Additional Canada Pension Plan Sustainability Regulations

Presentation to McGill Desautels Faculty of Management
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Office of the Chief Actuary, OSFI

Montreal, April 10, 2019
Office of the Chief Actuary

• The OCA is an independent unit within the Office of the Superintendent of Financial Institutions (OSFI)
  • The Chief Actuary reports to the Superintendent;
  • however, the accountability framework of the OCA makes it clear that the Chief Actuary is solely responsible for content and actuarial opinions in reports prepared by the OCA
• Mandate: conduct statutory actuarial valuations on the
  • Canada Pension Plan (CPP) – 20M members
  • Old Age Security Program (OAS) - 6M beneficiaries
  • Federal public sector pension and insurance plans – 0.8M members
  • Canada Student Loans Program – 0.5M loans
  • Employment Insurance Program – 19M workers
Canadian Retirement Income System is based on a diversified approach to savings

- A three-tiered system with mixed funding approaches
  - Old Age Security Program – a universal basic pension/supplement aimed at poverty reduction (PAYG)
  - Canada / Québec Pension Plan – mandatory earnings-related DB plans aimed at providing basic retirement income (partially funded)
  - Occupational Pension Plans and tax-favoured individual savings – voluntary schemes aimed at providing adequate retirement income (fully funded)
- The first two pillars replace about 40% of pre-retirement earnings for a worker with average level of earnings.

Canadian retirement income system is well recognized in the world for its capacity to adapt rapidly to changing conditions.
Canada Pension Plan is jointly managed by 11 governments

• Canada Pension Plan is jointly governed by federal, provincial and territorial ministers of finance
  • All changes to the Plan require agreement of two-thirds of provinces covering at least two-thirds of the population
  • Québec participates in decision-making regarding changes to the CPP

• Finance ministers review CPP every three years
  • Actuarial reports prepared by the OCA are used for these reviews
  • The actuarial reports are tabled in Parliament and reviewed by an independent panel

• Québec Pension Plan is governed by the Government of Québec
CPP is expected to be able to meet its obligations over the long term

- **27th CPP Actuarial Report as at 31 December 2015:**
  - The minimum contribution rate to sustain the Plan is **9.79%** of contributory earnings for the year 2019 and thereafter, below the legislated contribution rate is **9.90%**

- **Actuarial Valuation of the QPP as at 31 December 2015:**
  - The steady-state contribution rate that, applied as of 2018, would enable the ratio of the reserve to cash outflows to remain stable in 2045 and 2065 is **10.87%**. The statutory contribution rate in 2018 is **10.80%**.
Triggers of the CPP enhancement

- Decline in coverage by employer-sponsored pension plans (especially in private sector)
- Changing labour market – increased employment mobility
- 2008-2009 financial crisis
- One in four families approaching retirement—1.1 million families—are at risk of not saving enough

Finance Ministers agreed on expansion principles: modest, gradual and “fully-funded”
CPP and QPP enhancements maintain the equivalence of two plans

• Effective 1 January 2019

• Decision on the CPP enhancement was taken by Ministers in June 2016, and the legislation was put in place by the end of 2016

• The legislation on the QPP enhancement was passed in February 2018

• The harmonization of C/QPP enhancements
  • Ensures the equivalence of two plans
  • Provides the full portability of benefits for all Canadians
  • Facilitates the integration of the enhancement with the third pillar of Canadian retirement income system.
Federal and provincial Ministers of Finance reached an agreement on the CPP expansion in June 2016

Year’s Maximum Pensionable Earnings (YMPE) approximate the Canadian average wage and are equal to CAD$57,400 in 2019

- The Working Income Tax Benefit is increased to help offset CPP contributions for eligible low-income workers.

Source: Bill C-26: An Act to amend the Canada Pension Plan, the Canada Pension Plan Investment Board Act and the Income Tax Act received Royal Assent on December 15, 2016
Additional CPP strengthens link between contributions and benefits

• Each year of contributing to the enhanced CPP will allow workers to accrue partial additional benefits
  • Full enhanced CPP benefits will be available after 40 years of making contributions.

No past service liability is created and current young workers benefit the most from the expansion.
Investment income is the main source of revenues for the additional CPP

- Under 2%/8% contribution rates, contributions are projected to exceed benefits up to the year 2058. This will result in the accumulation of sizable assets.

