Bureau de l'actuaire en chef

## Position of strength: The postturmoil financial sustainability of the Canada Pension Plan Why the CPP can weather the storm

HRSDC Knowledge Talks series

National and International Perspectives on Pension Plans





# Canadian Retirement Income Security System: Not all eggs in the same basket!

Canadian retirement system with mixed funding approaches is well recognized in the world for its capacity to adapt rapidly to changing conditions.

- Pay-as-you-go funding (OAS/GIS: Demogrants)
- Partial funding (CPP/QPP: DB Earnings-Related)
- Full funding (Occupational Pension Plans/RRSP)



The conceptual framework implies a retirement system funded at about 40%.



### Considerations in financing public pensions

- Primary objective : <u>stabilizing</u> the contribution rate
  - Strengthen the contribution-benefit connection
  - Ensure intergenerational fairness
  - Strengthen fiscal discipline
  - Maintain public confidence
- Secondary objective: minimizing the contribution rate
  - Optimize the financing of a retirement scheme by considering the relation between the rate of return on investments and the rate of increase in wages (implicit rate of return on PayGo schemes).



### CPP, a Partially Funded Pension Plan

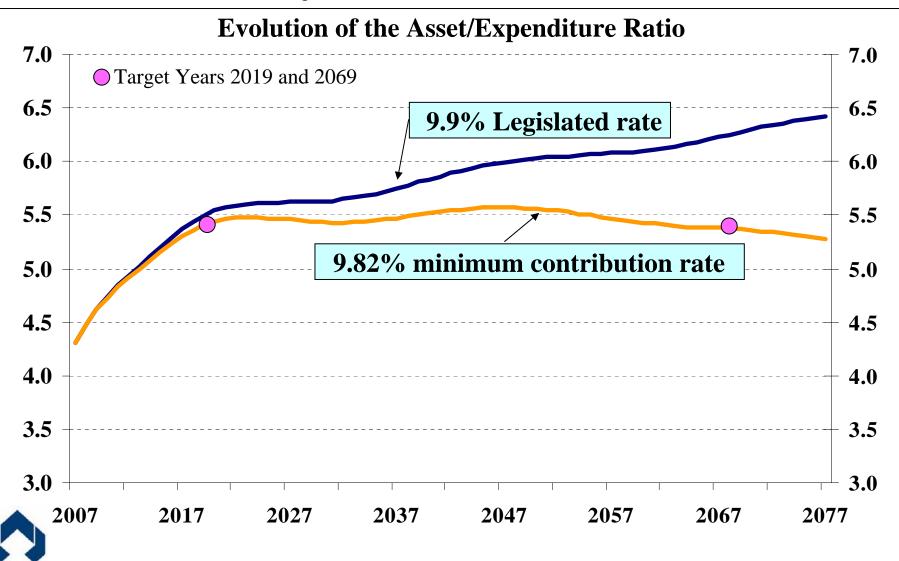
### Second Tier of the Canadian System: CPP/QPP

- Partial funding through employee/employer contributions.
  - Steady-state financing goal: stabilize and minimize the contribution rate.
  - Steady-state contribution rate: lowest rate that can be charged that is sufficient to sustain the Plan without further increase.
    - A funding level of 25% is sufficient to meet that condition for the CPP
- Full funding of future benefit improvements.

Demographic, economic and investment risks faced by the CPP are partially hedged through steady-state financing.



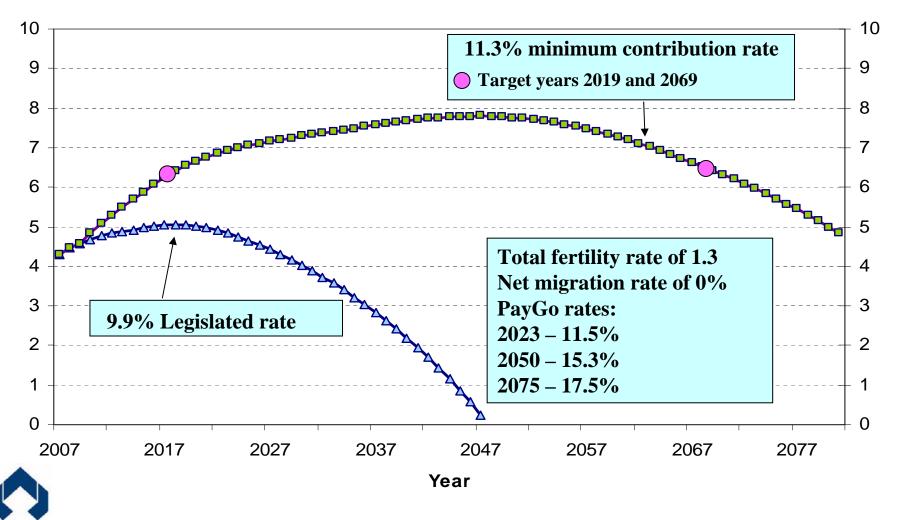
# CPP Assets should be equal to 25% of liabilities to stabilize the contribution rate



