Office of the Provincial Controller Division

Pension and Other Retirement Benefits Expense

Date: Draft February 23rd, 2017

Overview

- Impacts of changes in Pensions and Other Retirement Benefits expense from Third Quarter Finances[1]
  - Ontario Teachers' Pension Plan (OTPP)
  - Public Service Pension Plan (PSPP)
  - Ontario Pension Service Employees Union Pension Plan (OPSEUPP)
  - Healthcare of Ontario Pension Plan (HOOPP)
  - Colleges of Applied Arts and Technology Pension Plan (CAATPP)
  - Other Retirement Benefits (ORB)

- Highlights of changes in Pension and Other Retirement Benefits

- Major underlying assumptions in the forecast

- Risks to the fiscal plan

[1]Third Quarter Finances include 2016 Budget forecast adjusted for HOOPP and CAATPP asset valuation allowance (i.e. pension adjustment).

Overview of Changes from Q3 Finances

- Increases in expenses are projected for 2017-18 through 2020-21 compared to what is current carried in Third Quarter Finances.

- The table below summarizes the current expected pension and other retirement benefit (ORB) expense, Other Employee Future Benefits (OEFB) and Other TBS Pensions, compared to the Third Quarter Finances.

$ Millions	2016-17 Interim	2017-18 Outlook	2018-19 Outlook	2019-20 Outlook	2020-21 Outlook
Third Quarter Finances[1]	1,390	877	1,129	1,229	1,258
Updated Current Forecast[1]	1,287	1,294	1,583	1,476	1,504
Net Pressure/(Savings) Pension and ORB *(Appendix 2)*	**(103)**	**417**	**454**	**247**	**246**
Net Pressure/(Savings) on OEFB *(Appendix 3)* & Other TBS Pensions *(Appendix 4)*	53	5	6	10	12
Total Fiscal Pressure (Savings)	**(50)**	**422**	**460**	**257**	**258**

[1]Includes OTPP, OPS Pensions (OPSEUPP and PSPP), Other Retirement Benefits, HOOPP, CAATPP.

2016-17 Interim Expense

- $103 million net decrease in 2016-17 interim expense for Pensions and Other Retirement Benefits due to:

	2016-17 Increase / (Decrease)	Rational
Ontario Teachers' Pension Plan	(50)	Lower than expected active member growth.
Other Retirement Benefits	(67)	Prior year's forecast did not take into consideration the change in actuarial assumptions as result of changes in Ontario Provincial Police agreement due to earlier release of 2016 Budget.
Public Service Pension Plan, OPSEU Pension Plan, Healthcare of Ontario Pension Plan, Colleges of Applied Arts and Technology Pension Plan	14	Based on most recent actuarial update.

2017-18 to 2020-21 Outlook – Discount Rate

The current projected annual outlook for pension and other retirement benefit expense is expected to be higher than the Third Quarter Finances due to the following factors:

1. Lower discount rate
   - The real return on investment assumption has been lowered for all plans with the exception of HOOPP (see table below).
   - The discount rate assumption is based on the long-term expected rate of return on pension assets (i.e. real return on investments + inflation).
   - The fiscal impact of the lower discount rate assumption reduction starts in 2017-18.

Pension Plan	Old Assumption (Basis1)	New Assumption (Basis 3)
Ontario Teachers' Pension Plan	6.25%	6.00%
Public Service Pension Plan	6.00%	5.75%
OPSEU Pension Plan	6.25%	5.90%
Healthcare of Ontario Pension Plan	5.75%	5.75%
Colleges of Applied Arts and Technology Pension Plan	6.00%	5.75%

2017-18 to 2020-21 Outlook – Experience Losses (OTPP and OPSEUPP)

TBS

2. Lower than expected investment returns

   – Actual investment gains earned by pension plans were lower than long-term investment return assumption for OTPP and OPSEUPP as summarized in the below:

2016 Investment Return Rate	Long Term Investment Return** Assumption	Actual Return*
Ontario Teachers' Pension Plan (OTPP)	6.25%	3.8%
OPSEU Pension Plan (OPSEUPP)	6.25%	4.8%

*Estimated by TBS staff based on preliminary numbers provided by actuaries. Plan return levels are confidential and should not be publicly disclosed. Note actual returns for PSPP, HOOPP and CAATPP were higher than long term expected rate of return. Rate of returns were 7.2%, 10.1% and 7.8% respectively. As pension asset valuation allowance has been built into HOOPP and CAATPP, favourable return on assets have minimum impact on expense.
**Long term assumption for 2016. Note 2017 long term assumption has been lowered, see previous slide.

