

**The Canadian Response to the Evolution of the Retirement Security Net
Presentation to the Northwind Professional Institute, Langdon Hall, Cambridge
Office of the Chief Actuary, Office of the Superintendent of Financial Institutions
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Good afternoon. Thank you for inviting me here today to talk about the evolution of the Canadian retirement security net.

The mandate of the Office of the Chief Actuary (OCA) (*Slide 2*)

Let me start by saying a few words about my organization. Although the OCA is housed within the Office of the Superintendent of Financial Institutions (OSFI), it operates with a different mandate. Our primary role is to provide actuarial services to the federal and provincial governments who are Canada Pension Plan (CPP) stakeholders. The Office also conducts statutory actuarial valuations of the Old Age Security Program and pension and benefit plans covering the federal Public Service, the Canadian Forces and the RCMP. While I report to the Superintendent, I am solely responsible for the content and actuarial opinions in reports prepared by my office.

Funding of the Canadian retirement income security system (*Slide 3*)

At retirement, most Canadians will receive an income from one or both of the following pension schemes. The Old Age Security (OAS) Program is financed on a pay-as-you-go basis, which means that there is no fund. The Canada Pension Plan, which is similar to the Quebec Pension Plan, is financed through contributions paid in equal parts by the employer and employees. The contribution rate of 9.9% in 2005 and thereafter will provide Plan's assets equal to approximately 25% of the Plan's liability within about 15 years. Lastly, private pension plans and RRSPs are fully funded, which means that each generation pays for its own benefits. Given these three main sources of income for citizens over 65 years of age, it is reasonable to say that the Canadian system is funded at 40% to 45% of future liabilities. A diversified funding approach allows Canada's retirement income system to be less vulnerable to changes in economic and demographic conditions than systems in countries that use a single funding approach. In addition, the Canadian approach based on a mix of public and private pensions is an effective way to provide for retirement income needs, according to international organizations.

Income Replacement Rates (*Slide 4*)

The following graph compares the public pensions provided by Canada and 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.

The purpose of the Actuarial Report (Slide 5) The Office of the Chief Actuary is required by law to produce an actuarial report on the Canada Pension Plan every three years. The report is one of the key items considered by federal and provincial finance ministers when reviewing and making recommendations on the CPP. The purpose of the report is to inform Plan members of the current and projected financial status. Another purpose is to calculate the steady-state contribution rate, which is the lowest rate sufficient to sustain the Plan without further increase. The projections included in this report cover a long period of time- 75 years and require assumptions on demographic factors such as fertility, migration and mortality.

Fertility (slide 6) The first cause of the aging population is the large decline in the fertility rate over the last three decades, relative to the baby boom generation, born between the mid-1940s to the mid-1960s. The decrease was due to changes to social, medical and economic factors. It is unlikely that fertility rates will return to historical levels in the absence of significant societal changes. It is assumed that the total fertility rate for Canada will increase slightly from its 2001 level of 1.5 to an ultimate level of 1.6 in 2016 and thereafter. An increase in fertility rates is expected because of continued trends in women giving birth to their first child at a later age.

Migration (slide 7) Net migration- the excess of immigration over emigration- is unlikely to materially reduce the continued aging of the population. Net migration to Canada has averaged 0.50% of the population over the last 30 years. Based on a continuation of these net migration levels and the expected pressure on the labour markets due to the impending retirement of the baby boom generation, an ultimate assumption of 0.54% of the population has been established for years 2020 and beyond. Therefore, it is forecasted that the growth in the population after 2025 will be attributed solely to net migration.

Mortality (slide 8) Another element that has contributed to the aging of the population is the significant reduction in age-specific mortality rates. This can be best measured by the increase in life expectancy at age 65, which directly affects how long retirement benefits will be paid to the beneficiaries. Life expectancy at age 65 increased 24% for men between 1966 and 2001, rising from 14 to 17 years. For women, life expectancy at age 65 increased 23%, from 17 to 21 years over the same period. Life expectancies are expected to continue to increase in the future.

Canadian Aging (Slide 9) The aging of the Canadian population is most evident with persons over the age of 65. A significant increase of 150% in the size of this group is

expected until 2050. This means that there will be more than 10 million people over the age of 65 in the year 2050. During the same period, the population aged over 80 is expected to increase by 250%.

Global aging (Slide 10) When analysing global aging, it is important to identify the indicators of aging. We need to look at three elements: the extent of aging, the speed of aging, and the change in the active population. As an indicator of the speed of aging, the next chart shows the number of years expected to pass for the population aged 65 and over to move from 12% to 24% of the total population. Japan will experience this shift very quickly, in just 25 years. The absence of the United States should be mentioned since, according to their projections, it will never achieve the 24% threshold, at least not between now and 2050. We can say with relative certainty that the United States is the industrialized nation that will be least affected by the aging of its population.

