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TEACHERS' PENSION PLAN • RÉGIME DE RETRAITE DES ENSEIGNANTES ET DES ENSEIGNANTS ONTARIO

Ontario Teachers' Pension Plan Board Response to Hearing Officer Review of Discount Rate Assumption

Overview

The Ontario Teachers' Pension Plan Board has advised the Ontario Teachers' Federation (OTF) and the Ontario government that it agrees with the substance of the recommendations stemming from an independent review of the discount rate used to estimate the cost of future pensions.

The review recommended a real (after inflation) discount rate no higher than 2.95% for the pension plan's 2012 funding valuation. The Board used a real discount rate of 2.85% (0.10 percentage points lower than the recommended maximum) in a preliminary valuation reported earlier this year. That preliminary valuation showed a $9.6 billion shortfall between projected assets and estimated future pension costs for current members.

The discount rate plays a critical role in projecting whether or not the plan has enough assets to meet its future pension obligations. The higher the discount rate, the lower the projected cost of future pensions, and the greater the risk to newer teachers of potential insufficient funding.

OTF, the government and Teachers' mutually appointed actuary Donald M. Smith, MBA, FFA, FCIA, CFA, a partner at Western Compensation & Benefits Consultants, as the Hearing Officer to conduct the independent review. Mr. Smith has extensive experience in the public sector pension arena. Current and past clients include Manitoba Teachers' Retirement Allowances Fund, B.C. Teachers' Pension Plan, Winnipeg Police Pension Plan and Manitoba Healthcare Employees' Pension Plan. He is a member of a number of the Canadian Institute of Actuaries' committees, including its Task Force on Pension Value Consistency and its Committee on Pension Plan Financial Reporting. He also chairs the Institute's Committee on Liaison with Government Authorities on Pension Matters. An executive summary of his findings is included in this document.

This is the third time in the past five years that the Board's discount rate has been reviewed by independent third parties appointed by OTF, the government and the pension plan. The first was by a five-person panel of internationally recognized experts in its 2007 report. In 2011, Jean-Pierre Provencher, former actuary to OTF, was mutually appointed as an independent Hearing Officer, and conducted an extensive and detailed review. Each of these prior independent reviews found that the Board's preliminary proposed rate was within the range of reasonableness and that the considerations applied by the Board in determining where in that range the rate should be set were reasonable and appropriate. In particular, each of these reviews found that the link between the degree of risk sharing between active and retired members and the basis for setting the discount rate were reasonable and appropriate.

This latest review reaches the same conclusions, namely that the proposed rate is within the range of reasonableness -- the Hearing Officer recommends that the discount rate be no higher than 0.10% above the rate used by the Board in the preliminary valuation -- and that any increases above this maximum rate should be linked to changes in provisions for risk sharing.

In addition to commenting on the specific discount rate used by the Board, the Hearing Officer report contained several significant findings relevant to setting the discount rate and to the plan's design. The Board believes that these findings should be considered in order to strengthen the plan's sustainability.

Board Response to Hearing Officer Recommendations

Hearing Officer mandate	Hearing Officer recommendation	Board response
Determine reasonable range for discount rate in light of plan characteristics	A reasonable range for the real discount rate assumption as at January 1, 2012 is 2.85% to 3.75% The Board's assumed rate of 2.85% is at the lower end of the reasonable range	Agree
Determine whether assumed rate is within range	The Board's assumed real discount rate of 2.85% falls within, but is at the lower end, of the reasonable range	Agree
Recommend specific, appropriate discount rate for 2012 funding valuation	Recommend no higher than real 2.95%, given the level of guarantees inherent in the plan	Agree. The Board agrees to increase the discount rate to this maximum for a valuation filing as at January 1, 2012. This change to 2.95% would decrease the preliminary shortfall by $2.5 billion.
	Discount rate could increase 0.25% to no higher than real 3.20% if the level of guarantees in the plan is reduced – and, in particular, if the scope of conditional inflation protection for future pension credit is expanded from 50% to 100%, dependent on the plan's funded status	Agree with a 0.25% increase with expansion of conditional inflation protection from 50% to 100% (cost shared by government) for service after 2013.

Board Response to Other Significant Findings

Hearing Officer Findings	Board response
The discount rate should balance a number of factors, including: • Net rates of investment returns and associated risks • Risks associated with future payment of plan benefits • Sharing of risks between all plan stakeholders, including: current pensioners, late-career teachers, early-career teachers and future teachers, and the Government of Ontario	Agree
The plan's expected rate of return, less a margin for the possibility that actual experience is less favourable than the assumptions, is a more stable basis for determining future discount rates than current or past bond yields	Agree. This has always been the Board's process for setting the discount rate. (See page 4 for details.)
Returns achieved by the plan in excess of financial market returns should not be recognized in the valuation before they are earned	Agree
The pension plan has a fundamental problem of intergenerational equity. Because accrued benefits cannot be reduced, responsibility for funding shortfalls is not borne by teachers who retired before 2010 and only minimally by late-career teachers and members who have retired since 2010. Teachers' differs from a number of other large Canadian public-sector plans, where retired members assume a greater degree of risk, particularly with future rates of pension indexing.	Agree
To minimize further large contribution rate increases or benefit reductions, the Ontario Government should either: • Underwrite the cost of guaranteed accrued benefits in excess of scheduled contribution rate increases; or • Allow some form of conditional, rather than guaranteed, inflation protection for pensions being paid to all retirees	Agree that either change would address the Board's concern that young teachers bear too much funding risk.
A real discount rate at the upper end of the range (3.75%) could be justified if all current and retired members' benefits alike were subject to conditional inflation protection.	Agree that extraordinary measures that more fairly share risk between working and retired members would be required before the highest discount rate in the Hearing Officer's range could be justified. Legislation would have to be changed to accommodate this plan design change.

