

Aging, Capital Investment, and Standards of Living

By Steven Globerman

While there is some variation in recent Statistics Canada projections of Canada's future population size and age distribution, the projections unequivocally point to a conclusion that Canada's population and its workforce will age over the next few decades.

One aspect of the population aging phenomenon is an increase in the dependency ratio, i.e., the ratio of individuals who are age 65 and older to those aged 15 to 64. The former are assumed to no longer be in the workforce and therefore are dependent on the latter to pay for income support and social services provided by the government to retirees. Clearly the dependency ratio is somewhat simplistic, since a percentage of individuals will remain in the workforce past the age of 65. They may also have savings they can draw on to help support themselves financially. However, if a significant percentage of individuals who were formerly working now draw on financial assistance from those who are working, the disposable income of the latter will decline unless there is an increase in real economic growth and accompanying increased compensation for those in the workforce.

Over the period from 2018 to 2068, the dependency ratio for Canada is projected to double, although the actual ratio in any future year will depend on whether and how the labour force participation rate of older workers changes over time. Nevertheless, the overall message from Statistics Canada's demographic projections is that Canada's labour force growth rate will slow substantially as a consequence of an aging population.

Therefore, there will need to be increases in the growth of real economic output from other sources besides the labour force if working Canadians are to enjoy increasing levels of disposable income and associated higher standards of living, given increased fiscal transfers from working Canadians to retirees.

The standard model of economic growth assumes that output depends on three things: 1) the quantity of labour services employed; 2) the quantity of physical capital (such as machinery and equipment) that each employee has to work with (i.e., capital deepening); 3) the creation and utilization of scientific and technical knowledge that is used in the production of goods and services (i.e., technological change).

Assuming that the labour force participation rates of individuals of all ages remain at 2018 levels, the projected percentage increase in Canada's labour supply from 2020 to 2050 will be about half the actual increase from 1990 to 2020. The implication is that unless other determinants of real economic growth improve their contributions to economic growth, Canada's real economic growth rate and the growth rate of the standard of living of Canadians over the next few

decades will be substantially slower than their growth rates over the previous few decades.

In this regard, one possible offsetting factor to a slowing labour force growth rate is capital deepening, i.e., increasing the ratio of physical capital to labour. While higher wages associated with slower labour force growth should encourage capital investment, the financial costs of investing are expected to increase given reduced savings rates associated with an aging population, along with an increased demand for financial capital to fund major infrastructure projects tied to the ongoing switch away from fossil fuels to Green Energy sources.

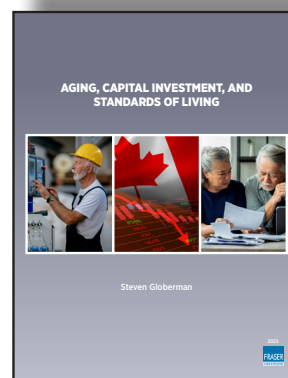
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Canada's performance in attracting physical capital investment has been quite poor over the past decade (see e.g. Globerman and Emes, 2021). Hence, unless policy measures are put in place that help make Canada a more attractive location for capital investment, the likelihood that capital deepening will contribute more to economic growth in the future than it has in the past is questionable.

Perhaps the most important contributor to real economic growth over time is the growth of total factor productivity

(TFP). This is a measure of how much more real output can be produced using the available capital and labour inputs. The determinants of TFP are complex, as is the impact of an aging population on TFP growth. On balance, it is likely that an aging population reduces the rate of TFP growth. For one thing, entrepreneurs tend to be relatively young, and new firm start-ups are a major channel for introducing new technology into the economy. For another, older workers are less able than younger workers to learn new skills and adapt to new tasks associated with the introduction of new technology. Older workers are also less inclined to change jobs or relocate geographically in response to changes in the economy tied to technological innovation.

The main policy implication is that an aging population, on balance, is a drag on real economic growth. Government policymakers need to recognize this issue raised by an aging population, and address it by implementing policies that will make Canada a more competitive location for capital investment, as well as a more conducive location for innovative and entrepreneurial activities.



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