Report of the Plan Member Trustees to the BCTF AGM 2018

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Ken Tannar
Outline

1. New Plan, 2018
2. Financial Update
3. 2017 Triennial Valuation
4. New Website
Trustees say thank you to ....

Our two Joint Trust Partners
  BCTF – Glen Hansman, Teri Mooring,
  Victor Choy (staff)
  BC Government – Angie Sorrell

Our two advisory committees
  Teachers’ Pension Plan Advisory (TPPAC)
  Pensions Committee

Our 5 Government Trustees and Secretariat
Defined Benefit Pension Plan

A Define Benefit (DB) plan calculates the pension amount based on a math formula which consists of:

1. accrual rate (yearly pension build up), times
2. years of service, times
3. highest average salary (HAS), then less
4. an early retirement reduction

TPP vs Canada Pension Pan (CPP) rates:

<table>
<thead>
<tr>
<th></th>
<th>TPP Old Plan (Pre 2018)</th>
<th>TPP New Plan (Post 2017)</th>
<th>CPP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accrual rate</td>
<td>1.51%</td>
<td>1.85%</td>
<td>Multi step to CPP max</td>
</tr>
<tr>
<td></td>
<td>(1.3%/2.0%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early retirement</td>
<td>3.0%</td>
<td>4.5%</td>
<td>7.2%</td>
</tr>
<tr>
<td>reduction</td>
<td>Age 60</td>
<td>Age 61</td>
<td>Age 65</td>
</tr>
</tbody>
</table>
Why an Early Retirement Reduction?

Because it’s fair.

Your pension benefit is based on two basic principles:

1. the more you contribute, the higher your pension
2. the earlier you retire, the lower your pension
Your Pension is Pre Funded

For every dollar you contribute to your pension, your employer contributes about a dollar as well.

\[ \text{Investment Returns} + \text{Investment Returns} + \text{Your Pension} \]

= Your Pension
Actuarial Equivalence

For an average member, our actuary estimates:

- age at start and end of career = years of service
- age at retirement
- amount contributed
- likely age of death
- investment growth
- value of funds at retirement
- $1 = $10

Our actuary then calculates the pension amount that can be paid, based on the assumptions, until the member’s death

- called the **Normal Form** of pension payment
- set as a **Single Life No Guarantee (SLG 0)** option
- other pension payment options available on a pension estimate.
Actuarial Equivalence

Example: two members each contribute $1 per year of service

<table>
<thead>
<tr>
<th>Jillian, 35 years old</th>
<th>Juan, 35 years old</th>
</tr>
</thead>
<tbody>
<tr>
<td>contributes $26</td>
<td>contributes $24</td>
</tr>
<tr>
<td>retirement age = 61</td>
<td>retirement age = 59</td>
</tr>
<tr>
<td>value for pension = $260</td>
<td>value for pension =$240</td>
</tr>
<tr>
<td>($1 = $10)</td>
<td>($1 = $10)</td>
</tr>
</tbody>
</table>

1. Juan has contributed less ($24 vs $26)
2. Juan’s pension value is less at retirement ($240 vs $260)
3. Juan will collect more total pension payments (assuming same age of death)
You may have noticed that your 2016 MBS had a later “Earliest Unreduced” date than your 2015 MBS.

- pension law requires printing the New Plan service reduction factor of age 61 instead of age 60 or Factor 90
- all Old Plan service portion still has a reduction factor of the lesser of age 60 or Factor 90 (more next slide)

Example

2015 MBS Earliest Unreduced date’s age = 59
2016 MBS Earliest Unreduced date’s age = 61

This does not mean the member needs to work another 2 years to get the same pension.

Each of the Old Plan and New Plan service portions are reduced according to that plan’s rules ... more to follow.
Member Benefit Statement (MBS)

Let’s assume your original target retirement date is July 1, 2019, at age 59 with 30 years of Pensionable Service (PS) and 31 years of Contributory Service (CS).

• According to 2015 MBS: Earliest Unreduced age at 59 since reaching Factor 90 (age + CS = 59 + 31 = 90) and HAS = $80,000
  o SLG 0 pension payment option = $35,661 per year for life
  o Bridge to Age 65 = $11,732 per year for 6 years

• According to 2016 MBS: Earliest Unreduced age at 61.
  o Retiring at age 59 would mean a reduction of 4.5% on each year of New Plan service. i.e. 2 years approximately x 4.5% = 9.0%
  o However, the accrual rate on those 2 years is still 91% of 1.85% = 1.68% which is still higher than the Old Plan’s accrual rate of 1.51%
Member Benefit Statement (MBS)

According to 2015 MBS and retiring at 59:
SLG 0 pension payment option = $35,661 per year for life
Bridge to Age 65 = $11,732 per year for 6 years

Noting 2016 MBS, but access on-line pension estimate for age 59:
SLG 0 pension payment option = $35,898 ($237 more for life)
Bridge to Age 65 = $11,382 ($350 less for 6 years)

With service in the New Plan, the lifetime pension is larger and the Bridge (earned only in the Old Plan) is smaller.
2017 Financial Update

2017 markets were strong regardless of geopolitical uncertainty.
2017 Financial Update

Teachers’ Pension Plan is very diversified.

- Public Equity 50% index pools
- Fixed Income 19% bonds, mortgages
- Real Estate 15% buildings, land
- Private Equity 6% companies
- Infrastructure & Renewables 10% transportation, power

Diversified around the globe.
Net Assets in $Billions

<table>
<thead>
<tr>
<th>Year</th>
<th>Basic</th>
<th>IAA (COLA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>17.1</td>
<td>3.6</td>
</tr>
<tr>
<td>2014</td>
<td>18.7</td>
<td>4.0</td>
</tr>
<tr>
<td>2015</td>
<td>20.2</td>
<td>4.3</td>
</tr>
<tr>
<td>2016</td>
<td>21.0</td>
<td>4.5</td>
</tr>
<tr>
<td>2017</td>
<td>22.9</td>
<td>4.9</td>
</tr>
</tbody>
</table>

2017 value of $27.8 is not visible.
TPP Annual % Returns

2004: 10.4%
2006: 13.0%
2007: 4.0%
2009: 10.9%
2010: 9.4%
2012: 10.4%
2013: 14.6%
2015: 9.3%
2016: 6.0%
2017: 9.0%

10.1% = 5YA
The Teachers’ Pension Plan performs a triennial valuation every 3 years. Our actuary estimates the fund value required at this time to pay all future pensions for its members.

If it’s determined we are short of funds, contribution rates will increase. If it’s determined there is more funds than necessary, we will have a surplus.

- The assumed 5 year average rate of return in the 2017 Valuation will be 6.25% to 6.5%
- The actual 5 year average rate of return for the 2017 Valuation is 10%.

We will have a surplus! The amount of surplus is to be determined. With a surplus, we can make improvements to the pension.
Our new TPP website was recently launched:
• more user friendly, searchable, and member focused
• improve your understanding of your pension plan
• plan for your retirement
• Pension Estimator in the My Account section to estimate your pension for different dates

Pension Corporation has a TPP booth outside. Visit them and they’ll assist you with signing up for My Account.
The New TPP Website

www.pensionsbc.ca
Questions?