



## **Presentation at the colloquium on Issues for Public Retirement Systems, 79<sup>th</sup> ACFAS Congress**

### **Issues and Reforms**

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Hello, thank you for inviting me here today to speak about the issues faced by public retirement systems.

### **Purpose of the 25<sup>th</sup> CPP Actuarial Report (Slide 2)**

The Office of the Chief Actuary is required by law to produce an actuarial report on the CPP every three years. The 25<sup>th</sup> CPP Actuarial Report was tabled before Parliament by the Minister of Finance on November 15, 2010. The purpose of the report is to inform on the current and projected financial status of the Plan and to calculate the minimum contribution rate. The minimum contribution rate determined for this report is 9.86%. The projections are based on a set of “best-estimate” assumptions over a long period of time – 75 years. The report is one of the key items considered by ministers when reviewing and making recommendations on the Plan.

### **The 25th Report has concluded that (Slide 3)**

The Report has concluded the CPP is sustainable for the next 75 years under the 9.9% legislated contribution rate. However, the Report has warned as to the impact of future improvements in life expectancy at older ages on the contribution rate.

### **Contribution to increase in life expectancy at birth has gradually shifted to elderly, more so since 1985 (Slide 4)**

The increase in life expectancy at birth was rapid before 1965 mainly due to a reduction in mortality rates for those under age 45. In the 40-year span leading up to 1965, more than 85% of the total increase in life expectancy at birth was attributed to a reduction in mortality rates at ages lower than 45. Most of the increase in life expectancy now comes from reduction of mortality rates at ages 65 and older. Over the 20 years ending in 2005, more than half of the increase in life expectancy has been caused by a reduction in mortality rates after age 65, and this is expected to continue.

### **Elderly mortality rates have decreased over the last 80 years, more so over the last 40 years (Slide 5)**

For the age group 75 to 84, mortality rates have continually decreased over the last 80 years. The reduction was about 45% in the last 40 years (80 deaths per 1,000 to 45 deaths



per 1,000) compared to only 25% over the previous period of 40 years (107 deaths per 1,000 to 80 deaths per 1,000). A further reduction of 35% is projected (45 deaths per 1,000 to 29 deaths per 1,000). Moreover, mortality rates for Canadian elders are projected to fall much below those of their American counterparts.

**Increase in Life Expectancy at 65 (with future mortality improvements) (Slide 6)**

The significant reduction in age-specific mortality rates has led to a significant increase in life expectancy, not just at birth but at older ages as well. In particular, the increase in life expectancy at age 65 directly affects how long CPP retirement benefits will be paid. Including projected future improvements, life expectancy at age 65 increased much more for males than for females between 1966 and 2006, rising from 14 to 20 years for men and from 18 to 22 years for women. By 2050, it is projected that these life expectancies will increase by another 3 years. This is about one-half year higher than it was projected in the previous report.

**Canada ranks 3rd and is expected to maintain a similar position over time (Slide 7)**

In 2005, Canada ranked 3<sup>rd</sup> in male life expectancy at age 65, and this ranking is expected to remain about the same in the future according to international projections. The three vertical dotted lines show how Canada ranks in each of 2005, 2020, and 2040. As shown by the purple bars, Swiss and Japanese men in 2005 enjoyed the highest life expectancy with just over 18 years. In 2040, as shown by the additional burgundy and yellow bars, Finnish men are expected to enjoy the highest life expectancy at age 65.

**The working-age population is projected to slightly increase (Slide 8)**

The Canadian population is aging due to both lower fertility rates than in the past and the significant reduction in age-specific mortality rates that has occurred. Immigration by itself is unlikely to significantly slow down the aging of the population. The “working-age” population consisting of those primarily between the ages of 20 to 64 is projected to grow over time, albeit at a slower pace compared to the past.

**The elderly population is projected to significantly increase (Slide 9)**

In comparison with the working-age population, the population aged 65 and older is projected to increase significantly, from about 5 million or 14% of the total population to 11 million or 25% of the population by 2050. For the even older age groups, those 80 and older or even the centenarians, the corresponding growth rates of those populations are projected to be much higher.

**Evolution of Asset/Expenditure Ratio (Slide 10)**

This slide shows the evolution of the Asset/Expenditure ratio of the CPP. From 2000 to 2020, the net cash flows of the Plan, that is contributions less expenditures, have been and are projected to continue to be positive, resulting in a rapid increase in the Plan’s asset/expenditure ratio. These net cash flows are invested by the CPPIB with a view to maximizing the rate of return without undue risk and further increasing the level of pre-

funding in the Plan. This graph shows that under the minimum contribution rate the Asset/Expenditure ratio remains relatively stable.

