Actuarial Information for the OPSEU Pension Plan January 30 201001.pdf

OPTrust

OPSEU Pension Trust
Fiducie du régime de retraite du SEFPO

January 30, 2015

CONFIDENTIAL / VIA COURIER

Mr. Alex Killoch
Director, BPS Pensions Branch
Ministry of Finance
1st Floor, Frost Building South
7 Queen's Park Crescent
Toronto, Ontario M7A 1Y7

Dear Mr. Killoch:

Re: Actuarial Information for the OPSEU Pension Plan

In response to the Assistant Deputy Minister Leah Myers' letter dated December 15, 2014, please find attached the requested 2014 yearend financial information related to the OPSEU Pension Plan (the "Plan"). The requested information has been determined as of December 31, 2014 and is contained in the body of this letter and in the attached exhibits.

The calculations for items 1, 3, 5, 9, 11 and 12 have been performed on an accounting basis by Towers Watson using the projected unit credit cost method and the economic assumptions detailed in Ms. Myers' letter. All other requested calculations were compiled by OPSEU Pension Trust ("OPTrust").

Please note the following regarding the attached information:

- Ms. Myers requested that the actuarial information be prepared using four sets of economic assumptions (Basis 1, 2, 3 and 4). The assumptions used under each basis are described in Exhibit 1.

- The December 31, 2014 calculations are based on December 31, 2014 member data for the Plan, as provided by the OPTrust to Towers Watson and as used in the December 31, 2014 funding valuation of the Plan. A summary of the December 31, 2014 member data for the Plan is contained in the attached Exhibit 2.

- The information on the market value and actuarial value of the Plan's assets as at December 31, 2014 is preliminary and is subject to change. In particular, the December 31, 2014 valuation for alternative assets will not be complete until March 2015. As of December 31, 2014 over 30% of the Fund is allocated to alternative assets. As such the total market and actuarial value of assets may materially change once those asset valuations are complete.

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Mr. Alex Killoch
Ministry of Finance
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- The contribution breakdown in item 4 of the attached Exhibit 1 has been updated to the same level of detail as the Plan's financial statements, as requested by the government.

- The schedule of the deferred gains / losses to derive the actuarial asset value adjustment as at December 31, 2014 has been included as item 7 in the attached Exhibit 1.

- The number of pensioners and active members as at December 31, 2014 are included as item 8 in the attached Exhibit 1.

- A high level explanation of the causes of actuarial losses and gains (including salary) for 2014 is included in items #9 and #12 in the Exhibit 1.

- The December 31, 2014 liability calculations have been based on the provisions of the Plan as at December 31, 2014. A summary of the applicable provisions is contained in Tower Watson's funding actuarial valuation report for the Plan as at December 31, 2013. There have been no material changes to the Plan provisions since December 31, 2013.

- Except for the economic assumptions noted in Exhibit 1 and the asset valuation method (OPTrust no longer uses a smoothed value of assets), the December 31, 2014 liability calculations are based on the same assumptions that are being considered for use in the December 31, 2014 financial statement valuation of the Plan. A description of those assumptions for the Plan's December 31, 2014 financial statement valuation is contained in Exhibit 3 attached.

As you are aware, the government's best estimate economic assumptions are not those of the OPSEU Pension Trust. These assumptions have not been used in the past for the Plan's funding valuations, or the Plan's financial statement actuarial valuations and, in particular, they have not been used for the most recent December 31, 2014 funding valuation of the Plan, or the December 31, 2014 financial statement valuation of the Plan. We would also note that the obligations of employers to contribute to the Plan are based on the terms of the Plan and the funding actuarial valuations of the Plan.

If you have any questions or require any additional information, please contact me at 416-681-6749.

Yours truly,

Dani Goraichy
Vice-President, Actuarial Services and Plan Policy

Encls.

cc: Mr. Mark Rozic, Ministry of Finance
Ms. Leah Myers, Ministry of Finance
Mr. Hugh O'Reilly, OPSEU Pension Trust
Mr. Reg Swamy, OPSEU Pension Trust
Mr. Ian Markham, Towers Watson

Exhibit 1

Actuarial Information for the OPSEU Pension Plan as Requested by the Province
(Amounts in $ millions)

			December 31, 2014			
			Basis 1	***Basis 2***	***Basis 3***	***Basis 4***
1.	Actuarial present value of accrued benefit obligations		15,291	15,786	15,325	15,133
2.	(a) Actuarial value of pension fund assets (preliminary)		16,361	16,361	16,361	16,361
	(b) Market value of pension fund assets (preliminary)		17,420	17,420	17,420	17,420
3.	For the year ended: Actuarial Present Value of Accrued Benefit Obligations as of December 31, 2013		14,392	14,855	14,409	14,251
	(a)	Interest on accrued benefits	960	955	925	915
	(b)	Cost of benefits accrued (i)	442	461	443	431
	(c)	Cost of benefit improvements	0	0	0	0
	(d)	Changes in assumptions	373	392	390	326
	(e)	Benefits paid (ii)	(798)	(798)	(798)	(798)
	(f)	Experience (Gains)/Loss	(78)	(79)	(44)	8
	Actuarial Present Value of Accrued Benefit Obligations as of December 31, 2014		15,291	15,786	15,325	15,133

(i) Includes current period service cost, past service contributions and transfers from other plans made during 2014.

