

**OVERVIEW OF ONTARIO TEACHERS'
PENSION PLAN**
Society of Actuaries
Retirement 20/20 Conference

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November 18th, 2008



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AGENDA

- **General Information**
 - Governance structure
 - Benefit provisions
 - Contribution Rates
- **Risks & Demographic Challenges**
- **OTPP's Funding Management Policy**

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WHERE IS ONTARIO?



We provide the pensions to teachers in the public school system and designated private schools.



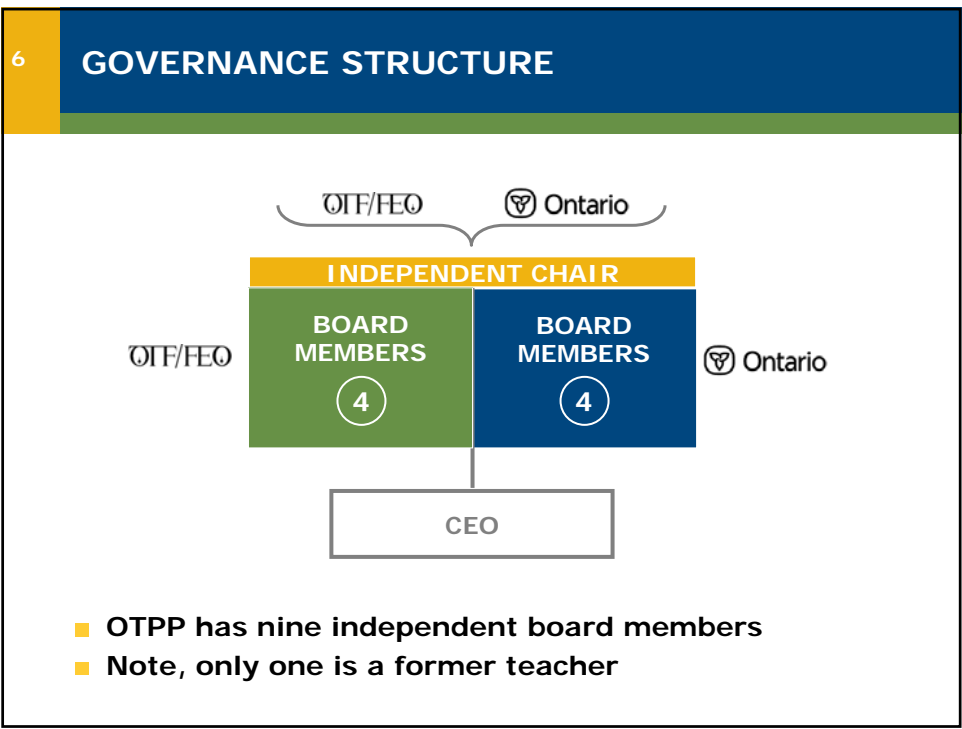
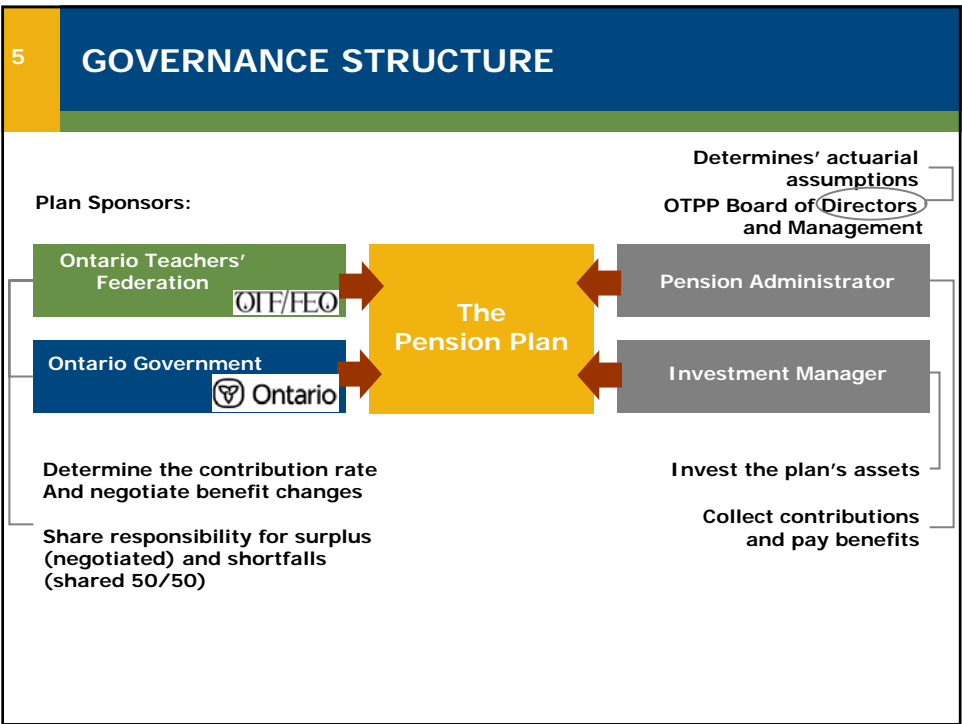
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MEMBERSHIP PROFILE & FUNDING POSITION



