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26 April 2018

Ontario Teacher's Pension Plan - DRAFT
Accrued benefit asset recognition

The Office of the Provincial Controller Division ("OPCD") has asked EY to undertake an asset ceiling test to inform OPCD's decision as to whether a valuation allowance is required in relation to the Province's share of the Ontario Teachers' Pension Plan ("OTPP", or the "Plan") under the Public Sector Accounting Standards ("PSAS").

This document provides the results of our analysis and recommendations to OPCD management regarding the recognition of an accrued benefit asset for OTPP as at 31 March 2018. The purpose of this document is to support OPCD in forming its opinion on appropriate accounting related to OTPP in the Province's financial statements. This document does not constitute an accounting opinion and should not be used as such. This document is intended for OPCD's use only. Please inform us in writing if you would like to share this document more broadly.

As at 31 March 2018, prior to considering the possible need for a valuation allowance, OPCD determined the following:

- Plan's accrued benefit asset is $29.6B (obligation of $127.4B, market related-value of asset of $180.4B, unamortized actuarial gain of $23.4B)
- The Province's portion (49%[1]) of the accrued benefit asset is $13.6B[2]

Since our analysis determined that a valuation allowance is not required at 31 March 2018, it would appear appropriate to report the Province's portion of the accrued benefit asset of $13.6B for its respective portion of the Plan.

[1] 50% less 1% representing non-consolidated participating employers
[2] Reflects specific downward net adjustment of $0.9B by OPCD to the Province's portion of the Plan for the Province's financial statements

1 Background Information

1.1 Key characteristics of the Plan

Following key characteristics of the Plan are most relevant to our analysis:

- The Plan is a Joint Defined Benefit Plan (“JDBP”) under PSAS. The Plan is jointly sponsored by the Province, through the Minister of Education, and the Ontario Teachers' Federation (“OTF”), representing the employees.
- Funding valuations must be filed at least once every three years. The Funding Management Policy (“FMP”) provides the joint sponsors a framework of priorities in determining how the surplus/deficiency should be addressed. If there is a surplus/deficiency on a preliminary funding valuation basis, the joint sponsors must negotiate and agree to changes in future contribution levels and/or benefit levels to result in an actuarially balanced valuation. An actuarial valuation in this context, is considered balanced if the value of future contributions to the Plan equals to the value of future benefits from the Plan.
- Both contribution level and benefit levels are to be negotiated and the FMP does not specify any minimum contribution requirement. If the value of future contributions is greater than needed to pay the benefits, then the joint sponsors can agree to reduce contributions or increase benefits, while maintaining the concept of 50/50 sharing of costs between the two joint sponsors.
- Changes to contribution levels and benefit levels must reflect the sharing principle in that each joint sponsor is responsible for its share of deficit or entitled to its share of surplus.
- The Act or the Plan documents do not prohibit contribution holidays (i.e. surpluses belonging to the joint sponsors may be applied to reduce contributions).
- The Province’s portion of the overall Plan reflects the sharing principle between the sponsors under the Teacher’s Pension Act (“Act”). That portion is 50%, adjusted for the non-consolidated participating employers as described below:
  - Under the Act, designated private schools and designated organizations may participate in the Plan. Such participating employers are required to contribute and remit the contributions by its employees who become active members of the Plan. It is our understanding that some of these participating employers (“non-consolidated participating employers”) are not consolidated into the Province’s financial statement.
  - The contributions made by the non-consolidated participating employers and their employees represent approximately 2% of the Plan’s total contributions for the fiscal year. Therefore, the Province’s portion of the Plan should be adjusted and reduced from 50% to 49% (50% - (2% x 50%)) for its financial reporting purposes.

1.2 Assumptions for financial reporting

The following highlights key assumptions applied for the valuation of the obligation and costs at 31 March 2018 for the purpose of Province's financial statements. The assumptions represent best estimate assumptions, selected by the Province:

- The Province's financial statement year-end reporting is as at 31 March 2018 (the "measurement date")
- The measurements of assets and obligations are as at 31 December 2017 (the use of this earlier measurement date is permitted under PSAS 3250.039). We do not anticipate that the conclusion would be different at 31 March 2018
- Assumed inflation protection for post-2009 service will be provided at 100% of the assumed inflation rate
- Valuation discount rate: 6.00%
- Inflation rate: 2.00%
- Salary escalation rate: 2.00% per annum to 2019 and 2.50% thereafter

2 Considerations for the accrued benefit asset recognition

PSAS contains relevant guidance for recognition of an accrued benefit asset in respect of the Province's share of the Plan at 31 March 2018. We have considered the guidance under PS 3250 relating to recognition of an accrued benefit asset based on an expected future benefit available to the Province, in the context of accounting for a JDBP under PS 3250.

