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Quarterly Update on Estimated Solvency Funded Status of Defined Benefit Plans in Ontario - as of September 30, 2017

Update as at September 30, 2017

- **The median solvency ratio is 91% (compared to 89% as at June 30, 2017)**
- **58.3% of plans had a solvency ratio between 85% and 100%**
- **18.2% of plans had a solvency ratio greater than 100%**

Defined Benefit (“DB”) pension plan solvency positions improved to 91% at September 30, 2017 from 89% at June 30, 2017. The median solvency ratio increase is primarily attributable to the rise in commuted value (CV) interest rates (against which solvency liabilities are highly leveraged). Partially offsetting the benefit of lower solvency liabilities due to higher solvency interest rates, FTSE TMX Universe bond returns were harmed by these same bond yield increases, and fell 1.8% in the third quarter. MSCI World equity returns rallied at quarter-end to remain positive and returned 1.0% in the quarter and year-to-date returns remained very strong at 8.2%. Despite an appreciating CDN \$, third-quarter S&P/TSX domestic equity returns were robust at 3.7% after posting a relatively weak 0.7% gain in the first half of the year. The resulting median third quarter 2017 net after-expense plan return was approximately 0.4% and was a slight source of solvency loss over the quarter.

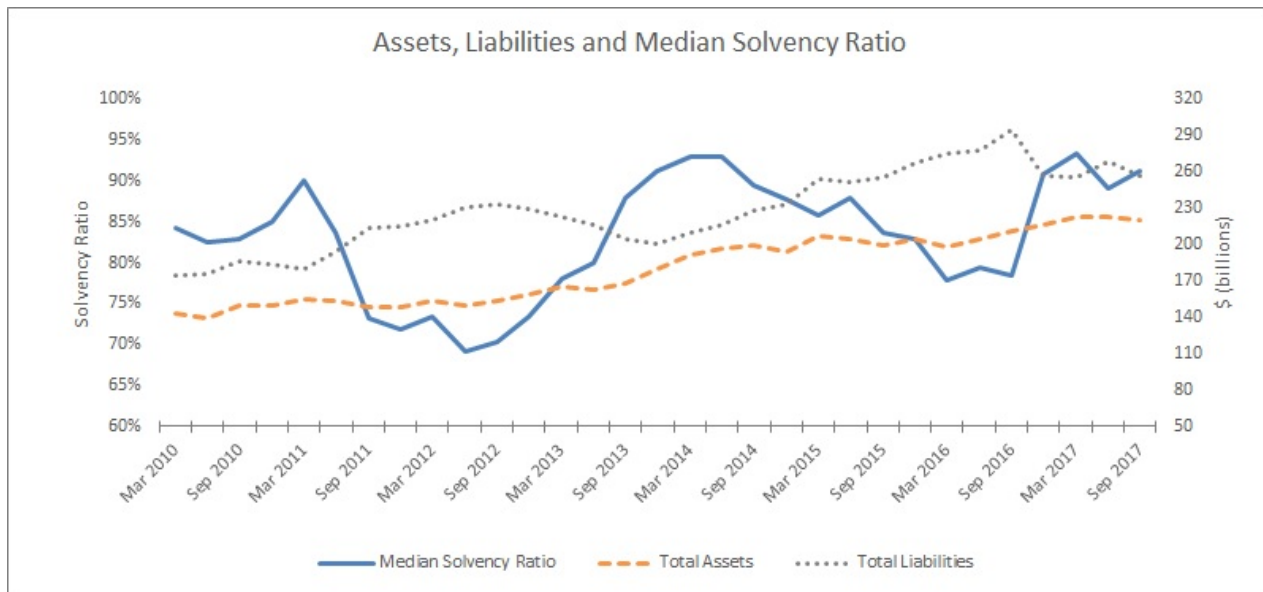
Following the release of the Ontario government’s new solvency framework for defined benefit pension plans in May, new solvency funding relief Option 8 became effective on July 1, 2017. For non-excluded plan reports with valuation dates on or after December 31, 2016 and before December 31, 2017, new solvency funding relief Option 8 allows for a deferral for up to 24 months of the start of the period for which any new solvency deficiency must be amortized. Thus, Option 8 effectively allows plan sponsors to suspend funding for new solvency deficiencies until Ontario’s new funding framework rules are formally enacted. These will also include new funding rules for target pension benefits. As always, the Ontario government’s objective remains to protect retirement income security for workers and retirees while keeping workplace pension plans affordable and allowing Ontario businesses to grow and compete.