**Increase in life expectancy puts pressure on CPP contribution rate (*Slide 11*)**

As I have mentioned before, increases in life expectancy puts pressure on the CPP contribution rate. This graph shows the evolution of Asset/Expenditure ratio under two scenarios that use mortality rates different from the best-estimate assumption. In particular, our stochastic model implies that there is 10% chance that the life expectancies at age 65 in 2050 could be about 3 years higher than the ones projected under the best-estimate scenario. Consequently, the minimum contribution rate could increase to 10.25%, i.e. could become higher than the legislated contribution rate.

**What is the impact of a particular demographic situation on contribution rate? (assuming South Korea's Current Demography) (*Slide 12*)**

The next slide shows how the demographic situation could impact the evolution of the Asset/Expenditure ratio using South Korea's current demography. This involves changing the total fertility rate to 1.3 births per woman and the net migration rate to 0%. Under the current legislated contribution rate of 9.9%, the Plan's assets would be depleted around 2049. A minimum contribution rate of 11.5% would be required to sustain the Plan. The Asset/Expenditure ratio is less stable than under the current CPP environment and the pay-as-you-go rate never stabilizes over the projection period reaching 17.9% in 2075.

**What is society expecting from its retirement system? (*Slide 13*)**

Society needs a strong public retirement system that is built on three key principles: intergenerational equity, solidarity and responsibility. Intergenerational equity is fairness between generations such that each generation pays fair contribution rates to sustain the plan over the long term. Intergenerational equity ensures that successive generations do not face significantly higher rates than current generations.

The principle of solidarity refers to society protecting all individuals by collectively ensuring a basic level of assistance or standard of living for low-income retirees. Solidarity also implies that current retirees are not penalized for benefits already earned. Solidarity should supplement, but not take the place of individual responsibility, for retirement income.

Retirement income security is a shared responsibility between the government, the society, the employers and the individuals. Individuals must save for retirement and employers should help their employees to do so. The role of the governments is to implement the required systems to support public and employer-sponsored pension plans and personal savings plans.

Based on these principles, the system should also provide incentives for workers to remain longer in the labour force, especially in the context of an aging population.

**Financing approach for public pension should answer to society's expectations**  
*(Slide 14)*

There are different ways to finance a social security scheme. The main financing objective of a social security system is to stabilize the contribution rate. First, a stable contribution rate reinforces the link between contributions and benefits. A stable rate also distributes costs more equally across generations, especially in the context of an aging population. In addition, modifying the contribution rate to recognize the long-term implications of plan amendments promotes fiscal discipline and governance. Lastly, maintaining a stable contribution rate promotes greater public confidence in the scheme. Even though a contribution rate will always be sensitive to changes in the demographic and economic environments, the financing method should be chosen in such way as to minimize the volatility of the contribution rate.

**Self-adjustment mechanism: if there is no political agreement, CPP default provisions apply** *(Slide 15)*

The default provisions of the Canada Pension Plan are a mean to safeguard the Plan in the event when an increase in contribution rate is required and provincial and federal finance ministers cannot reach an agreement on the solution. This design provides the Plan with a safety net without diminishing politicians' responsibility for the Plan's future.

The default provisions provide the way to increase automatically the contribution rate and, in addition, freeze the benefits. The combination of these two measures allows for cost sharing between contributors and beneficiaries.

**AROUND THE WORLD, (Slide 16)**

Before talking about pension reforms in Canada, I would like first to discuss how Canada compares on an international basis.

**In Canada, replacement rate for people with lower earnings is higher than the OECD average** *(Slide 17)*

The chart shows that net pension replacement rates are higher for Canadians at lower earnings levels. Compared to the OECD average, Canada fares better at the lower earnings. This is illustrative of the strength of Canada's retirement income security for low-income individuals. The Netherlands stands out as providing generous replacement rates at all income levels.

**Canada has one of lowest old-age poverty rates, but much higher population poverty rate** *(Slide 18)*

As the population ages and more elderly rely on social security programs, it is interesting to observe the relationship between poverty among seniors and poverty of the overall population. This chart provides a comparison between OECD countries. The combination of Old Age Security, the Guaranteed Income Supplement and the compulsory contributory pension plans (C/QPP) has contributed significantly to reducing poverty among seniors over the past three decades. However, although Canada fares very well

with a low incidence of poverty among seniors, its overall population poverty rate is relatively high, and falls about mid-way when compared to the other OECD countries.