Future Labour shortage? (Slide 11) The next chart presents a demographic indicator of the expected labour shortage. It shows the ratio between people aged 60 to 64 years (those who reduce their hours of work or who are leaving the workforce) and those aged 20 to 24 years (those who are entering the workforce). While the ratio was below 50% until the end of the 80s, it rose to 60% by the year 2000. This means that for every 6 people who leave, 10 people enter the workforce. Supply exceeds demand, expressed in economic terms. It is expected that this ratio will equal 1 around 2015. Moreover, as early as 2025, it is predicted that for every 13 people who leave, only 10 people will enter the workforce. Note as well the rapid growth in this ratio. The trend is the same for the United States, our main trading partner, although less pronounced.

(Slide 12) This chart shows the evolution of the working age population of some industrialized countries. Canada and U.S. are the only countries that could experience an increase in the working age population. Based on the belief that a shrinking and aging population may bring economic decline, GDP growth could slow significantly in Japan and Continental Europe. If the rates of labour force participation among older populations do not rise over time, every developed country could face shrinking labour markets that could significantly constrain their potential for economic growth.

Canada Pension Plan Funding (Slide 13) When it was introduced in 1966, the CPP was designed as a pay-as-you-go plan, with a small reserve. This meant that the benefits for one generation would be paid largely from the contributions of later generations. Continuing to finance the Plan on a pay-as-you-go basis would have meant imposing a heavy financial burden on Canadians in the workforce after 2020, which was deemed unacceptable by governments. Therefore, following extensive consultations in 1997, the provincial and federal governments agreed to change the funding approach to a hybrid of pay-as-you-go and full funding, called steady-state funding. The contributions

were increased, the future growth of benefits was reduced and the CPP Investment Board was created to invest the funds not required by the CPP to pay current benefits.

(Slide 14) The steady-state funding requires that the contribution rate be set no lower than the lowest rate expected to ensure the long-term financial stability of the Plan without recourse to further rate increases. The current steady-state funding is expected to generate contributions that exceed the benefits paid out every year between 2004 and 2021. Funds not required to pay benefits are transferred to the CPP Investment Board for investment. As a result, Plan assets will cover an increasing number of years of expenditures over this period more than five years after 2020. 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. CPP and QPP assets are projected to represent 17% of the GDP by 2020.

(Slide 15) At the time of the amendments and according to the actuarial report produced in September 1997, the steady-state contribution rate was deemed to be 9.9% in 2003 and to remain at that level for the years thereafter. As a result, the legislated contribution rate is 9.9%. Under the last actuarial report, the steady-state rate now stands at 9.8%. If the legislated contribution rate is higher than the calculated steady-state rate, the funding status of the Plan will increase over time. The higher this rate is set above the steady-state rate, the faster the Plan will become more funded as it is shown in the previous graph.

(Slide 16) On the other hand, what would happen if, in future actuarial reports, the calculated steady-state contribution rate is higher than 9.9%? The default provisions in the *Canada Pension Plan Act* may result in adjustments being made to the contribution rate and benefits in payment if the federal and provincial governments reach no agreement in response to the actuarial determination of the steady-state contribution rate. If the new steady-state rate is 10.1%, one half of the excess of the new steady-state rate over the 9.9%, that is 0.1%, will be applied to an increase in the contribution rate and the other half will be applied to non-indexation of benefits in payment in order to keep the steady-state rate at 10.0%. In other words, the contributors and the beneficiaries would equally support the additional cost shown in the actuarial report.

Old Age Security Financing *(Slide 17)* How do we position ourselves for the future aging of the Canadian population knowing that the cost of the Public Pension Plans (OAS/ CPP/ QPP) is expected to increase from the current 5% of the GDP in 2003 to 7% in 2030? On one hand, the ratio of OAS expenditures to GDP increases from 2.4% to 3.2% between 2010 and 2030, driven largely by the retirement of the baby boomers. On the other hand, Canada has shown the largest budgetary improvements of any of the other G-7 countries over the past decade. Balancing the budget and taking steps to put

the debt as a proportion of gross domestic product on a downward track are effective ways to ensure sustainable financing of Old Age Security funded from the government's Consolidated Revenue Fund.

Framework of an efficient retirement system (*Slide 18*)

The following framework could be used to measure and compare the efficiency of a national retirement income system with others. Although a national pension system could always be improved, the Canadian retirement income system meets

- the diversification of sources of retirement income. Our mix of public and private pensions represents an effective way to provide retirement income;
- the diversification of funding approaches. This allows Canada's retirement income system to adapt rapidly to changing demographic and economic conditions;
- the reasonableness of the cost of public pensions. The cost of public pensions is expected to increase from 5% of the GDP in 2005 to 7% in 2030, much below Germany, Italy and France but higher than for the U.S. and the U.K.;
- the reduction of poverty among seniors. The combination of the 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. The percentage of low-income seniors decreased from about 21% in 1980 to 7% in 2003. The OECD considers Canada to be the country which has the least difficulty ensuring the economic well-being of retirees and protecting vulnerable groups in society;
- the reduction of income inequalities. The Canadian system is oriented toward a reduction in poverty, although more in the form of increasing the income of poorer people, rather than reducing income inequalities; and,
- the maintenance of the standard of living at retirement.

I hope that I've been able to provide you with a greater understanding of the evolution of the Canadian retirement security net and would be pleased to answer any questions.

Thank you.