At January 1, 2008,

- Net assets available for benefits = \$108.5B
- Filed with a small surplus (\$16M) with a real interest rate assumption of 3.45%



TEACHERS'
PENSION PLAN

Ontario

by:



- The contribution and benefit preferences of active members of the Ontario Teachers' Pension Plan
- A total of 2,820 telephone interviews were conducted with OTPP members. Overall results are accurate to +/-1.8%.

http://www.otpp.com/web/Website.nsf/web/pensurv_results

Pension = 2% x Salary* x Years of Service

Awareness among teachers: 87%

Indexed to Inflation After Retirement

Awareness among teachers: 74%

* Salary = Best 5 year average earnings

THE PENSION PROMISE: EARLY RETIREMENT

- Age + Service ≥ 85 , eligible to retire with unreduced pension
- Awareness among teachers about 85 Factor: 95%
- Observed average retirement age in 2007 is 57.5 years old

Retiring:	% of New Pensioners (Since 1999)
Before 85 Factor	29%
Between 85 & 87 Factor	38%
After 87 Factor	29%
At Or Beyond Age 65	4%

CONTRIBUTIONS

- Regular Contributions = 9% of Salary
 - Special Contributions from 2007 to 2021 = 2.3% of Salary
 - Government matches member contributions
-
- Plan receives 22.6% of salary

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- **Risks & Demographic Challenges**

- **OTPP's Funding Management Policy**



Average Age At Retirement is 57½

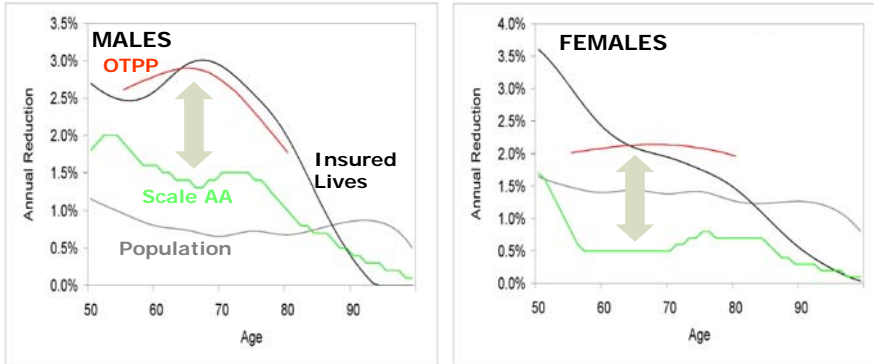
Years of Service During Which Contributions Are Made
26½ Years (On Average)

Years of Collecting A Pension With Guaranteed Indexing
31 Years (On Average)

Survivor Pension
5 Years

- Target rate of return for next 20 years = 3.8-4.6% after inflation
- Duration of the funding liabilities = 22 to 23 years (real)

