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**Public Authority
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Intergenerational Balance of the Canadian Retirement Income System

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Presentation outline

- Intergenerational equity concept
- Canadian retirement income system
- Old Age Security Program
- Canada Pension Plan
 - Creation of the Plan
 - Restoring intergenerational balance
 - Preserving future intergenerational balance
 - Measures of the intergenerational balance of the CPP
- Private pension arrangements
- Conclusions

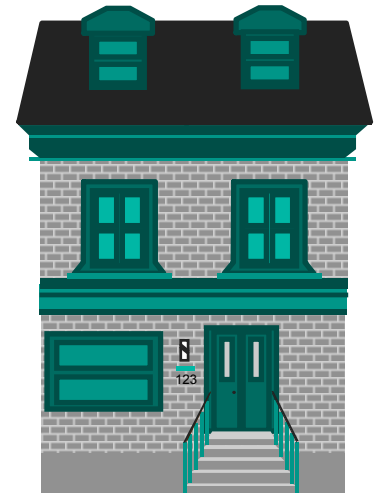


The choice of measures of intergenerational equity of a program depends on a variety of factors

- **The assessment of the intergenerational equity of a program depends on answers to multiple questions:**
 - What are the goals of the program?
 - How the program is financed?
 - Who bears the main burden of financing?
 - Etc.
- **Social security programs do not exist in isolation**
 - The disruption of the intergenerational balance in one pillar may result in immediate or deferred increased costs for another.

Canadian Retirement Income System is based on a diversified approach to savings

- **Canadian retirement system is a three-tiered system with mixed funding approaches**
 - Old Age Security Program – a universal basic pension/supplement financed using pay-as-you-go approach
 - Canada / Québec Pension Plan – mandatory earnings - related partially funded DB plans
 - Occupational Pension Plans and tax-favoured individual savings – voluntary fully funded arrangements
- **First two pillars replace about 40% of pre-retirement earnings for an individual with average level of earnings**
- **Canadian retirement income system is well recognized in the world for its capacity to adapt rapidly to changing conditions.**



Old Age Security Program's goal is poverty reduction among seniors

- **OAS is an universal old-age program**
 - 97% of Canadian population 65 and over receive basic OAS
 - 34% of OAS beneficiaries also receive income-tested supplement (GIS)
 - Benefits are modest: basic OAS is 13% of average earnings, and average GIS paid is 12% of average earnings
 - All benefits are indexed to inflation

- **Financed from Government tax revenues on a pay-as-you-go basis**

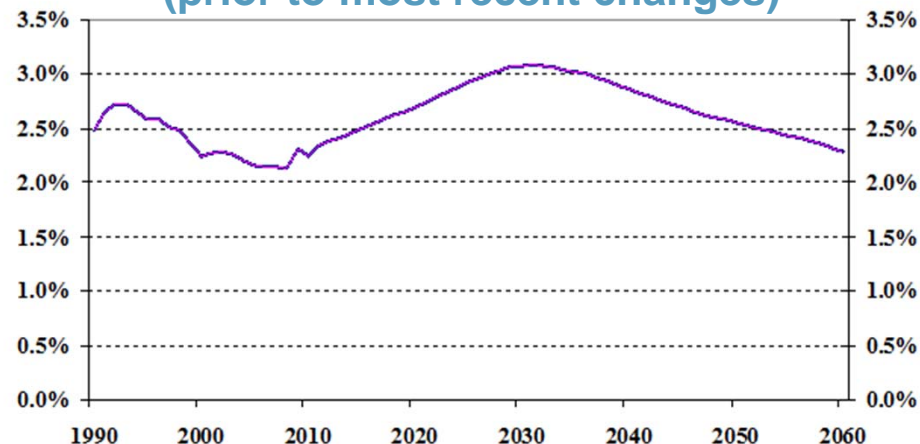
- **OAS is perceived as fair by Canadians – it provides a minimum amount at retirement.**



OAS expenditures are related to Canada's economic growth by expressing them as % of the Canadian Gross Domestic Product