2017-18 to 2020-21 Outlook

3. Reduction in long-term salary assumption

   - The fiscal pressure is partially offset by reduction in long-term salary assumption for the pension plans with the exception of CAATPP as summarized in the table below.
   - This change begins to impact pension expense starting in 2017-18

Pension Plan	Old Assumption	New Assumption
Ontario Teachers' Pension Plan	2.00% to 2019 and 3.00% thereafter	2.00% to 2019 and 2.75% thereafter
Public Service Pension Plan	2.00% to 2019 and 3.00% thereafter	2.00% to 2019 and 2.75% thereafter
OPSEU Pension Plan	2.00% to 2019 and 3.00% thereafter	1.75% to 2019 and 2.75% thereafter
Healthcare of Ontario Pension Plan	3.25% to 2019 and 4.25[1]% thereafter	3.00% to 2019 and 4.00[1]% thereafter
Colleges of Applied Arts and Technology Pension Plan	2.00% to 2019 and 3.00% thereafter	2.25% to 2019 3.25% thereafter

[1]Salary growth for HOOP is expected to be higher than other plans. The health care sector is the only sector in Broader Public Sector that is growing and the trend is expected to continue due to aging population.

2017-18 to 2020-21 Outlook

4. Other contributing factors offsetting the fiscal pressure include:

   – Actual inflation is lower than expected.

   – Actual experience on salary increases in 2016 are lower than assumed.

Key Assumptions

- For plans that are conditionally indexed, pension expense is based on maximum index protection under the plan (i.e. OTPP at 100%, HOOPP at 75% and CAATPP at 75%).
- No assumptions have been made on future market activity other than managements' best estimate[1] of long term rate of return on plan assets.
- Year over year increase in active members and rate of increase in benefits earned are based on recent historical trends. No assumptions have been made on any downsizing of members in the plan in the out-years.
- Salary assumptions are based on managements' best estimate[1] of the revised long term salary assumption or recent historical trends.
- No future benefit have been recognized on net pension assets of HOOPP and CAATPP at this time pending results of Expert Panel Review. Forecasted pension asset for these plans have been written-off and have been reflected in the plan.

[1]Province's long-term assumptions are based on managements' best estimate determined by MOF Income Security and Pension Policy Division.

Risk - Other

- Differences between a plan's actual experience compared to planned assumptions related to economic and demographic factors may result in a fiscal impact.
- Future pension asset returns may be lower than Province's long-term assumptions, resulting in experience losses.

APPENDIX

Appendix 1: Pension and Other Retirement Benefits, Other Employee Future Benefits & Other TBS Pensions Summary

	2016-17	2017-18	2018-19	2019-20	2020-21
	Interim	Plan	outlook	outlook	outlook
Forecast for 2017 Budget *(Updated February 23rd, 2017)*					
Total OPS Pension (OPSEU&PSPP) and Retirement Benefits	959	1,039	991	1,014	1,042
TBS - OEFB (Other Employee Future Benefits)	118	122	122	115	87
TBS - Other Pensions	86	47	48	52	55
Other - TBS (recoveries, etc)					
TBS Forecasted	**1,163**	**1,208**	**1,161**	**1,181**	**1,184**
OTPP	-502	-531	-778	-995	-995
HOOPP	628	554	1,124	1,197	1,197
CAATPP	202	232	246	260	260
TOTAL PENSION, RETIREMENT BENEFITS AND OTHER EMPLOYEE FUTURE BENEFITS & OTHER TBS PENSIONS	**1,491**	**1,463**	**1,753**	**1,643**	**1,646**

