



Office of the Superintendent of
Financial Institutions Canada

Bureau du surintendant des
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Office of the Chief Actuary

Bureau de l'actuaire en chef

Position of strength: The post-turmoil financial sustainability of the Canada Pension Plan

Why the CPP can weather the storm

Presentation to the International Social Security Association Technical Seminar on "Social Security in Times of Crisis: Impact, Challenges and Responses"



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Geneva, 24-25 April 2009

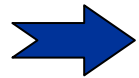
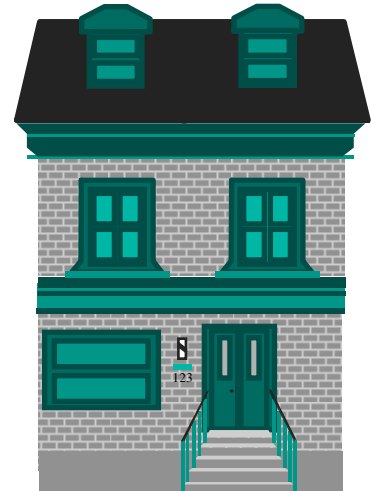
Canada 

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)
- Full funding (Occupational Pension Plans/RRSP)
- Partial funding (CPP/QPP: DB Earnings-Related)

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



Considerations in financing public pensions

- Primary objective : stabilizing 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

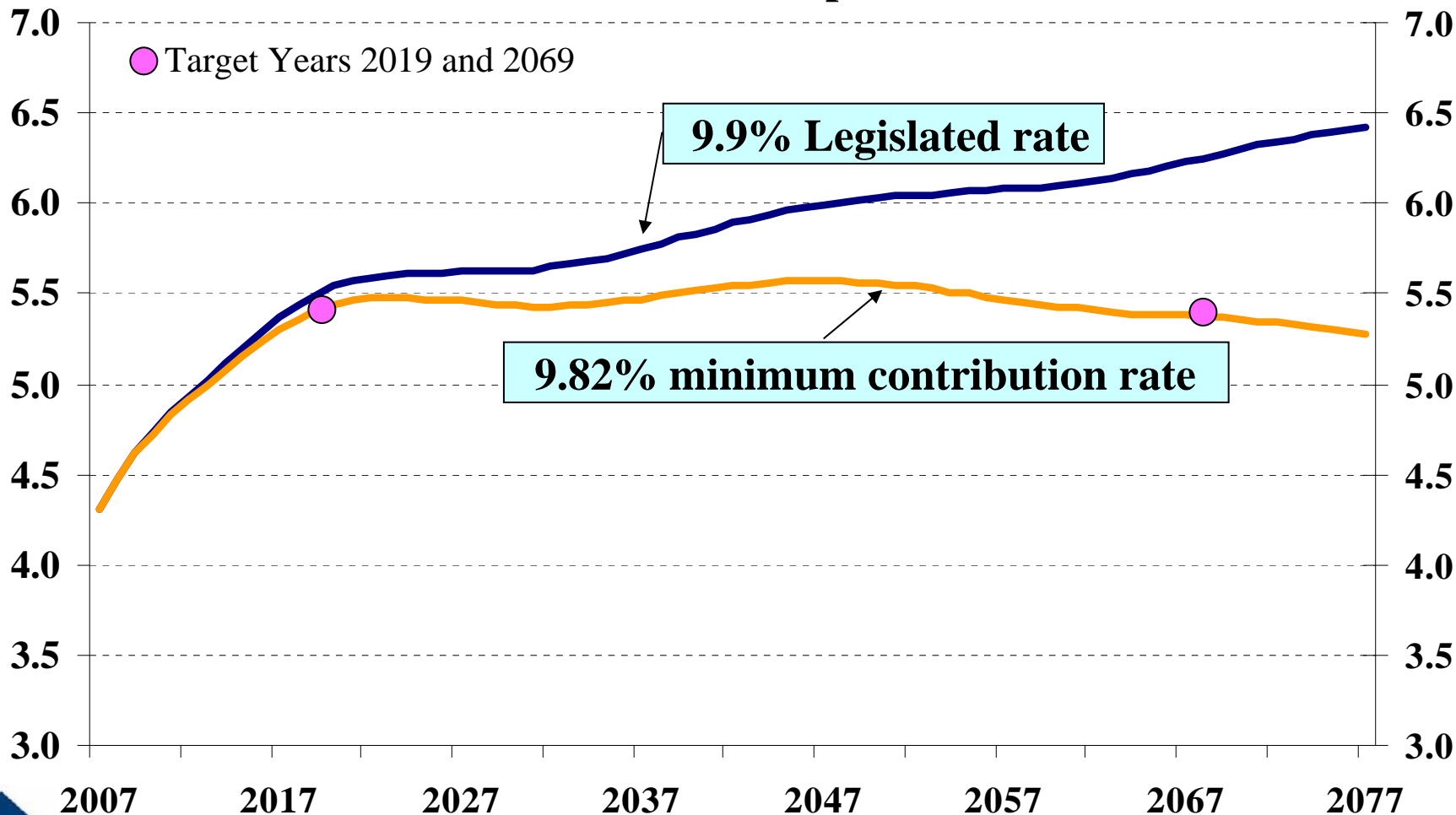
- Partial funding through employee/employer contributions.
 - Steady-state financing goal: stabilize and minimize the contribution rate.
 - Steady-state contribution rate: lowest rate that can be charged that is sufficient to sustain the Plan without further increase.
 - A funding level of **25%** is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

