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Canada Pension Plan: Journey from 1997 to 2016
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Good afternoon. It is my pleasure to be here to discuss the evolution of the Canada Pension Plan over the last two decades.

Office of the Chief Actuary *(Slide 2)*

Let me introduce myself. I am Jean-Claude Ménard, Chief Actuary of the Office of the Chief Actuary (OCA) which is a part of the Office of the Superintendent of Financial Institutions. The mandate of our office is to conduct statutory actuarial valuations of social insurance programs such as the Canada Pension Plan (CPP), the Old Age Security (OAS) program, Employment Insurance (EI) program, and the Canada Student Loans Program (CSLP), as well as of the federal public sector employee pension and benefits plans. All statutory actuarial reports that we prepare are tabled before Parliament by appropriate ministers.

As you can see, we are responsible for plans and programs that have impacts on almost every single Canadian.

Canadian Retirement Income System is based on a diversified approach to savings *(Slide 3)*

Let me start by giving you a brief overview of the Canadian retirement income system. At retirement, most Canadians will receive an income from one or more of the three tiers of our system: Old Age Security program, Canada/Quebec pension plans and voluntary retirement savings.

The diversification of the Canadian system through its mix of public and private pensions and different financing approaches mitigates the multitude of risks to which the system and individuals' retirement incomes are exposed. As stated in the editorial of the Organization of Economic Cooperation and Development's Pension at a Glance 2011 publication: "Taking the long view, a diversified pension system – mixing public and private provision, and pay-as-you-go and pre-funding as sources of finances – is not only the most realistic prospect but the best policy".

Canada Pension Plan is jointly governed by federal, provincial and territorial ministers of finance *(Slide 4)*

The Canada and Québec Pension Plans, the second pillar of our system, were established in 1966 primarily to assist with income replacement upon retirement. At inception, one of the primary goals was to quickly reduce poverty among seniors. As such the transition period for eligibility for the full retirement pension was set to be quite short at 10 years. While the low-income rate among seniors fell from 37% in 1971 to 22% by 1981, such approach inevitably created intergenerational transfer.

The CPP covers virtually all Canadian workers outside the province of Québec, and is jointly administered by federal, provincial and territorial ministers of finance. Any change to the Canada Pension Plan requires the agreement of two thirds of the provinces covering at least two thirds of the Canadian population.

The CPP benefits are financed by employer and employee contributions, as well as investment earnings. Employers and employees share the cost equally at 4.95% of contributory earnings.

The maximum retirement pension is equal to 25% of Canada's average earnings. However, the majority of beneficiaries do not receive the maximum amount due to uneven earnings and interrupted careers. In 2016, the average payable retirement CPP pension at age 65 was about 60% of the maximum.

1997: Creating a sustainable future for the Canada Pension Plan *(Slide 5)*

Evolving conditions over time including lower birth rates, increased life expectancies and lower growth in real wage led to increasing Plan costs. By the mid-1980s, the net cash flows had turned negative and part of the Plan's investment earnings were required to meet the shortfall. In 1993, it was projected that the pay-as-you-go rate would increase to 14.2% by 2030, and the reserve fund would be exhausted by 2015. Younger workers were required to pay increasing contributions while not believing that they will eventually benefit from the CPP.

Following extensive consultations, significant changes were brought to the CPP in 1997. These changes were based on the principles of increasing the level of funding in order to stabilize the contribution rate, to improve intergenerational equity and to secure the financial state of the Plan over the long term. The contribution rate was increased to 9.9% and, while the benefits were not cut, their future growth was moderated.

The rapid increase in contribution rate ensured an excess of contributions over expenditures for the next two decades. It was decided to invest this excess on the market and, thus, to move the CPP from pay-as-you-go to partially funded financing called steady-state funding. The CPP contribution rate remains at 9.9% for the past 15 years.