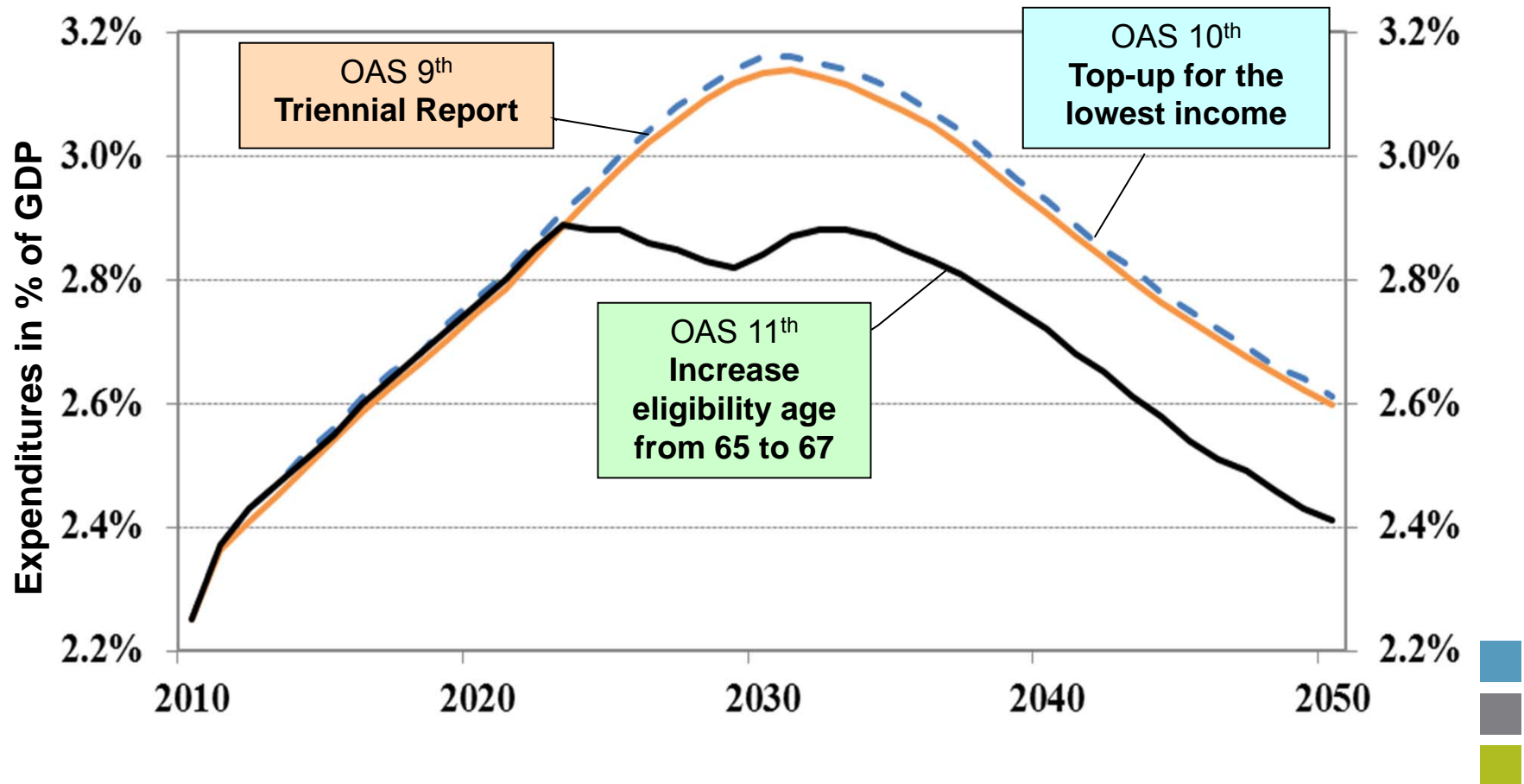
- The stability of the level of expenditures is a good measure to assess the financial burden on different generations of taxpayers of a PayGo scheme
- The cost of OAS as a % of GDP is very modest compared to other OECD countries

OAS expenditures as a percentage of the GDP
(prior to most recent changes)



Source: the 9th Actuarial Report on the OAS as at 31 December 2009

Planned increases in OAS eligibility age relieve financing pressure stemming from aging



Source: the 9th Actuarial Report on the OAS as at 31 December 2009, the 10th and 11th Actuarial Reports Supplementing the Actuarial Report on the OAS as at 31 December 2009

CPP - the second tier of the Canadian retirement income system

- **CPP and QPP are earnings-related plans providing indexed retirement, disability and survivor benefits to working Canadians**
 - Came into effect in 1966
 - CPP/QPP cover virtually all working population of Canada
 - Cover earnings up to Canadian average wage
 - CPP contributions are paid in equal part by employer and employees currently at the combined rate of 9.9%
 - Provide retirement replacement rate of 25% of wage-indexed career average earnings
 - CPP retirement pension is paid at 65, but could be taken anytime between 60 and 70 with permanent down(up)ward adjustment
- **CPP is jointly governed by federal, provincial and territorial ministers of finance.**