	Basis 1	***Basis 2***	***Basis 3***	***Basis 4***
Current Period	404	423	405	393
Past Service	24	24	24	24
Transfers from other Plans	14	14	14	14
	442	461	443	431

(ii) Includes retirement pensions, refunds, commuted value transfers and transfers to other plans. The retirement pensions paid during 2014 were $645 million. Refunds and commuted value transfers were $66 million. Transfers to other plans were $87 million.

Economic Assumptions as provided by the Province

	Basis 1	*Basis 2*	*Basis 3*	*Basis 4*
Assumptions provided by Province				
Return on investment	6.75%	6.50%	6.50%	6.50%
Inflation	2.50%	2.50%	2.25%	2.25%
Real Rate of Return	4.25%	4.00%	4.25%	4.25%
Salary Escalation Rate				
2015-2019	3.50%	3.50%	3.25%	2.25%
2020 onwards	3.50%	3.50%	3.25%	3.25%

Other assumptions - Based on the same assumptions used for the December 31, 2014 funding valuation of the Plan				
YMPE increase	3.00%	3.00%	2.75%	2.75%
ITA maximum increase beginning in 2014	3.00%	3.00%	2.75%	2.75%
TV CIA rate for Lump Sum:	2.50%	2.50%	2.50%	2.50%
Interest on Employee Contributions	3.50%	3.50%	3.25%	3.25%
Mortality table	108% of CPM2014 Private Sector mortality table, with generational projection using projection scale CPM-B			
% elect Deferred pension/ lump Sum	30%/70%			

	Regular	Age Related Rates
Retirement rates	90 points	40% ages 55 to 59
	60/20	30% age 60&20; 20% ages 61 to 64

EXHIBIT 1 (continued)

Actuarial Information for the OPSEU Pension Plan as Requested by the Province
(Amounts in $ millions)

			December 31, 2014
4.	For the year ended:		
	(a)	Employee contributions:	
		Current Service (include LTIP)	246
		Prior Service	16
			262
	(b)	Employer contributions:	
		Current Service (include LTIP)	246
		Prior Service	8
			254
	(c)	Transfers from other plans	14
5.	Expected average remaining service lifetime of active employees		12.1 years
6.	Economic assumptions used in the Plan's financial statements:		
	(a)	Return on investment	6.15%
	(b)	Inflation	2.00%
	(c)	General salary escalation	2.75%
	(d)	YMPE increases	2.50%

EXHIBIT 1 (continued)

Actuarial Information for the OPSEU Pension Plan as Requested by the Province
(Amounts in $ millions)

7. The following preliminary schedule provides the composition of the actuarial asset value adjustment as at December 31, 2014:

	Deferred (Gains)/Losses	Timing of Future Recognition			
	2014	**2015**	**2016**	**2017**	**2018**
2010	0	0	-	-	-
2011	63	63	-	-	-
2012	(128)	(64)	(64)	-	-
2013	(402)	(134)	(134)	(134)	-
2014	(592)	(148)	(148)	(148)	(148)
Total	**(1,059)**	**(283)**	**(346)**	**(282)**	**(148)**

The actuarial asset value adjustment reflects the portion of gains or losses not yet recognized for purposes of determining the value of actuarial assets. The actuarial asset value adjustment provides for the smoothing of gains and losses, mitigating volatility and providing a more stable basis for determining surplus.

The actuarial value of investments as at the reporting dates has been determined using a formula that smoothes out the effects of the changes in market values over a five-year period. The approach recognizes differences between the actual and management's best estimate of the return on investments in income evenly over the current and following four years. Management's best estimate of investment return is 6.4% for 2014, 6.5% for 2013, 6.75% for 2012 and 2011 financial statement purposes.

8. For the year ended December 31, 2014:

(a)	Number of Active Members	44,008
(b)	Number of Inactive Members	
	Pensioners and Survivors	31,946
	Deferred pensioners	4,968
	Special deferred pensioners	3,556
	Former members with unprocessed benefits	1,735
	Total	42,205

EXHIBIT 1 (continued)

Actuarial Information for the OPSEU Pension Plan as Requested by the Province
(Amounts in $ millions)

9. The following provides a breakdown of the experience gains and losses for 2014:

	Basis 1	***Basis 2***	***Basis 3***	***Basis 4***
Salary (Gain)/Loss	(67)	(70)	(54)	(1)
Other Economic (Gain)/Loss	(11)	(9)	10	9
	(78)	(79)	(44)	8

The majority of the assumption loss for each basis is due to the change in the mortality assumption.

10. We will provide the 2014 financial statements as soon as they are available.

11. The 2015 current service cost for each basis is as follows:

Basis 1	***Basis 2***	***Basis 3***	***Basis 4***
426	446	428	413

12. Please see the breakdown in item 9 above.

EXHIBIT 2

Summary of Plan Member Data at December 31, 2014

The membership data at December 31, 2014 was used for the Plan's December 31, 2014 funding valuation and was provided to Towers Watson by the OPSEU Pension Trust. A summary of the data follows.