Increase/(Decrease) from REVISION 2016 Pension and Other Employee Benefit Expense Forecast (with valuation allowance already built in Plan for HOOPPP and CAATPP)	2016-17	2017-18	2018-19	2019-20	2020-21
Total OPS Pension (OPSEU&PSPP) and Retirement Benefits	-43	143	136	147	146
TBS - OEFB	10	-1	-1	-1	-2
TBS - Other Pensions (i.e. Judges & Justice of the Peace)	43	6	7	11	14
Total Impact to TBS	**10**	**148**	**142**	**157**	**158**
OTPP	-50	289	332	115	115
HOOPP	-3	-2	4	11	11
CAATPPP	-7	-13	-18	-26	-26
TOTAL PENSION, RETIREMENT BENEFITS, OTHER EMPLOYEE FUTURE BENEFITS & OTHER TBS PENSIONS (including pension asset write-off for HOOPPP & CAATPPP)	**-50**	**422**	**460**	**257**	**258**

Note: This slide summarizes the fiscal impacts of the next three slides.

Appendix 2: Pension and Other Retirement Benefits

	2014-15 Actual	2015-16 Actual	2016-17 Interim	2017-18 Plan	2018-19 outlook	2019-20[1] outlook	2020-21[1] outlook
Forecast for 2017 Budget (updated: February 23rd, 2017)							
Teachers' Pension Plan	564	110	-502	-531	-778	-995	-995
Public Service Pension Plan	641	535	518	594	543	538	538
Public Service Supplementary Plan (PSSP)	-27	31	57	17	17	17	17
OPSEU Pension Plan	219	177	131	146	138	156	156
Consolidation Adjustment - Enterprises Pension Expense	-46	-47	-30	-30	-30	-30	-30
OPS - Other Retirement Benefits	319	393	283	312	323	333	361
Sub-Total OPS Pension & Retirement Benefits Plans	**1,106**	**1,089**	**959**	**1,039**	**991**	**1,014**	**1,042**
Healthcare of Ontario Pension Plan	843	747	628	554	1,124	1,197	1,197
Colleges of Applied Arts and Technology Pension Plan	209	190	202	232	246	260	260
Total Pension and Other Retirement Benefits	**2,722**	**2,136**	**1,287**	**1,294**	**1,583**	**1,476**	**1,504**
Increase/(Decrease) from REVISED 2016 Pension and Other Retirement Benefit Expense Forecast (including Valuation Allowance for HOOPP and CAATPP)							
Teachers' Pension Plan			-50	289	332	115	115
Public Service Pension Plan			-6	147	140	135	135
Public Service Supplementary Plan (PSSP)			34	-6	-6	-6	-6
OPSEU Pension Plan			-4	48	49	67	67
Consolidation Adjustment - Enterprises Pension Expense			0	0	0	0	0
OPS - Other Retirement Benefits			-67	-46	-47	-49	-50
Sub-Total OPS Pension & Retirement Benefits Plans			**-43**	**143**	**136**	**147**	**146**
Healthcare of Ontario Pension Plan			-3	-2	4	11	11
Colleges of Applied Arts and Technology Pension Plan			-7	-13	-18	-26	-26
Total Net Increase/(Decrease) from 2016 Pension and Other Retirement Benefit Expense Forecast (with Valuation allowance already built in Plan for HOOPP & CAATPP)			**-103**	**417**	**454**	**247**	**246**