Evolution of the Asset/Expenditure Ratio



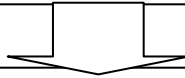
If there is no political agreement, CPP Self-Sustaining Default Provisions apply

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 $\frac{1}{2}$ 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 current turmoil?

Pension plans are under severe stress with the current economic environment

- Financial Turmoil: Negative market returns in 2008 and uncertain outlook for 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.

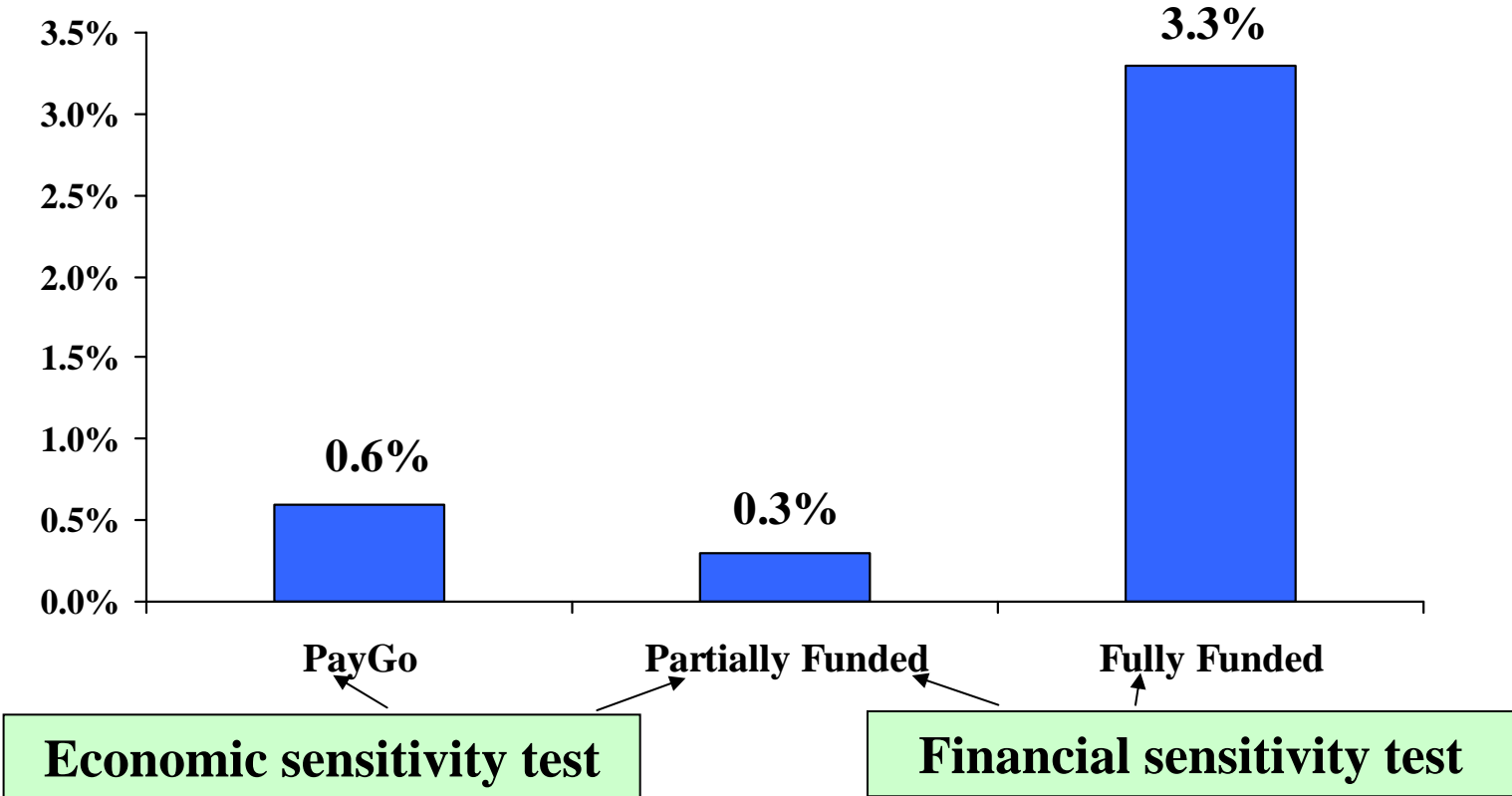
Financial Sensitivity Test – “Financial markets volatility”

