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Canada's Aging Population and Public Policy: 2. The Effects on Economic Growth and Government Finances

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(In Brief)

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CANADA'S AGING POPULATION AND PUBLIC POLICY: 2. THE EFFECTS ON ECONOMIC GROWTH AND GOVERNMENT FINANCES*

1 INTRODUCTION

The oldest members of the "baby boom" generation – those born between 1946 and 1965 – turned 65 in 2011. Over the next two decades, the growth in Canada's elderly population will accelerate as the members of the largest cohort in Canadian history successively reach that age. At the same time, growth in the working-age population – people aged between 15 and 64 years – will slow to a near standstill.

Some economists are predicting serious fiscal challenges in Canada as a result of this demographic shift, while others believe that the Canadian economy has a range of market and institutional feedback mechanisms that will offset some of the anticipated effects of population aging on the nation's economy and government finances. This paper explains how population aging may affect Canada's economic growth and government finances.

2 ANTICIPATED EFFECTS OF POPULATION AGING ON ECONOMIC GROWTH

Population aging's effect on Canada's economic growth will mainly be felt through its impact on overall labour force participation – the proportion of the population aged 15 years and older that is either working or looking for work.

2.1 LABOUR FORCE PARTICIPATION RATE

Over the coming decades, the overall labour force participation rate in Canada will likely decline, because a growing proportion of the population will be in the older age categories. In past decades, these categories have had labour force participation rates well below those of younger age categories. For example, in 2010, the labour force participation rate for people aged between 25 and 54 years was 86.4%, compared with 36.0% for people aged 55 years and older and 11.4% for people aged 65 years and older.[1] According to Statistics Canada projections, the overall labour force participation rate could decline from 67.0% in 2010 to 58.0% in 2031 if the participation rates of the different age groups remain at their current level.[2]

The rate of economic growth in terms of real gross domestic product (GDP) per capita is essentially the sum of four factors:

- the rate of growth in output per hour worked, or productivity;
- average hours worked per employee;
- the overall employment rate; and
- the overall labour force participation rate.

Unless the rate of growth in productivity, the average hours worked per employee and the employment rate increase sufficiently to offset the decline in the labour force participation rate, the rate of economic growth will decline as the labour force participation rate decreases.

All other things being equal, the projected decline in the overall labour force participation rate from 67.0% in 2010 to 58.0% in 2031 would reduce real GDP per capita by 13.4% in 2031 compared with a scenario where the overall labour force participation rate remains at the 2010 level.[3]

2.2 Average Hours Worked per Employee

Given declines observed over the past 20 years in average hours worked per employee, an increase in average hours worked per employee over the coming decades seems unlikely, unless future generations of workers are willing and able to work more hours. Between 1989 and 2010, average actual hours worked per week by employees aged between 25 and 54 years decreased by 2.4 hours, or 7%, from a peak of 37.3 hours in 1989 to 34.9 hours in 2010.[4]

2.3 Employment Rate

Unless the employment rate of Canadian seniors increases relatively significantly in the future, Canada's overall employment rate is likely to fall over the coming decades as a growing proportion of the population falls into the older age categories that have historically had lower employment rates than younger age categories.[5] For example, in 2010, the employment rate was 55.0% for people aged between 15 and 24 years, 80.5% for people aged between 25 and 54 years, and 33.7% for people aged 55 years and older.[6] Public policies designed to increase the employment rates of young Canadians and other groups that have experienced relatively high levels of unemployment or underemployment, such as Aboriginal Canadians and immigrants, could help to mitigate the adverse effects of population aging on the overall employment rate.

These labour market trends suggest that population aging will likely reduce the rate of growth in the overall labour force participation rate, average hours worked per employee and the overall employment rate, with the result that future economic growth will essentially depend on the rate of productivity growth.

2.4 Productivity Growth Rate

Between 2000 and 2008, the rate of productivity growth in Canada averaged 0.7%, compared with 1.6% over the 1980-to-1999 period and 2.9% over the 1961-to-1979 period.[7] Given Canada's relatively poor productivity performance since 2000, a number of economists believe that the rate of productivity growth over the coming decades will be too small to offset the anticipated adverse effects of population aging on the rate of real GDP growth. According to Mark Carney, the Governor of the Bank of Canada, the combination of slower productivity growth and demographic shifts

could reduce the average rate of potential real GDP growth to 2.0%, compared with the average of more than 3.0% experienced since the 1990s.[8]

Other economists, however, believe that the rate of productivity growth will be relatively higher in the future. According to them, the relative scarcity of labour associated with population aging will put upward pressure on wages, which will encourage young and future cohorts of Canadians to increase their investments in human capital: the knowledge, skills and experiences of an individual. Human capital investments are considered to be an important determinant of the rate of productivity growth.[9] If these investments are made, the resulting higher rate of productivity growth could mitigate or even offset the adverse effects of population aging on economic growth.

