

METROPOLITAN TORONTO PENSION PLAN **DEC 31, 2017 FUNDING VALUATION RESULTS**

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Manuel Monteiro, FSA, FCIA

Partner

Armando Fernandes, FSA, FCIA

Senior Associate

Toronto – 120 Bremner Boulevard



METROPOLITAN TORONTO PENSION PLAN

- Last valuation filed with FSCO as at December 31, 2016
- This valuation as at December 31, 2017 is not required to be filed
- On May 19, 2017, the government of Ontario announced that it would be implementing a new funding framework for defined benefit plans.
- On December 14, 2017, the Ministry of Finance published a description of the proposed funding rules (“Proposed Rules”)
- The actual regulations have not been published and their impact on this funding valuation is uncertain at this time.
- This presentation illustrates the going-concern results on the current and the Proposed Rules. The report for filing purposes will be prepared once the applicable regulations are finalized.

METROPOLITAN TORONTO PENSION PLAN

MEMBERSHIP STATISTICS AT DECEMBER 31

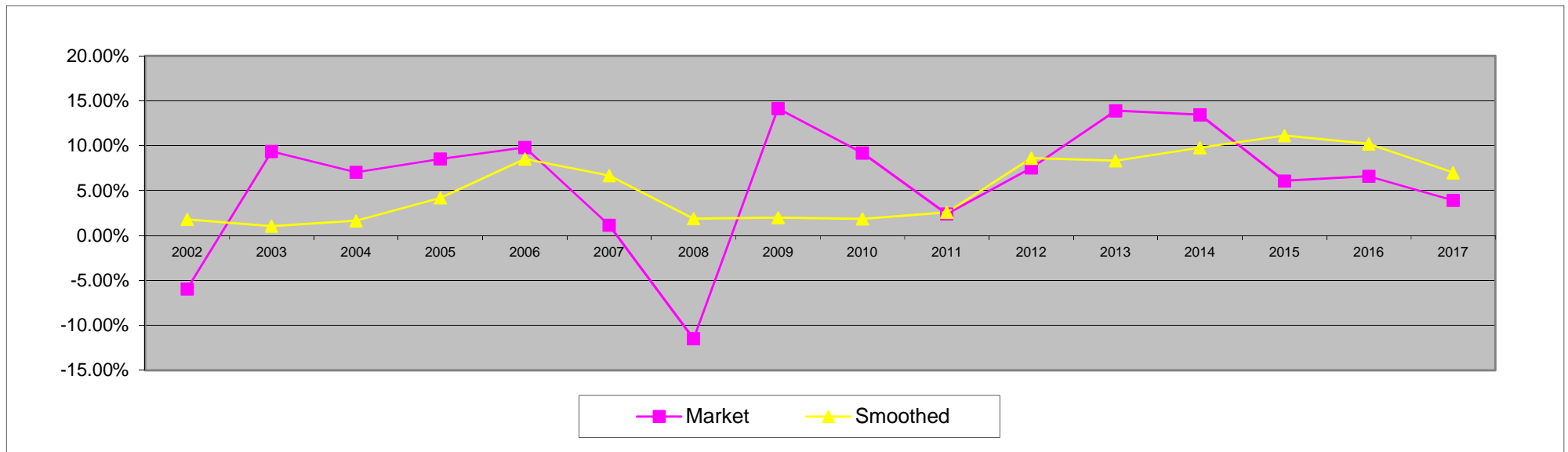
	2017	2016	2015	2014
Membership				
Active, suspended & disabled	0	0	0	0
Vested Deferreds	4	4	4	5
Pensioners	1,058	1,160	1,249	1,340
Survivors	832	892	931	952
Total	1,894	2,056	2,184	2,297
 Average Monthly Pension Payment	2,275	2,226	2,147	2,104
Average Monthly Survivor Payment	1,411	1,396	1,330	1,275
 Total Benefits Paid in Year (\$000)	44,376	46,684	47,574	49,155