- 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%



Although there are some merits to full funding, the stability of contribution rate is very difficult to achieve

- The relative increase in the **full funding** contribution rate is much higher as compared to the **partial funding** method (58% versus 3%).
- For a hypothetical contribution of \$1,000, the increase in contributions is \$30 under partial funding and \$580 under full funding.
- The extreme volatility of the contribution rate under the full funding put high pressure on:
 - Contributors: Huge jump in contribution rate.
 - Government:
 - Unpopular measure of sharply increasing the contribution rate at the times when governments are trying to introduce stimulus packages to encourage growth in economy and consumer spending.
 - The primary objectives of stabilizing the contribution rate and of maintaining public confidence are not met.



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



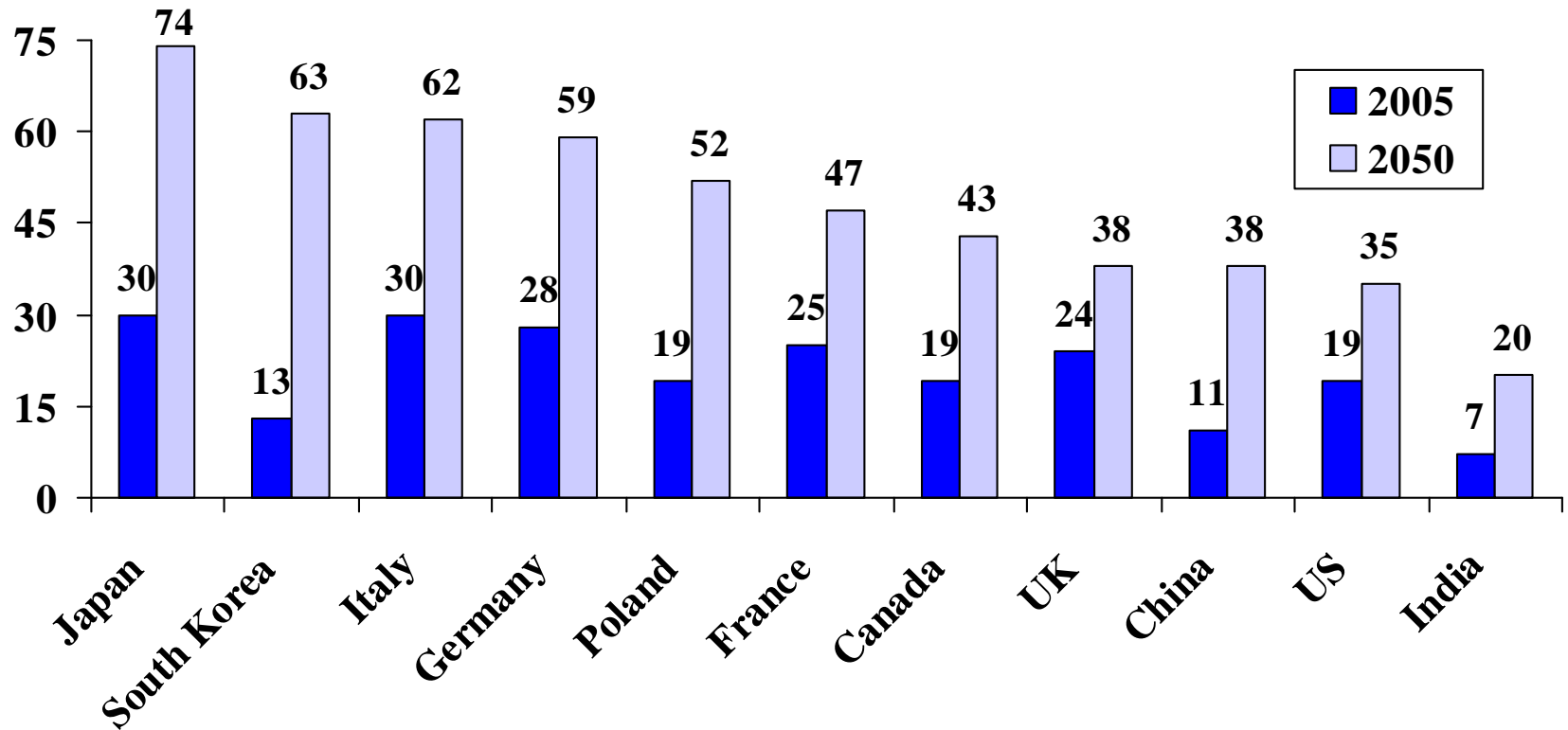
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April 2009

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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