To improve rapidly the adequacy of retirement income, the initial design of the CPP favoured cohorts close to retirement at the time of inception

- The CPP was established as a pay-as-you-go plan with small reserve fund invested in non-marketable provincial securities
- Several design features at inception affected intergenerational equity of the CPP
 - Combined employer-employee contribution rate was set up to 3.6%
 - 1964 projections predicted the contribution rate necessary to maintain the Plan will be between 4.3% and 5.2% by 2010.
 - The transition period for eligibility for full retirement pension was set to 10 years
 - It was felt that new plan should be meaningful for people close to retirement at inception
- **Low-income rate among seniors fell from 37% in 1971 to 22% by 1981**
 - For overall population, the low-income rate went from 16% to 12% over the same period.

Restoring intergenerational balance: changing economic and demographic conditions jeopardized future of the CPP

- From mid-1980 CPP started to show signs of weakness
 - Assets were declining and contribution rate increases were necessary
 - In 1993, it was projected that by 2030 the PayGo rate will be 14.2% and the reserve fund will be exhausted by 2015
- Main reasons for these problems were less births, longer lives, lower productivity and overutilization of disability provisions
- Younger generations were loosing confidence in the CPP
- As a result of cross-Canada consultations in 1996, it was decided to amend the CPP based, in particular, on the principle of fairness across generations.

Restoring intergenerational balance: 1997 changes were aimed at stabilizing the contribution rate

- **Contribution rate increase from 5.6% in 1996 to 9.9% in 2003**
- **Slowing of the future growth of benefits**
- **Major changes in the financing approach**
 - Moving from pay-as-you-go basis to partial funding approach called steady-state funding
 - The goal of the steady-state funding is to stabilize asset to expenditures ratio over time, therefore, calculate steady-state rate
 - Introducing full funding for new or improved benefits
 - Creating an investment board (CPPIB) to invest assets on the markets
- **New funding objectives improve fairness across generations and result in a stable contribution rate**
 - Contribution rate remains unchanged at 9.9% from 2003
 - CPP Fund value is \$170B at the end of September 2012

Preserving future intergenerational balance: 1997 amendments strengthened CPP governance framework

- **FTP finance ministers review CPP every three years**
 - Actuarial reports prepared by the OCA are one of the main sources of information for these reviews
 - These reports determine the sum of steady-state and full funding rates called a minimum contribution rate (MCR)
 - The actuarial reports are tabled in Parliament
 - The actuarial reports are reviewed by the independent external review panel and results of this review are publicly available
- **At the end of the review, ministers must make recommendations whether benefits and/or contribution rate should be changed, taking into account results of most recent actuarial report**
 - The results of the review are shared with Canadians

Preserving future intergenerational balance: Self-adjustment provisions share the burden of adjustment between contributors and beneficiaries

“Insufficient Rates” Provisions

If the legislated contribution rate is lower than the
minimum contribution rate

AND

if the federal and provincial finance ministers cannot reach an
agreement to increase or maintain the legislated rate

THEN

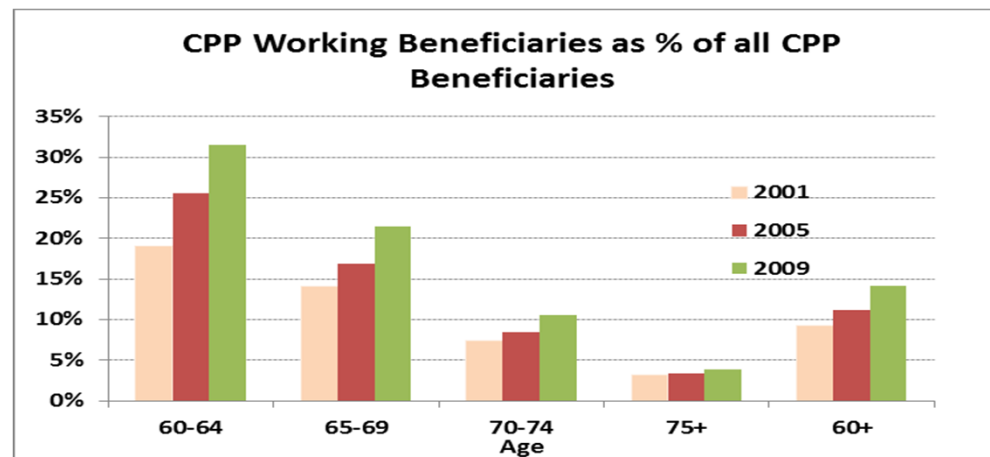
insufficient rates provisions apply



- Contribution rate increased by $\frac{1}{2}$ of excess over three years
 - Benefits frozen until next review (3 years)
- At end of three years, next review performed to determine financial status of Plan.