Joint Defined Benefit Plans

PS 3250.081 states "*when a government participates in a joint defined benefit plan, the government's risk is limited to its portion of the plan. The government should account for its portion of the plan in accordance with the standards for defined benefit plans.*"

The Province and the employee sponsor share equally in the costs and risks of the OTPP. Both entitlement to any surplus and responsibility for any deficiency are shared equally between the Province and employee sponsor. The determination of a net asset or liability (and valuation allowance, if applicable) is therefore performed on an aggregate Plan basis, and the Province's portion of that asset/liability is determined subsequently by applying 49% (50%, reduced by 1% in respect of non-consolidated participating employers) portion to the Province.

Province's ability to benefit from an accrued benefit asset

PS 3250.050 states "*an accrued benefit asset should be presented on a government's statement of financial position net of any valuation allowance. When a defined benefit plan gives rise to an accrued benefit asset, a government should recognize a valuation allowance for any excess of the adjusted benefit asset over the expected future benefit. A change in valuation allowance should be recognized in the statement of operations for the period in which the change occurs*".

PS 3250.052 states "*a government may benefit from an accrued benefit asset either by withdrawing surplus assets or by taking a contribution holiday or receiving a refund of contributions. The accrued benefit asset may become impaired when there is a plan surplus for accounting purposes that the government is not entitled to benefit from fully. For example, there may be a regulatory moratorium on pension surplus withdrawals or uncertainties as to a government's legal right to use a plan's accounting surplus*".

The Province is only able to recognize an accrued benefit asset to the extent that they are able to derive an expected future benefit from such asset. As per PS 3250.052, an expected future benefit may arise from (i) withdrawal of surplus or (ii) by taking a contribution holiday or receiving a refund of contributions. Based on Ontario case law and the Ontario Pension Benefits Act ("PBA"), it is difficult to establish the right of a plan sponsor to withdraw surplus. For purposes of determining the expected future benefit, our assumption is that the Province does not have a right to surplus withdrawal. However, contribution holidays are permitted by the Ontario PBA and the Plan documents. As such, the Province has access to an expected future benefit through future contribution reductions. The Funding Management Policy sets out an agreed upon framework of priorities for the sponsors in jointly determining how any funding surpluses can be utilized. The sponsors may negotiate lower contributions or an increase in benefits. There is no minimum level of contribution requirements set out by the Plan and contributions levels are negotiated. Therefore, the joint sponsors can each benefit from their respective portion of plan surplus for accounting purposes.

3 Determination of the accrued benefit asset recognition

This section provides details on the determination of the accrued benefit asset in respect of the Plan. Based on PS 3250.50 to 3250.059 (Limit on the carrying amount on accrued benefit asset), we have estimated the adjusted benefit asset, the expected future benefit, the valuation allowance, and the accrued benefit asset (net of valuation allowance) to be recognized by the Province under PSAS as at 31 March 2018.

3.1 Adjusted benefit asset

PS 3250.053 states "*To determine the extent to which an accrued benefit asset may be impaired, the government first determines the adjusted benefit asset. The adjusted benefit asset is the accrued benefit asset less net unamortized actuarial losses (determined on a basis using market value of assets)*".

Based on the financial information for the Plan as at the measurement date provided by OPCD, we have determined the unamortized actuarial gains/losses for the Plan on a basis using the market value of assets as follows:

Market value of assets ("MVA")	$187.8B
Market-related value of assets ("MVRA")	$(180.4)B
Actuarial gains/(losses) not recognized due to smoothing	$7.4B
Unamortized actuarial gains/(losses), on MRVA basis	$23.4B
Unamortized actuarial gains/(losses), on MVA basis	$30.8B

As there is an unamortized actuarial gain (determined on a basis using market value of assets), the adjusted benefit asset is equal to the Plan's surplus position on a market basis:

Market value of assets	$187.8B
Obligation	$(127.4)B
Plan surplus	$60.4B
Unamortized losses	$0.0B
Adjusted benefit asset (PS 3250.053)	$60.4B

The adjusted benefit asset for the Plan is $60.4B.