- The major source of financing: Contributions for the Base CPP and investment income for the expansion.
Additional CPP will be more sensitive to investment returns

<table>
<thead>
<tr>
<th>Assumed Assets Allocation</th>
<th>Additional CPP</th>
<th>Base CPP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Income: 50%</td>
<td>Fixed Income: 32.5%</td>
<td></td>
</tr>
<tr>
<td>Equities: 50%</td>
<td>Equities: 67.5%</td>
<td></td>
</tr>
<tr>
<td>Volatility: 9.2%</td>
<td>Volatility: 11.4%</td>
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</table>

| Average real rate of return 2019-2093 (net of expenses) | 3.55% | 3.98% |

The decrease in the best-estimate rate of return of 1%:
- **30%** increase in the minimum additional contribution rates
- **8%** increase in the minimum contribution rate for the base CPP.
The financial sustainability provisions help to ensure that the CPP continues to benefit current and future generations.
**Insufficient rates provisions of Base CPP serve as a safety net in case of political impasse**

**“Insufficient Rates” Provisions**
If the minimum contribution rate is higher than the legislated contribution rate AND if the federal and provincial finance ministers cannot reach an agreement THEN insufficient rates provisions apply

- Contribution rate increased by $\frac{1}{2}$ of excess over three years
- Benefits frozen until next review (3 years)
- The next review will determine the financial status of the Plan
Self-adjustment provisions of QPP touch only contribution rate

• From 2018, if steady-state contribution rate exceeds the legislated rate by at least 0.1%, then
  • the contribution rate for the year is equal to the contribution rate for the previous year plus 0.1%
• The Québec Government may decide that the contribution rate remains unchanged
• As a result of 2015 actuarial valuation
  • the difference between the steady-state contribution rate (10.87%) and the statutory contribution rate (10.80%) is 0.07%.
  • Since this difference is less than 0.10%, no automatic adjustment of the contribution rate is required in 2018
Regulatory Impact Analysis Statement

• *Additional CPP Sustainability Regulations* aim to ensure that the enhanced portion of the Plan is appropriately funded over time while respecting intergenerational equity, consistent with the full funding principle underpinning the CPP enhancement.
Base and Additional CPP are Different

• Investment income is the main source of revenues for the additional CPP while contributions are the main source of revenues for the base CPP
  • Calculation of Contribution Rates Regulations, 2018: Methodology to calculate minimum additional contribution rates
  • Sustainability Regulations aim to preserve the financial sustainability of the additional CPP while avoiding excessively frequent adjustments

• Intergenerational equity is addressed differently between the two Plans
  • Sustainability Regulations aim to:
    • have a similar impact on different generations of participants, and
    • ensure that future generations of Canadians are being treated fairly.
Additional CPP Sustainability Regulations are default actions

• The financial sustainability provisions would **only** be invoked in the event that:
  
  • a significant deviation arises between the AMCRs and their respective legislated additional rates (2%/8%) and
  
  • the federal and provincial Ministers of Finance take no action regarding the deviation.

**Similar to the Base CPP, Ministers bear the primary responsibility for the financial state of the additional CPP**
The Financial Sustainability Provisions Aims at:

• Preserving the financial sustainability of the additional CPP (i.e. preventing both substantial underfunding and overfunding),

• Ensuring stability of contribution rates, and

• Reducing the risk of future reductions in benefits and/or increases in the contribution rates.
Financial Sustainability Provisions for the additional CPP – Action Triggers

By how much, and for how long, can the additional minimum contribution rates (AMCRs) deviate from the legislated rates (2%/8%) before action is required?
Three trigger zones: from the green to the red

Wider green ranges in early years minimize the frequency and magnitude of adjustments.

Wider green ranges in surplus mitigate the risk of reductions in benefits and/or increases in contributions.
In the early years, investment experience is expected to have limited impact on the financial status of the Plan.

Illustration: Distribution of FAMCRs as at 31 December 2024, 2027, 2030, 2033 and 2036

Note: The letters A to E in the chart refer to the FAMCR defined ranges. Based on CPP29 (1.98% / 7.92%).
Projected financial position as at 31 December 2042, 24 years after the inception

• As at 31 December 2042 under the CPP29 assumptions and legislated contribution rates of 2%/8%:
  • Projected Additional Plan Assets: $730 billion
  • Assumed average annual real rate of return 2019-2042 (24 years): 3.4%
  • AMCRs: 1.95% / 7.80% (down from initial AMCRs of 1.98%/7.92%)
As additional CPP matures, investment experience drives results

Illustration: Distribution of FAMCRs as at 31 December 2048 given Different FAMCRs as at 31 December 2045

As at 31 December 2045, FAMCR is 1.94% and assets are $0.9T ($900 Billion)

Note: The letters A to E in the chart refer to the FAMCR defined ranges. Based on CPP29 (1.98% / 7.92%).
If the AMCRs are in the green zone in 2045, there is a probability of about 50% that the AMCRs in 2048 will remain in the same zone.

