What Affects the Funded Level of a Pension Plan?

Nova Scotia Teachers Union

Background

- The Teachers’ Pension Plan (TPP) is currently undergoing a review by an expert panel.
- The Panel is to provide recommendations to bring the TPP to a fully funded status in a reasonable time period.
- This presentation provides an explanation of the factors that affect the funded level of the TPP.

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Funded Ratio

- The Funded Ratio is an expression of the current financial position of a pension plan.
- Pension plans regularly report on their funded ratio.
- Determining the funded ratio requires the completion of an actuarial valuation.
- The TPP reports the funded ratio on a yearly basis.
  - Valuation is performed as of December 31st and reported at the end of April.

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What is a Funded Ratio?

$$Funded\ Ratio = \frac{Plan\ Assets}{Plan\ Liabilities} \times 100\%$$

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Plan Assets

- A pension plan’s assets are the cash and investments held by the plan.

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Plan Liabilities

- A pension plan’s liabilities are the present value of the pensions that have been promised to:
  - active members (those still working/contributing);
  - inactive members (those not working/contributing) but not yet on pension); and
  - retired members (those on pension).

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December 31, 2020

$$Funded\ Ratio = \frac{Plan\ Assets}{Plan\ Liabilities} \times 100\%$$

$$Funded\ Ratio = \frac{\$5{,}518{,}745{,}000}{\$6{,}986{,}076{,}000} \times 100\% = 79.0\%$$

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What does that mean?

- Simply put, for each $1.00 of pension owed, the plan only has $0.79 available to pay.

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How are assets and liabilities determined?

- The actuarial firm that completes the valuation uses various long term assumptions to project the liabilities of the plan (determine the present value):
  - Future rate of mortality of plan members and spouses;
  - Future rate of salary increases;
  - Future rate of member withdrawal from plan;
  - Future retirement age; and
  - The future rate of return of the plan's assets.

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Actuarial Assumptions

- Actuarial assumptions have to be reasonable:
  - Actuarial standards.
  - Plan experience.
  - Broader experience of similar groups.
- Changes to plan structure could result in changes to assumptions.

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How can the funded ratio be increased?

- An increase in assets; and/or
- A decrease in liabilities.

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INCREASING ASSETS

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Increasing assets

- Increase contribution rates
  - Members and employer rates are currently equal.
- Improved investment return
  - Reflected in an increase in the future rate of return assumption.
  - Current assumption is 5.70% per year (every year for the long term – some will be higher, some will be lower).
- Increased plan membership
  - Note that an increase in plan membership would increase assets but would also increase liabilities

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DECREASING LIABILITIES

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Mortality

- Mortality has been increasing (that is, people, especially teachers, have been living longer).

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Future rate of salary Increases

- The plan makes two assumptions about salary increases:
  - Promotion component (pay scale steps and license changes); and
  - Inflation component (economic increases).
- The suitability of these assumptions is tested, as required, by the results of the valuation.

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Future rate of member withdrawal from plan

- Current assumption is 5% of members withdraw in each of the first 2 years of employment and none thereafter.
  – After 2 years, members are vested and would become inactive if they stopped working/contributing.

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Future retirement age

- Members can retire at the normal retirement date, retire early, or defer retirement past the normal retirement date.
- Members can retire under either:
  – An unreduced pension (2% per year); or
  – A reduced pension (2% per year decreased by a reduction factor).

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Normal Retirement

- Normal retirement occurs at the earlier of:
  - Age 65 with 2 years of service; or
  - 35 years of service.

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Early Retirement

- Normal retirement for the Plan is at age 65 or 35 years of service whichever comes first.
- Retirement at any time prior to a member meeting the earliest of these criteria is considered early retirement.

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Early retirement (unreduced)

- There are two early retirement options for an unreduced pension:
  – Rule of 85
    - At least age 55 **AND** age plus service equals at least 85
  – Age 60 – 64 with at least 10 years of service
    - On average, members retiring under this provision postpone retirement 2 years.

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Early retirement (reduced)

- There are three early retirement options for a reduced pension:
  – At least age 55 **AND** at least 20 years of service;
  – At least age 50 **AND** at least 30 years of service; or
  – At least age 55 **AND** at least 2 years of service but less than 20 years of service.

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Postponed retirement

- Very few members postpone retirement past age 65.

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Retirement Assumptions

- Overall assumptions with respect to retirement age:
  - 50% of members who are eligible for the Rule of 85 prior to age 62 will retire when first eligible;
  - Remainder of members will retire at the earliest of:
    - Age 65 with 2 years of service;
    - 35 years of service;
    - Age 62 with 10 years of service.

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Have Questions?

- Questions may be forwarded to:

pensionreview@nstu.ca

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