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## What is the impact of a particular demographic situation on partial funding rate? (assuming South Korea's Current Demography)

#### **Evolution of the Asset/Expenditure Ratio**





### If there is no political agreement, CPP Self-Sustaining Default Provisions apply

#### **Default Provisions**

If the legislated contribution rate is lower than the steady-state rate (excluding full-funding incremental rate)

AND

If finance ministers cannot reach agreement on a solution, then default provisions apply

- Contribution rate increased by ½ of excess over three years, subject to maximum increase of 0.2% per year
  - Benefits frozen until next review (3 years)
- At end of three years, next review performed to determine financial status of Plan.



## Is Partial Funding method still appropriate for the CPP under the recent turmoil?

## Pension plans are under severe stress with the current economic environment

- Financial Turmoil: Negative market returns in 2008 and the first quarter of 2009
- Economic Downturn: Recession, rising unemployment, shrinking contributions base

In this environment it is important to reconfirm that the partial funding is the most robust approach for the Canada Pension Plan.



# The actuarial report illustrates the uncertainty of results through sensitivity tests

#### Economic Sensitivity Test – "Economic half-cycle"

- The unemployment rate is increased from 6.3% to 11% for one year and gradually recovers over the next ten years.
- The increases in annual earnings are reduced for one year and then returned to their best-estimate value a year later
- This scenario is similar to the 1981-1983 recession in Canada.

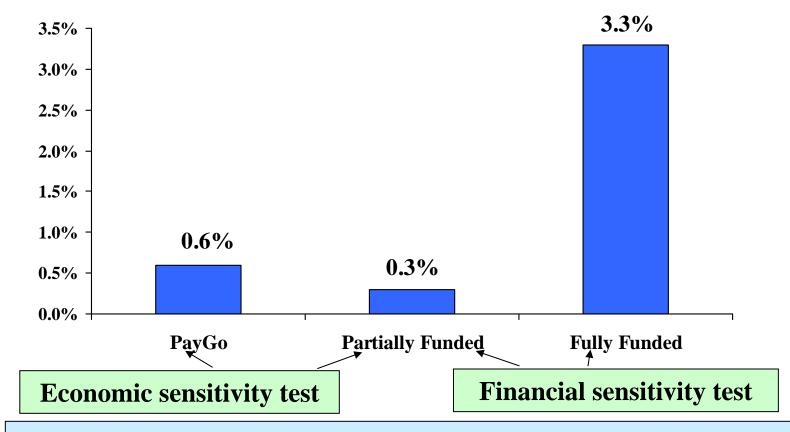
#### Financial Sensitivity Test - "Financial markets volatility"

- Negative 10% return on equities over two years.
- The probability of such scenario was estimated at 6% based on past volatility of financial markets over the past 69 years.
- For the fully funded scenario we have assumed that the CPP is fully funded with assets equal to liabilities as of 31 December 2006.



# Partial funding achieves contribution rate stability especially under extreme conditions

The impact on the contribution rate depends on the funding method





Relative variation of the contribution rate: 7%, 3%, 58%

# Despite the global recession and major decline in financial markets, the Canada Pension Plan can weather the storm

- The partial funding approach for the CPP is optimal in terms of withstanding the economic and financial fluctuations.
- This approach provides successful hedging to both economic and investment risks.
- The lower relative increase in contribution rate under partial funding method as well as self-sustainable provisions of the CPP help to mitigate the political risk and the risk of plan restructuring.
- The next CPP actuarial report as at 31 December 2009 will take into account the current economic environment as well as the long-term demographic outlook.