(1) 2020-21 and beyond is flat-lined from 2019-20 for Pension

Appendix 3: Impact of Other Employee Future Benefits

	2016-17	2017-18	2018-19	2019-20	2020-21
	Interim	outlook	outlook	outlook	outlook
Forecast for 2017 Budget					
OPS Legislative Severance	53	52	50	44	38
Workers Compensation (WSIB)	30	30	30	30	30
Long Term Income Protection (LTIP)	7	8	8	8	8
Continuation of Benefits to WSIB & LTIP employees	32	16	16	16	16
Sub-Total OPS Post Employment Benefits	122	106	104	98	92
Vacation Pay*	9	9	9	9	9
Compensated Absences	-13	7	9	8	-14
Group Insurance Plan Surplus*	0	0	0	0	0
Total Benefit Accrual	118	122	122	115	87
Increase/(Decrease) from Fiscal Plan					
OPS Legislative Severance	-5	-3	-2	-2	-2
Workers Compensation (WSIB)	0	0	0	0	0
Long Term Income Protection (LTIP)	-9	-8	-8	-8	-8
Continuation of Benefits to WSIB & LTIP employees	25	9	9	9	9
OPS Post Employment Benefits	11	-2	-1	-1	-1
Vacation Pay*	0	0	0	0	0
Compensated Absences	-1	1	0	0	-1
Group Insurance Plan Surplus*	0	0	0	0	0
Pressure/(Savings)	**10**	**-1**	**-1**	**-1**	**-2**

Appendix 4: Impact of Other TBS Pensions

	2016-17	2017-18	2018-19	2019-20	2020-21
	Interim	Plan	outlook	outlook	outlook
Forecast for 2017 Budget					
Provincial Judges Pension Plan (PJPP)*	67	44	45	49	52
Supplemental Pension Plan for Justices of the Peace	2	2	2	2	2
Case Management Masters Supplemental Pension Plan (CMM)	17	1	1	1	1
Total - Other TBS Pensions	**86**	**47**	**48**	**52**	**55**
Forecast for 2016 Budget					
Provincial Judges Pension Plan	**41**	**39**	**39**	**39**	**39**
Supplemental Pension Plan for Justices of the Peace	**2**	**2**	**2**	**2**	**2**
Case Management Masters Supplemental Pension Plan (CMM)	-	-	-	-	-
Total - Other TBS Pensions	**43**	**41**	**41**	**41**	**41**
Increase/(Decrease) from Fiscal Plan					
Provincial Judges Pension Plan	26	5	6	10	13
Supplemental Pension Plan for Justices of the Peace	0	0	0	0	0
Case Management Masters Supplemental Pension Plan (CMM)	**17**	1	1	1	1
Total Pressure (Savings) on Fiscal Plan for TBS - Other Pensions	**43**	**6**	**7**	**11**	**14**

Pension Asset By Plan

- Preliminary Market Value of Pension Assets as of December 31, 2016:

	Preliminary* Market Value of Pension Assets
Ontario Teachers' Pension Plan	$175.6 Billion
Healthcare of Ontario Pension Plan	$70.4 Billion
Public Service Pension Plan	$24.3 Billion
OPSEU Pension Plan	$18.9 Billion
Colleges of Applied Arts and Technology	$9.3 Billion

* Based on preliminary numbers provided by actuaries. Asset market values are confidential and should not be publicly disclosed.

Investment Returns

- The Province determines an investment return assumption for each pension plan based on expected long-term return of the investment portfolio of the plan.
- The Province's investment return assumption is used to project pension fund assets of future years for purpose of its Budget projection.
- If actual investment return in the plan years deviate from Province's investment return assumption, the gain or loss is applied to the pension asset base over a 4 to 5 year period (smoothed). The associated impact on the pension expense is then amortized over the Plans' expected average remaining service life of the Plan members (i.e. 10.8 to 15.2 years).

Annual Document Process

- As part of the Document process, the Ministry of Finance requests actuarial and financial information of actual investment returns and plan experience of the past calendar year (i.e. December 31) from pension boards and their actuaries based on the Province's long-term salary escalation assumptions and long-term expected investment return assumptions. Assumptions are determined by the Ministry of Finance, Income Security and Pension Policy Division.

- Information is received in February of the subsequent period by Treasury Board Secretariat, Office of the Provincial Controller Division. This information is used to update the Fiscal Plan for interim actual and to estimate pension expense over the fiscal planning period.

- This information is also used for Public Accounts reporting purposes. In addition to reporting pension expense, the notes to the Consolidated Financial Statements in the Public Accounts disclose some more detailed information such as some assumptions used (e.g. annual inflation rate) and some funding information.