



**Presentation by Chief Actuary, Jean-Claude Ménard
Office of the Chief Actuary (OCA)
Office of the Superintendent of Financial Institutions Canada (OSFI)
to the
C.D. Howe Institute Policy Conference
on the topic of: The benefit picture: current and future pressures**

**Toronto, Ontario
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Good afternoon, by way of introduction, I am Jean-Claude Ménard, Chief Actuary of the Canada Pension Plan, the Old Age Security Program and federal public sector pension plans in Canada.

(Slide 2) Thank you for your kind invitation to speak at the C.D. Howe Institute Policy Conference. Today, I will discuss the financing mechanisms of the Canada Pension Plan. Of particular interest is the determination of the Plan's investment strategy and expected investment returns for the triennial actuarial reports as these assumptions affect the projected financial sustainability of the Plan and may influence future Plan benefits. In addition, the increasing value of Plan benefits due to longer life expectancies will be discussed through the reconciliation of various actuarial reports. I will conclude by offering suggestion for strengthening the Canadian retirement system.

(Slide 3) The major amendments to the CPP agreed to by the federal and provincial governments in 1997 included significant changes to the Plan's financing provisions. Steady-state funding introduced fuller funding to the existing pay-as-you-go financing in order to build a reserve of assets equivalent over time to about five and a half years of benefit expenditures or about 25 per cent of Plan liabilities. Investment earnings on this pool of assets would then help stabilize the contribution rate.

Incremental full funding requires that changes to the CPP that increase or add new benefits be fully funded, which means that their costs will be paid as the benefit is earned and any costs associated with benefits that are paid but have not been earned will be amortized and paid for over a defined period of time consistent with common actuarial practice.

Both of these funding principles were introduced to improve fairness and equity across generations. The move to steady-state funding eases some of the contribution burden on future generations.

Assets to Expenditures Ratio *(Slide 4)* The Asset/Expenditure ratio is an important measure of the Plan's funding status – it is the ratio of assets at the end of one year to the expenditures of the next year. With a legislated contribution rate of 9.9%, it is expected that contributions will exceed benefits until 2019. Funds not required to pay benefits are transferred to the CPP Investment Board for investment. Over time, this will create a large enough reserve to help pay the growing costs that are expected as more and more baby boomers begin to collect a retirement pension. Since the legislated rate (9.9%) is

higher than the minimum contribution rate (9.82%), the funding status of the Plan will improve over time, and the greater this difference between these two rates, the greater the improvement.

(Slide 5) Prior to the 1997 Amendments, CPP assets were invested in 20-year federal and provincial bonds. This strategy was modified since it was determined that a higher rate of return on assets would be required to maintain the contribution rate at 9.9% in the future and ensure the financial sustainability of the Plan in the long-term. Thus, the CPPIB was created to invest the Plan's reserve fund in the investment markets and incur the necessary risk, thereby earning an equity risk premium, to generate this required return. In the previous actuarial report, an equity risk premium (ERP) of 2% was assumed. The independent panel that reviewed the report recommended a much higher ERP of 3.3%. Their recommendation was taken into consideration for the most recent actuarial report and the ultimate ERP assumption has been increased to 2.3%.

In setting the assumption on rates of return of riskier assets, a delicate balance must be maintained since these assumptions cover a very long period of time. Overestimating the ERP would result in a lower minimum contribution rate. This could create pressure on the Plan to improve benefits and/or lower the contribution rate. Simply stated, setting the ERP too high could create the illusion that the Plan is in a better financial position than is really the case.

(Slide 6) The minimum contribution rate of 9.82% is the result of many assumptions over a long period of time, including an ultimate equity risk premium of 2.3%. This is slightly lower than the legislated contribution rate of 9.9%, leaving a small amount of manoeuvring room in the event of future adverse experience. If the recommendation of the previous peer reviewers is used, an ERP of 3.3% will translate into a minimum contribution rate of 9.54%. On the other hand, if an ERP of 0% is assumed, the minimum contribution rate would increase significantly to 10.56%, thus requiring an immediate increase in the contribution rate. This result confirms the necessity of taking some investment risk in order to earn a sufficient return and maintain the contribution rate at 9.9%.