METROPOLITAN TORONTO PENSION PLAN

RATES OF RETURN

Rates of return

	2017	2016	2015	2014
Market Value (\$000)	481,657	507,275	521,401	538,054
Rate of Return, net of IMF	3.92%	6.60%	6.08%	13.46%
Rate of Return, gross	4.00%	6.68%	6.19%	13.59%
Smoothed Value (\$000)	478,564	490,421	489,859	486,308
Rate of Return, net of IMF	7.00%	10.20%	11.13%	9.78%



METROPOLITAN TORONTO PENSION PLAN

RECONCILIATION OF SMOOTHED ASSETS (\$000)

Development of Actuarial Assets

	2017	2016	2015	2014
Assets at Jan. 1	490,421	489,859	486,308	490,257
Employee Contributions	-	-	-	-
Employer Contributions	-	-	-	-
Pensioner Pensions	(29,797)	(31,531)	(32,884)	(34,597)
Survivor Pensions	(14,579)	(15,153)	(14,691)	(14,558)
Other Benefits	-	-	-	-
Non Investment Expenses	(259)	(305)	(288)	(263)
Investment Income (Market) net of fees	19,018	32,862	31,211	66,728
Transfer (to)/from Smoothing Account	13,761	14,688	20,203	(21,260)
Change in in-transits	-	-	-	1
Assets at Dec. 31	478,564	490,421	489,859	486,308
Smoothing Account - Jan. 1	16,854	31,542	51,746	30,486
Transfer to/(from) Smoothing Account	(13,761)	(14,688)	(20,203)	21,260
Smoothing Account - Dec. 31	3,093	16,854	31,542	51,746

METROPOLITAN TORONTO PENSION PLAN

ASSUMPTION CHANGES, DATA ESTIMATES

Assumption Changes

- Discount rate used for going-concern valuation has decreased from 4.25% to 3.55% per year (primarily due to change in asset mix) under the current rules and 3.80% under the Proposed Rules
 - No other changes to going-concern assumptions
 - Provision for Adverse Deviations (“PfAD”) of 7.5% of going-concern liabilities reflected under the Proposed Rules
- Wind-up and solvency valuation assumptions updated to reflect changes in market conditions

Data Estimates

- Stepped Pension:
 - Liability due to surviving spouse’s pension payable on member’s death has been estimated based on available data
 - Information required to calculate spouse’s pension precisely is not available electronically
- Orphan’s Pension:
 - There are no orphans provided in the data
 - Given age of the population and data as provided, this benefit is not expected to be material.

METROPOLITAN TORONTO PENSION PLAN

ACTUARIAL ASSUMPTIONS

Actuarial Assumptions

	Proposed Rules for 2017*	Current Rules for 2017	2016	2015	2014
Actuarial Assumptions - Going Concern					
Discount Rate	3.80%	3.55%	4.25%	5.00%	5.50%
Provision for Adverse Deviation ("PfAD")	7.5% of liability	N/A	N/A	N/A	N/A
Mortality Table	120% of CPM2014Pu	120% of CPM2014Pu	120% of CPM2014Pu	120% of CPM2014Pu	120% of CPM2014Pu
Retirement Age (deferred members)	Immediate	Immediate	Immediate	Immediate	Immediate
Actuarial Assumptions - Solvency and Wind-Up					
Discount Rate - Solvency	2.875%	2.875%	3.250%	3.375%	3.000%
Discount Rate - Wind-Up	2.86%	2.86%	2.91%	2.63%	2.22%
Mortality Table (post retirement only)	105% of CPM14 (Combined)	105% of CPM14 (Combined)	105% of CPM14 (Combined)	105% of CPM14 (Combined)	UP94
Retirement Age (deferred members)	Immediate	Immediate	Immediate	Immediate	Immediate

* The going-concern discount rate under proposed rules does not include margin for adverse deviations. Under the Proposed Rules, the PfAD is prescribed based on the plan's closed status and the target asset mix of the fund.