LONGEVITY - ANNUAL REDUCTION IMPLIED BY DIFFERENT SCALES



- Based on a 10 year mortality study
- Consistent with a 36 year mortality study
- Teachers have similar mortality experience as insured lives (i.e. they live a long time on average)

INCREASED RISK OF LARGE CONTRIBUTION RATE HIKES

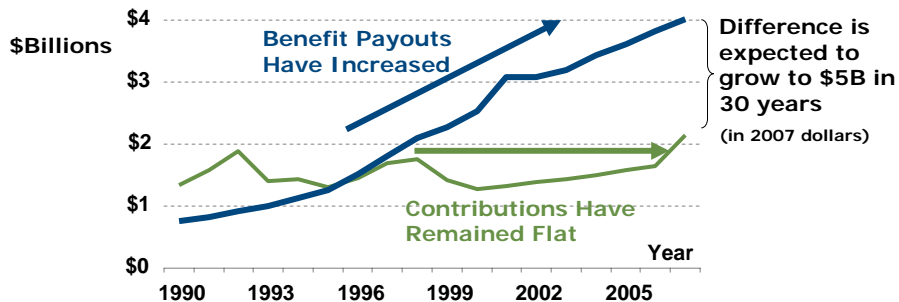
	LONG AGO - 1970	THEN - 1990	NOW - 2008
Active Teachers Per Retiree	10:1 	4:1 	1.6:1
Expected Actual Credit At Retirement (years)	27	29	26½
Expected Years On Pension	20	25	31
Average Contribution Rate	5.2%	8%	11.1%
PV of Contributions As % of Assets	93%	42%	25½%
Increase In Contribution Rate for 10% Loss on Assets =	0.56% <small>=10%x(5.2%/93%)</small>	1.9% <small>=10%x(8%/42%)</small>	4.4% <small>=10%x(11.1%/25½%)</small>

FUTURE: In 10-30 Years
 RANGE
0.8 - 1 : 1

Larger Contribution Rate Hike For The Same Percentage Loss

TODAY & IN THE FUTURE, RISK IS MORE DIFFICULT TO MANAGE

- **The Plan is sensitive to the pattern of returns, not just the long-term level of returns**
 - The Plan has negative cashflows (pays out more benefits than receives contributions)

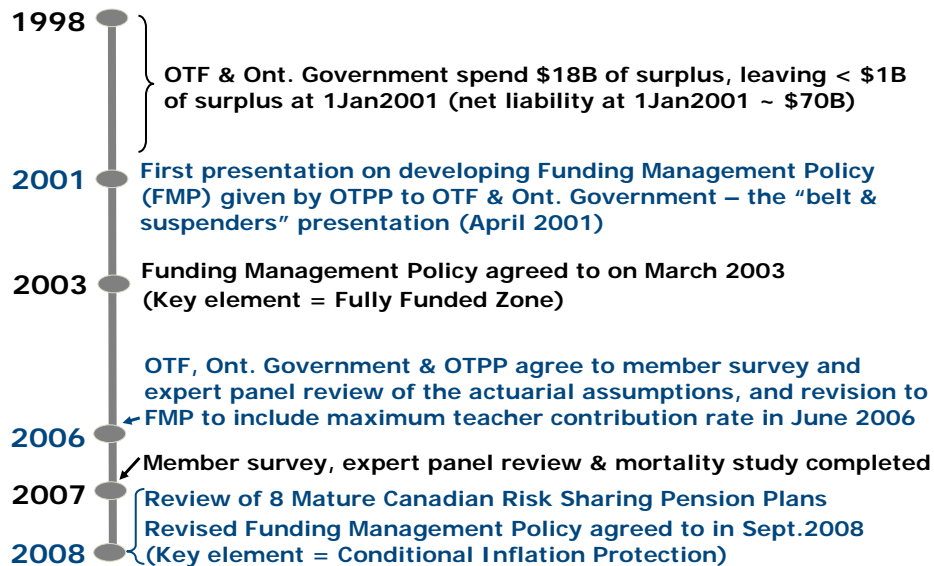


TODAY & IN THE FUTURE, RISK IS MORE DIFFICULT TO MANAGE

- **Real return required (3.8-4.6%) is based on the Plan's benefits and contribution rate level**
- **The Plan is highly sensitive to interest rate changes**
 - The Plan's promised pensions span about 100 years for current members
- **Risk of large contribution rate hikes is increasing**
 - OTPP is a mature pension plan and maturing further
- **The Plan is sensitive to the pattern of returns, not just the long-term level of returns**
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- **Risks & Demographic Challenges**
- ➔ ■ **OTPP's Funding Management Policy**