27th CPP Actuarial Report: the Plan is expected to be able to meet its obligations over the long term *(Slide 6)*

Today, the Canada Pension Plan is in a good financial health. The 27th CPP Actuarial Report as at 31 December 2015 found that the minimum contribution rate needed to sustain the Plan is 9.79% of contributory earnings for the year 2019 and thereafter. This rate is below the legislated contribution rate of 9.9%.

The report also found that under the 9.9% contribution rate, the annual contributions are projected to cover annual expenditures up to 2020. Further, the assets are projected to grow to almost half of trillion by the end of 2025. However, even with the projected growth in assets, contributions are and will remain the main source of revenues for the CPP. In 2050, it is projected that the contributions and investment income will represent 67% and 33% of total revenues, respectively.

CPPIB's sole focus is investing the assets of the CPP *(Slide 7)*

The assets of the CPP are invested by the Canada Pension Plan Investment Board (CPPIB). The CPPIB Act defines the Board investment objective as to invest in the best interests of the CPP contributors and beneficiaries and "to achieve a maximum rate of return without undue risk of loss having regard to the factors that may affect the funding of the CPP".

This slide presents information about the CPPIB's assets as at March 31, 2017. As you can see, the Board has been quite successful by achieving a 10-year annualized nominal rate of return of 6.7%. The assets are invested both in public and private markets. Furthermore, 84% of the assets are invested outside of Canada.

Finally, the CPPIB risk target is expressed by the means of a reference portfolio consisting of 85% global equities and 15% Canadian government nominal bonds. This level of risk target for the CPP is somewhat a result of having investment income as a secondary source of revenues compared to contributions.

2016: Enhancing adequacy of benefits while respecting intergenerational equity *(Slide 8)*

Today we are witnessing another set of important changes being brought to the CPP – the expansion. While the Canadian retirement income system is performing generally quite well, concerns regarding potential insufficient retirement savings were raised. These concerns were triggered by several factors. The decline in the employer-sponsored pension plans coverage, especially in the private sector, resulted in 62% of Canadian labour force not being covered by employer-sponsored pension plans. Further, financial market volatility and low interest rates environment following the 2008-2009 financial crisis complicate individual saving strategies. The Department of

Finance, Canada, found that, today, one in four families approaching retirement—1.1 million families—are at risk of not saving enough.

It was felt that the expansion of the Canada Pension Plan is the best way to address the issue of undersaving. Before beginning the work on the expansion design, the stewards of the CPP have agreed on principles. Modest – to leave enough space for private savings, gradual – to minimize impacts on businesses and individuals, and fully funded - to minimize intergenerational transfers.

Federal and provincial Ministers of Finance reached in June 2016 a historic agreement on the CPP expansion (*Slide 9*)

Under the reached agreement, the amount of retirement pension is increased to provide a replacement rate of 33% compared to the current replacement rate of 25%, and the range of covered earnings is increased to 114% of the Year's Maximum Pensionable Earnings (YMPE). The additional benefits are financed by additional contributions equal to 2% of earnings up to the YMPE, and 8% of earnings between the YMPE and 114% of the YMPE. Further, the expansion is phased-in over a period of seven years.

Finally, to help offset the impact of the CPP contributions on the current consumption of eligible low-income workers, income tax provisions were modified.

Additional CPP strengthens link between contributions and benefits *(Slide 10)*
Contrary to the way benefits were introduced in 1966, each year of contributing to the enhanced CPP will allow workers to accrue partial additional benefits. Full Additional CPP benefits will be available after 40 years of making contributions. Therefore, no past service liability is created and current young workers benefit the most from the expansion. Such benefits design strengthens the link between contributions and benefits.

The financing objective of Additional CPP *(Slide 11)*
The financing objective of the Additional CPP is consistent with the gradual accrual of additional benefits. It is formulated as follows: to have constant contribution rates that result in projected contributions and investment income that are sufficient to fully pay the projected expenditures of the Additional CPP over the long term.