METROPOLITAN TORONTO PENSION PLAN

GOING CONCERN FINANCIAL POSITION

AT DECEMBER 31 (\$000)

	Proposed Rules for 2017	Current Rules for 2017	2016	2015	2014
Assets					
Market Value	481,657	481,657	507,275	521,401	538,054
Actuarial Value	478,564	478,564	490,421	489,859	486,308
Liabilities					
Active Members	-	-	-	-	-
Vested Deferreds	293	297	268	251	286
Pensioners and surviving spouses	358,507	364,382	379,321	380,485	390,326
Provision for Adverse Deviations	26,956	-	-	-	-
Reserve for 50% excess refunds	608	608	585	548	516
Total Liabilities	386,364	365,287	380,174	381,284	391,128
Going Concern Excess	92,200	113,277	110,247	108,575	95,180
Funded Ratio	124%	131%	129%	128%	124%
Actuarial Assumptions					
Discount Rate	3.80%	3.55%	4.25%	5.00%	5.50%
Mortality Table	120% of CPM2014 Public	120% of CPM2014 Public	120% of CPM2014 Public	120% of CPM2014 Public	120% of CPM2014 Public

METROPOLITAN TORONTO PENSION PLAN

RECONCILIATION OF CHANGE IN FINANCIAL POSITION (\$000)

Actuarial Gain and Loss - Going Concern

	2017	2016	2015	2014
Funding Excess - Jan. 1 (before upgrades)	110,247	108,575	95,180	54,944
Pensioner Upgrade (This Year)	(5,428)	(11,574)	(7,461)	(8,436)
Actuarial Assumptions	(16,022)	(17,506)	(11,695)	23,919
Investment Returns (smoothed basis)	17,564	29,076	30,510	22,415
Retirements	-	-	53	-
Mortality	6,597	1,668	1,891	2,514
Expenses	(259)	(305)	(288)	(263)
Miscellaneous	578	313	385	87
Funding Excess - Dec. 31st - Current Rules	113,277	110,247	108,575	95,180
Impact of Proposed Rules	(21,077)			
Funding Excess - Dec. 31st - Proposed Rules	92,200			

METROPOLITAN TORONTO PENSION PLAN

WINDUP/SOLVENCY FINANCIAL POSITION

AT DECEMBER 31 (\$000)

	2017	2016	2015	2014
Wind-Up Assets				
Market Value	481,657	507,275	521,401	538,054
Estimated Expense of Winding-Up	(285)	(309)	(328)	(345)
Total Wind-Up Assets	481,372	506,966	521,073	537,709
Wind-Up Liabilities				
Active Members	-	-	-	-
Inactive Members	-	-	-	-
Vested Deferreds	313	291	290	331
Pensioners and surviving spouses	400,210	434,613	467,785	486,300
Reserve for 50% excess refunds	608	585	548	516
Total Wind-Up Liabilities	401,131	435,489	468,623	487,147
Wind-Up Excess/(Deficit)	80,241	71,477	52,450	50,562
Ratio of Assets to Liabilities	120%	116%	111%	110%
Solvency Asset smoothing adjustment	(13,992)	(31,678)	(47,785)	(64,165)
Solvency Liability smoothing adjustment	424	10,422	24,994	27,458
Solvency Surplus/(Shortfall)	66,673	50,221	29,659	13,855

METROPOLITAN TORONTO PENSION PLAN

RANGE OF FUNDING REQUIREMENTS

Funding Requirements	2018	2017	2016	2015
Current Service Cost	-	-	-	-
Funding Deficiency Payments	-	-	-	-
Solvency Deficiency Payments	-	-	-	-
Total	-	-	-	-

Note: Minimum and maximum funding requirements are \$0.