<table>
<thead>
<tr>
<th>FAMCRs as at 31 December 2045</th>
<th>1.71%</th>
<th>1.80%</th>
<th>1.90%</th>
<th>2.01%</th>
<th>2.10%</th>
<th>2.20%</th>
<th>2.29%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probability as at 31 December 2048 of FAMCRs being within a Range</td>
<td>≤ 1.69%</td>
<td>1.70% to 1.79%</td>
<td>1.80% to 2.10%</td>
<td>2.11% to 2.20%</td>
<td>&gt; 2.21%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>52%</td>
<td>20%</td>
<td>27%</td>
<td>1%</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>32%</td>
<td>21%</td>
<td>44%</td>
<td>3%</td>
<td>3%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>C</td>
<td>13%</td>
<td>16%</td>
<td>61%</td>
<td>7%</td>
<td>65%</td>
<td>47%</td>
<td>18%</td>
</tr>
<tr>
<td>D</td>
<td>3%</td>
<td>6%</td>
<td>65%</td>
<td>17%</td>
<td>28%</td>
<td>28%</td>
<td>13%</td>
</tr>
<tr>
<td>E</td>
<td>0%</td>
<td>2%</td>
<td>9%</td>
<td>23%</td>
<td>54%</td>
<td>84%</td>
<td></td>
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</table>
Sustainability Provisions for the additional CPP – Required Actions

IF

• the AMCRs deviate from the legislated additional contribution rates (2%/8%) by too much and/or for too long, and

• Finance Ministers do not reach agreement on the course of actions
Main adjustment mechanisms

• Adjusting benefits of current beneficiaries
  • Modify indexation of benefits in pay for a specified period (6+ years)
  • Limits on indexation adjustment: 60% - 200% of CPI
  • Benefits are not reduced from one year to the next

• Adjusting benefits of future beneficiaries (current contributors)
  • Multiplying starting amount by “benefit multiplier” (depends on the year of uptake)
  • Benefit multiplier is aligned with the value of extra/forgone indexation

• Increasing additional contribution rates – last resort in the case of deficit
Adjustments may be reversed

• The first action to be taken when the sustainability provisions are activated is a reversal of any previous adjustments in an opposite direction made to the additional Plan.

• Such reversal should be done to the extent that the AMCRs are restored to the legislated levels as defined by Schedule 2 of the legislation (2%/8%).
Benefits in pay cannot be reduced only the future indexation may be adjusted

Example of Evolution of Original Benefits and Adjusted Benefits with Later Reversal of Adjustments

John retires before 2048; Anne in 2050; Pierre in 2054 and Maya in 2066
Principal design features - deficit

- The benefits for both current and future beneficiaries (retirement, disability, and survivor) would first be adjusted to a certain specified limit
  - Minimum guarantee of indexation of 60% of CPI for six years.

- If such an adjustment to benefits is not sufficient to restore the AMCRs to their respective legislated values, then the additional contribution rates would deemed to be increased.
Principal design features - surplus

• Increasing benefits for both current and future beneficiaries (current contributors).

• Aim is to bring the AMCRs to target values below the legislated rates: 10 bps and 40 bps lower than the first and second additional legislated contribution rates (1.9%/7.6%), respectively
  • AMCRs are more likely to remain close to the legislated rates for a certain time.

• Contribution rates are not affected.
Conclusion

• The additional CPP Sustainability Regulations are aimed at
  • preserving the financial sustainability of the additional Plan (i.e. preventing both substantial underfunding and overfunding),
  • ensuring the stability of the additional contribution rates, and
  • reducing the risk of future reductions in benefits and/or increases in the contribution rates.

• The additional CPP Sustainability Regulations are a default mechanism.

• The design of the additional CPP Sustainability Regulations shares adjustments between current beneficiaries, contributors and their employers.
THANK YOU!
Six assumed medium-term investment paths (2043-2045) to move from 2042 FAMCR of 1.95%

Projected Average Real Rates of Return, Assets, and FAMCRs determined as at 31 December 2045

<table>
<thead>
<tr>
<th>Average real rate of return 2043-45 [3 years]</th>
<th>11.9%</th>
<th>8.8%</th>
<th>5.3%</th>
<th>1.0%</th>
<th>-2.5%</th>
<th>-7.2%</th>
<th>-11.8%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average real rate of return 2019-45 [27 years]</td>
<td>4.3%</td>
<td>4.0%</td>
<td>3.6%</td>
<td>3.1%</td>
<td>2.7%</td>
<td>2.2%</td>
<td>1.6%</td>
</tr>
</tbody>
</table>

Projected Assets under legislated additional contribution rates ($billion)

<table>
<thead>
<tr>
<th></th>
<th>1,155</th>
<th>1,068</th>
<th>970</th>
<th>864</th>
<th>777</th>
<th>677</th>
<th>591</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAMCR 31/12/2045</td>
<td>1.71%</td>
<td>1.80%</td>
<td>1.90%</td>
<td>2.01%</td>
<td>2.10%</td>
<td>2.20%</td>
<td>2.29%</td>
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Projected under CPP29 as at 31.12.2045:
Assets: $928 B; FAMCR: 1.94%
Nominal Internal Rate of Return at Age 25 at the Time of Adjustment
(FAMCR of 2.3% determined as at 31 December 2075)
Nominal Internal Rates of Return at Age 25: Sustainability Regulations, Contributions Only and Benefits Only Approaches

(FAMCR of 2.3% determined as at 31 December 2075)