobs that will include a workplace pension plan. However, the question remains as to just how much Canadians are "under-saving", and what will be needed to address this gap.

The Department of Finance Canada has examined whether families nearing retirement are adequately prepared for retirement, based on household income and wealth data from the 2012 Survey of Financial Security (Statistics Canada).[3] Families are considered to be at risk of under-saving for retirement if their projected after-tax income at retirement does not replace 60 per cent of their pre-retirement after-tax family income.[4]

Although Canada's retirement income system has served many Canadians well, the Department has estimated that 24 per cent of families nearing retirement age are at risk of not having adequate income in retirement to maintain their standard of living (Chart 1). This suggests that roughly 1.1 million families approaching retirement age won't have enough money to maintain their standard of living when they retire.

Middle class families without workplace pension plans are at a greater risk of under saving for retirement. It is estimated that 33 per cent of families nearing retirement age who have no workplace pension plan assets may be at risk of under-saving for retirement, compared to 17 per cent of families who have workplace pension plan assets.

Chart 1
Share and Number of Families Near Retirement Who May Not Be Saving Enough to Replace 60 per cent of Their After-Tax Income, by Income Quintiles

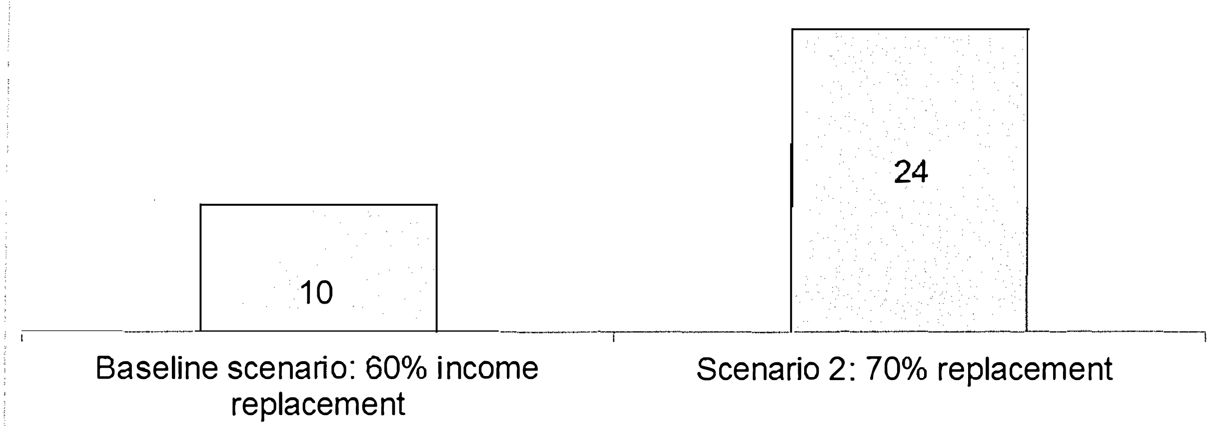


Notes: Figures represent the share of families near retirement at risk of not saving adequately (when considering income from the three pillars of the retirement income system and savings from other financial and non-financial assets). Income quintiles correspond to pre-retirement after-tax income of families with a major income earner age 45-59. The number of families under-saving is calculated by applying the share of families under-saving to the number of economic families in 2016 with a major income earner age 45-59, rounded to the nearest 1,000. Numbers may not add due to rounding. The number of families represents families from all provinces.

Sources: Survey of Financial Security 2012 and Department of Finance Canada calculations.

Overall, families in the lowest income group were found to have the lowest risk of under-saving, as OAS and CPP benefits provide relatively high income replacement at this income range. However, some lower-income families are likely to require a higher level of income replacement than other income groups to maintain their pre-retirement living standard. For example, lower-income families are less likely to have children, own a house or contribute to private savings, so their expenses should fall to a smaller extent upon retirement.[5]

Chart 2
Share of Lower-Income Families (%) Near Retirement Who May Not Be Saving Enough, by Income Replacement Rate Target Scenario



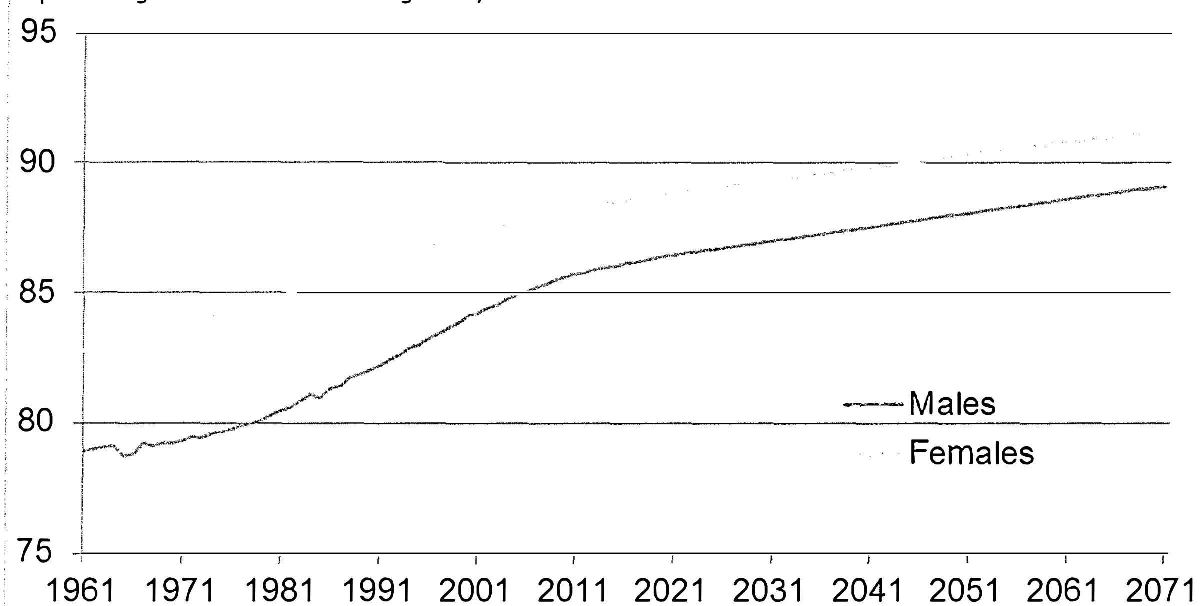
Notes: Figures represent the share of lower-income families at risk of not saving adequately (when considering income from the three pillars of the retirement income system and savings from other financial and non-financial assets). Lower-income families include families with a major income earner age 45-59 and with after-tax family income ranging from $10,000 to $45,000 (in $2016).

Sources: Survey of Financial Security 2012 and Department of Finance Canada calculations.

Younger workers face challenges that may make saving for retirement more difficult

Canadians are living longer and healthier lives. Longer life expectancies increase the level of savings required at retirement to maintain comparable living standards, which increases the risk that Canadians may outlive their savings (Chart 3).

Chart 3
Expected Age at Death for Those Aged 65, 1961 to 2071

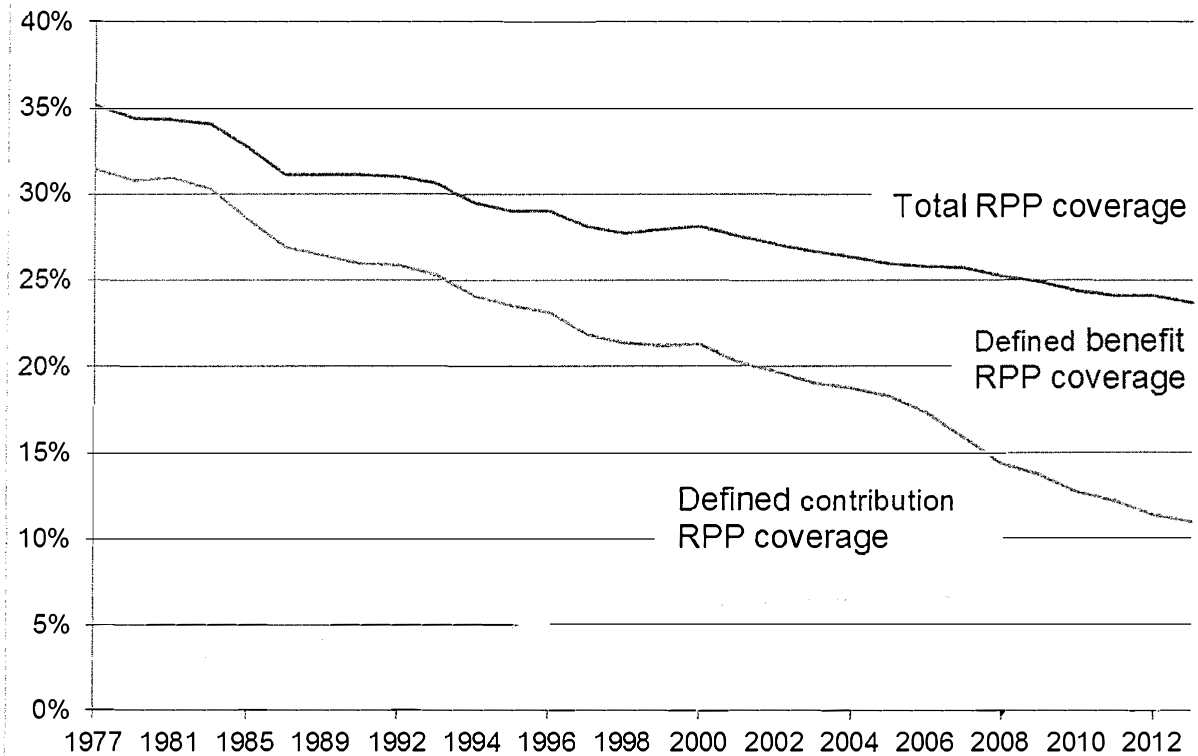


Note: Projection reflects cohort life expectancies at age 65.

Source: Office of the Chief Actuary.

Overall participation in private sector RPPs has declined since the 1970s and there has been an ongoing shift from defined benefit to defined contribution plans (Chart 4). These trends of declining workplace pension plans and the shift from defined benefit to defined contribution plans suggest that younger Canadians will need to increasingly rely on individual forms of private savings to ensure that they have an adequate standard of living in retirement.

Chart 4
Share of Private Sector Employees Covered by an RPP, 1977 to 2013



Source: Statistics Canada.

Economic conditions since the global recession of 2008–09 pose a particular risk that younger Canadians could need to save more than past generations to achieve the same living standards in retirement. This is because a prolonged period of low interest rates could mean that future generations may face lower returns on their retirement savings. In addition, younger generations are more exposed to market risks (such as interest and asset price movements), as they have both higher debts and assets than previous generations and rely more on individual savings for retirement.

Further, given the shift from defined benefit to defined contribution plans, a larger share of younger workers will f . Defined contribution plans expose individuals to investment risk, which could result in a shortfall in their pension savings just prior to their planned retirement, forcing them to work longer than desired. The CPP enhancement will help to mitigate this risk by providing higher, predictable retirement benefits.

Enhancing the CPP will provide more retirement income security to Canadians

Improving the retirement income security of Canadians through the CPP offers a number of advantages:

- The CPP provides a secure, predictable benefit, which means that Canadians can worry less about outliving their savings, having their savings impacted by large negative market shocks, or the security of their savings through their workplace pension plan.
- CPP benefits are fully indexed to prices, which reduces the risk that inflation will gradually erode the purchasing power of retirement savings.
- The CPP is a good fit for Canada's changing job market. It helps to fill the gap left by declining workplace pension coverage, and it is portable across jobs and provinces, which promotes labour mobility.
- The CPP is an efficient way to save. It is a large program with millions of contributors, which allows the CPP Investment Board to take advantage of economies of scale in order to deliver strong net returns.
- With the automatic collection of contributions for all workers, the CPP is a simple way to save.

In particular, an enhanced CPP is the right tool to improve the retirement income security of younger workers. As it would take roughly 40 years of contributions for a worker to fully accumulate an enhanced benefit, younger Canadians who are just entering the workforce would be the greatest beneficiaries of a CPP enhancement.

An Agreement in Principle to Enhance the CPP

On June 20, 2016, Canada's Ministers of Finance reached an historic agreement in principle to enhance the CPP. The deal will increase the pension that working Canadians will get from the CPP—from one-quarter of their eligible earnings, to one-third. Simply put, there will be more money waiting for Canadians when they retire. In addition, under the agreement, the changes will be phased in slowly over 7 years—from 2019 to 2025—so that the impact of higher contributions is small and gradual.

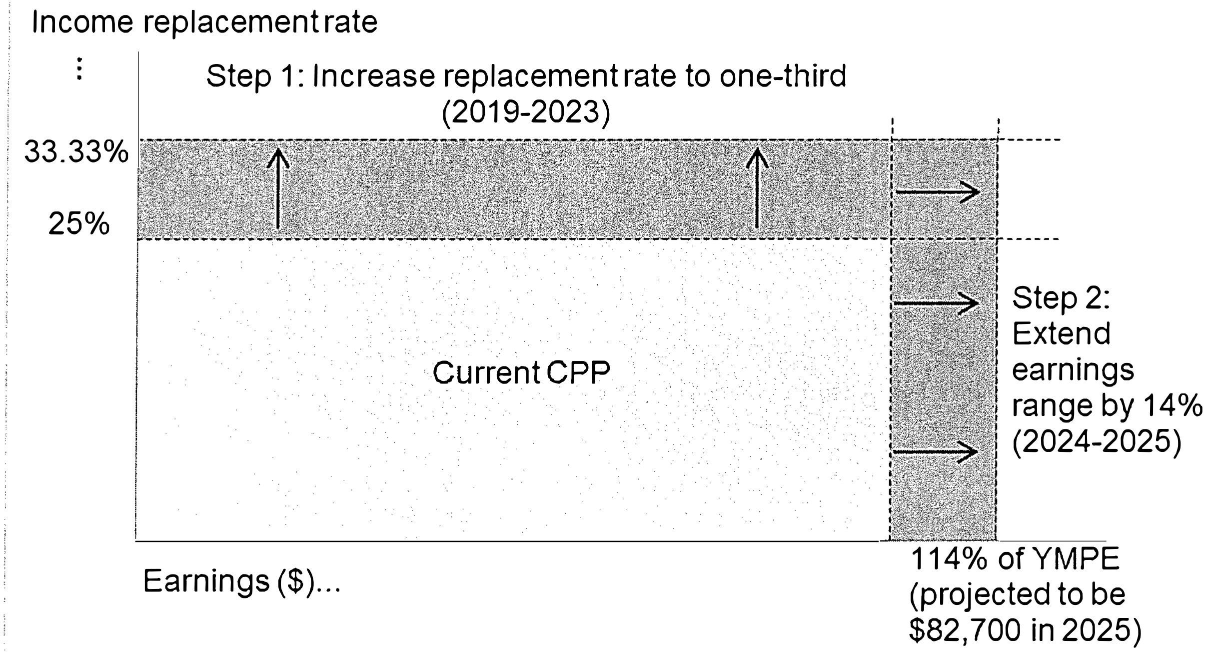
The enhancement will have the following design features:

- The income replacement level will be increased to one-third of eligible earnings.
- The upper earnings limit will be increased by 14 per cent, which is projected to be equal to roughly $82,700 upon full implementation in 2025.
- There will be a gradual 7-year phase-in beginning on January 1, 2019 consisting of:
  - A 5-year contribution rate phase-in below the Yearly Maximum Pensionable Earnings, followed by
  - A 2-year phase-in of the upper earnings limit.
- An increase to the Working Income Tax Benefit to help low-income workers.
- Tax deductibility for the enhanced portion of employee CPP contributions.