Solvency Update Asset Return Methodology

Each plan’s unique projection period investment returns were determined based on filed IIS pension information. For 2014, 2015 and 2016, each plan’s unique IIS-based annual rates of return were used. For 2017, each plan’s returns were estimated based on its 2016 filed IIS asset allocation information in conjunction with 2017 market index returns, offset by a 25 basis point

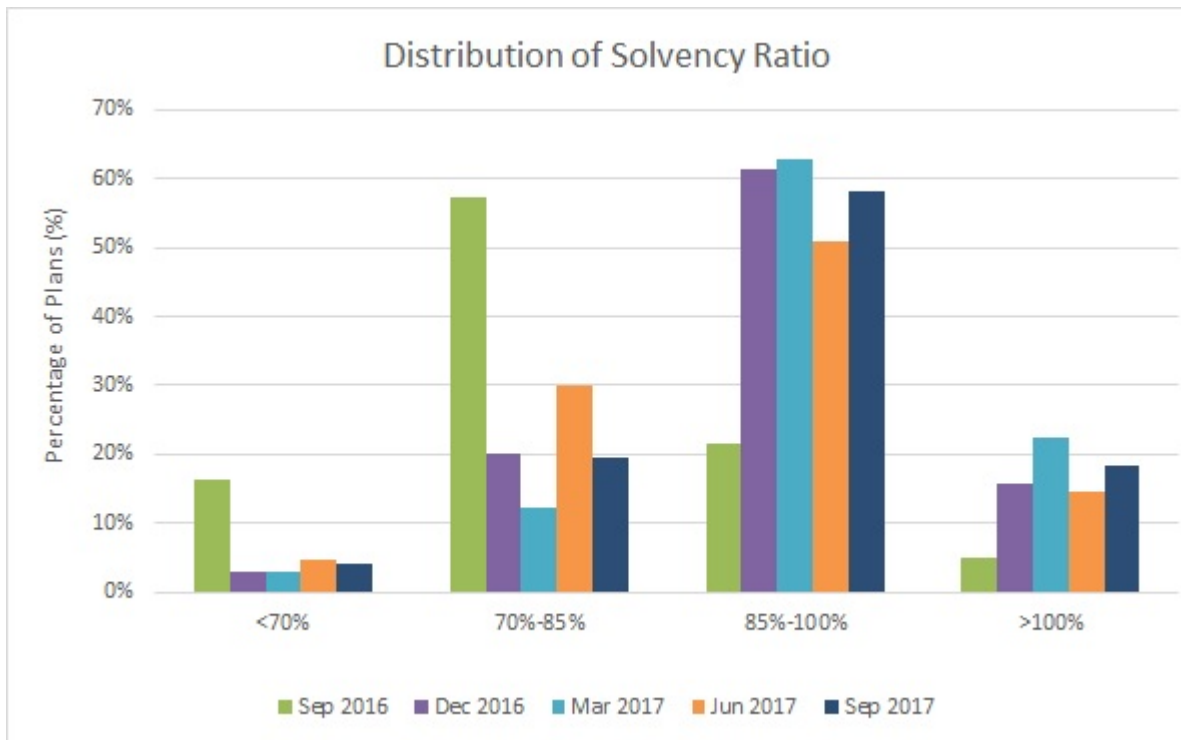
quarterly expense allowance. Please refer to the *Methodology and Assumptions* section below for additional asset return calculation information and pension fund rate of return statistics.