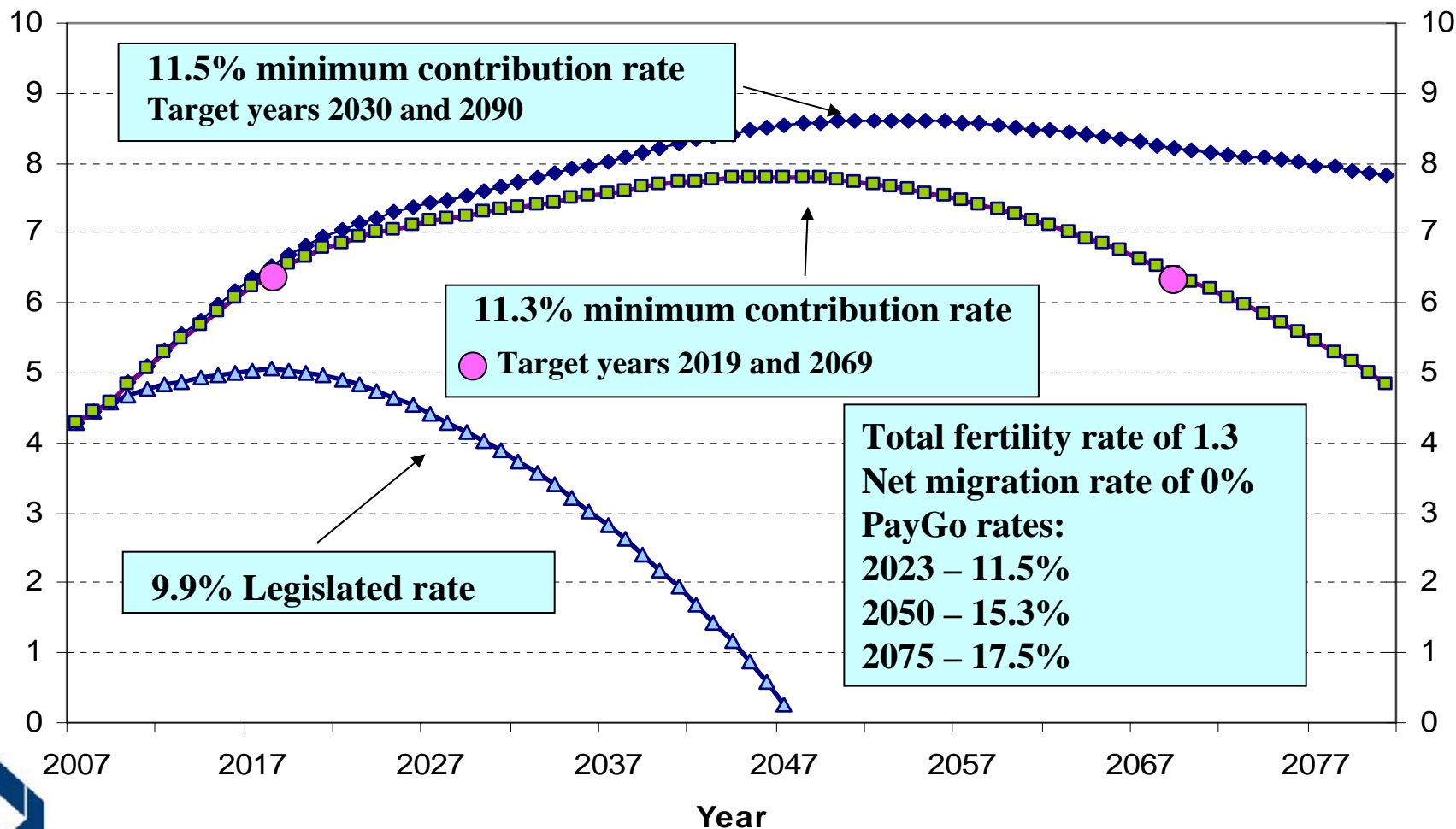


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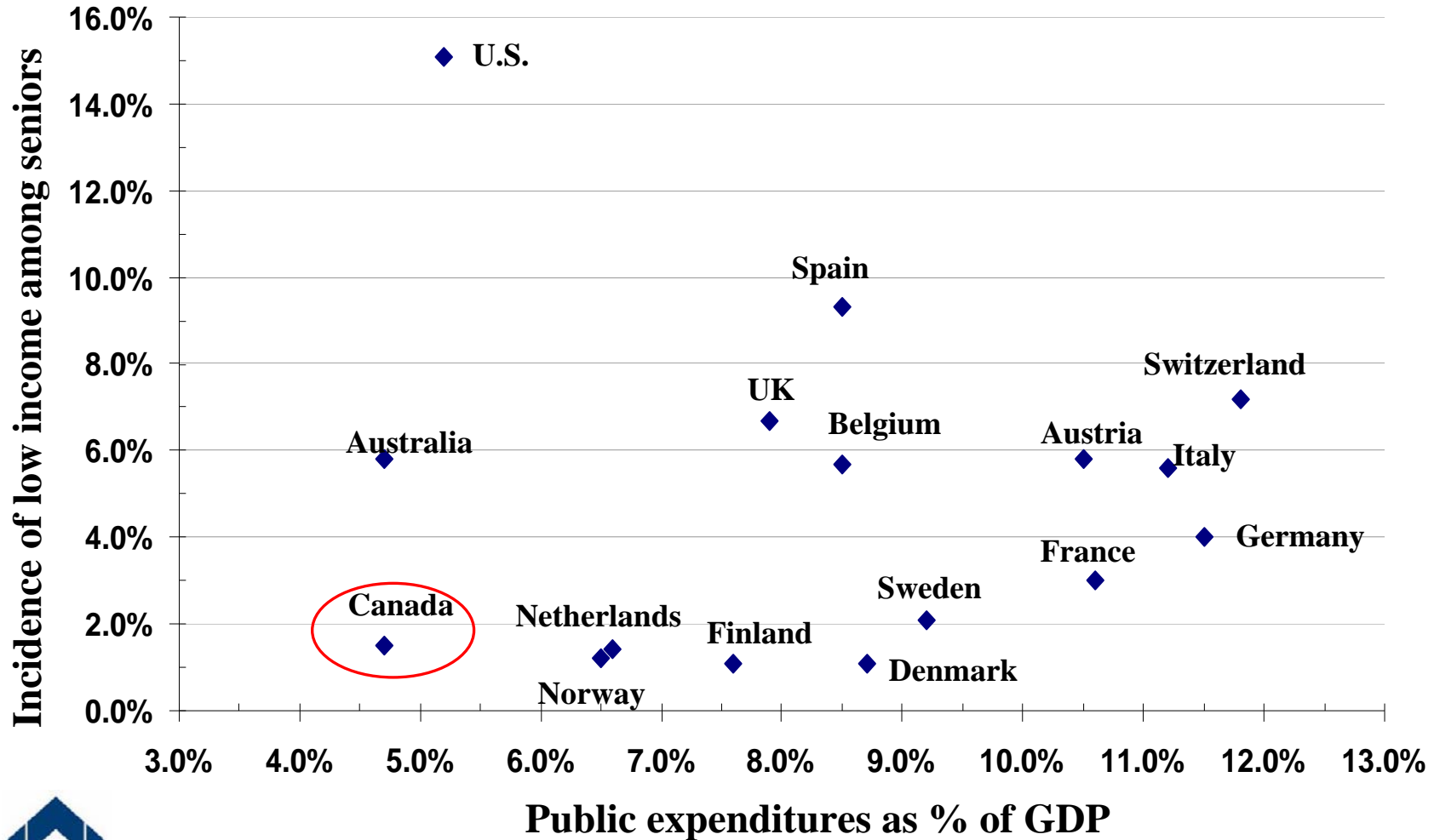
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Can CPP partial funding design be adapted for all demographic situations? (assuming South Korea's Current Demography)

