Presentation to the Northwind's 14th Annual Pension Fund Invitational Forum Pensions 2017: Redefining the Risk Reward Spectrum Enhancement of the Canada Pension Plan Jean-Claude Ménard, Chief Actuary, Office of the Chief Actuary, OSFI Cambridge, Canada, 2 November 2017

Good afternoon. It is my pleasure to be here to talk about the recent enhancement of the Canada Pension Plan.

Canadian Retirement Income System is based on a diversified approach to savings (Slide 2)

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 administered by eleven governments (*Slide 3*) The Canada and Québec Pension Plans, the second pillar of our system, were established in 1966 primarily to assist with income replacement upon retirement.

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. While workers in Québec are covered by the QPP, the province participates in decision making regarding any changes to the CPP.

On the contrary, the QPP is governed only by one government, and federal and provincial governments other than for Quebec do not have a say in their decision-making process.

1997 CPP changes strengthened governance framework (Slide 4)

The governance framework of the CPP is very robust. The Stewards review the Plan every three years, and the actuarial reports produced by our office are a vital source of

information for these reviews. The CPP actuarial reports are tabled in Parliament, and are reviewed by an independent external review panel. The selection process of the panel and panel's findings are posted on our website.

At the end of the triennial review Ministers are sharing with Canadians whether the Plan is sustainable and whether any changes to benefits and/or contributions are proposed.

Triggers of the CPP enhancement (Slide 5)

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 complicated 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 under saving. 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 Minister of Finance reached in June 2016 an agreement on the CPP expansion (*Slide 6*)

The expansion (called Additional CPP) is effective as at January 1, 2019. It increases the amount of retirement pension to provide a replacement rate of 33% compared to the current replacement rate of 25%, and widens the range of covered earnings 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 and introduces new financing approach (Slide 7)

Under the Additional CPP, each year of contributing will allow workers to accrue partial benefits and 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 8)

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.

The key concepts of financing objective are sufficiency and stability of contribution rates, and long-term nature of the plan.

Investment income is the major source of revenues for the Additional CPP (Slide 9)

The 28th CPP Actuarial Report was prepared by our office at the time the legislation was introduced before parliament. This 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.

CPPIB's sole focus is investing the assets of the CPP. What will be the Additional CPP investment strategy? (Slide 10)

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 Base CPP is somewhat a result of having investment income as a secondary source of revenues compared to contributions.

However, as shown on the previous slide, the Additional CPP will be highly reliant on and sensitive to investment income. As such, the CPPIB may eventually adopt a different investment strategy with respect to the Additional Plan.

Additional CPP will be sensitive to investment returns (Slide 11)

At the time of the preparation of the 28th CPP Report, as well as today, the assets allocation for the Additional Plan assets is not known. So, 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.

This slide shows that 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.

Insufficient rates provisions of the current CPP serves as a safety net in case of political impasse (*Slide 12*)

One of the most important elements of the Base CPP governance is the insufficient rate provisions. The insufficient rates provisions were put in place to provide the Plan with a safety net without diminishing politicians' responsibility for the Plan's future. They are activated only if the financial sustainability of the Plan is jeopardized (the minimum contribution rate is higher than the legislated rate) and the federal and provincial Ministers of Finance can't reach a decision on how to rectify the problem.

These provisions share the increased cost between contributors and beneficiaries: they cause an automatic increase in the legislated contribution rate and freeze benefits in pay until the next review.

Self-adjustment provisions of QPP touch only contribution rate (Slide 13)

The self-adjustment provisions of the QPP were introduced from 2018 – significantly later than those for the CPP. Under the QPP provisions, actions are required if there is a positive difference of 10 bps between the steady-state and legislated contribution rates. While for the CPP both benefits and contribution rate are adjusted, the QPP mechanism touches only the contribution rate.

Financial stability provisions of the Additional CPP (Slide 14)

The financial stability provisions of the Additional CPP are defined in broad terms by the legislation. 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.

The size of specified ranges as well as prescribed actions as with respect to the benefits and/or contributions will be defined in future regulations.

Considerations regarding financial stability provisions of the Additional CPP (Slide 15)

This slide lists some questions that may be addressed in designing the financial stability provisions for the Additional Plan.

It should be noted that the Additional Plan is fundamentally different from the Base CPP so it is not appropriate to use the same structure of the default adjustment provisions that is used for the Base Plan. There main reasons are: differences in the designs of the two Plans, financing approaches, and the level of maturity.

Before the design of these provisions is crystalized, its primary objectives should be defined. Is it preserving the financial stability of the Additional CPP (i.e. preventing both substantial underfunding and overfunding)? Is it ensuring stability of contribution rates? Is it having the adjustments that are fair with respect to different generations? Is it reducing the risk of future reductions in benefits and/or increases in the contribution rates? Even if any design includes some compromises between different considerations, primary objectives should be respected.

Finally, the provisions should establish a default adjustment mechanism that is deemed reasonable by the Finance Ministers in terms of the set of actions that could be taken. The nature and frequency of changes and the effect of those changes on the Additional Plan participants and their employers should all be considered reasonable.

Some examples that can serve as inspiration (Slide 16)

An interesting example is Sweden, where the automatic adjustment mechanism in the case of "deficit" results in the slowdown in the growth of benefits for current and

future beneficiaries. Contribution rates are not affected. If situation improves later, benefits revert to pre-adjustment levels. The theoretical application of this design is illustrated by the upper panel of the slide (solid line represents the original benefit, and dotted one represents the benefit affected by the adjustment mechanism). The lower panel shows what is happening in the real life where the original benefit (solid line) doesn't grow linearly but rather follows the real life change in the underlying growth index. Still, the principle of the adjustment remains the same.

The second example is much closer to home – it is a mechanism developed for the Ontario Retirement Pension Plan. In case of deficit, this mechanism was expected to reduce the growth of benefits for current and future beneficiaries up to a certain limit. If these actions would not be sufficient to restore the financial sustainability of the ORPP, the contribution rates were to be increased.

Conclusions (Slide 17)

To conclude, the 2016 expansion was aimed at enhancing the adequacy of benefits while respecting intergenerational sustainability.

The upcoming regulations on financial stability of the Additional Plan will be crucial for maintaining financial sustainability of the Plan and ensuring the adequacy of benefits.

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.