**Increase in pensionable age (*Slide 19*)**

As population aging has affected many countries, social program costs have been or are anticipated to rise. Public pensions constitute a major government expenditure. OECD countries have taken measures to counter the strain from their public pension expenditures by implementing an increase in the pensionable age, defined “as the age at which an individual with a full career can first receive full pension benefits in the main pension scheme” of a country, where a full pension means that no actuarial reduction has been applied. Here and in the next slide we see a summary of revisions taken by a number of countries, emphasized in green. There is a clear trend to move to higher pensionable ages at or above age 65 by the year 2050. Overall, the pensionable age for men is set to increase in eleven countries.

**Increase in pensionable age for women is more pronounced (*Slide 20*)**

Compared to the last slide, it’s seen that far more countries will raise the pensionable age for women. In the future, the majority of these countries will have pensionable ages that are the same for men and women. An age difference will remain in Switzerland, Turkey and Poland.

**BACK TO THE COUNTRY, (*Slide 21*)**

Requiring people to work longer before collecting their pensions is certainly one way of dealing with the increased pension expenditures resulting from increasing life expectancies. However, it is not the only way to control old age expenditures. Applying actuarial adjustments to pensions is another way of handling higher costs from longer periods of retirement. A recent bill amended the CPP in several ways. In particular, it amended the pension adjustment factors to gradually restore them to their actuarially fair values. This measure has strengthened the financial sustainability of the Plan over the long term without requiring an increase in its pensionable age.

**CPP Recent Amendments phased in 2011 to 2016 (*Slide 22*)**

This slide presents the changes to the CPP resulting from 2009 amendments. The work cessation test to receive the retirement pension will be removed in 2012. The general low-earnings drop-out provision will increase from 15% to 17% by 2014, thereby increasing the retirement benefit. Starting in 2012, CPP pensioners younger than 65 who choose to continue working will be required to contribute, while contributions will be optional for pensioners older than 65. In either case, employers of working beneficiaries who contribute will also be required to contribute. The additional contributions will provide additional post-retirement benefits. Finally, the pension adjustment factors will be gradually restored to their actuarially fair values. In a few years time, the early take-up factor will change from 0.5% per month to 0.6% per month, as in Finland (for a maximum reduction of 36% from 30%). The late take-up factor will change from 0.5% to 0.7% per month, as in Japan (for a maximum increase of 42% from 30%).

**Pension Reform – to date (Slide 23)**

As you know, there has been much discussion, research, and analysis conducted to date regarding the Canadian retirement income system. This includes reports by various working groups and experts, including Bob Baldwin, Jack Mintz, the former Minister of Finance of British Columbia, the Honourable Colin Hansen and the current Minister of Finance of Ontario, the Honourable Dwight Duncan.

**Pension Reform – to date (cont'd) (Slide 24)**

In June 2010, the federal Government proposed increasing retirement income adequacy in several ways, most notably by the creation of what would later be termed as “Pooled Registered Pension Plans”, or PRPPs, and by expanding the CPP by way of a modest, phased-in, and fully funded enhancement. In addition, increasing disclosure regarding retirement savings and improving the financial literacy level of the Canadian public were proposed as a means of increasing retirement income adequacy.

**Pension Reform – to date (cont'd) (Slide 25)**

In December 2010, six provinces issued a joint statement in support of both an expanded CPP and pension innovation to provide accessible and low-cost pensions across Canada. It was, however, decided after the December finance ministers’ meeting, that only PRPPs would be implemented. CPP expansion may be discussed further at the next finance ministers’ meeting in June of this year.

**Characteristics of an efficient retirement system (Slide 26)**

The Canadian retirement income system, in its present form, is efficient since it provides diversity of income through a mix of private and public pensions. This very important point was recently emphasized in the editorial note of the 2011 edition of OECD Pensions at a Glance in March 2011. The Canadian retirement income system also provides diversification of funding approaches that allows it to adapt to changing demographic and economic conditions. Our retirement system results in a reasonable cost of public pensions, a low poverty rate for seniors and a reduction in income inequalities. With respect to maintaining a decent standard of living at retirement, several studies subsequent to the last financial crisis have suggested that an increasing number of people will not be able to maintain their standard of living at retirement. Even if the Canadian retirement system compares favourably with those of other countries, it could always be improved.

What is generally agreed upon is that retirement income security is a shared responsibility between the government, society, employers and individuals. What is difficult to determine is what the different levels of responsibility are or should be, how they interact or should interact with each other, and based on that, the optimal means of improving retirement income adequacy.

Thank you for inviting me to speak to you today. I will be very pleased to answer your questions.