METROPOLITAN TORONTO PENSION PLAN

COLA AND INDEXATION RESERVE (\$000)

	Proposed Rules for 2017	Current Rules for 2017	2016	2015	2014
Change in CPI (12 month average)	1.60%	1.60%	1.43%	1.13%	1.91%
COLA for consideration Jan 1 next year	1.60%	1.60%	1.43%	3.04%*	1.91%
Cost of COLA (Next Year) Going Concern	6,172	5,835	5,428	11,574	7,461
Cost of COLA (Next Year) Solvency	6,402	6,402	6,070	13,470	8,770
Going Concern Excess after COLA	86,028	107,442	104,819	97,001	87,719
Solvency Excess after COLA	60,271	60,271	44,151	16,189	5,085
Indexation Reserve before upgrade	66,673	66,673	50,221	29,659	13,855
Indexation Reserve after upgrade	60,271	60,271	44,151	16,189	5,085
Cost of Living Adjustments to Pensions					
History of Adjustments, effective Jan. 1	1.43%	1.43%	3.04%	1.91%	1.94%
Cost to Indexation Reserve of 1% COLA	4,001	4,001	4,245	4,431	4,592

*The increase of 3.04% granted in 2016 is based on a 1.13% change in average CPI from 2014 to 2015, and a 1.91% increase in respect of the missed 2012 COLA. Since a 1.00% increase was granted in 2014 and the remaining 1.91% is being granted in 2016, the entire missed COLA of 2.91% from 2012 has now been fully granted.

METROPOLITAN TORONTO PENSION PLAN

COMPARISON WITH OMERS TRANSFER BASIS (\$000)

	Proposed Rules Going-concern Valuation	Current Rules Going-concern Valuation	OMERS Transfer Basis Excluding Indexing	OMERS Transfer Basis Full Indexing
Balance Sheet				
Assets at Market	481,657	481,657	481,657	481,657
Liabilities	386,364	365,287	349,265	398,996
Surplus	95,293	116,370	132,392	82,661
Assumptions				
Discount Rate	3.80%	3.55%	4.25%	4.25%
Indexing	0.00%	0.00%	0.00%	2.00%
Mortality	120% of CPM2014Pu	120% of CPM2014Pu	120% of CPM2014Pu	120% of CPM2014Pu

OMERS economic assumptions used above. Metro plan specific mortality assumption is assumed.

METROPOLITAN TORONTO PENSION PLAN

GOING CONCERN PROJECTION WITH COLA SMOOTHED BASIS

Going Concern Position at December 31, 2017

Discount Rate: 3.80%

Going Concern Excess/(Deficit): 92.2 \$million

Projected Going Concern Excess/(Deficit) at December 31, 2018

With 1.60% COLA at January 1, 2018

Discount Rate/ Asset Return	3.30%	3.80%	4.30%
-5.00%	66	81	97
0.00%	72	87	103
5.00%	77	93	109
10.00%	83	99	114

Note that the above results are on a smoothed basis. Impact of asset returns on a market basis would be significantly different.

METROPOLITAN TORONTO PENSION PLAN

SOLVENCY PROJECTION WITH COLA

SMOOTHED BASIS

Solvency Position at December 31, 2017

Discount Rate (actual):	2.860%
Discount Rate (smoothed):	2.875%
Solvency Excess/(Deficit):	66.7 \$million

Projected Solvency Excess/(Deficit) at December 31, 2018

With 1.60% COLA at January 1, 2018

Market Discount Rate/ Asset Return	1.86% -100bps	2.36% -50bps	2.86% Base	3.36% +50bps	3.86% +100bps
-5.00%	53	57	61	66	70
0.00%	58	63	67	72	76
5.00%	64	69	73	77	82
10.00%	70	74	79	83	87

Note that the above results are on a smoothed basis. Impact of asset returns and discount rate changes on a market basis would be significantly different.

METROPOLITAN TORONTO PENSION PLAN

SOLVENCY PROJECTION WITH COLA

REMOVE SOLVENCY SMOOTHING

Solvency Position at December 31, 2017

Discount Rate (actual): 2.86%

Solvency Excess/(Deficit): 80.2 \$million

Projected Solvency Excess/(Deficit) at December 31, 2018

With 1.60% COLA at January 1, 2018

Market Discount Rate/ Asset Return	1.86% -100bps	2.36% -50bps	2.86% Base	3.36% +50bps	3.86% +100bps
-5.00%	5	22	40	57	75
0.00%	28	45	63	80	98
5.00%	51	68	86	103	121
10.00%	74	91	109	126	144

MAKE
TOMORROW,
TODAY



MERCER