Chart 5 illustrates the two-step phase-in of the CPP enhancement.

While the agreement in principle set out the broad parameters of the CPP enhancement, consideration must be given to secondary design issues regarding other elements of the CPP that would be impacted by an enhancement.

Chart 5
Main Design Parameters of Enhanced CPP



Source: Department of Finance Canada.

The CPP Enhancement Will Be Fully Funded

The legislation governing the CPP requires that any enhancement to CPP benefits must be fully funded. In essence, this means that individuals will receive higher benefits paid for by increased contributions. This requirement was put in place during the reform of the CPP in the 1990s to ensure that the CPP remains financially sustainable.

This legislative requirement will ensure that the enhancement follows the principle of intergenerational equity, meaning that each generation pays for its own benefits. Each year of contributing to the enhanced CPP will allow workers to accrue partial additional benefits. Full enhanced CPP benefits will be available after about 40 years of making contributions. Partial benefits will be available sooner and will be based on years of contributions.

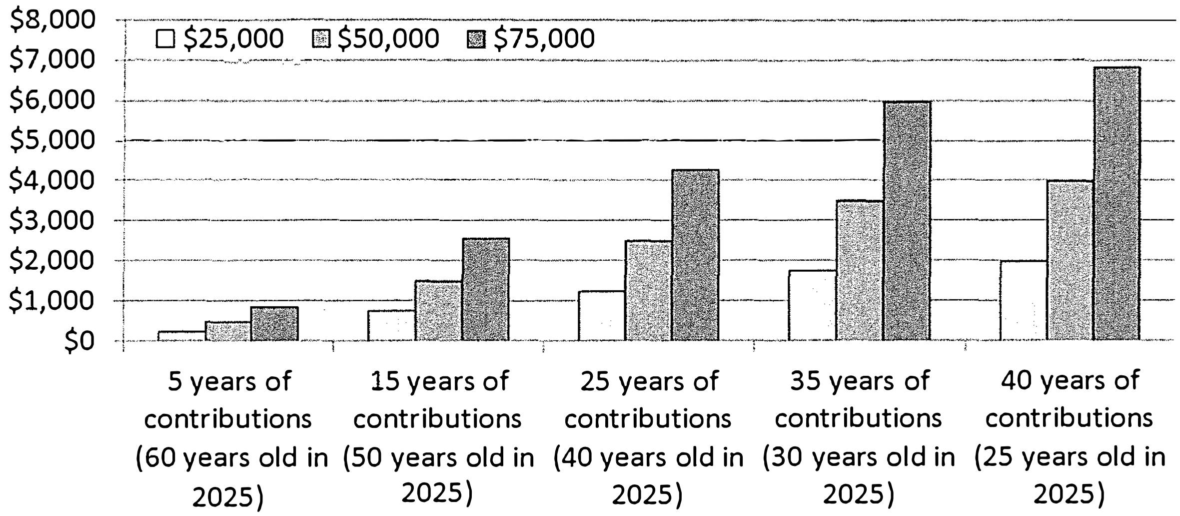
Higher Benefits for Workers

While all working Canadians covered by the core CPP will benefit from its enhancement, the CPP enhancement is designed to target middle-income Canadians. The CPP enhancement will increase income replacement from one-quarter to one-third of pensionable earnings, from the first dollar earned up to a higher earnings threshold—the maximum amount of earnings covered by the CPP will be increased by 14 per cent, which is projected to be equal to roughly $82,700 in 2025. This design generates the greatest improvement in retirement outcomes for modest- and middle-income families, as enhanced CPP benefits will accrue over their full range of earnings. Under this design:

- Roughly 7 out of 10 workers will have the entirety of their earnings covered by the enhanced CPP in any given year.
- Approximately one-third of workers will see more of their earnings covered by the enhanced CPP in any given year as a result of the extension of the earnings range, and, over their careers, approximately two-thirds of workers will see more of their earnings covered by the enhanced CPP.
- Although all contributors will see higher benefits as a result of the enhancement, younger workers will see the greatest increase in benefits.

Chart 6 presents illustrative examples of enhanced CPP benefits for individuals with varying incomes and years of contributions to the enhanced CPP.

Chart 6
Illustration of Annual Enhanced CPP Benefits for Different Age Cohorts and Income Levels ($2016)



Notes: Benefits are presented in wage-adjusted 2016 dollars in order to provide a comparison to 2016 CPP levels. This illustration assumes that individuals have constant earnings and take up CPP benefits at age 65. The increase in benefits is based on contributions starting in 2025 (when enhancement is fully implemented); rounded to nearest $10.

Source: Department of Finance Canada.

Enhanced CPP Contributions

To ensure that Canadians and the businesses they work for can adjust to these changes, the CPP enhancement will be introduced through a 7-year gradual phase-in starting on January 1, 2019.

- The higher contribution rate on earnings below the Yearly Maximum Pensionable Earnings (YMPE—$54,900 in 2016) will be phased in over the first 5 years. In 2023, the CPP contribution rate is estimated by the Department of Finance Canada to be 1 percentage point higher for both employers and employees on earnings up to the YMPE.
- Beginning in 2024, a separate contribution rate (expected to be 4 per cent each for employers and employees) will be implemented for earnings above the then prevailing YMPE. The upper

earnings limit will be extended over a 2-year period and is expected to reach $82,700 in 2025.

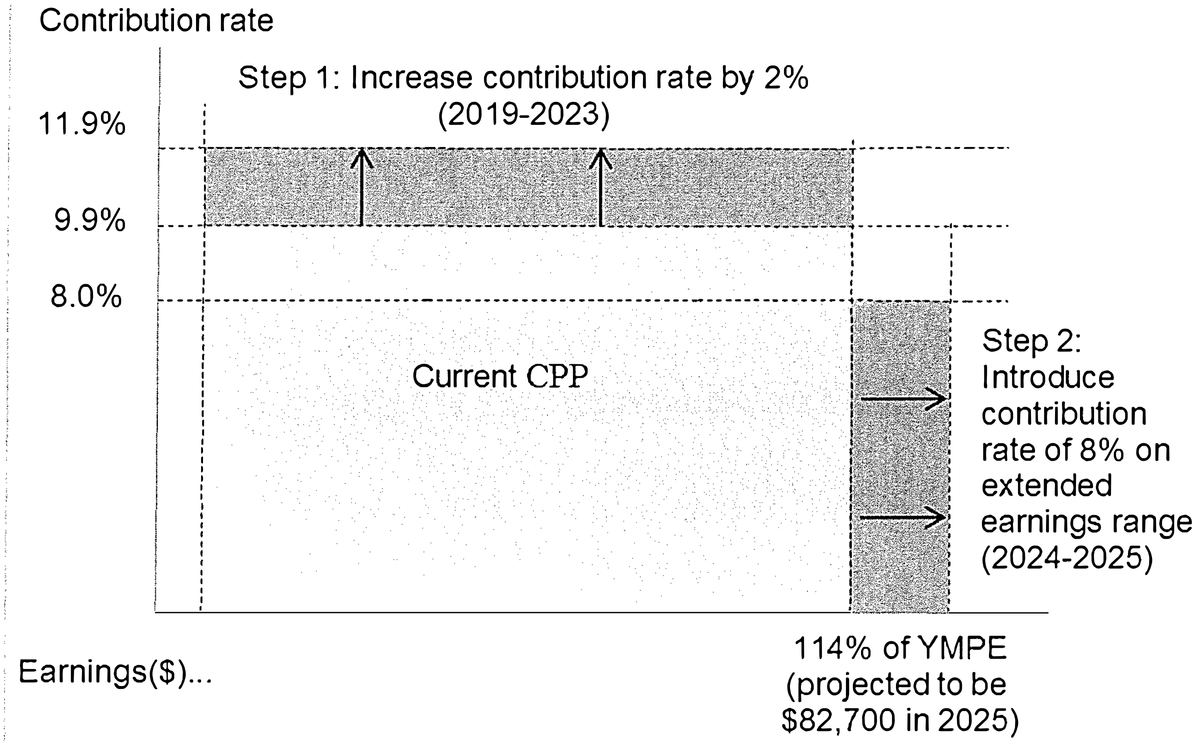
Table 1 outlines the phase-in schedule for enhanced CPP contributions. Table 2 outlines the increase in annual contributions for both employers and employees based on various levels of employee earnings. Table 3 outlines the increase in contributions for employees on a bi-weekly basis on a pre- and after-tax basis. Table 4 presents the year-over-year incremental increases in annual contributions for employers and employees. To note, the contribution rate informing these estimates is subject to secondary design decisions and will be confirmed through an independent actuarial assessment, which will be performed by the Office of the Chief Actuary.

Table 1
Contribution Rate Phase-in

	Upper earnings limit phase-in			**Estimated combined employee/employer contribution rate**			
Year	**Projected YMPE**	**Projected upper earnings limit**	**Upper earnings limit as share of YMPE**	**Below YMPE (% of max)**	**Below (YMPE R)**	**Above (YMPE % of max)**	**Above (YMPE R**
18	$58,000	$58,000	100%	0%	0%	0%	0%
2019	$59,700	$59,700	100%	15%	0.30%	0%	0%
2020	$61,500	$61,500	100%	30%	0.60%	0%	0%
2021	$63,500	$63,500	100%	50%	1.00%	0%	0%
2022	$65,600	$65,600	100%	75%	1.50%	0%	0%
2023	$67,800	$67,800	100%	100%	2.00%	0%	0%
2024	$70,100	$74,900	107%	100%	2.00%	100%	8.00%
2025	$72,500	$82,700	114%	100%	2.00%	100%	8.00%

Note: Contribution rate estimated by the Department of Finance Canada, and requires confirmation from the Office of the Chief Actuary and is subject to secondary design decisions.

Chart 7
Illustration of Phase-in of Contributions



Source: Department of Finance Canada.

Table 2
Additional Annual Contributions for Employers and Employees
Earnings

	Total estimated annual combined employee and employer contributions (nominal; rounded to nearest $10; pre-tax)			Estimated annual employee contributions (nominal; rounded to nearest $5; pre-tax)			Estimated annual employer contributions (nominal; rounded to nearest $5; pre-tax)		
Year	$27,450 (half 2016 YMPE)	$54,900 (2016 YMPE)	$82,700 (Maximum)	$27,450 (half 2016 YMPE)	$54,900 (2016 YMPE)	$82,700 (Maximum)	$27,450 (half 2016 YMPE)	$54,900 (2016 YMPE)	$82,700 (Maximum)
2018	$0	$0	$0	$0	$0	$0	$0	$0	$0
2019	$70	$150	$170	$35	$75	$85	$35	$75	$85
2020	$140	$310	$350	$70	$155	$175	$70	$155	$175
2021	$240	$510	$600	$120	$255	$300	$120	$255	$300
2022	$360	$770	$930	$180	$385	$465	$180	$385	$465
2023	$480	$1,030	$1,290	$240	$515	$645	$240	$515	$645

2024	$480	$1,030	$1,720	$240	$515	$860	$240	$515	$860
2025	$480	$1,030	$2,200	$240	$515	$1,100	$240	$515	$1,100

Notes: Contribution rate estimated by the Department of Finance Canada, and requires confirmation from the Office of the Chief Actuary and is subject to secondary design decisions.
Assumes constant nominal earnings.

Table 3
Additional Bi-Weekly Contributions for Employees
Earnings

	Estimated bi-weekly employee contributions (nominal; pre-tax)			**Estimated bi-weekly employee contributions (nominal; after-tax, based on Ontario tax rates)**		
Year	**$27,450 (half 2016 YMPE)**	**$54,900 (2016 YMPE)**	**$82,700 (Maximum)**	**$27,450 (half 2016 YMPE)**	**$54,900 (2016 YMPE)**	**$82,700 (Maximum)**
2018	$0	$0	$0	$0	$0	$0
2019	$1	$3	$3	$1	$2	$2
2020	$3	$6	$7	$2	$4	$5
2021	$5	$10	$12	$4	$7	$8
2022	$7	$15	$18	$6	$10	$12
2023	$9	$20	$25	$7	$14	$17
2024	$9	$20	$33	$7	$14	$23
2025	$9	$20	$42	$7	$14	$29

Notes: Contribution rate estimated by the Department of Finance Canada, and requires confirmation from the Office of the Chief Actuary and is subject to secondary design decisions.
Assumes constant nominal earnings and based on 2016 tax brackets.