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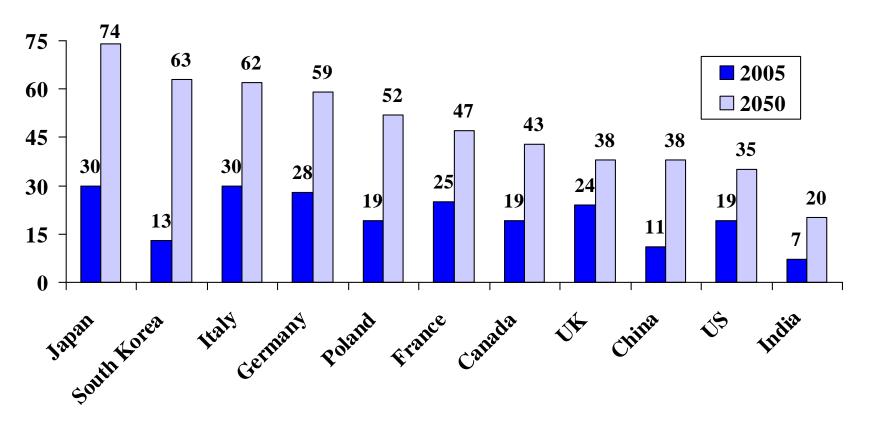
Annex





### Which countries are facing high PayGo rate?

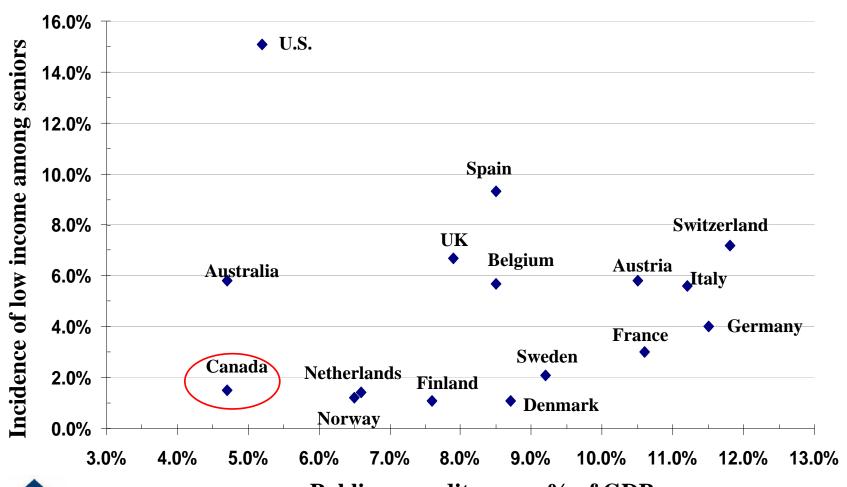
Population aged over 65 as a percentage of working age population (15-64)





Source: UN Population Division: World Population Prospects: 2008 Revisions

## OECD Countries – Incidence of Low Income Among Seniors vs. Old Age Income Security Program Expenditures, as % GDP

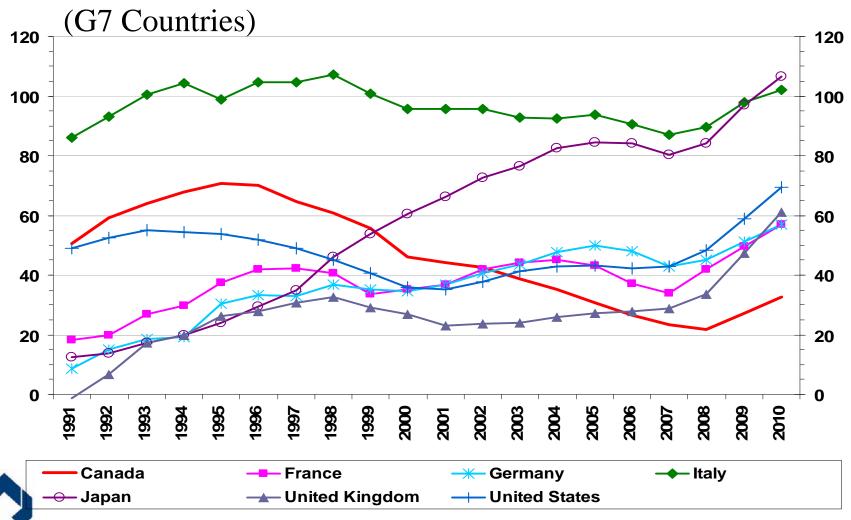




Sources: Luxembourg Income Study (LIS) Key Figures for incidence of low income among seniors using 40% of median (2005) OECD Social Expenditures Database, 1980-2001 for government expenditures on old-age income security programs as % of GDP