Evolution of the Asset/Expenditure Ratio



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

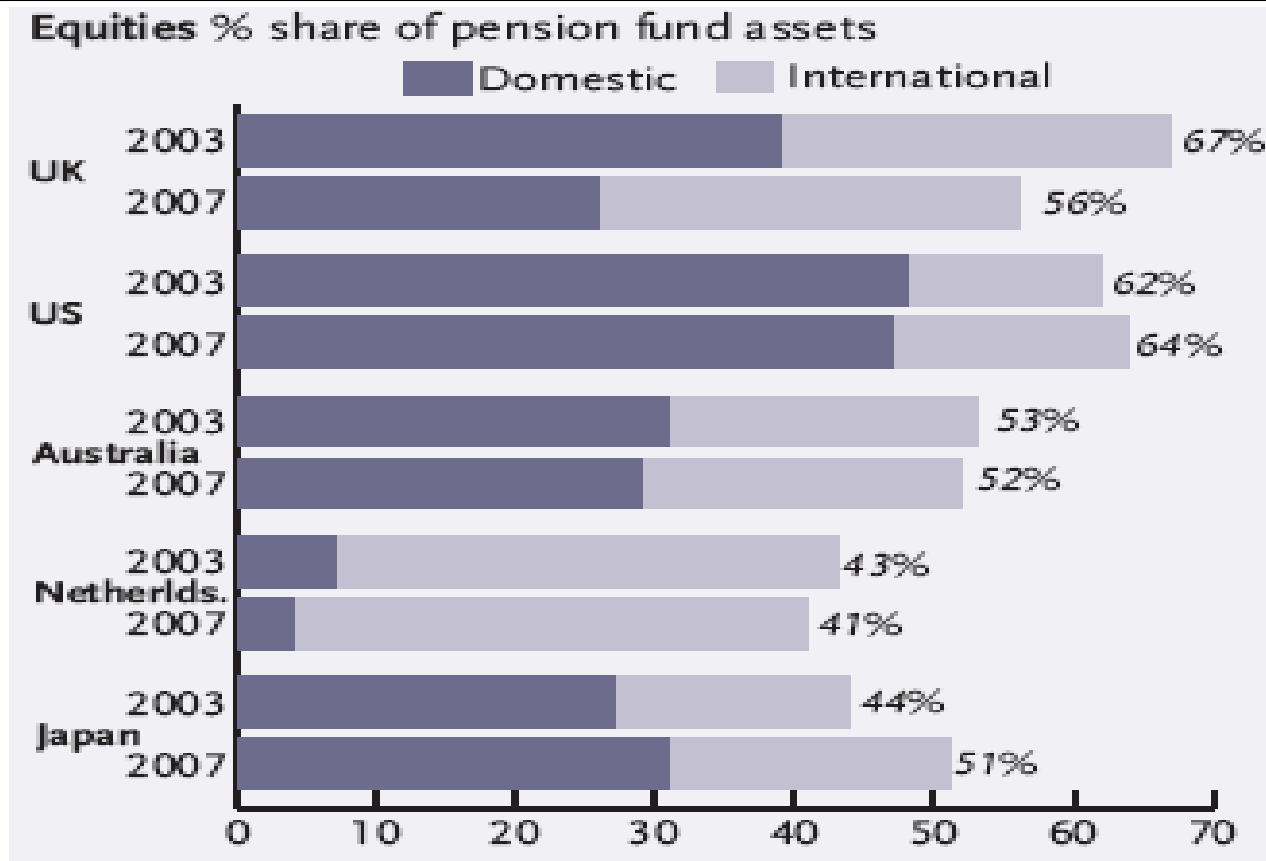
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How severe is the market downturn ?