Table 4
Year-Over-Year Increase in Annual Contributions for Employers and Employees
Earnings

	Year-over-year increase in estimated annual combined employee and employer contributions (nominal; rounded to nearest $10; pre-tax)	**Year-over-year increase in estimated annual employee contributions (nominal; rounded to nearest $5; pre-tax)**	**Year-over-year increase in estimated annual employer contributions (nominal; rounded to nearest $5; pre-tax)**

Year	$27,450 (half 2016 YMPE)	$54,900 (2016 YMPE)	$82,700 (Maximum)	$27,450 (half 2016 YMPE)	$54,900 (2016 YMPE)	$82,700 (Maximum)	$27,450 (half 2016 YMPE)	$54,900 (2016 YMPE)	$82,700 (Maximum)
2018	$0	$0	$0	$0	$0	$0	$0	$0	$0
2019	$70	$150	$170	$35	$75	$85	$35	$75	$85
2020	$70	$160	$180	$35	$80	$90	$35	$80	$90
2021	$100	$200	$250	$50	$100	$125	$50	$100	$125
2022	$120	$260	$330	$60	$130	$165	$60	$130	$165
2023	$120	$260	$360	$60	$130	$180	$60	$130	$180
2024	$0	$0	$430	$0	$0	$215	$0	$0	$215
2025	$0	$0	$480	$0	$0	$240	$0	$0	$240

Notes: Contribution rate estimated by the Department of Finance Canada, and requires confirmation from the Office of the Chief Actuary and is subject to secondary design decisions. Assumes constant nominal earnings.

Working Income Tax Benefit

The CPP enhancement would benefit all workers, including those with low incomes. However, the Government recognizes that, despite wanting to save more for retirement, many low-income workers may have difficulty making room in their budgets for higher CPP contributions.

The federal Working Income Tax Benefit (WITB) is a refundable tax credit that supplements the earnings of low-income workers. For an eligible couple or family with children in 2015, it provides a refundable tax credit of 25 per cent of each dollar of working income in excess of $3,000, reaching a maximum benefit of $1,844 at $10,375 of working income in 2015. Once net income exceeds $15,915, the benefit is reduced at a rate of 15 per cent of each additional dollar, until the benefit is fully phased out at an income of $28,209. For eligible unattached individuals in 2015, the WITB reaches a maximum benefit of $1,015 at $7,060 of working income, beginning to phase out at a net income of $11,525, and phasing out completely at an income of $18,292. More information on the WITB is available on the Canada Revenue Agency's website.

The Government of Canada will increase benefits under the WITB to help offset the incremental CPP contributions of eligible low-income workers. The proposed enhancement to the WITB will be designed to provide additional benefits that roughly offset incremental CPP contributions for eligible low-income workers. It is expected that additional annual spending of $250 million will achieve this objective (based on the full implementation of the higher contribution rate on earnings below the YMPE).

In recognition of the important role played by provinces and territories in providing basic income support, the Government of Canada has allowed them to make province-specific changes to the design of the Benefit to better harmonize with their own programs. As such, the Government of Canada will be consulting with provinces and territories before the final design of the enhanced WITB takes effect, coinciding with the introduction of the enhanced CPP.

Tax Deductibility for New Employee CPP Contributions

Employee Contributions

Employee contributions to the enhanced portion of the CPP will be deductible. A tax credit will continue to apply to existing employee CPP contributions. Providing a tax deduction for new employee CPP contributions will avoid increasing the after-tax cost of saving for Canadians. For example, it will mean that Canadians in pension plans that reduce employee pension contributions—which are deductible—in response to the increase in employee CPP contributions would not experience an increase in tax as a result of replacing a dollar of RPP contributions with a dollar of CPP contributions. Similarly, individuals who correspondingly reduce their RRSP contributions in response to increased CPP contributions would not experience an increase in tax.

Employer Contributions

Employer contributions to the enhanced portion of the CPP will be deductible from income for tax purposes, as are existing employer CPP contributions.

Contributions by Self-Employed Persons

Self-employed persons, who pay both the employee and employer share of CPP contributions, will be able to deduct both the employee and employer share of contributions to the enhanced portion of the CPP.

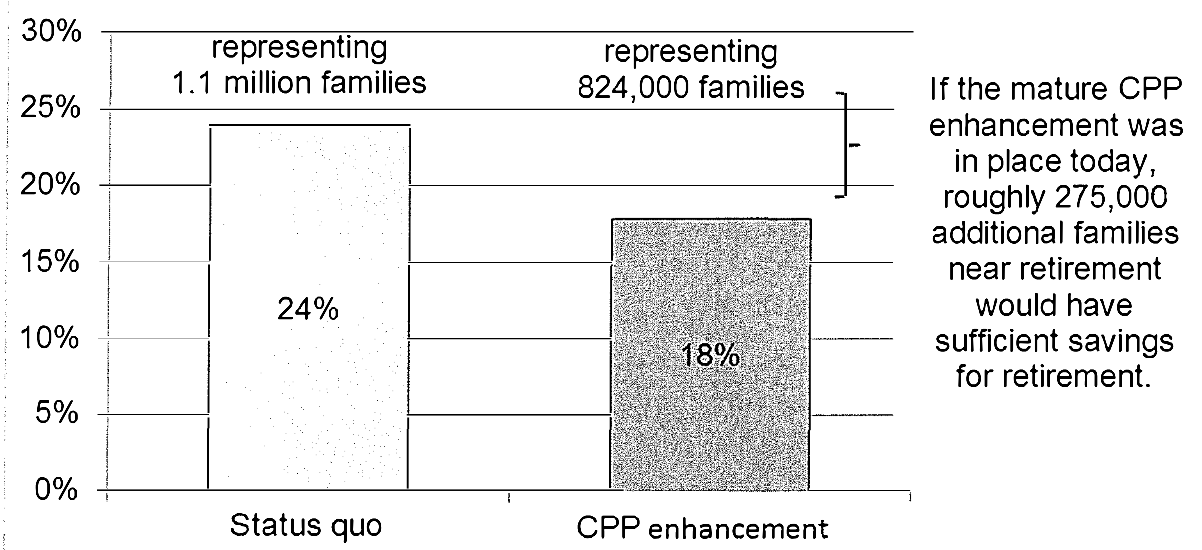
A CPP Enhancement Is Expected to Significantly Improve Retirement Income Security

Enhancing the CPP would significantly reduce the share of families at risk of not saving enough for retirement and the degree of under-saving

The Department of Finance Canada has estimated that the CPP enhancement would reduce the share of families at risk of not having adequate retirement savings by about one-quarter (from 24 per cent to 18 per cent) when considering income from the three pillars of the retirement income system and savings from other financial and non-financial assets.

Chart 8

Share of Families Near Retirement at Risk of Not Saving Adequately for Retirement

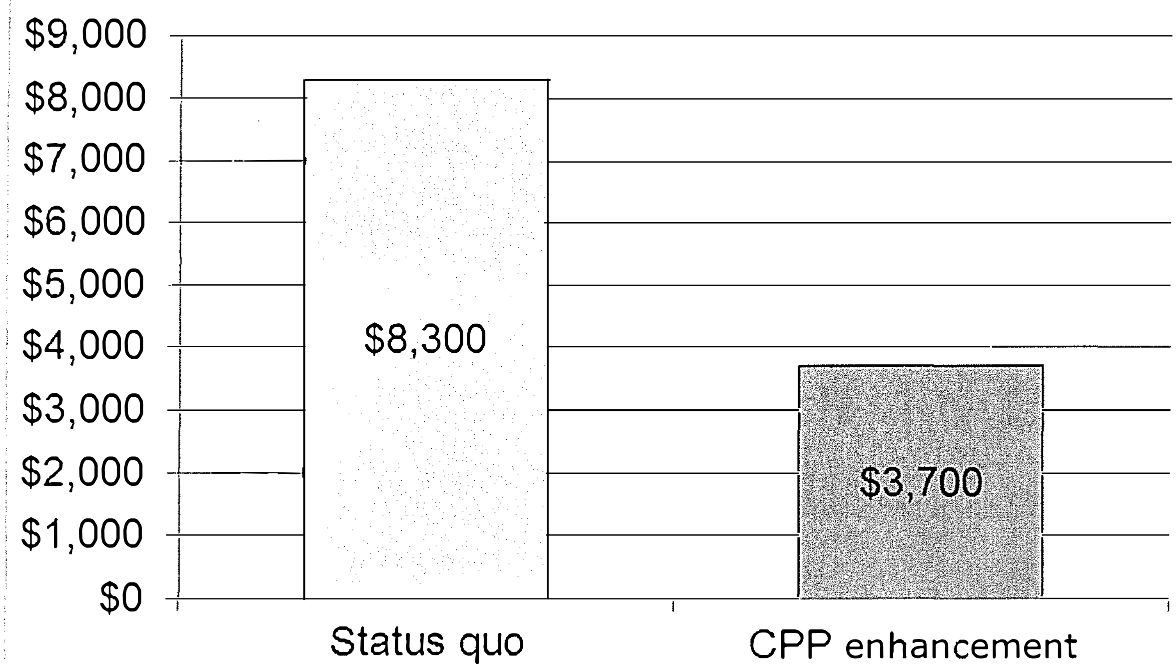


Notes: Figures represent the share of families near retirement at risk of not saving adequately (when considering income from the three pillars of the retirement income system and savings from other financial and non-financial assets) if the CPP enhancement had been in place throughout their working lives. The number of families under-saving is calculated by applying the share of families under-saving to the number of economic families in 2016 with a major income earner age 45-59. The number of families represents families from all provinces.

Source: Department of Finance Canada.

While some families would still be at risk of not saving enough for retirement after a CPP enhancement, the degree of under-saving would be materially reduced. Among families at risk, the median after-tax retirement income gap—the difference between current retirement income and that required to replace 60 per cent of pre-retirement income—is estimated to be reduced by more than half (from $8,300 to $3,700).

Chart 9
Median After-tax Retirement Income Gap for Families at Risk



Note: Figures represent the median after-tax retirement income gap after roughly 40 years once the CPP enhancement is fully mature (when considering income from the three pillars of the retirement income system and savings from other financial and non-financial assets).

Source: Department of Finance Canada.

A CPP enhancement builds on the actions the Government has already taken to support Canadians in their retirement years

Some individuals with low income in their working years will also have low income in their retirement years, making them eligible for the GIS benefit. The GIS benefit is income-tested, meaning that the benefit is generally reduced by 50 cents for every dollar of family income outside of the OAS program (e.g., CPP benefits, workplace pension plan benefits). Although total retirement income will increase for low-income workers under an enhanced CPP, higher CPP benefits may result in lower GIS benefits for low-income seniors in the future. That said, by enhancing the WITB to roughly offset incremental CPP contributions, the Government is ensuring that low-income workers who are eligible for the WITB will see an increase in their total retirement income at little to no cost during their working years.

Moreover, the Government made significant new investments to support Canadians in their retirement years. In particular, the Government:

- Increased the GIS top-up benefit for single seniors by up to $947 annually to help lift low-income single seniors out of poverty. This measure represents an investment of over $670 million per year and will improve the financial security of about 900,000 single seniors across Canada.
- Restored the eligibility age for OAS and GIS benefits to 65, which will put thousands of dollars back in the pockets of Canadians as they become seniors.

Economic and Employment Impacts of a CPP Enhancement

CPP enhancement is expected to have a positive long-term impact on the economy and employment

Over the long term, greater CPP benefits will increase aggregate demand, providing a boost to economic output. This will be aided by higher aggregate savings through the CPP, which will increase the amount of financing available for investment.

In the long term, real gross domestic product (GDP) is estimated to be between 0.05 to 0.09 per cent higher than under the status quo as a result of the CPP enhancement. Employment levels are projected to be permanently higher by between 0.03 and 0.06 per cent relative to the baseline.

Similar to those of any pension plan, CPP contributions paid by employers can be considered part of overall compensation to employees, and CPP contributions paid by employees can be considered as part of their retirement savings. As a result of the enhancement, businesses would initially face an increase in compensation costs, the impact of which is expected to be very modest and be mitigated by the phase-in of contributions.

In the short term, employment will continue to grow. There will be a temporary impact that will result in employment being 0.04 to 0.07 per cent lower relative to its projected level in the absence of the CPP enhancement.[6] The reduction is very modest because the proposed increase in contributions constitutes such a small proportion of overall employee compensation and the phase-in period will give firms time to adjust to the new contribution rate regime.

As with employment, GDP would continue to grow over the short term and it would be largely unaffected as a result of CPP enhancement. Compared to the status quo growth track of GDP, at its maximum impact the level of output is projected to be only between 0.03 per cent and 0.05 per cent lower. By way of comparison, the measures contained in Budget 2016 are projected to increase the level of GDP by 0.5 per cent in 2016–17 and 1.0 per cent in 2017–18.

Management of CPP Enhancement Funds

Changes to the *Canada Pension Plan Act* to operationalize the CPP enhancement will include consequential amendments to the *Canada Pension Plan Investment Board Act* identifying that the enhanced CPP assets will be managed by the Canada Pension Plan Investment Board.

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[1] Benefits are presented in wage-adjusted 2016 dollars in order to provide a comparison to 2016 CPP levels. Maximum benefits require roughly 40 years of maximum contributions and benefit take-up at age 65. Under the CPP enhancement, the upper earnings limit will be increased by 14 per cent, which contributes to the higher maximum benefit.

[2] The contribution rate for the CPP enhancement is subject to secondary design decisions and will be confirmed through an independent actuarial assessment, which will be performed by the Office of the Chief Actuary. Contributions have been estimated by the Department of Finance Canada.

[3] To assess whether Canadians will be able to maintain their standard of living at retirement, we compare their pre-retirement income with income that could be generated at retirement. To maintain living standards at retirement, savings need not equal pre-retirement income because retirees generally do not have to spend as much on certain items, such as consumer durables, work-related expenses, pension savings, child-related expenses and mortgages.

[4] Projected income at retirement includes expected income from the three pillars of the retirement income system as noted earlier, in addition to projected income that could be derived from other financial and non-financial assets (e.g. mutual funds, stocks, bonds, business equity and home equity). Families nearing retirement age include those families in which the person with the highest pre-tax income is between 45 and 59 years old.

[5] For these families, a more appropriate standard may be 70 per cent income replacement, which is generally consistent with the average change in standard of living experienced by lower-income families as they transition from work to retirement. Increasing the income replacement target from 60 per cent to 70 per cent has a more pronounced impact among lower-income families nearing retirement, more than doubling their share of families at risk of under-saving for retirement (from 10 per cent to 24 per cent of lower-income families, considering income from the three pillars of the retirement income system and savings from other financial and non-financial assets; Chart 2).