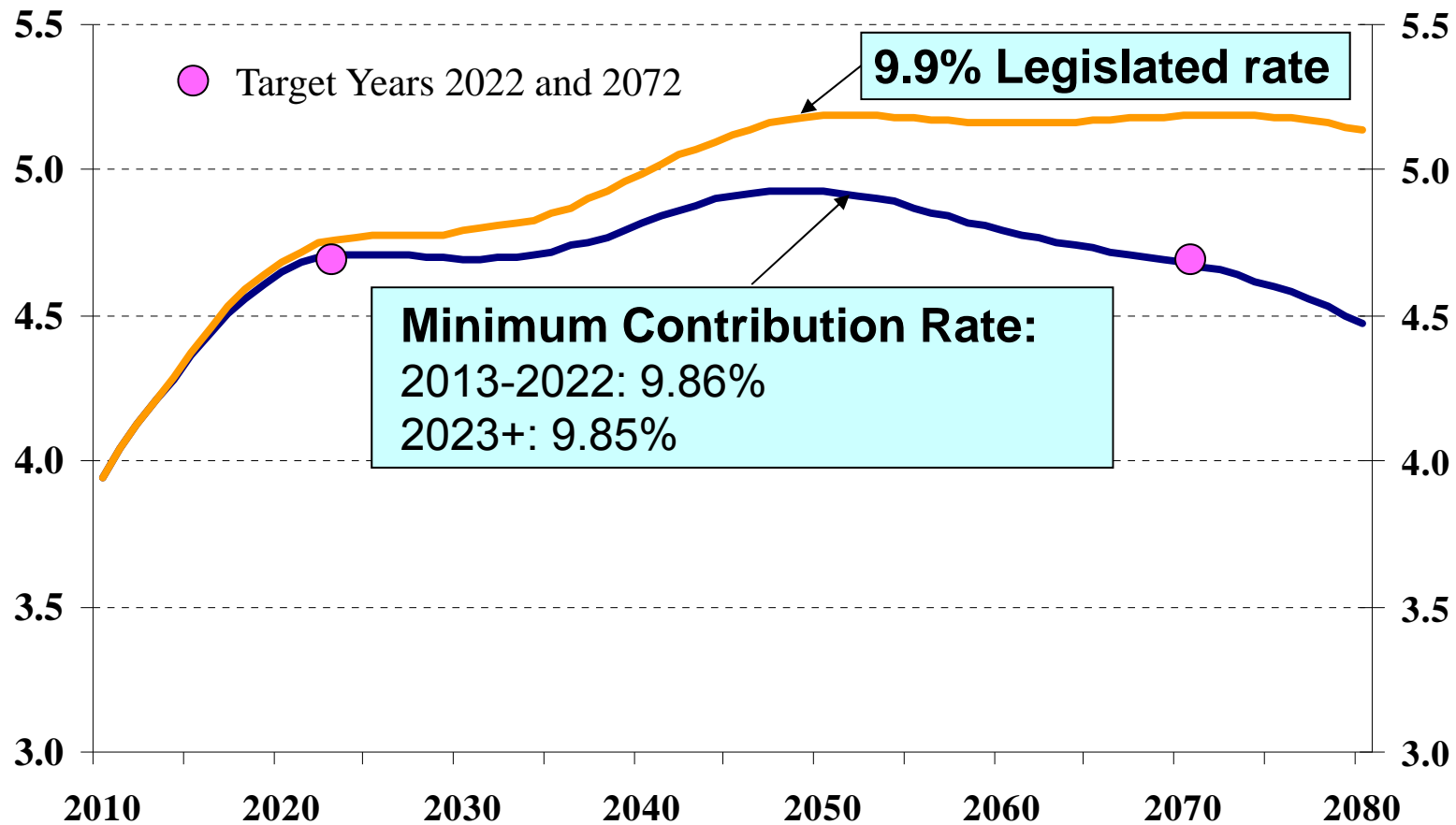
Preserving future intergenerational balance: Adapting plan to changing realities

- Early/late actuarial adjustment factors favoured early and penalized postponed retirement. Updated factors:
 - 0.6%/0.7% per month for retirement pre/post age 65
- In future, factors will be reviewed at least every 9 years to account for changing economic and demographic conditions
- Retirement patterns of Canadian are evolving
 - Barriers to working and accruing further CPP benefits after retirement were removed.