Plan Benefits *(Slide 7)* Since the inception of the CPP in 1966, the value of the Plan's benefits, as well as the Plan's costs, have been increasing. Increases in life expectancy translate into retirement benefits being paid for a longer period of time, which, in turn, increases the cost of the Plan. Reductions in age-specific mortality rates are expected to continue in the future. Thus, males aged 65 in 2007 are expected to receive, on average, their retirement benefit for 19 years, compared to 22 years for females. At the end of the projection period, the expected duration of benefit payments will increase by almost four years for males to 23 years and by more than three years for females to 25 years. At the end of the projection period, the life expectancies at age 65 are 1.7 years and 1.3 years higher than in the previous report.

(Slide 8) The minimum contribution rate of 9.82% is slightly higher than the 9.77% of the previous actuarial report. Better than anticipated economic experience, especially

regarding investment performance over the period 2004 to 2006 put downward pressure on the minimum contribution rate, reducing it to 9.64%. However, a more costly demographic outlook, due to the continuing increases in life expectancy, combined with higher than anticipated early retirement benefit uptake has put an upward pressure on the contribution rate.

(Slide 9) In the actuarial report of September 1997, the minimum contribution rate was 9.92%. In 1998, the contribution rate was scheduled to increase to 9.9% in 2003, and remain at that level thereafter. Thus, the Plan had no manoeuvring room for future benefit improvement or adverse experience. Subsequent reports have decreased the rate to its current level of 9.82% which provides a small financial cushion for the Plan.

A decrease in disability incidence rates is the main cause of the reduction in the minimum contribution rate; however, increases in projected life expectancy have moderated the decrease in the contribution rate. Male mortality rates in the age range 65 to 79 have decreased significantly in the past 15 years. Thus, between the 16th and 23rd Reports, the projected life expectancy at age 65 in 2050 increased from 18 to 22 years for males. Female life expectancy increased at a much slower rate: from 23 to 24 years.

(Slide 10) The following graph compares the public pensions provided by Canada and the United States. At 50% of average earnings, the Canadian public pension plans are more generous than the social security of the United States. The replacement rates for both countries are about the same for workers with an income equal to average earnings. However, for high-income earners, the social security system of the United States is more generous than the Canadian public pension plans.

(Slide 11) In Canada, pension plans can be broken down into two broad groups: voluntary and mandatory. Both Old Age Security and the Canada (Quebec) Pension Plan are mandatory. The previous slide showed that for individuals who earn less than 100% of the average wage, these mandatory programs provide retirement income between 50 and 80% of their pre-retirement wage.

For those earning more than the average wage, these programs provide a much lower replacement ratio, thus increasing the need for other forms of retirement income. Such income comes in the form of voluntary plans such as employer plans and private savings. However, coverage in this third tier of retirement income is low. This lack of participation in the third tier can lead to severe financial problems in retirement or a delay in retirement if individuals feel they do not have enough savings to retire. What can be done to further encourage participation in the third tier? Should participation remain voluntary or should it be made mandatory? The following graph illustrates the impact that a mandatory expansion would have on income replacement rates.

(Slide 12) To improve retirement savings, an additional mandatory component was added in this graph. This new component could take either the form of a mandatory employer sponsored pension plan or an expansion of the CPP. The replacement ratio is

based on a hypothetical expansion that could result in an additional replacement rate of 25% for all pre-retirement earnings.

Proposals to expand coverage in the third tier have been released in countries such as Canada, the United Kingdom and New Zealand. In Canada, pension consultant Keith Ambachtsheer has proposed The Optimal Pension System, or TOPS. In TOPS, workers would be enrolled automatically and longevity risk would be dealt with by automatically converting savings into deferred life annuities. An advantage of TOPS is that large arm's-length, single-purpose co-ops would be created to manage the pensions, rather than individuals managing their own investments, as is currently the case with defined contribution pension plans and RRSPs.

In the United Kingdom, Lord Turner's Pension Committee has proposed the creation of the National Pension Savings Scheme (NPSS). Every employee in the UK without an existing workplace pension plan would be automatically enrolled into the central scheme, but would be able to opt out. Employees would be required to contribute 4% of their salary, while the employer and the government would double the contribution by contributing 3% and 1%, respectively. Both of these proposals are examples of ways in which the Canadian retirement system could be strengthened.

Thank you. I will be pleased to answer any questions you might have.