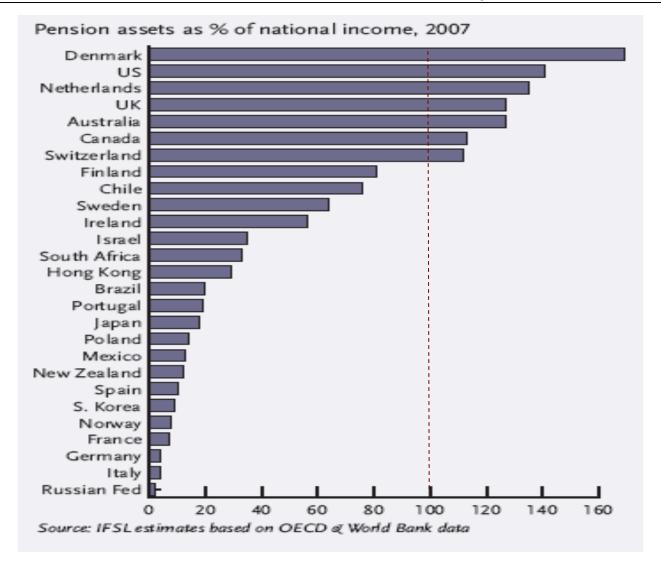
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# Government Net Financial Liabilities as % of GDP, an indicator to be affected by various economic stimulus



Source: OECD Economic Outlook No. 85 Database (Annex Table 33)
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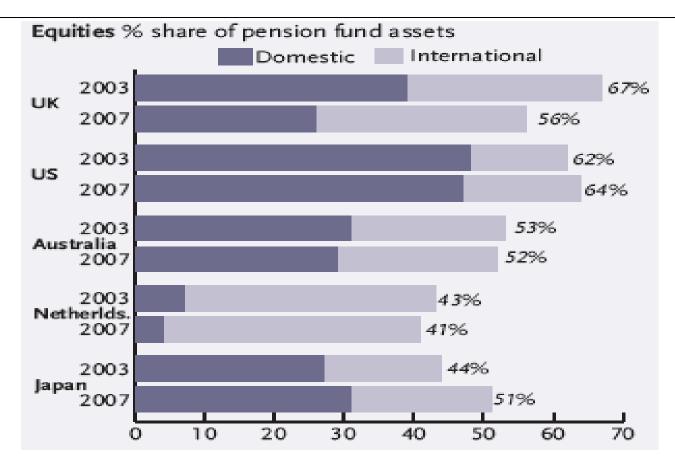
# How important is pension assets for the national economy?



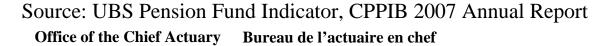




### What is the equity exposure of pension funds?



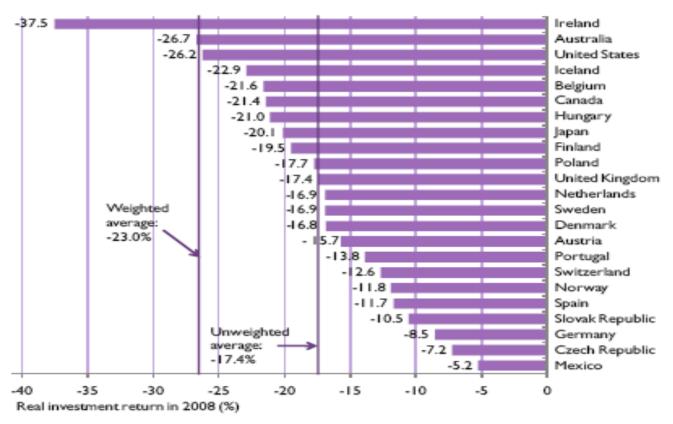
Equity exposure for the CPP reference portfolio, 31 March 2009: 15% domestic, 50% international



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### How severe is the market downturn?

#### Pension funds real rate of returns in 2008





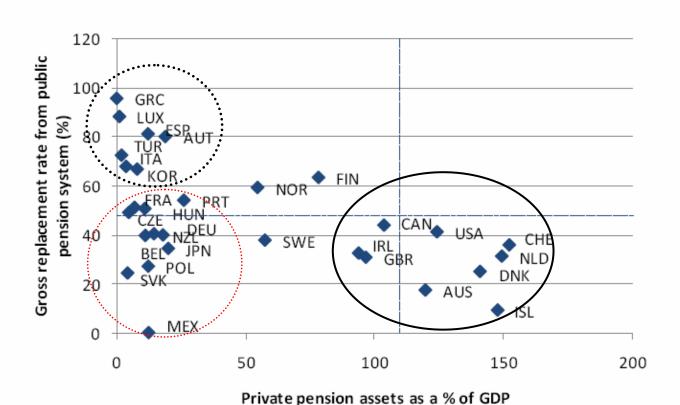
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Note: includes countries where pension fund assets in 2007 were worth more than 4% of GDP

Source: OECD Pensions at a Glance 2009, Figure 1.3

## Which countries provide balanced public and private pension coverage?

Figure 4. Private pension assets compared with the public pension system's gross replacement rate, 2007



Source: OECD Global Pension Statistics, Pensions at a Glance (2007).