Assets, Liabilities and Median Solvency Ratio



[View accessible description of Assets, Liabilities, and Median Solvency Ratio Line Chart](#)

Distribution of Solvency Ratio



Methodology and Assumptions:

1. The results reported in the last filed actuarial valuation reports (assets and liabilities) were projected to September 30, 2017 based on these assumptions:
 - sponsors would use all available funding excess and prior year credit balance for contribution holidays, subject to any statutory restrictions;
 - sponsors would make normal cost contributions and special payments, if required, at the statutory minimum level;
 - the amounts of cash outflow would equal the pension amounts payable to retired members as reported in the last filed valuation report. Plan administration costs were not directly reflected in cash outflows, but indirectly were reflected through reduced net after expense investment earnings.

2. In place of singular model pension fund rates of return, each plan's unique 2014, 2015 and 2016 annual after-expense rates of return were calculated based on 2014, 2015 and 2016 filed IIS information. Individual plan 2014, 2015 and 2016 rate of return statistics are summarized as follows:

	1st Quartile	2nd Quartile	3rd Quartile
2014 Gross Return:	13.8%	11.7%	10.1%
2014 Net After Investment Expense Return:	13.5%	11.3%	9.7%
2014 Net After All Expense Return:	12.9%	10.7%	8.9%
2015 Gross Return:	7.0%	5.5%	4.1%
2015 Net After Investment Expense Return:	6.6%	5.1%	3.7%
2015 Net After All Expense Return:	6.2%	4.7%	3.1%
2016 Gross Return:	8.1%	6.4%	4.7%
2016 Net After Investment Expense Return:	7.6%	5.9%	4.3%
2016 Net After All Expense Return:	7.2%	5.4%	3.7%

3. In place of a single model pension fund return, each plan's unique year-to-date September 30, 2017 returns were estimated based on each plan's 2016 filed IIS asset allocation in combination with 2017 market index returns, offset by a 25 basis point quarterly expense charge. Median estimated plan net after-expense returns are as follows:

September 30, 2017 YTD Gross Return: 3.9%

September 30, 2017 YTD Net After Expense Return: 3.1%

September 30, 2017 investment rates of return were calculated based on each plan's 2016 filed IIS asset allocation. The following table summarizes 2016 average IIS plan asset

allocations by major asset class:

Cash	Canadian Equities ¹	Foreign Equities	Fixed Income	Real Estate	Other
2.8%	25.1%	24.5%	44.3%	1.1%	2.2%

¹ Previously, resource properties; venture capital; securities of real estate, resource and investment corporations; other pooled/mutual/segregated funds; and investments in other asset categories had been grouped under Canadian Equities. To the extent that returns on these assets are sufficiently detached from Canadian equity returns as measured by the S&P TSX Index, these asset groupings have been removed from Canadian Equities and two-thirds of other pooled/mutual/segregated funds have been allocated to Real Estate.

Market index returns on the major assets classes have been as follows:

	S&P / TSX Total Return Index	MSCI World Total Net Return Index	FTSE TMX Universe Bond Index
YTD Q3 2017	4.4%	8.2%	0.5%

4. Estimated solvency liabilities were calculated based on the Canadian Institute of Actuaries Standards of Practice and the Canadian Institute of Actuaries Educational Notes, with these key assumptions:

Valuation Date	Commuted Value Basis	Annuity Purchase Basis ²
Sept 30, 2017	Interest: 2.60% for 10 years 3.50% thereafter Mortality: CPM2014 generational	Interest: 3.20% Mortality: CPM2014 generational
June 30, 2017	Interest: 2.00% for 10 years, 3.40% thereafter Mortality: CPM2014 generational	Interest: 3.07% Mortality: CPM2014 generational

² based on a medium duration illustrative block