<u>Active Members</u>	
Number	44,008
Average Credited Service	12.5
Average Age	46.3
Average Salary[1]	$64,242
<u>Pensioners and Survivors</u>	
Number	31,946
Average Age	69.8
Average Annual Pension[2]	$18,810
<u>Deferred Pensioners</u>	
Number	4,968
Average Age	48.7
Average Annual Pension[2]	$6,308
<u>Special Deferred Pensioners</u>[3]	
Number	3,556
Average Age	52.4
Average Annual Pension[2]	$7,041
<u>Former Members with Unprocessed Benefits</u>[4]	
Number	1,735
Average Age	45.8
Average Annual Pension[2]	$5,944

1 The average salary is based on the assumed salaries as at January 1, 2015.

2 The average annual pension is based on the pension as at January 1, 2015.

3 Former Plan members whose membership terminated as a result of a divestment.

4 Former members who ceased Plan participation prior to December 31, 2014 but who have not elected a benefit entitlement option.

EXHIBIT 3

Actuarial Assumptions Used in Plan's December 31, 2014 Financial Statements

Investment Return

The assumed rate of return on investments is 6.15% per annum. This rate is net of expected investment-related expenses.

Inflation Rate

The inflation rate as measured by increases in the Consumer Price Index is assumed to be 2.00% per annum.

Salary Scale

The rate of salary increase consists of two components:

(a) Economic Increases

A rate of 2.75% per annum has been assumed for increases in salary related to inflation and productivity.

(b) Promotion Increases

A salary promotion scale based on years of service has been assumed and is presented in Appendix "A".

Rate of Increase in the Year's Maximum Pensionable Earning ("YMPE") under the Canada Pension Plan

It is assumed that the YMPE will increase at a rate of 2.50% per annum.

Income Tax Act Maximum Pension Limit

It is assumed that the maximum annual pension limit of $2,818.89 per year of pensionable service will increase at a rate of 2.50% per annum, starting in 2016.

Interest on Employee Contributions

It is assumed that employee contributions will be credited with interest at the rate of 3.00% per annum.

Mortality Rates

It has been assumed that the mortality of members before and after retirement will be represented by 108% of CPM2014 Private Sector mortality table, with generational projection using projection scale CPM-B.

Withdrawal Rates

It is assumed that members will terminate their employment in accordance with rates based on member age. Sample rates are shown in Appendix "B".

EXHIBIT 4 (continued)

Actuarial Assumptions Used in Plan's 2014 Financial Statements

Transfer Value Take-up Rate and Transfer Value Basis

It is assumed that 70% of members terminating will elect a transfer value option. Lump sum transfer values determined for this group were calculated using a discount rate of 2.5% real. Mortality was assumed to be represented by the 1994 Uninsured Pensioners Mortality Table, with generational projection using projection scale AA.

Retirement Rates

It is assumed that members will retire in accordance with the rates of retirement shown in Appendix "C". Three sets of retirement rates are used in the valuation. The "reduced" early retirement rates are applied until the member qualifies for unreduced benefits under the 90-point rule where age plus service total 90 years, or the age 60 and 20 years of service rule. Thereafter, either the 60/20 or the 90-point retirement rates are used.

Disability

No provision has been made for disability in recognition of the continuation of pension accrual and contributions under the Plan.

Marital Status

It has been assumed that 85% of male members and 60% of female members are married at the time a benefit commences to be paid.

It has been assumed that the spouse of a male member is three years younger than the member and the spouse of a female member is two years older than the member.

Expenses

A provision for administrative expenses equal to the present value of the estimated future costs attributable to administering the accrued pension benefits.

Special Deferred Pensioners

For special deferred pensioners, it was assumed that mortality, withdrawal and retirement rates subsequent to divestment will be the same as the rates for active members of the OPSEU Plan. Salaries and the YMPE for these members are assumed to increase at the rate of 2.00% annum to account for the indexation of their accrued pensions.

APPENDIX "A"

Rates of Promotional Salary Increase

Years of Service	Increase
1	4.00%
2	3.60%
3	3.20%
4	2.60%
5	2.10%
6	1.80%
7	1.60%
8	1.40%
9	1.20%
10	1.00%
11	0.80%
12	0.60%
13	0.60%
14	0.50%
15	0.50%
16	0.50%
17	0.50%
18	0.30%
19	0.30%
20	0.30%
21 and over	0.00%

APPENDIX "B"

Sample Withdrawal Rates

Attained Age	Rate
20	0.077
25	0.063
30	0.051
35	0.041
40	0.033
45	0.027
50	0.022
55	0.000

APPENDIX "C"

Retirement Rates

Attained Age	Reduced Early	90-Point	60/20
50		0.40	
51		0.40	
52		0.40	
53		0.40	
54		0.40	
55	0.046	0.40	
56	0.020	0.40	
57	0.023	0.40	
58	0.026	0.40	
59	0.029	0.40	
60	0.058		0.30
61	0.059		0.20
62	0.061		0.20
63	0.062		0.20
64	0.115		0.20
65	1.000		1.00