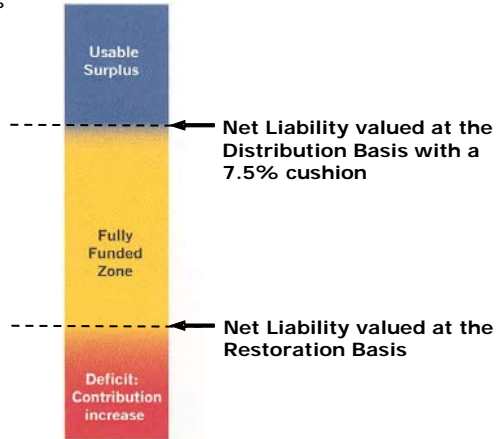
OTPP'S FUNDING MANAGEMENT POLICY (FMP): A DECADE TO BUILD



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FUNDING MANAGEMENT POLICY AGREED TO ON MARCH 2003

RRB yield = 3%



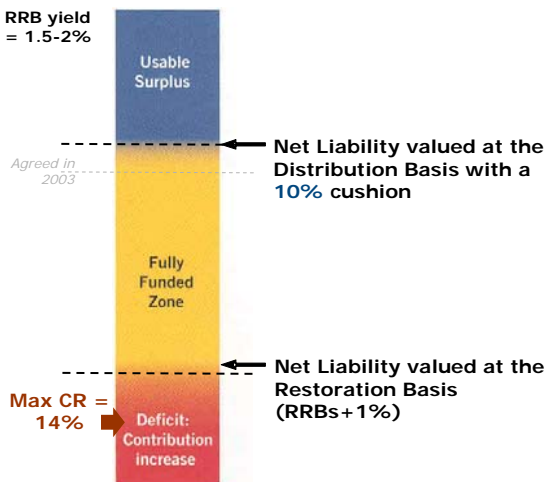
- FMP defined *when* actions would be taken / allowed

Net Liability = Value of benefits less regular contributions at 8% per Partner

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FUNDING MANAGEMENT POLICY AGREED TO ON JUNE 2006

RRB yield = 1.5-2%



- FMP defined *when* actions would be taken / allowed
- Limited teachers' contribution rates to about 14% of salary

Net Liability = Value of benefits less regular contributions at 8% per Partner

TEACHERS' RISK TOLERANCE WITH RESPECT TO CONTRIBUTION RATES

- Members willing to contribute average maximum of 12.3% to maintain current pension provisions
- *Consistent across all service groups*

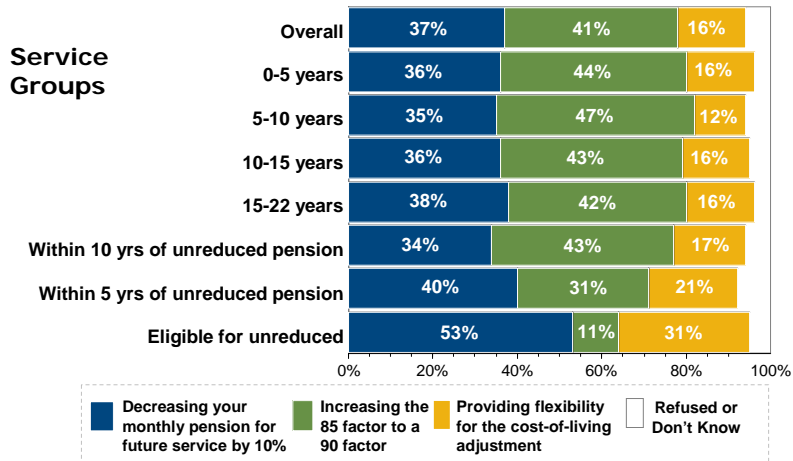
0-5 years	12.8%
5-10 years	11.9%
10-15 years	12.4%
15-22 years	12.6%
Within 10 years of unreduced pension	12.2%
Within 10 years of unreduced pension	12.3%
Eligible for unreduced pension	12.1%

TEACHERS' PREFERENCES WITH RESPECT TO BENEFIT CHANGES

Which one of these changes is your least preferred potential change to your pension plan.