Measures of the intergenerational balance of the CPP: MCR below the legislated contribution rate result in stability of contribution rate and benefits

Evolution of the Asset/Expenditure Ratio



Measures of the intergenerational balance of the CPP: Internal rate of return is stable for cohorts born after 1970

- The internal rate of return for a cohort is a rate such that
PV of all contributions paid = PV of all benefits earned
- It is not known till the last member of the cohort has died, but can be estimated
- The higher IRR for older cohorts is consistent with generous transitional measures at inception
- For younger cohorts the IRR is stable – there is no anticipated future intergenerational transfer

Birth Year	Nominal IRR	Real IRR
1940	10.4%	6.3%
1950	7.1%	4.2%
1960	5.3%	3.0%
1970	4.7%	2.4%
1980	4.6%	2.3%
1990	4.6%	2.2%
2000	4.6%	2.3%

Source: the 25th Actuarial Report on the CPP as at 31 December 2009

**Measures of the intergenerational balance of the CPP:
 CPP open group balance sheet confirms that future
 contributions revenues based on **the current
 contribution rate** in combination with expected
 investment earnings are sufficient to pay for **promised
 benefits** in a long term**

	CPP Open Group Balance Sheet	
Present Value as at 31 Dec. (in \$ billion)	2009	2019
Assets		
Current Assets	127	258
Future Contributions	1,861	2,567
Total Assets (a)	1,988	2,825
Liabilities*		
Current Benefits	308	533
Future Benefits	1,687	2,304
Total Liabilities (b)	1,995	2,837
Asset Excess (Shortfall) (a) – (b)	(7)	(12)
Total Assets as a Percentage of Total Liabilities (%) (a)/(b)	99.7%	99.6%

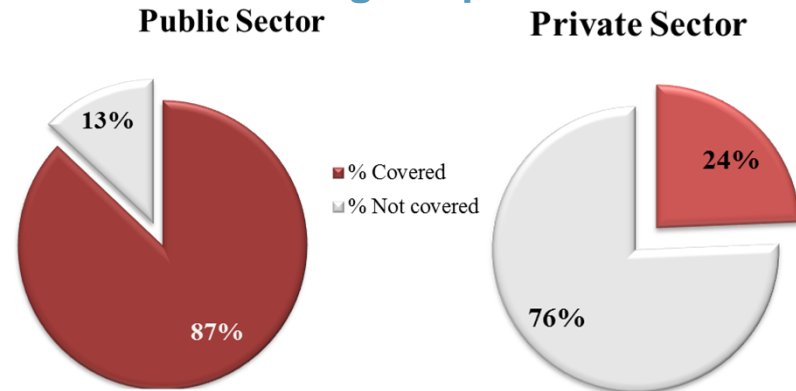
*Liabilities include administrative expenses.

Source: Actuarial Study No. 10 “Measuring the Financial Sustainability of the Canada Pension Plan”, January 2012

Private voluntary tax-assisted pension arrangements in Canada are intended to be fully funded

- Employer-sponsored pension plans (RPPs) cover 39% of Canadian workers (both DB and DC) **RPP coverage of paid workers**

- Proportion of active RPP members in private DB plans decreased from 76% to 52% over the last decade