[6] The economic impacts of CPP enhancement are estimated using a general equilibrium model similar to those used by central banks, major governments, and international organizations such as the International Monetary Fund and the Organisation for Economic Co-operation and Development. The behavioural reactions of firms and households to the CPP enhancement are based on a range of plausible behavioural assumptions taken from econometric evidence.

CLUB VITA

Longevity risk management round table discussion

February 15, 2017

Potential topics

- Club Vita's approach to longevity and research findings
- Longevity hedging transactions
- Other strategies to mitigate longevity risk
- Mortality improvements

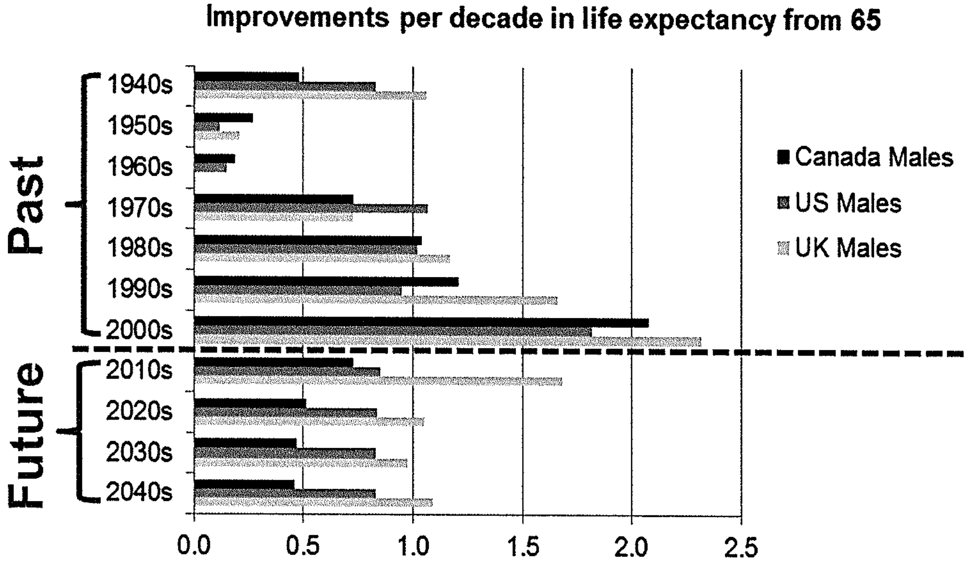
Longevity risk in the context of other risks

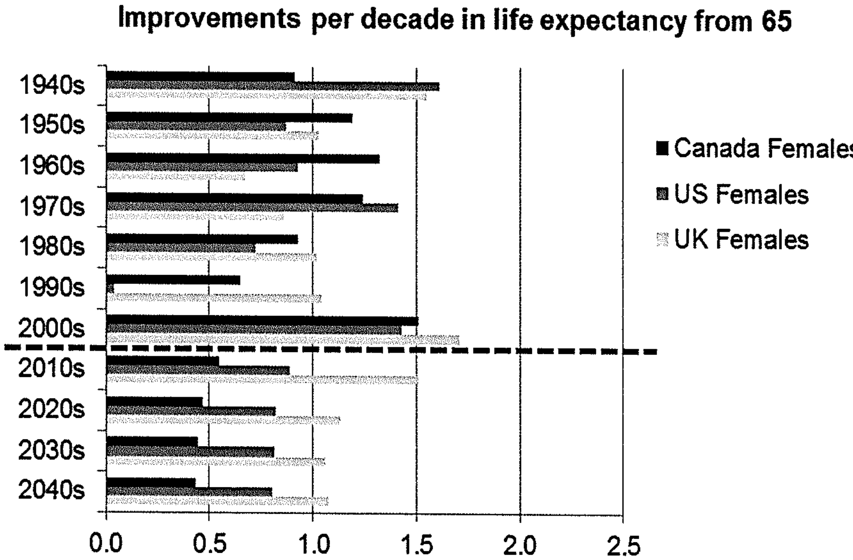
Embedded Risks	Risks Consciously Taken	Risks Impacted by Business Factors
Longevity Regulatory	Investment Asset/liability mismatch	Active membership Operational
• Risks often asymmetric • Generally receive little attention • Perceived limited options to manage risk • No reward for these risks	• Expect reward for risk • Investment risk generally receives the most attention	• External forces drive hiring and retirement of active members • Operational risk largely stems for administrative resources, practices and systems

Components of longevity assumptions & risk

Current mortality (baseline)	*Measurement risk* ▪ Arises from difficulties in measuring current mortality ▪ Mitigated through better and more frequent measurement *Experience risk* ▪ Due to annual variations in mortality experience ▪ Depends heavily on plan size and membership characteristics
Future changes in mortality	*Trend risk* ▪ Future changes in mortality are unknown ▪ Risk of mortality evolving differently than expected ▪ Can't be mitigated with better measurement alone

Expectation of rapid deceleration in improvements





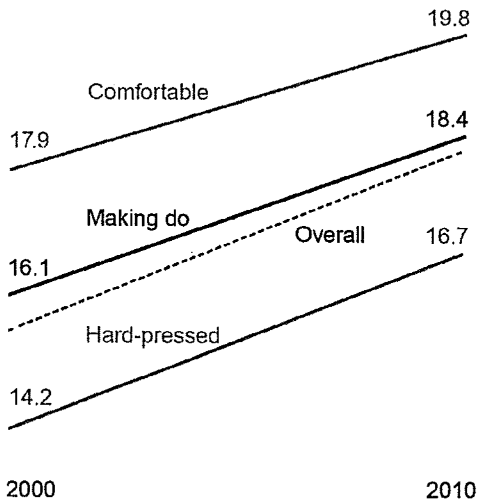
The small print:

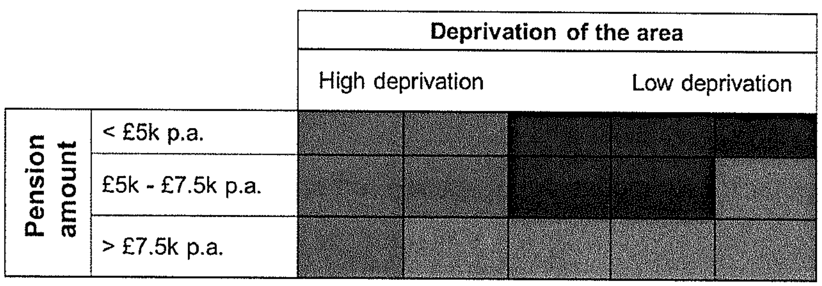
- Historical rates (up to 2010) based on population LEs from 65 – 2010s figures for Canada have been estimated using improvements from 2000 to 2009 scaled up
- Rates from 2010 onwards based on:
  - Canada – the CPM-RPP combined base table with improvement scale CPM-B applied.
  - USA – the draft RP-2014 combined healthy base table with improvement scale MP-2014 applied.
  - UK – S1PMA with CMI_2013 [1.5%] applied – representing a "typical" UK assumption.

CLUB VITA

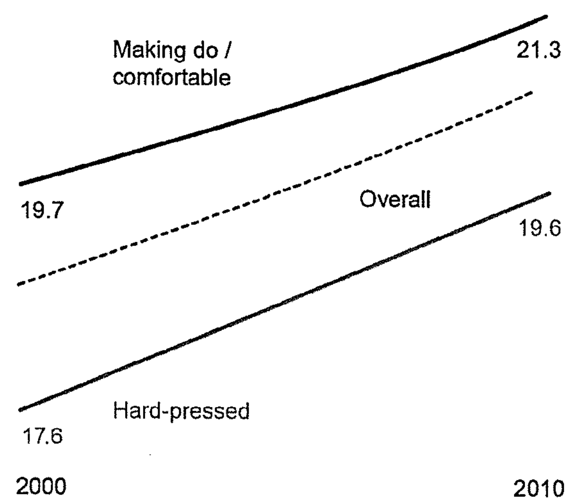
Analyzing UK trends by socio-economics

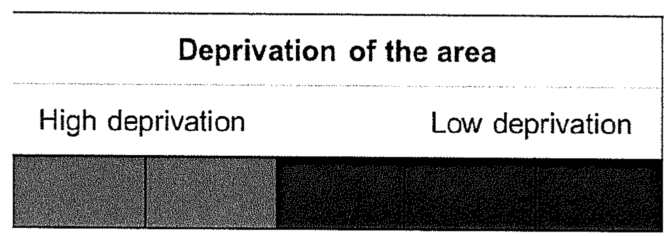
Change in period life expectancy	Years	%
Comfortable	+1.9	+11%
Making do	+2.3	+14%
Hard-pressed	+2.5	+18%





Change in period life expectancy	Years	%
Making do / comfortable	+1.6	8%
Hard-pressed	+2.0	11%





Source: Club Vita UK analysis

Club Vita's approach to longevity and research findings

CLUB VITA

A club of like-minded pension plans

Abelica Global™
Consultants and Actuaries

HYMANS ROBERTSON

CLUB VITA

- Launched in 2008
- Over 200 pension plans
- 2.5 million pensioner records representing 1 in 7 UK retirees

Eckler
CONSULTANTS + ACTUARIES

CLUB VITA

- Incorporated in December 2014
- 500,000 pensioner records in pilot
- Aiming to grow to 1 million pensioners over next 3 years

Shift focus from plans to members

Top-down/plan-focused approach (traditional)

Published or industry table

Adjustments based on plan experience

Plan-specific mortality tables

Focuses on <u>average</u> experience for <u>existing pensioners</u>

Bottom-up/member-focused approach (Club Vita)

Plan-specific mortality tables

Weight sub-groups based on plan membership composition

Mortality curves for a wide range of sub-groups

Focuses on membership <u>sub-group</u> characteristics of <u>entire plan</u>

Key rating factors

Age

Gender

Pensioner Type

Retirement Health

Wealth

Region

Socio-economic status/lifestyle

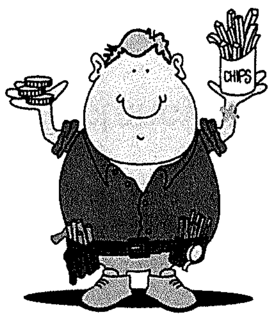
Geo-demographics

Job Type

Marital Status

11 year range of male lifespans

Healthy, wealthy male pensioners have 11 years extra life expectancy from age 60



Life expectancy from 60: **15.9 years**

- Disabled retirement
- Unhealthy lifestyle postal code
- Low affluence
- Manual worker

Retirement health 4 ½ yrs

Region/lifestyle 4 yrs

Affluence 2 ½ yrs

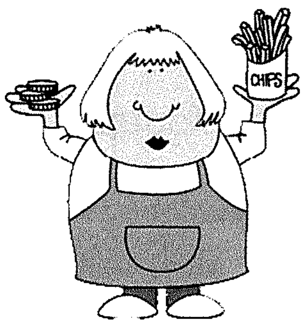
Job type <1 yr

Life expectancy from 60: **27.2 years**

- Regular retirement
- Healthy lifestyle postal code
- High affluence
- Non-manual worker

8 year range of female lifespans

Healthy, wealthy female pensioners have 8 years extra life expectancy from age 60



Life expectancy from 60: **22.8 years**

- Disabled retirement
- Unhealthy lifestyle postal code
- Low affluence
- Manual worker