- Decreasing your monthly pension for future service by 10%
- Increasing the 85 factor to a 90 factor
- Providing flexibility for the cost-of-living adjustment

TEACHERS' LEAST PREFERRED BENEFIT CHANGE



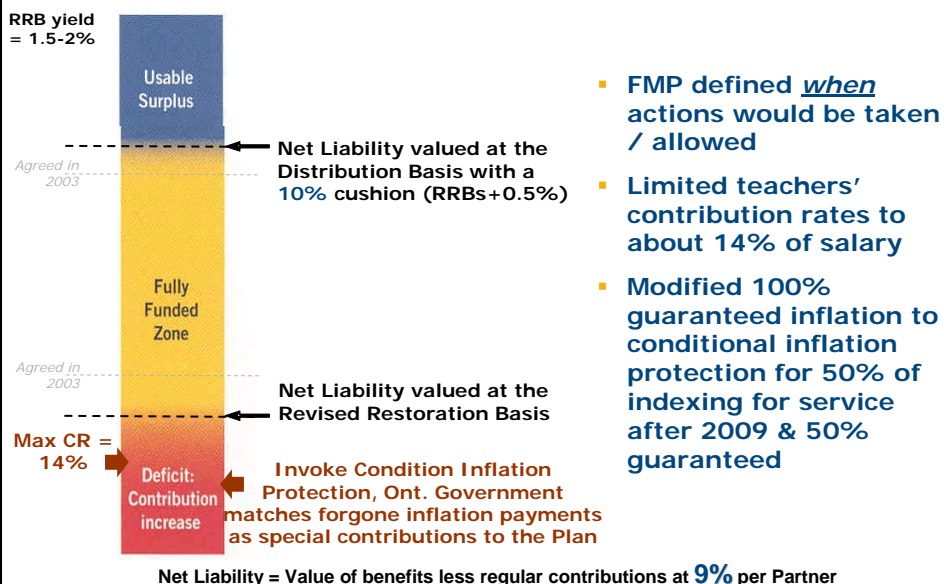
- Lowering benefit amount and delaying retirement are the least preferred changes

TEACHERS' RISK TOLERANCE WITH RESPECT TO CONTRIBUTION RATES

- After hearing about the possible benefit changes, members willing to contribute average maximum of 12.6% to maintain current pension provisions - *Consistent across all service groups*

- **Expert Panel Review of the Actuarial Assumptions**
 - 3 Actuaries, 1 Finance Professor, 1 Labour Background / Director for another large Canadian pension plan (R. Baldwin)
 - Rate of return assumption (interest rate assumption) needs to incorporate expected return *AND* risk
- **Review of Eight Mature Canadian Pension Plans with Risk Sharing Arrangements**
 - Authored by R. Baldwin
 - All plans involved some form of conditional inflation protection

FUNDING MANAGEMENT POLICY AGREED TO ON SEPTEMBER 2008



OTF'S AND PROVINCE'S DECISIONS HAVE SIGNIFICANT IMPACT

- **Adding flexibility into the benefit structure**
 - Allows risk to be managed for the contributors
 - Has greater impact than moving to a more conservative asset mix
 - Does not greatly lower the pensions actually paid
 - Allows current asset mix (risk) policy to continue

QUESTIONS

Keeping the promise.

Members of the Ontario Teachers' Pension Plan are promised defined pension benefits for life.

Facing the challenge.

Plan maturity is putting pressure on the investment program and creating ongoing funding challenges.



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DES ENSEIGNANTES ET DES ENSEIGNANTS