3.2 Expected future benefit

PS 3250.56 states **“***a government determines its expected future benefit the sum of:*

(a) the present value of its expected future accruals for service for the current number of active employees, less the present value of required employee contributions and minimum contributions the government is required to make regardless of any surplus; and

(b) *the amount of the plan surplus that can be withdrawn in accordance with the existing plan and any applicable laws and regulations”.*

<u>Present value of the Plan’s expected future accruals</u>

PS 3250.57 further states “*A government’s expected future accruals for service for the current number of active employees are determined on a basis consistent with that used to determine its accrued benefit obligation…”*

Mercer’s accounting results letter determined the following using the Province’s assumptions for financial reporting under PSAB:

- The 2018 total service cost is $3.2B
- The total present value of expected future accruals is $96.5B as at 31 December 2017

Mercer also noted the present value of expected future accruals has been calculated on an open group basis using a perpetuity approach (i.e. the current number of active employees), by projecting the current service cost with the assumed salary scale and discounting with interest. This is in line with PSAS requirements.

We have validated Mercer’s calculation of the total present value of expected future accruals of $96.5B. We have estimated the present value of the Plan’s expected future accruals to be approximately $91B, based on the current number of active employees and the province’s assumptions for financial reporting under PSAB as at the measurement date:

- Annual salary increase of 2.50% (ultimate rate)
- Discount rate of 6.00%

Our estimate of the present value of expected future accrual has been determined as follows: 2018 current service cost / (discount rate – ultimate rate of salary increase) = $3.2B / (0.06-0.025) = $91B.

We note that our estimate is approximately $5.5B lower than the amount determined by the actuary. The actuary’s result is likely more refined; however, the use of either figure will result in a valuation allowance of nil as the expected benefit exceeds the adjusted benefit asset. Therefore, we have not followed up with the actuaries to reconcile this difference.

<u>Minimum contributions the Province is required to make regardless of any surplus</u>

As there is no minimum fixed contribution (as a percentage or dollar amount) requirement which is independent of the Plan’s funding status, our interpretation is that there are no minimum contribution that the Province is required to make, regardless of any surplus. The sponsors of the Plan can agree to any level of contribution through negotiation that leads to an actuarially balanced funding valuation. The Plan's funding level has an impact on the contribution rates, i.e. they are made with consideration for the Plan's funding surplus. In other words, if the Plan is overfunded, the joint sponsors can agree to reduce contributions, or even take a full contribution holiday. Therefore, there is no minimum level of contribution required "regardless of any surplus". This interpretation is consistent with the interpretation we see applied in practice for other Canadian plan sponsors reporting under PSAS. It is also consistent with the conclusions of the Pension Asset Expert Advisory Panel report.

Present value of the required employee contributions

We note that PS 3250.056 is written in the context of a single sponsor Plan while the OTPP is a joint-sponsored Plan. As such, the present value of the required employee contributions for OTPP is nil (i.e. the employee contributions being referenced by PS 3250.056 are in respect of contributions made by employees who are not sponsor of the Plan). This interpretation is also consistent with the conclusions of the Pension Asset Expert Advisory Panel report.

Plan surplus that can be withdrawn

As discussed in Section 2, we have assumed no Plan surplus can be withdrawn by the joint sponsors.

Expected future benefit

Using the actuary's estimate of the present value of the Plan's expected future accruals, the expected future benefit for the Plan is the present value of the Plan's expected future accruals:

Present value of the Plan's expected future accruals (PS 3250.57)	$96.5B
Present value of the required employee contributions (PS 3250.056a)	(0.0)B
Minimum required contributions regardless of any surplus (PS 3250.056a)	(0.0)B
Plan surplus that can be withdrawn (PS 3250.056b)	0.0B
Expected future benefit (PS 3250.056)	$96.5B

The Plan's expected future benefit is $96.5B.

3.3 Valuation allowance

PS 3250.054 states "*the adjusted benefit asset is then compared to the expected future benefit. When the expected future benefit exceeds the adjusted benefit asset, the accrued benefit asset is not impaired, and, accordingly, no valuation allowance is required*".

Per 3.1 and 3.2 of this letter, we have determined that the Plan's expected future benefit exceeds the Plan's adjusted benefit asset:

Plan's adjusted benefit asset (PS 3250.053)	$60.4B
Plan's expected future benefit (PS 3250.056)	<u>$96.5B</u>
Valuation allowance (PS 3250.054) [max (0, $60.4B – $96.5B)]	$0.0B

The Plan's accrued benefit asset is not impaired, and accordingly, no valuation allowance is required.