Retirement health 3 yrs

Region/lifestyle 4 yrs

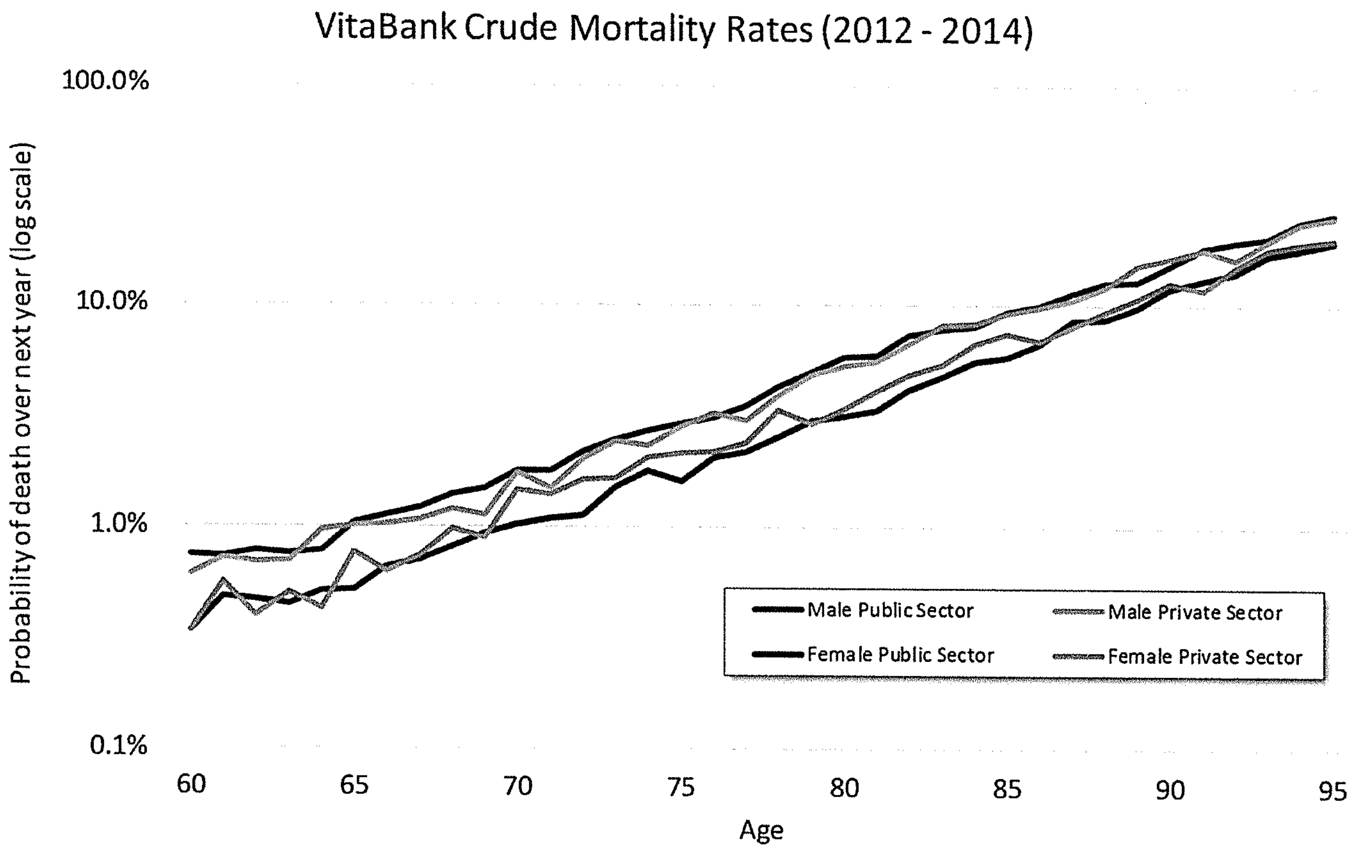
Affluence 1 yrs

Job type n/a

Life expectancy from 60: **30.7 years**

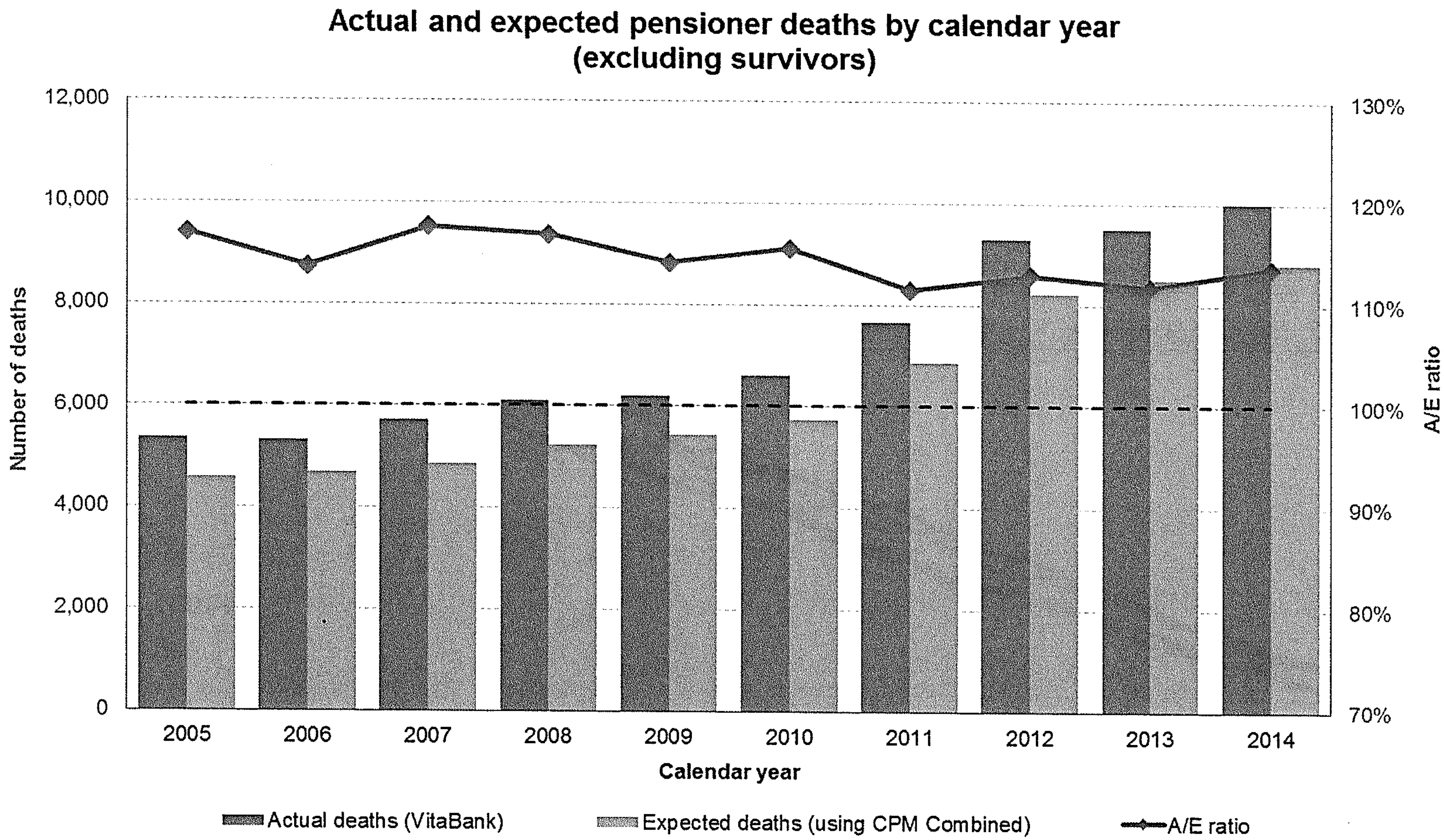
- Regular retirement
- Healthy lifestyle postal code
- High affluence
- Non-manual worker

Public versus Private



- VitaBank public and private sector mortality quite similar
- Our modelling did not support including public/private sector as a longevity rating factor

VitaBank versus CPM Combined over time



- VitaBank's mortality has been consistently higher than CPM Combined
- More in line with CPM Private

Longevity hedging transactions

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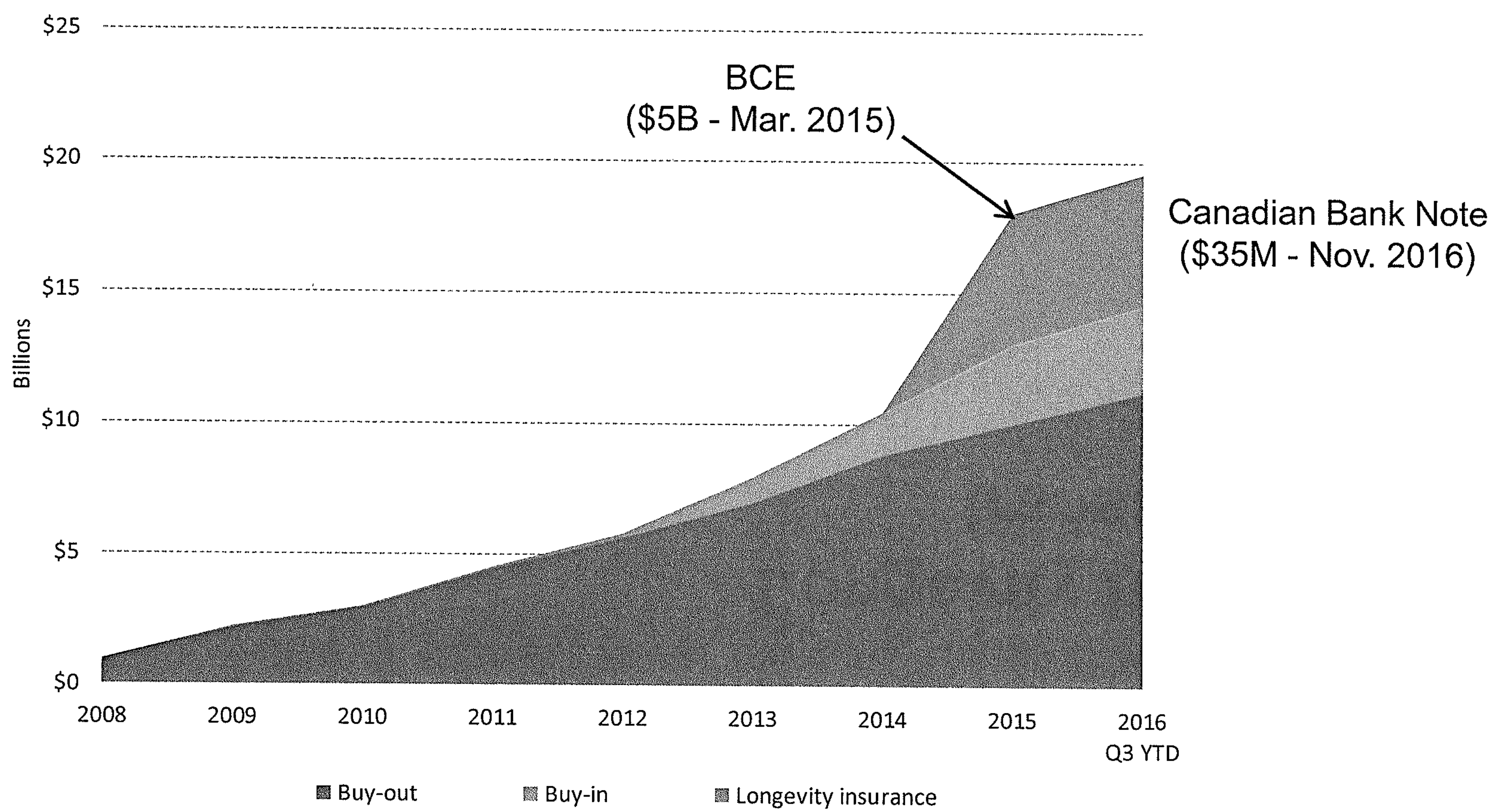
Evolution of Canadian risk transfer market

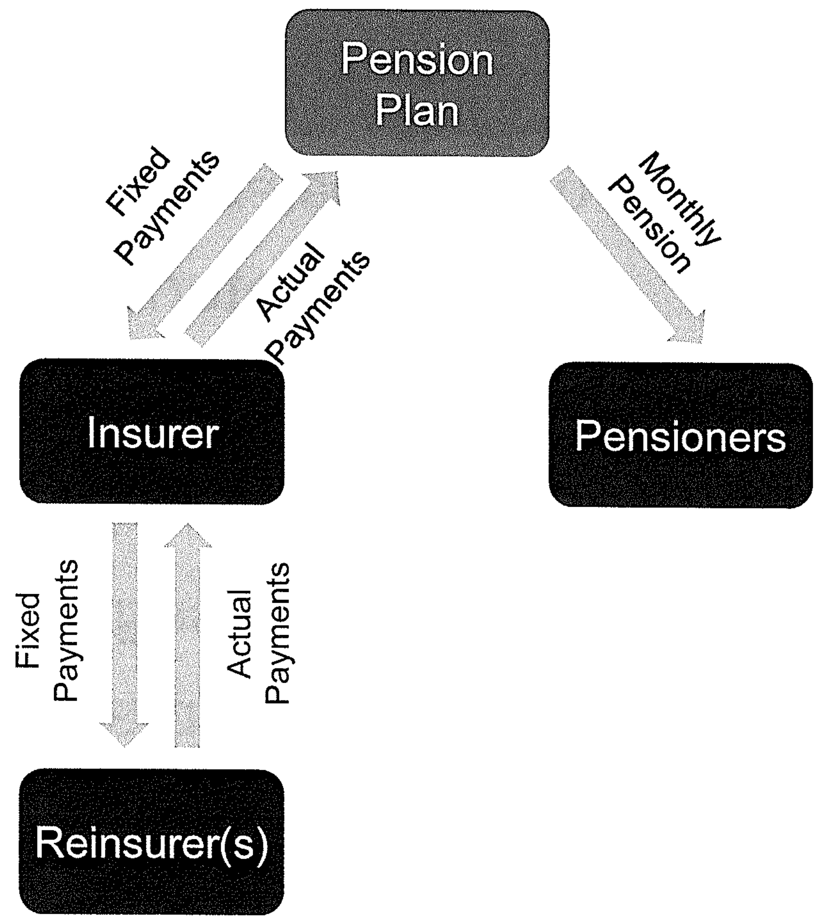


Longevity risk hedging transactions

- Parties agree on best estimate longevity basis
  - Baseline + improvements
- Plan pays fixed payments
  - Explicit % fee/premium layered on expected payments
- Counterparty risk
  - Mitigated through contractual arrangement/collateral

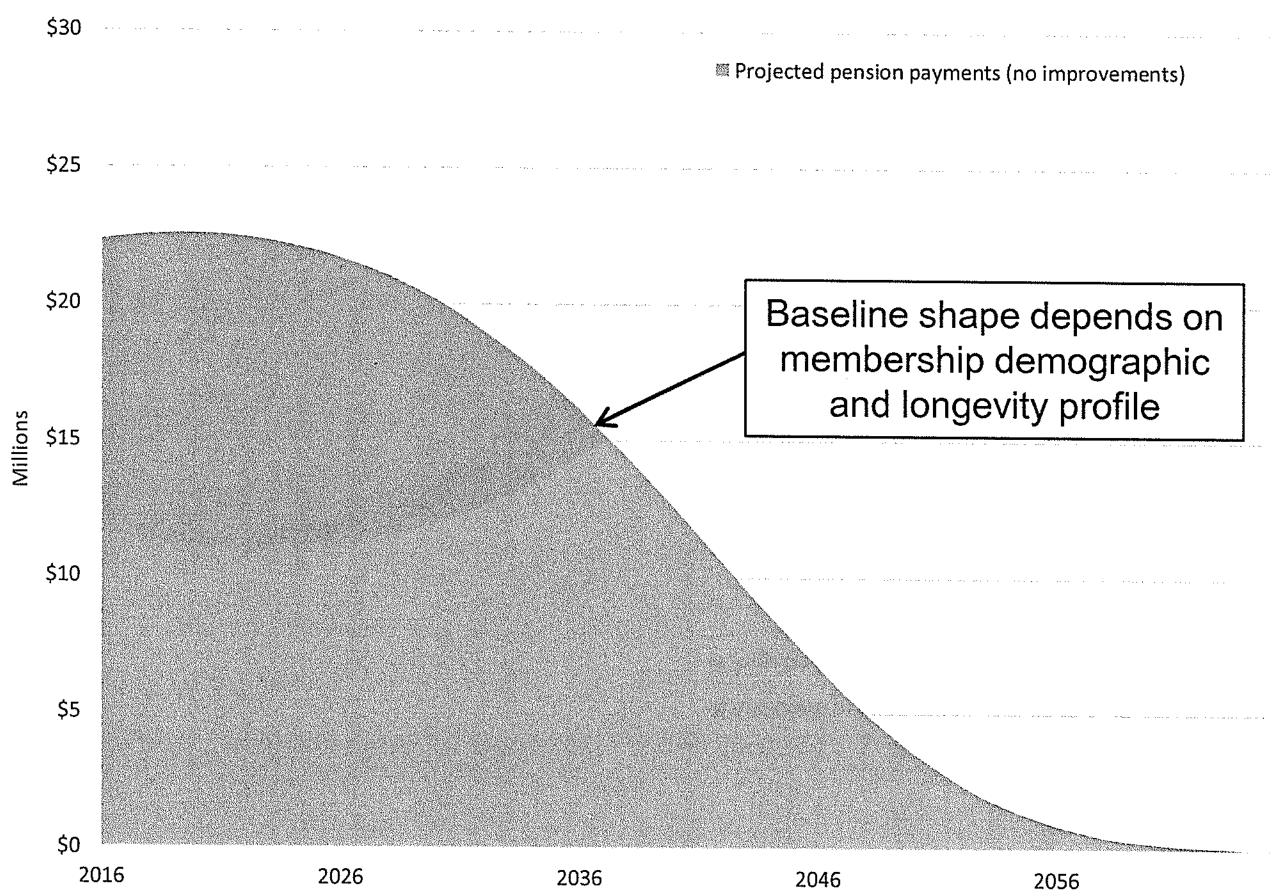
Longevity Insurance	Longevity Swap
▪ Based on plan's own experience ▪ Typically continue until the last covered member dies	▪ Based on a reference population or index ▪ Basis risk due to reference population vs. actual covered population ▪ May be for a fixed term