As you see, this slide underlines three key concepts: sufficiency, stability and long-term nature of the plan.

How financing objectives could be translated into equations? ***(Slide 12)***

So how sufficiency and stability over the long term are translated into "actuarial" terminology? Condition of sufficiency is formulated as the plan's assets exceeding its liabilities as at the valuation date. Both assets and liability are measured using the open group approach, that is contributions and benefits of both current and future participants are considered. We use the projection period of 150 years and discount cash flows using the expected rate of return on assets.

The stability is ensured by requiring the stable level of funding over the long term as expressed by the ratio of invested assets to the next year expenditures.

In the 28th CPP Actuarial Report prepared by our office at the time the legislation was introduced before parliament, the minimum contribution rates satisfying these two conditions were determined to be 1.93% and 7.72%, i.e. below the legislated rates.

Investment income is the main source of revenue for the additional CPP ***(Slide 13)***

Our report projects that the gradual accrual of the additional benefits will result in about 40 years of positive cash flows to the Additional CPP, and in the accumulation of sizable assets. As shown on the slide, by mid 2050s the Additional CPP assets are expected to exceed the Base CPP assets and will continue to grow. It is projected that the additional assets will reach $1.3 trillion by 2050.

The financing approach of the Base CPP implies that the contributions are and will remain the major source of the base Plan revenues. However, the adopted financing approach for the Additional Plan results in the investment income being the major source of revenues. This will make the Additional Plan more sensitive to investment environments as illustrated on the next slide.

Additional CPP will be more sensitive to investment returns ***(Slide 14)***

As this slide shows, a decrease in the best-estimate rate of return of 1% results in about a 30% increase in the minimum additional contribution rates compared to about an 8% increase in the minimum contribution rate for the Base CPP. Similarly, investment shocks will have higher impact on the Additional CPP compared to the Base Plan.

To reflect the different risk profile of the Additional Plan, the 28th CPP Report assumes that the Additional CPP asset mix will be less volatile compared to the Base CPP. This lower volatility will, in turn, result in a lower real of return on the additional assets. The result of these considerations is a difference of 40 basis points between the Base and Additional CPP assumptions.

Insufficient rates provisions of the current CPP serve as a safety net in case of political impasse (*Slide 15*)

Let me conclude by talking about one of the most important elements of the Base CPP governance - the insufficient rate provisions. These provisions prescribe how the contributions and benefits are modified in the case the contribution rate needed to sustain the Base Plan is higher than the legislated rate. However, these provisions are activated only in the case the CPP stewards (federal and provincial Ministers of Finance) do not agree on what needs to be done. That is, the primary responsibility with respect to the CPP financial health remains with the Ministers.

The analogous provisions are introduced for the Additional CPP. As for the Base CPP, every time actions are required, the first priority is given to the recommendations of Ministers. However, there is an important difference with the Base CPP: the provisions will be activated if additional contribution rates fall outside specified ranges, that is, the additional contribution rates may be lower than the legislated rates to trigger adjustments. Once again, such structure is consistent with the financing objective of the Additional CPP, as well as the desire to maintain intergenerational equity.

Prescribed actions with respect to the benefits and contributions will be defined in future regulations.

Conclusions *(Slide 16)*

To conclude, different times and different goals require different approaches. The introduction of the CPP in 1966 was partially aimed at poverty reduction. As such, the compromise between financial sustainability and this goal was needed. Inevitably, this resulted in a degree of intergenerational transfer.

In 1997, federal and provincial governments came together to restore the financial sustainability of the CPP so it continues to be an important part of our retirement income system.

The issue of adequacy addressed in 2016, required different solutions, which, in particular, were aimed at insuring both financial and intergenerational sustainability.

All these developments would not be possible without political dialogue in combination with strong governance and sound actuarial analysis. We need this combination to maintain the financial sustainability of the Canadian retirement income system and to ensure the adequacy of benefits it provides.

Thank you and I will be happy to answer your questions.