3.4 Accrued benefit asset recognition

The Plan's accrued benefit asset, net of valuation allowance as at the measurement date is:

Accrued benefit asset	$29.6B
Valuation allowance (PS3250.054)	<u>0.0B</u>
Accrued benefit asset to be recognized (net of valuation allowance) (PS3250.050)	$29.6B

Accordingly, the Province's portion of the Plan's accrued benefit asset, net of valuation allowance as at the measurement date is:

Plan's accrued benefit asset to be recognized (net of valuation allowance) (PS3250.050)	$29.6B
Province's portion of the accrued benefit asset (49%[3]) [PS3250.050 x 49%]	14.5B
Other Province specific adjustment made by OPCD	<u>(0.9)B</u>
Accrued benefit asset to be recognized by the Province (PS3250.050)	$13.6B

Based on the results of the analysis above, OPCD may draw the conclusion that an accrued benefit asset of $13.6B (without any asset impairment) could be recognized for the Province's financial reporting under PSAB.

While the analysis in this document has been prepared independently, the conclusions overall are consistent with the conclusions of the 2017 Pension Asset Expert Advisory Panel report.

[3] 50%, less 1% representing non-consolidated participating employers

Appendix

Information Provided

Our analysis is based on the following information we received:

- Teachers' Pension Act
- OTPP Funding Management Policy
- Letter Re: Accounting results as at 31 March 2018 prepared by Mercer dated 26 January 2018
- Pension Asset Expert Advisory Panel report (2017)

Appendix
Applicable guidance under PS 3250

Measurement date

.39 For a defined benefit plan, the plan assets and the accrued benefit obligation would usually be measured at the date of the financial statements. As a practical matter, an earlier date may be used provided the government adopts this practice consistently from year to year and as long as no significant change relevant to the valuation of the plan occurs between the valuation date and the financial statement date.

Limit on the carrying amount on accrued benefit asset

.50 An accrued benefit asset should be presented on a government's statement of financial position net of any valuation allowance. When a defined benefit plan gives rise to an accrued benefit asset, a government should recognize a valuation allowance for any excess of the adjusted benefit asset over the expected future benefit. A change in valuation allowance should be recognized in the statement of operations for the period in which the change occurs.

.51 A government with a defined benefit plan may have an accrued benefit asset for accounting purposes. An accrued benefit asset arises when the government's total contributions to the plan, including interest earned thereon, are greater than the retirement benefit expense recognized since the start of the plan. Contributions reflect the funding objectives of the plan. The benefit expense reflects the accounting objectives and may differ for a number of reasons, including the fact that actuarial gains and losses are deferred and amortized in future periods.

.52 a government may benefit from an accrued benefit asset either by withdrawing surplus assets or by taking a contribution holiday or receiving a refund of contributions. The accrued benefit asset may become impaired when there is a plan surplus for accounting purposes that the government is not entitled to benefit from fully. For example, there may be a regulatory moratorium on pension surplus withdrawals or uncertainties as to a government's legal right to use a plan's accounting surplus.

.53 To determine the extent to which an accrued benefit asset may be impaired, the government first determines the adjusted benefit asset. The adjusted benefit asset is the accrued benefit asset less net unamortized actuarial losses (determined on a basis using market value of assets.

.54 The adjusted benefit asset is then compared to the expected future benefit. When the expected future benefit exceeds the adjusted benefit asset, the accrued benefit asset is not impaired, and, accordingly, no valuation allowance is required.

.55 The objective of the standard in paragraph PS 3250.050 is to limit a government's accrued benefit asset to the amount it can realize in the future. The expected future benefit is a calculated amount representing the benefit a government expects to realize from a plan surplus. An expected future benefit includes any withdrawable surplus or reduction in future contributions.

.56 A government determines its expected future benefit the sum of:

(a) the present value of its expected future accruals for service for the current number of active employees, less the present value of required employee contributions and minimum contributions the government is required to make regardless of any surplus; and

(b) the amount of the plan surplus that can be withdrawn in accordance with the existing plan and any applicable laws and regulations.

.57 A government's expected future accruals for service for the current number of active employees are determined on a basis consistent with that used to determine its accrued benefit obligation. These expected future accruals for service, less required employee contributions and minimum contributions the government is required to make regardless of any surplus, are then discounted back to the current period to determine the present value. The interest rate used to calculate this present value is the expected rate of return on plan assets used to determine the benefit expense in the period.