Longevity insurance

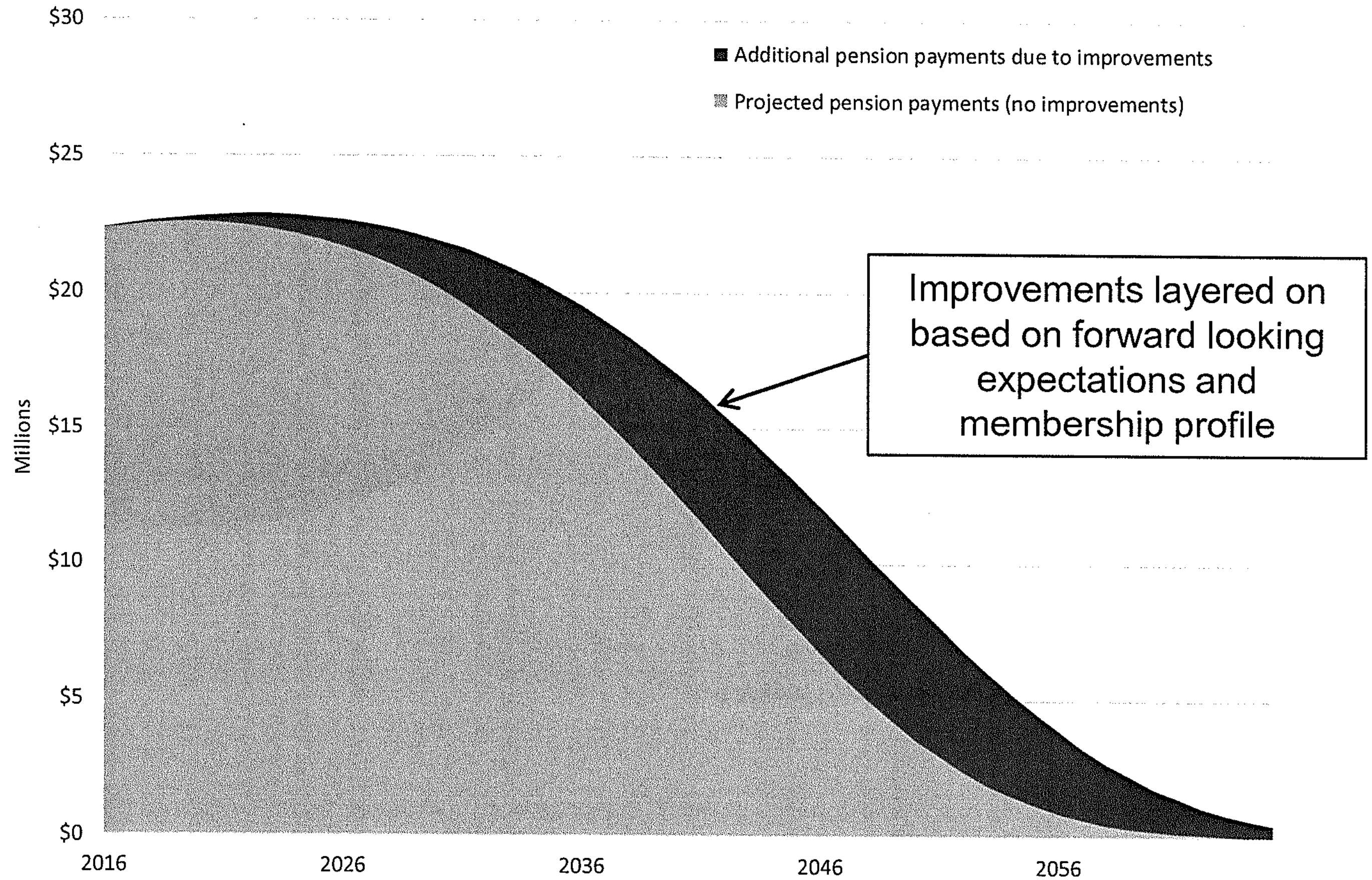


- Plan retains investment and interest rate risk
- Unlike a group annuity, premium paid over time
  - Creates counterparty risk
- Large transactions often involve one or more reinsurers
  - Two reinsurers participated in the BCE transaction
  - Reinsurers often have specialized longevity expertise and greater capacity for longevity risk

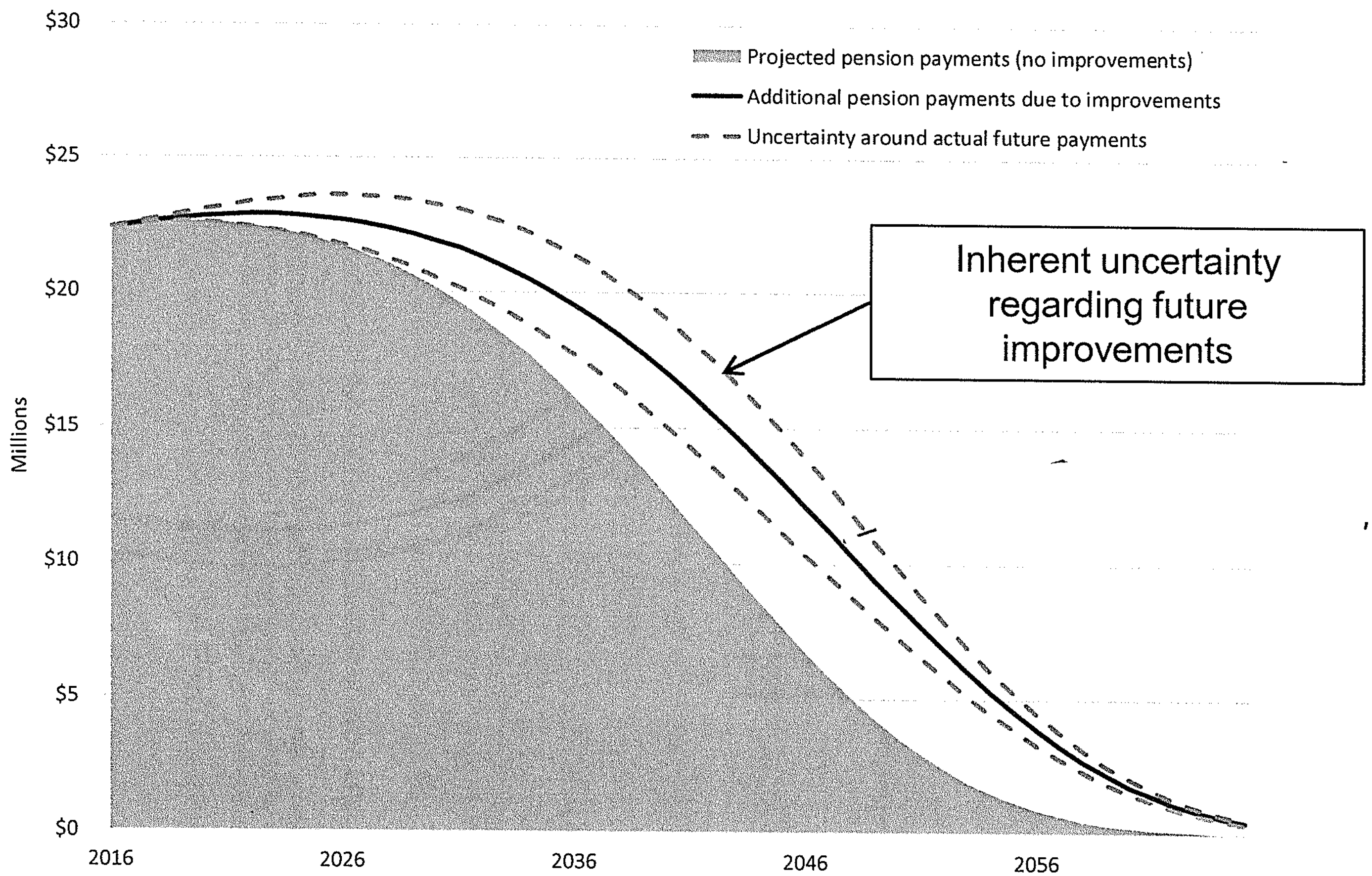
Illustrative projection of pensions



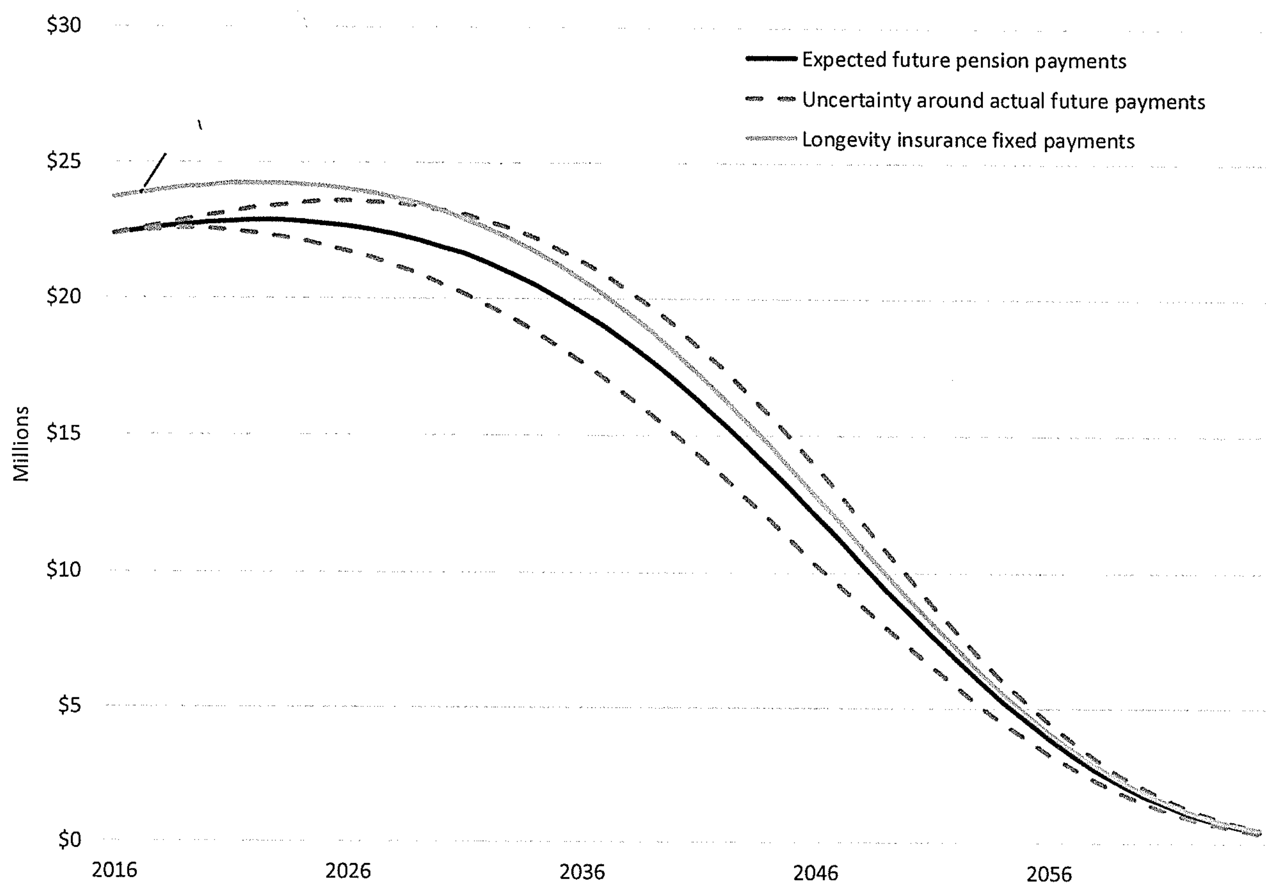
Illustrative projection of pensions



Illustrative projection of pensions



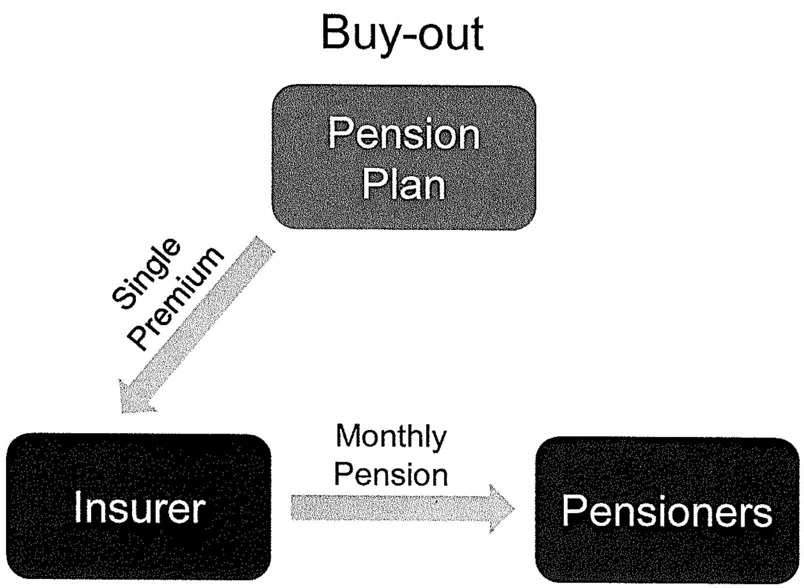
Longevity risk hedging transactions



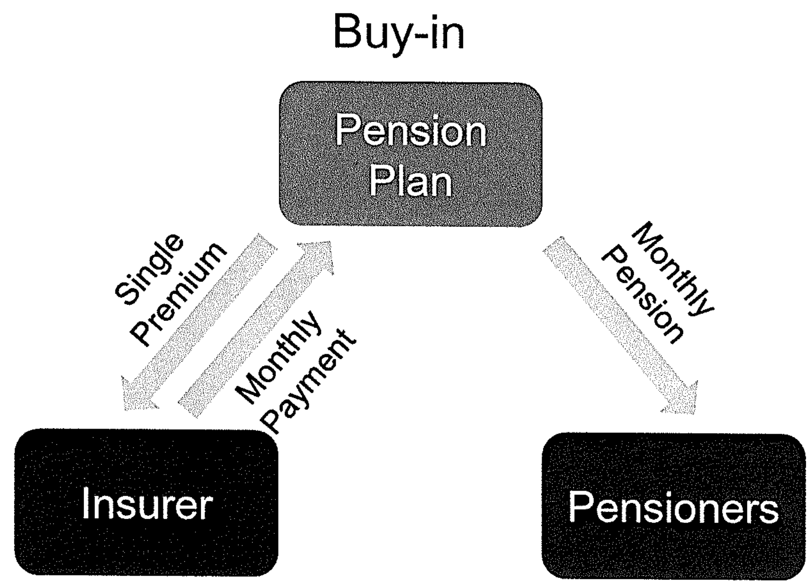
Other strategies to mitigate longevity risk