3 ANTICIPATED EFFECTS OF POPULATION AGING ON GOVERNMENT REVENUES

As mentioned earlier, unless the rate of productivity growth increases relatively substantially in the future, the aging of the Canadian population is expected to result in slower real GDP growth over the coming decades. Since the rate of growth in the tax base available to the federal, provincial/territorial and municipal governments is equal to the sum of the rate of real GDP growth (which includes population growth) and the rate of inflation, as the rate of real GDP growth slows, so too will the rate of growth in the tax base available to governments. According to the Department of Finance, a one-percentage-point decrease in real GDP growth in 2011 would reduce federal revenues by $2.7 billion in 2011, $2.9 billion in 2012 and $1.4 billion in 2015.[10]

3.1 PERSONAL INCOME TAX YIELDS AND CONSUMPTION TAX YIELDS

Population aging could also influence government revenue through typical lifetime income and consumption patterns. For example, data on lifetime earnings show that income tends to rise during an individual's early working years, peaks in the mid- to later working years, and declines leading up to the retirement years.[11] Since personal income tax (PIT) revenue collected according to age cohort tends to mirror this income pattern, the PIT system may yield less revenue in future years. This effect could be amplified by the progressivity of the Canadian PIT system, with lower marginal tax rates for individuals earning lower levels of income.

Similarly, consumption patterns tend to mirror lifetime income patterns. For example, household consumption data show that the average consumption level increases to mid-life before declining in the retirement years.[12] Assuming that this consumption pattern continues into the future, goods and services tax and harmonized sales tax revenues could decline as a growing proportion of the population falls into the older age categories.

3.2 THE OFFSETTING EFFECT OF TAX-DEFERRED PRIVATE PENSION PLANS

The anticipated adverse effects on government revenue identified above could be partially offset by the effects of population aging on tax-deferred private pension plans, such as registered retirement savings plans (RRSPs) and employer-sponsored registered pension plans (RPPs).[13] This offsetting effect, which is almost unique to Canada, occurs because contributions to these plans are tax deductible, investment income earned in them is not taxed, and withdrawals from them are fully taxed. Assuming that there are no changes to these plans, as a growing proportion of the population retires, contributions to these plans will decline while withdrawals from them will increase, with the result that these plans could become a net source of government revenue.

According to Marcel Mérette, a University of Ottawa professor of economics, the estimated net tax expenditures for the federal and provincial/territorial governments associated with RRSPs and RPPs, which amounted to 3.5% of GDP in 1995, could become a net source of revenue in 2040, totalling an estimated 2.0% of GDP. This offsetting effect would constitute a total revenue increase of 5.5% of GDP.[14]

4 CONCLUSION

Unless the rate of productivity growth increases in the future, population aging is expected to slow Canada's economic growth rate and the associated rate of growth in the tax base available to governments. At the same time, government expenditures related to public pensions and health care are expected to increase. Together, these two forces will perhaps put a strain on federal and provincial/territorial finances.

That said, ensuring the sustainability of government finances will likely not be the only challenge faced by federal and provincial/territorial governments over the coming decades. Governments will perhaps also need to find ways to improve Canada's productivity performance in order to address the challenge of producing the goods and services the entire population wants with fewer employees.

NOTES

* This paper is one of seven in the Library of Parliament series, "Canada's Aging Population and Public Policy." The other publications are:

André Léonard, *1. Statistical Overview*, Publication no. 2011-63-E, revised 28 February 2012.

Raphaëlle Deraspe, *3. The Effects on Health Care*, Publication no. 2011-122-E, 21 October 2011.

André Léonard, *4. The Effects on Public Pensions*, Publication no. 2011-120-E, 4 August 2011.

Sandra Elgersma et al., *5. The Effects on Employers and Employees*, Publication no. 2012-07-E, 20 February 2012.

Julie Cool, *6. The Effects on Home Care*, Publication no. 2012-03-E, 23 January 2012.

Havi Echenberg, *7. The Effects on Community Planning*, Publication no. 2012-02-E, 23 January 2012.

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12. Ibid.
13. Mérette (2002), p. 17.
14. Ibid., p. 20.