.58 When administration expenses are paid by the plan and included in the normal cost calculation, a best estimate of the future administration expense is included in the expected future accruals for service. When administration expenses are paid by the plan and not included in the normal cost calculation, the rate of return on plan assets is adjusted to reflect the deduction of the administrative expenses.

.59 A key factor in determining a government's expected future benefit from a defined benefit plan with a plan surplus for accounting purposes is the ability of the government to withdraw assets from the plan. The expected future benefit includes amounts to which a government has a legally enforceable right of withdrawal. It excludes any withdrawable plan surplus a government is currently required, or intends, to allocate to employees. A government may not anticipate obtaining a legally enforceable right to withdraw a portion of a plan surplus to which it is not currently entitled, whether on the basis of precedent or otherwise. Accordingly, when withdrawal of plan surplus requires the approval of employees or an appropriate regulatory authority or a court of law, a government excludes any amount subject to this restriction from its expected future benefit until such approval has been obtained. A change in the allocation of surplus between a government and its employees is incorporated into the calculation of the expected future benefit only when it has been agreed to and, when required, approved by the appropriate regulatory authorities.

Joint defined benefit plans

.79 Governments may participate jointly in defined benefit plans where the government shares the risks and rewards jointly with plan participants, represented by a sponsor or sponsors. Joint defined benefit plans are governed by a formal agreement between the sponsors, which establishes that the sponsors have shared control over the plan. A governing board is generally appointed by the joint sponsors with equal representation and a mutually agreed-upon chair.

.80 A government would consider the characteristics of the plan to determine whether it meets the definition of a joint defined benefit plan. In a joint defined benefit plan, funding contributions are shared mutually between the government and the plan members. The sponsors have control over decisions related to the administration of the plan and the level of benefits and contributions on an ongoing basis based on the terms of the contractual agreement. The sponsors share, on an equitable basis, the significant risks associated with the benefit plan. Risk would not be considered to be equitably shared in an arrangement where the government and the joint sponsors fund the plan equally but where the government retains the full risk of the

accrued benefit obligation. If the government retains the residual risks it is unlikely that the plan meets the definition of a joint defined benefit plan.

.81 When a government participates in a joint defined benefit plan, the government's risk is limited to its portion of the plan. The government should account for its portion of the plan in accordance with the standards for defined benefit plans.

.82 A government may convert an existing defined benefit plan for which it is the sole sponsor to a joint defined benefit plan where the risks and benefits are shared. When converting to a joint plan, a government would consider whether there are any special accounting issues that arise, including whether the predecessor plan has been settled or partially settled and/or curtailed or partially curtailed. In assessing such issues a government would have regard to its specific circumstances and the terms of the joint defined benefit plan.

Glossary

- *An **accrued benefit asset** is the amount of any asset recognized on a government's statement of financial position in respect of employee retirement benefits before deducting any valuation allowance that may be required. It is the sum of the government's accumulated cash contributions less the sum of the current and prior years' benefit expenses (before any change in the valuation allowance).*

  *An **adjusted benefit asset** is an accrued benefit asset less the amount, if any, by which the aggregate of any unamortized actuarial losses exceeds the aggregate of any unamortized actuarial gains.*

- *The **expected future benefit** is a calculated amount representing the benefit a government expects to realize from a plan surplus. An expected future benefit includes any withdrawable surplus or reduction in future contributions. A government determines its expected future benefit as the sum of:*

  (a) the present value of its expected future accruals for service for the current number of active employees, less the present value of required employee contributions and minimum contributions the government is required to make regardless of any surplus;

  (b) the amount of the plan surplus that can be withdrawn in accordance with the existing plan and any applicable laws and regulations.

- *A **joint defined benefit plan** is a contractual arrangement between the government and another sponsor or sponsors representing plan participants that has all of the following characteristics:*

  (a) the sponsors co-operate toward achieving the significant clearly defined common goal of providing retirement benefits in exchange for services rendered by the employees;

  (b) funding contributions are shared mutually between the government and the plan members, represented by the non-government sponsor;

  (c) the sponsors share control of decisions related to the administration of the retirement benefit plan and to the level of benefits and contributions on an ongoing basis; and

  (d) the significant risks associated with the retirement benefit plan are shared on an equitable basis between the government and the plan members, represented by the non-government sponsor.

  The contractual arrangement establishes that the sponsors have shared control over the retirement benefit plan, and ensures that neither party is in a position to control the plan unilaterally. Nevertheless, overall, there must be an equitable relationship between the funding by the government of the retirement benefit plan, the extent of control it is able to exercise over the plan and the risks and benefits that accrue to the government from the plan.