CLUB VITA

Buy-out vs. buy-in annuities



- Insurer administers pensions
- Viewed as a plan investment



- Plan continues to administer pensions
- Settlement of liabilities

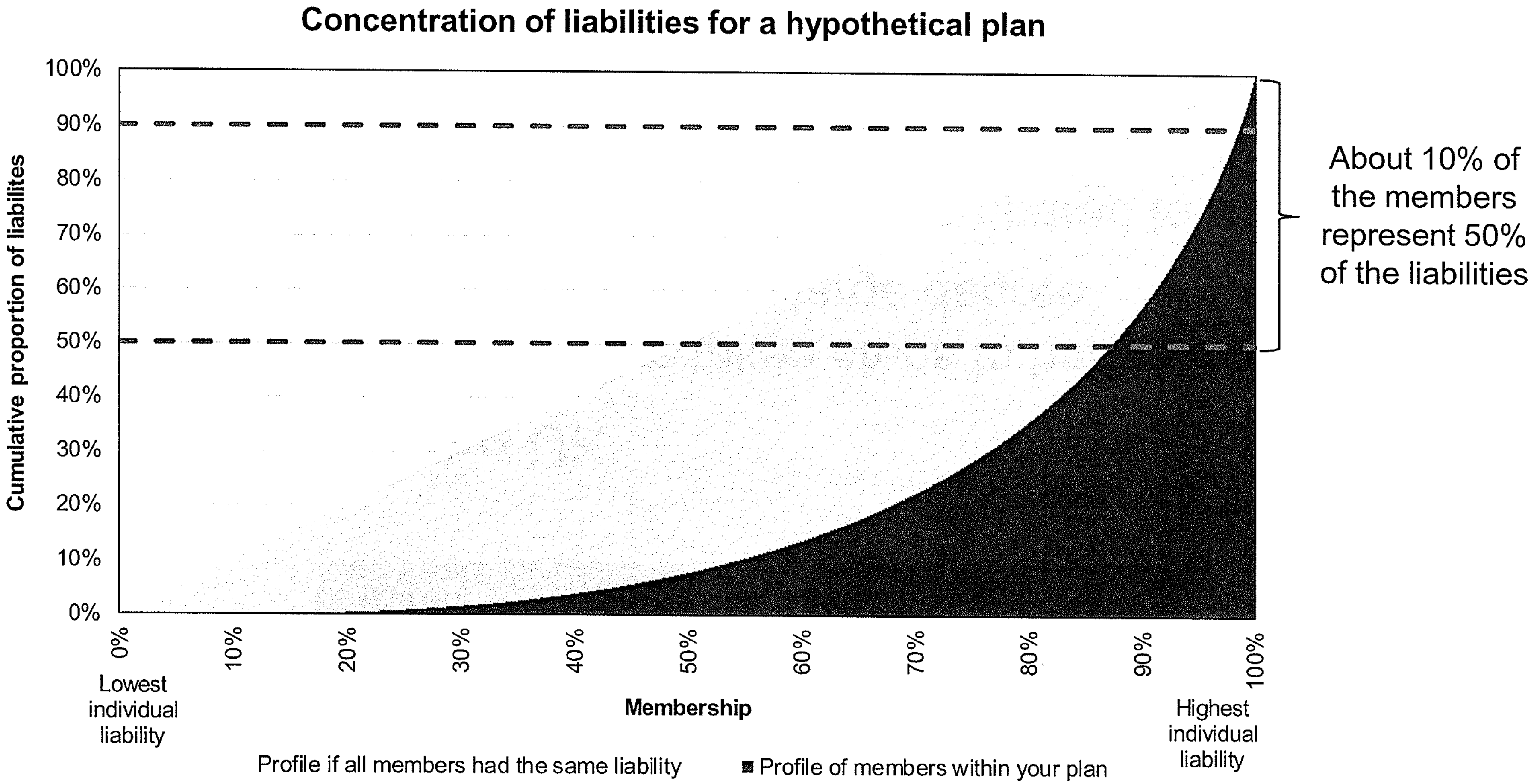
Single premium paid to insurer
Investment, interest rate and longevity risk transferred to insurer

Synthetic buy-in

Longevity hedging transaction + Liability driven investment strategy

- Popular in the UK
  - Many UK plans have taken steps to hedge interest rate and inflation risk to a large degree
  - Potentially more cost effective compared to a full buy-out or buy-in

Top slicing to tackle concentration risk



Liability concentration stems from groups with long service and high earnings, and is compounded by longer life expectancy for high earners

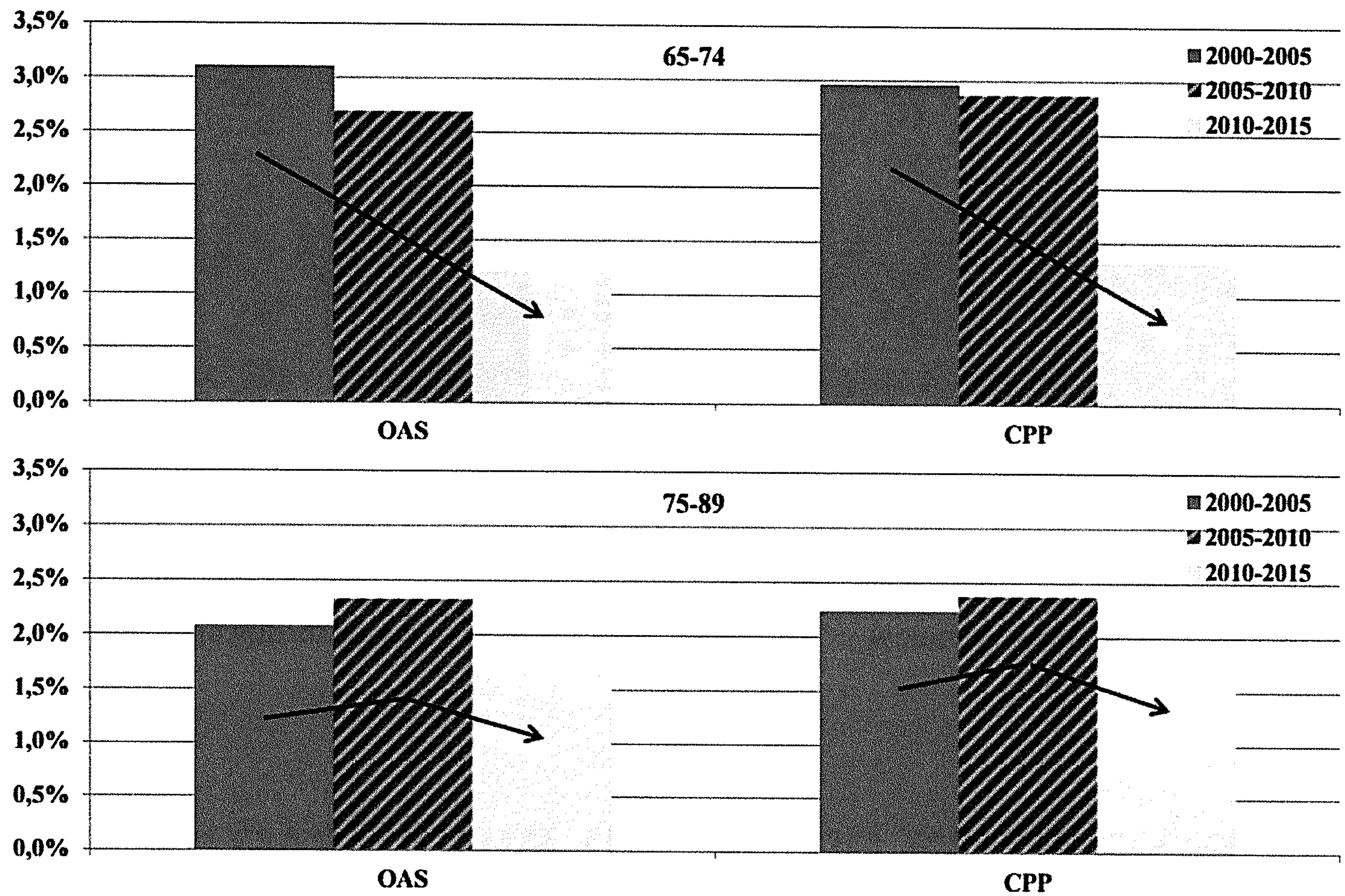
Top slicing

- Target specific sub-groups
  - Use to address concentration risk; or
  - Protect against potential of deviations in future improvements
- Implicit top slicing
  - E.g., dividing an annuity purchase to maximize Assuris coverage
- Challenges
  - Smaller populations and higher affluence mean insurers are more prudent (i.e., higher prices)

Mortality improvements

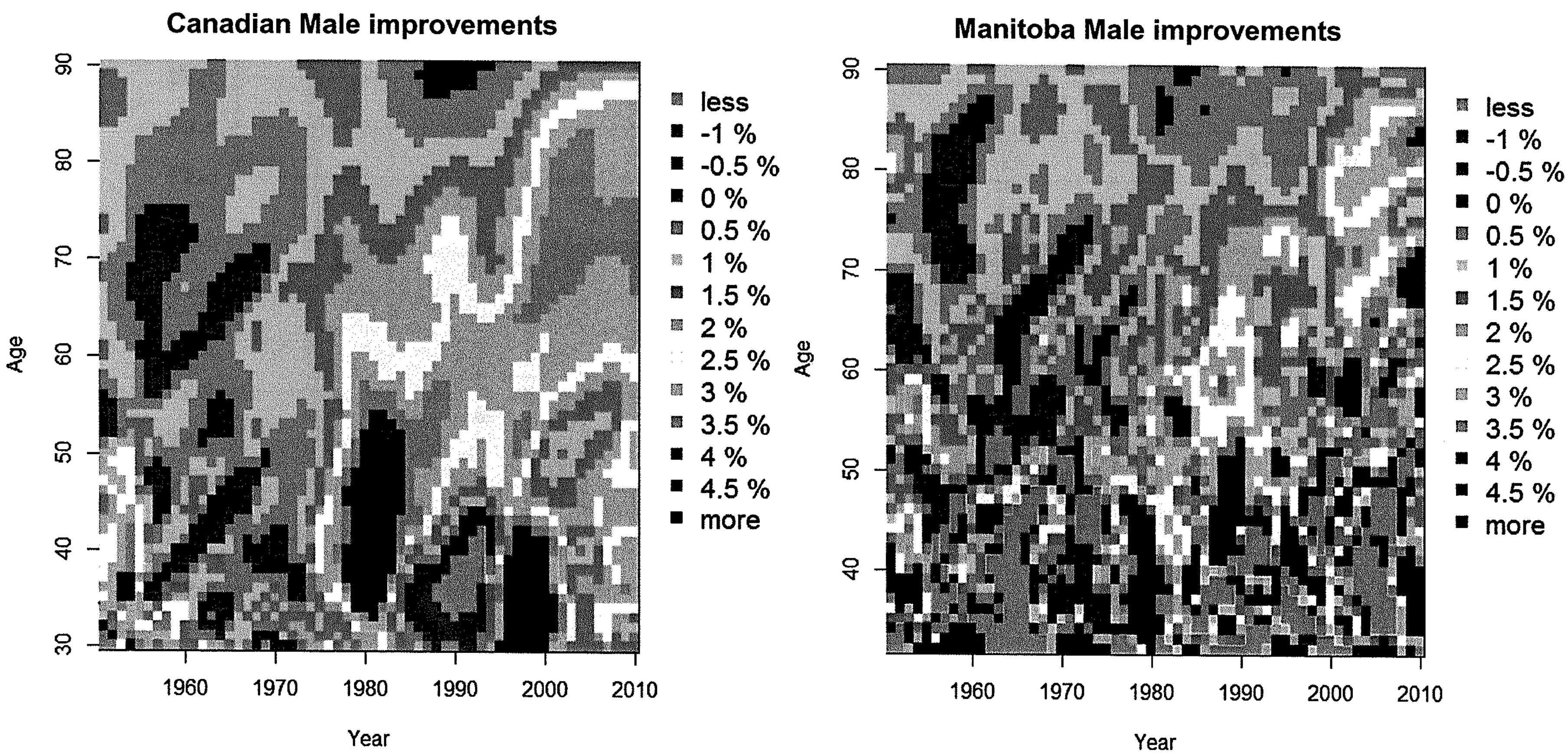
CLUB VITA

Recent CPP/OAS average annual mortality improvement rates (males)