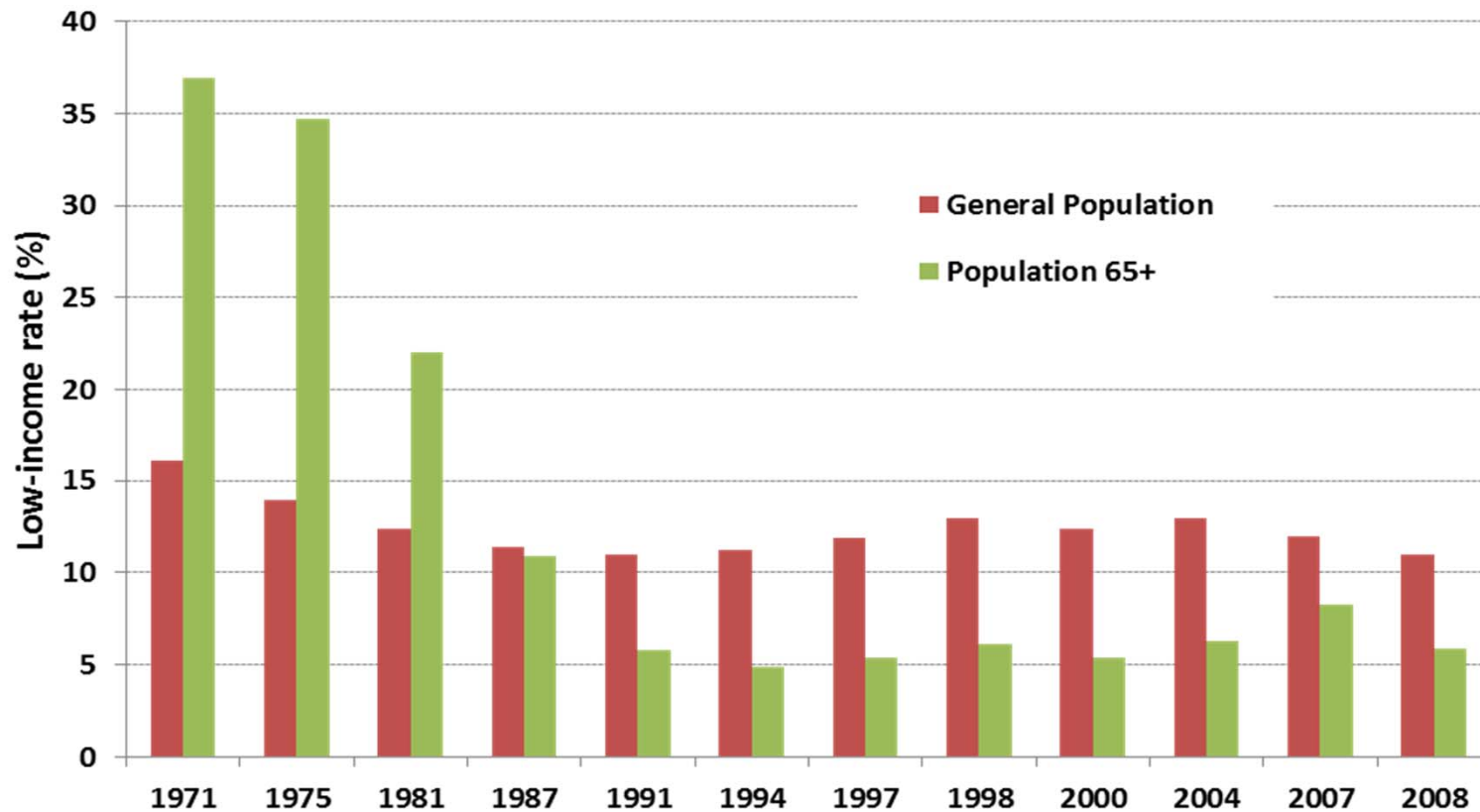
- In 2010, 6 million Canadians contributed to individual Registered Retirement Savings Plans (RRSPs)
 - Share of tax filers contributing to the RRSP decreased from 29% to 24% over the last decade
- Tax-Free Savings Accounts** is a multipurpose saving vehicle introduced in 2009: 4.8 M contributors in 2009, 8.2 M in 2011.

It is important to provide a favourable and equitable saving environment to each generation

- In Canada, a majority of private sector employees do not have access to RPPs. Two ways to address this issue are explored:
 - Gradual, modest and fully funded expansion of the CPP (discussion in progress)
 - Recent introduction of Pooled Registered Pension Plans (DC)
 - Expected to have low administrative and investment costs
 - Benefits are fully portable
 - Fiduciary duties are transferred from sponsor to provider.

- Assessing the intergenerational equity of the third pillar is complicated due to its fragmented nature and partial coverage

While the elderly low-income rate has significantly declined over the last 40 years, it is not clear if it will remain at the same level in the future



Data Source: LIS Cross-National Data Center in Luxembourg, <http://www.lisdatacenter.org/lis-ikf-webapp/app/search-ikf-figures>

Conclusions

- The Canadian retirement income system performs quite well from the intergenerational balance point of view
- It is an evolving structure and the emerging imbalances are corrected periodically
- 1997 CPP amendments, 2012 amendments to the OAS, as well as recent introduction of new retirement saving vehicles for the third pillar are examples of such corrective actions



Thank you for your time

Any questions?