Pension funds nominal rate of returns



What is the equity exposure of pension funds?



Equity exposure for the CPP, 31 March 2007: 25% domestic, 40% international

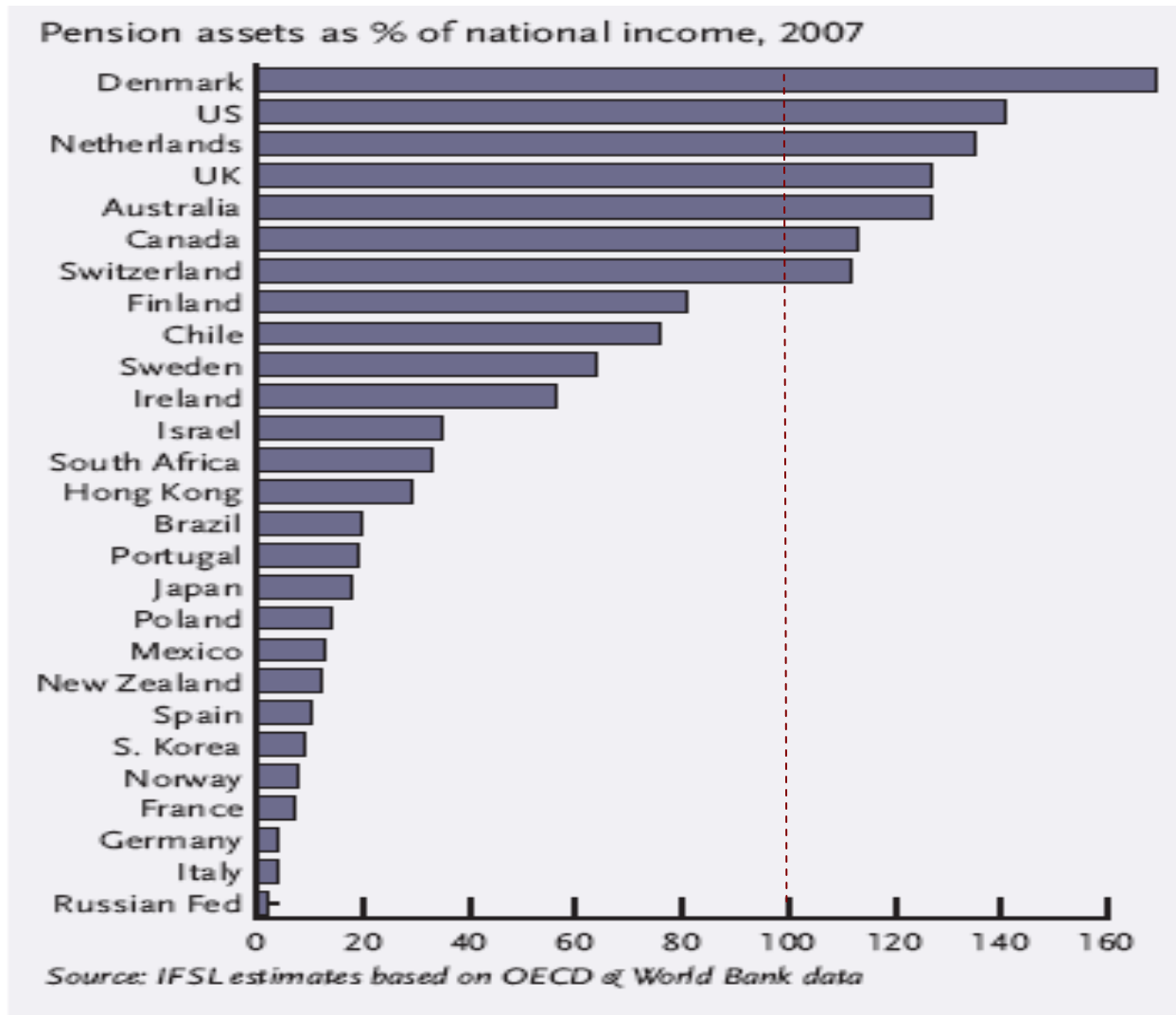


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Source: UBS Pension Fund Indicator, CPPIB 2007 Annual Report

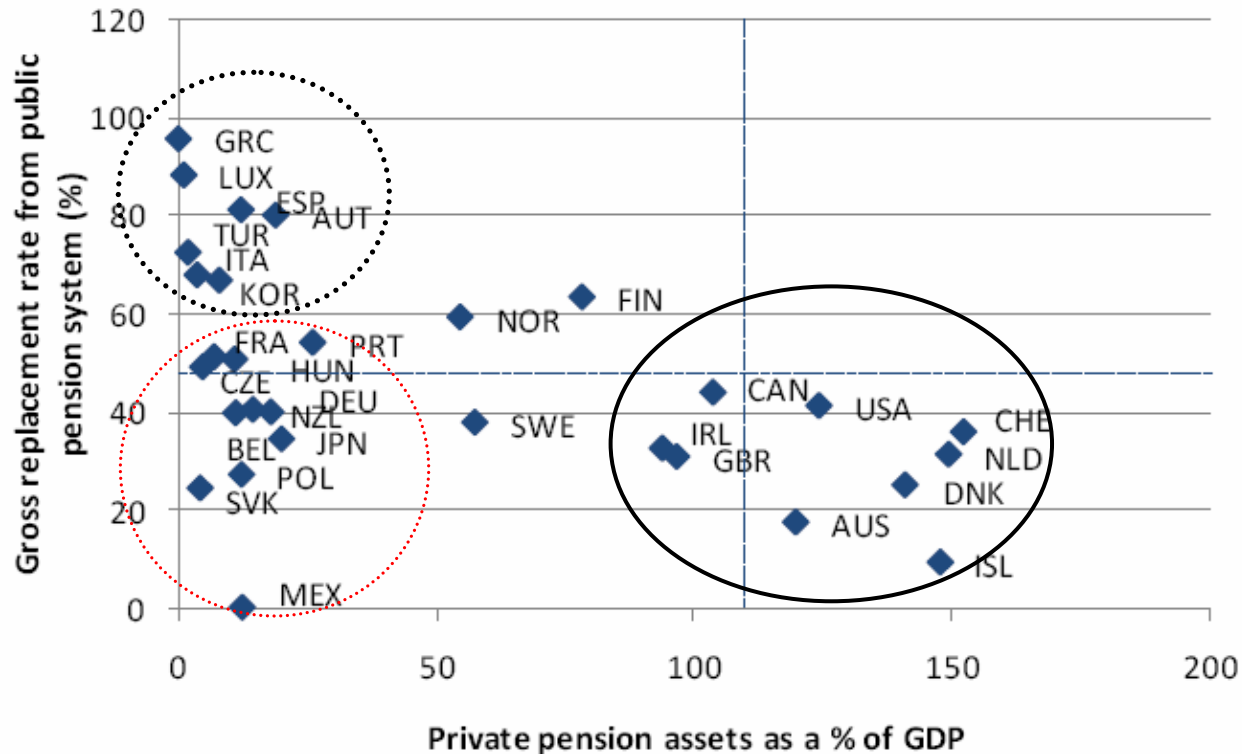
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How important is pension assets for the national economy?



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).