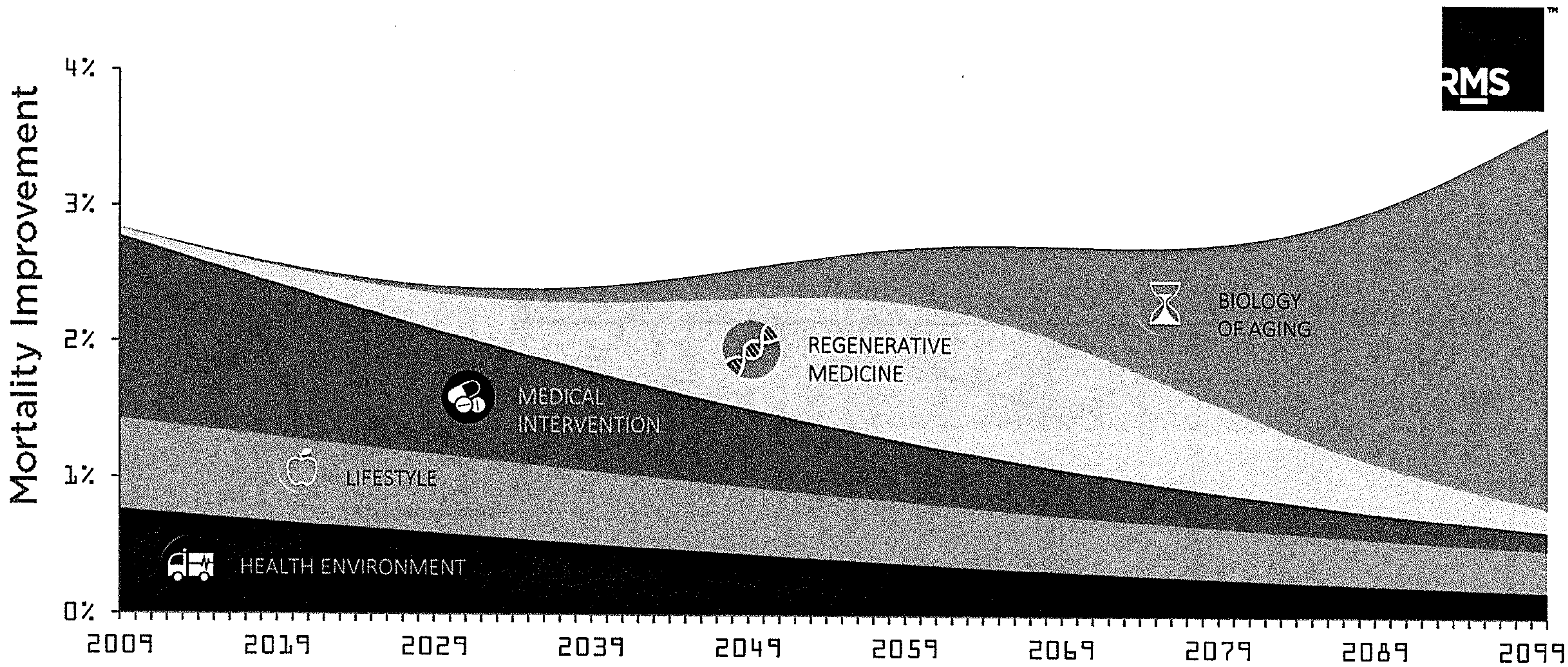
Source: OSFI, Office of the Chief Actuary calculations (presented at the SOA Living to 100 conference in January 2017)

Are improvements the same across Canada?



Source: Canadian Human Mortality Database, http://www.bdlc.umontreal.ca/chmd/, Periods: 1950-2010, Ages: 30-90

What will be the future drivers of mortality improvements?



Lifestyle

Health Environment

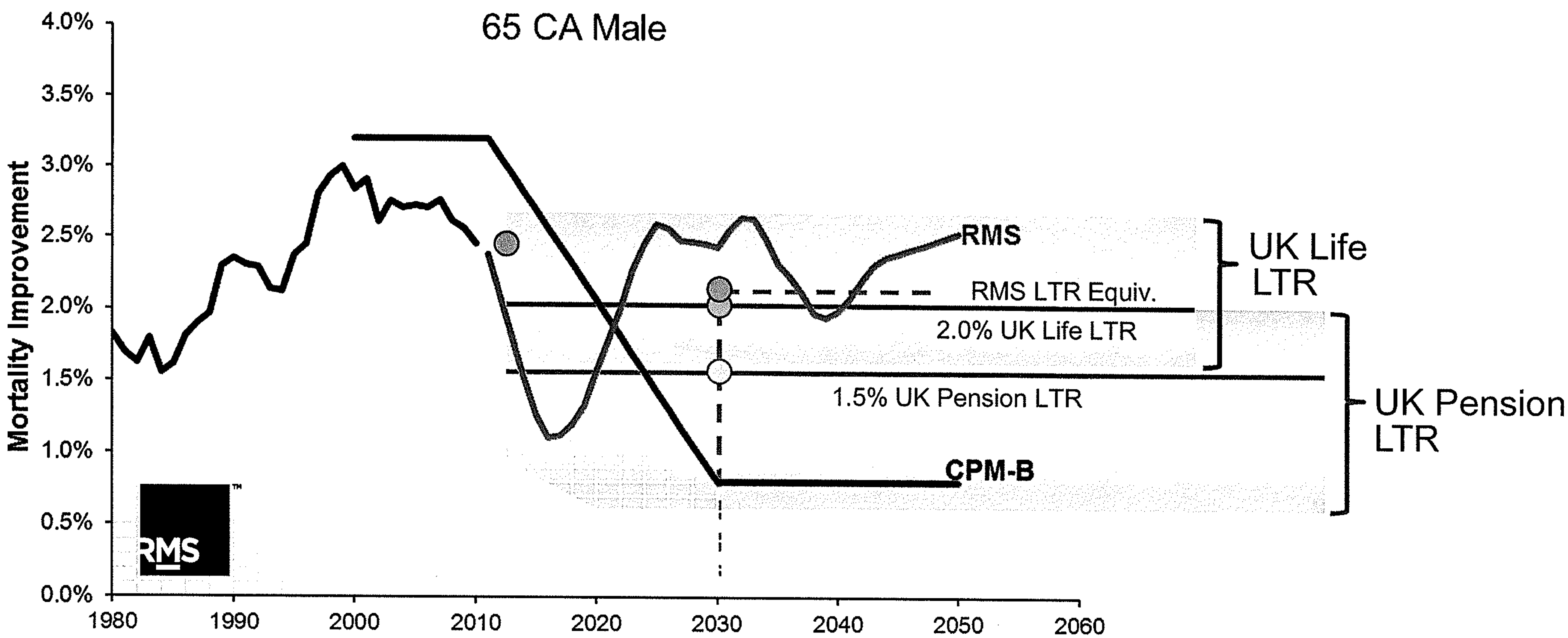
Medical Intervention

Regenerative Medicine

Biology of Aging

Source: Risk Management Solutions (RMS)

Long-term improvement rates



Source: Risk Management Solutions (RMS)

OFFICE OF THE
AUDITOR GENERAL
MANITOBA

February 13, 2017

Mr. Scott Lamont, FCGA
Vice-President (Finance and Administration)
Brandon University
270 - 18th Street
Brandon, Manitoba R7A 6A9

Ms. Heather Gillander
Chair
Brandon University Retirement Plan
270 - 18th Street
Brandon, Manitoba R7A 6A9

Dear Mr. Lamont and Ms. Gillander:

Audit agreement for the year ended December 31, 2016

The Board of Trustees has appointed the Auditor General of Manitoba as auditors for the Brandon University Retirement Plan for the year ended December 31, 2016.

We have appointed BDO Canada LLP to act as our agent in performing the audit. They will report to us, and we will review their work, throughout the audit.

Management's responsibilities and representations

Management will:

1. prepare and present fairly your financial statements under Canadian accounting standards for pension plans.
2. ensure proper internal control for preparing financial statements, that are free from material misstatement whether due to fraud or error.
3. comply with legislative authorities.
4. correct any material misstatements in the financial statements that we find during the audit.
5. provide us:
   - prompt access to all relevant information used to prepare the financial statements, such as records, documentation, and other matters.
   - additional information that we request.
   - unrestricted access to staff involved with the Plan.
6. provide us information on fraud or suspected fraud involving:
   - management.
   - employees.
   - other parties, if the fraud could affect the financial statements.

7. provide us written representations that they:
    - have prepared and presented fairly the financial statements under Canadian accounting standards for pension plans and that the financial statements reflect all transactions.
    - believe the effects of unrecorded misstatements are immaterial, individually and in total, to the financial statements as a whole.
    - have given us all relevant information and access.
8. provide us a draft annual report and obtain our approval before reproducing our auditor's report, in any format.
9. reproduce accurately and completely our auditor's report and the material we have reported on.

Our responsibilities and audit limitations

Audit objective—we will express an opinion on whether your financial statements present fairly, in all material respects, your financial position, changes in net assets available for benefits and pension obligations in accordance with Canadian accounting standards for pension plans.

We plan to issue the draft auditor's report in Appendix 1. We will talk to management and the Board of Trustees if we need to significantly change the auditor's report.

Auditing standards and limitations—we will perform our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we meet ethical requirements, and plan and perform the audit to obtain reasonable (not absolute) assurance about whether the financial statements are free from material misstatement.

The audit may not find every material misstatement because there are inherent limitations in the audit process, such as the use of judgment and selective testing of data. In addition to the inherent limitations in the audit process, collusion or forgery may hide material error, fraud, or illegal acts from being detected.

Our audits are not design to detect immaterial error or fraud.

To design appropriate audit procedures, we consider the internal controls, but we do not express an opinion on their effectiveness.

Confidential information— per section 10 (2) of *The Auditor General Act*, we will report to the Legislative Assembly matters we consider "should be brought to the Assembly's attention". We will keep all other non-public information confidential.

What we will report to management and the Board of Trustees

1. Our audit plan.
2. Our audit results, including:
    - our views of management's accounting policies, accounting estimates, and financial statement disclosure.
    - misstatements resulting from non-trivial errors.
    - disagreements with management.
    - fraud or possible fraud.

- illegal or possibly illegal acts.
- significant deficiencies in the design or implementation of internal controls to prevent and detect fraud or error.
- related-party transactions not in the normal course of operations and involving significant judgments by management on measurement or disclosure.
- matters that significantly affect the qualitative aspects of accounting principles used in your financial reporting.
- other matters from the audit that are important and relevant to the Board of Trustees.
- matters relating to our independence, including disclosure of our fees for audit and non-audit services.

3. Draft copies of the following items to review:
   - written representations from management.
   - significant matters arising from the audit that are the subject of correspondence.
   - a management letter, if the audit has any significant findings.
   - audit opinion.

Other terms

Working papers—the working papers, files, other materials, reports, and work we create, develop, or perform during the audit are our confidential property. We will retain them under our Office's policies and procedures.

Estimated fees—we will conduct the audit, in the time we agree on, and give you an opinion that meets your reporting requirements. We estimate the audit fee at $8,150 before taxes. Last year's audit fee was $7,950, before taxes. If we need significant additional time, we will explain why and agree on a new fee estimate.

Term of this agreement—this agreement remains in effect until amended. We will discuss the agreement with you any time, particularly if your requirements change.

Your agreement—to indicate that you agree with management's responsibilities and understand our role and responsibilities, please sign both copies of this letter, return one signed copy to us, and keep one copy for your records.

Yours sincerely,

Brendan Thiessen, CPA, CA
Principal

BT/ja

We agree with management's responsibilities and understand the role and responsibilities of the Office of the Auditor General as described in this letter.

Mr. Scott Lamont, FCGA Vice-President (Finance and Administration) Brandon University	Ms. Heather Gillander Chair Brandon University Retirement Plan
Date	Date

Appendix 1

INDEPENDENT AUDITOR'S REPORT

To the Legislative Assembly of Manitoba
To the Board of Trustees of the Brandon University Retirement Plan

We have audited the accompanying financial statements of the Brandon University Retirement Plan, which comprise the statement of financial position as at December 31, 2016, the statements of changes in net assets available for benefits and changes in pension obligations for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian accounting standards for pension plans, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of the Brandon University Retirement Plan as at December 31, 2016 and the changes in net assets available for benefits and changes in pension obligations for the Plan for the year then ended in accordance with Canadian accounting standards for pension plans.

Office of the Auditor General
[Date]
Winnipeg, Manitoba

Pension Board Trustees (February 2017)

Name	**Address**	**Phone**	**Email**
Sharon Hooper (Exempt) May 2015 to April 2018	Human Resources	204-727-7416	hoopers@brandonu.ca
Heather Gillander **(Chair)** (BUFA) May 2015 to April 2018	Arts (Business Administration)	204-727-9792	gillanderh@brandonu.ca
Todd Fugleberg (BUFA) June 2015 – May 2018	Science (Physics & Astronomy)	204-571-8577	fuglebergt@brandonu.ca
Becky Lane (MGEU) Feb 2016 – Jan. 2019	Ancillary Services	204-727-7394	laneb@brandonu.ca
George Manby (IUOE D) May 2014 – April 2017	Physical Plant	204-727-9620	manby@brandonu.ca
Shawn Chambers (BOG) Sept 2016 – Aug 2017		204-988-6742	shawn.chambers@rbc.com
Scott Lamont (BOG) Sept 2016 – Aug 2017	Administration & Finance	204-727-9707	lamont@brandonu.ca
Ian Smith (IUOE A) May 2014 – April 2017	Physical Plant	204-727-9620	smithi@brandonu.ca
John Rice (Pensioner Representative) Sept 2014 – Aug 2017	Science	204-727-9693	rice@brandonu.ca
Tanya Cantlon (MGEU) February 2015 – January 2018	Library	204-727-9747	cantlont@brandonu.ca

Susan Smale (Resource)	Administration & Finance	204-727-9723	smale@brandonu.ca