Background

What is a discount rate?

Funding valuations use many assumptions to estimate the cost of future pensions owed to current members. The discount rate, also known as the rate of return assumption, is one of the key assumptions in determining whether or not the pension plan will have enough assets to meet its future pension obligations. The lower the discount rate, the higher the projected cost of pensions and vice versa. In the long run, however, if the cost of future pensions turns out to be more than projected, it transfers the funding burden to younger teachers and future generations.

How is Teachers' discount rate set?

The discount rate used in the pension plan's funding valuation is based on current long term market interest rates, as defined in the Funding Management Policy that was established by OTF and the Ontario government. This rate is then adjusted by the Board, using its expert judgment regarding risk and projected rates of return.

The Board starts with a three-year average of the Government of Canada 30-year real-return bond rate. Real-return (after inflation) bonds are used because they are a good match for the plan's liabilities. Teachers' discount rate is always set higher than the bond rate because the fund is expected to earn more than the bonds do. When the plan has a shortfall, it uses this bond rate plus 1.4%, as defined in the pension plan's Funding Management Policy.

Board then applies its best expert judgment: This preliminary calculation can be adjusted by the Board to reflect how much risk the plan can afford. For example, the Board was able to assume a higher rate when OTF and the government introduced conditional inflation protection, which lowered the risk of underfunding the pension plan.

In addition, the Board undertakes an extensive review that focuses on the projected rates of return, less a margin for the possibility that actual experience ends up being less favourable than the assumptions. The Board then determines whether any further adjustment is required based on these projections.

Why was the discount rate reviewed?

At the time of a proposed filing, the OTF and the government can jointly initiate a review of the discount rate if a preliminary valuation shows a shortfall based on a discount rate of less than real 3.575%. The 2012 preliminary valuation, which showed a $9.6 billion shortfall, assumed a real rate of 2.85%. This discount rate review process was defined in 2010 by the former Sustainability Working Group, made up of representatives of the OTF, its four affiliates, the government and Teachers'.

Next Steps

- If the funding shortfall persists, OTF and the Ontario government must resolve it no later than 2014.
- Discussions on possible shortfall solutions are underway and members will be advised as soon as decisions are reached.

For more information on plan funding, visit otpp.com or FundingYourPension.com

ONTARIO TEACHERS' PENSION PLAN

Discount Rate Review

August, 2012

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1. EXECUTIVE SUMMARY

1.1 Purpose

This report has been prepared in my capacity as Hearing Officer appointed by the Ontario Teachers' Pension Plan Board, the Ontario Teachers' Federation and the Government of Ontario.

The purpose of the report is to review the discount rate of 2.85% real[1] used by the Board in the preliminary actuarial valuation of the Plan for funding purposes as at January 1, 2012.

In accordance with the Terms of Reference of the Discount Rate Review Process, the report indicates:

(a) the reasonable range for the discount rate assumption in light of the characteristics of the Plan, and whether the Board's proposed discount rate assumption falls within that range, and

(b) my recommendation of a specific discount rate that is appropriate for the Plan's valuation in the circumstances.

1.2 Submissions of the Parties

As part of the process, I received written submissions from the Board, the OTF and the Government of Ontario concerning the appropriate discount rate to be used in the January 1, 2012 actuarial valuation for funding purposes.

I also had the opportunity to meet with each of the parties and with the Plan's actuaries.

1.3 Reasonable Range for Discount Rate Assumption

After taking into account the factors that are relevant to selecting the discount rate and the particular characteristics and circumstances of the Plan, it is my opinion that the reasonable range of discount rates that could be used in the Plan's actuarial valuation for funding purposes as at January 1, 2012 is between 2.85% and 3.75% real.

The Board's proposed discount rate assumption of 2.85% real falls within, but is at the lower end of, the reasonable range.

1.4 Recommended Discount Rate Assumption

I have analyzed the following issues identified by the parties in their submissions:

[1] "Real" means net of expected future inflation. Based on the Board's assumption of a 2.2% future inflation rate, a real discount rate of 2.85% corresponds to a nominal discount rate of 5.05%.

- current and future bond yields,
- expected future rates of investment return,
- potential added value from active investment management,
- the demographic profile of the Plan,
- the risk tolerance of the Plan members and the sponsors,
- the risk-sharing mechanisms available to the parties,
- intergenerational equity between members, and
- the appropriate level of margins for adverse deviation.

My analysis suggests that the discount rate for the January 1, 2012 actuarial valuation for funding purposes should be set at a level that will not require increases in the Plan's contribution rates beyond those that are currently scheduled.

My recommendations with respect to the discount rate for the January 1, 2012 actuarial valuation for funding purposes are:

1. Given the level of guarantees inherent in the present Plan, the discount rate should be no higher than 2.95% real.

2. If the level of guarantees under the Plan is reduced – and, in particular, if the scope of conditional inflation protection is increased from 50% to 100% of CPI increases for future service pension accruals – the discount rate can be increased to 3.20% real.