



## Three Policies to Increase Productivity Growth in Canada

**Andrew Sharpe**

**Comments:**

**“An Alternative Policy Script to Boost Canadian Productivity Growth”**

**Don Drummond**

**“The Canadian Productivity Conundrum”**

**Richard G. Harris**

---

### EXECUTIVE SUMMARY

Andrew Sharpe points out that productivity growth is “by far the most important determinant of increased material living standards for Canadians” and is also critical to ensuring that adequate public resources are available to address fiscal pressures associated with population aging. Canada’s recent productivity performance is insufficient to ensure that future generations will enjoy the growth in incomes that current generations are accustomed to.

At its root, productivity growth is driven by innovation and investment in capital equipment, and Canada lags behind most other industrialized nations on both of these metrics. With regard to innovation, Sharpe proposes expanding federal technology transfer programs that assist firms in exploiting best-practice innovations. With regard to capital investment, Sharpe identifies high taxes as the main culprit and proposes abolition of sales tax on machinery and equipment in the five provinces where it still exists. He also contends that migration is a key factor in national productivity growth and proposes a tax credit for interprovincial job search as a measure whose economic benefits would far outweigh its costs.



**Canada's recent productivity performance is insufficient to ensure that future generations will enjoy the income growth that current generations are accustomed to.**

The commentators strongly agreed with the diagnosis of the productivity problem and the need to lower taxes on capital as a key part of the solution, but had some reservations about the potential efficacy of the other two options, in particular the proposal to encourage migration.

### SCOPE OF THE CHALLENGE

In any economy, the only way for a society to increase its material living standards is to increase labour supply (i.e., work more hours) or increase productivity (i.e., work more efficiently). Sharpe demonstrates that, due to demographic trends, it will become more and more difficult to sustain income growth by working more, because a progressively larger segment of the population is approaching retirement age. Thus productivity growth will be the only means to ensure not only the increasing living standards to which Canadians are accustomed, but also the resources needed to meet the fiscal pressures brought on by population aging.

Relatively strong economic performance over the past decade (as measured by indicators such as gross domestic product, household income and employment) has masked a worrying slowdown in productivity growth. Sharpe notes that annual labour productivity growth (as measured by GDP per hour worked) has decelerated markedly from an average of 2.9 percent between 1996 and 2000 to just 1.1 percent since then.

Just as importantly, Canada's productivity lags behind that of the United States, its most important trading partner. Strong productivity growth keeps business production costs low relative to international competitors, and thus improves Canada's overall competitive posture. But Sharpe finds that productivity levels in Canada have declined fairly steadily from 90 percent of the US level in the early 1980s to 75 percent today. Looking at a larger group of 22 OECD nations, Sharpe finds that Canada ranks 16<sup>th</sup> and the US ranks 3<sup>rd</sup>.

Another challenge is the optics of productivity. Many people fear policies to boost productivity growth based on the erroneous assumption that they will be forced to work longer

hours or, worse, "work themselves out of a job." Sharpe explains why these fears are largely unfounded, and urges efforts to improve public understanding of the important positive effects of strong productivity growth.

On the issue of optics, commentator Richard Harris added that there is a disconnect between lagging productivity and recent economic performance, which has been exceptional over the past 15 years. It is hard in such circumstances to get people concerned about the productivity issue, because it is at odds with their personal experience.

### OPTIONS FOR ADDRESSING THE CHALLENGE

Sharpe notes that the proximate sources of productivity growth are increases in capital investment and the skill level of workers (both of which help them work more efficiently), and technological innovation (which improves the overall efficiency of production processes as well as the development of new products).

Because productivity growth is the result of thousands of private sector decisions about what investment to undertake, how much and what kinds of education and training programs to enrol in and what R&D projects to finance, government policies cannot directly influence it in the same way that they can affect, for instance, the availability of social housing. However, government policies play a profound indirect role by providing the economic backdrop against which these decisions are made. Macroeconomic and fiscal stability, trade liberalization and competitive markets are all important factors in stimulating the investment and innovation that drives productivity growth, and Sharpe notes that, with some exceptions with respect to competition policy, recent Canadian governments have done much to create a productivity-friendly economic environment.

That being said, the fact remains that productivity performance remains substandard, and Sharpe concludes that governments can and should be more proactive by adopting policies that more directly promote productivity-enhancing activities.

### THREE PREFERRED POLICIES

#### *Foster more rapid diffusion and adoption of best-practice technologies, particularly in small- and medium-sized enterprises (SMEs)*

Sharpe points out that technological progress is the most important single driver of productivity growth. Yet Canada's performance (as measured by aggregate spending on research and development activities) has long been lacklustre.

Furthermore, despite large subsidies in the form of tax credits, this R&D spending is highly concentrated among just a handful of large firms. Less than 1 percent of Canadian firms do any R&D, and just 100 firms account for 56 percent of total Canadian business R&D activity. Sharpe concludes that further subsidization of R&D would do little to help the 99 percent of Canadian firms that do not conduct any.

There are, however, large benefits to be reaped from widening the use of existing best-practice technologies to a larger universe of firms, and Sharpe argues that government innovation policy should be rebalanced toward improving diffusion of existing technologies. Adapting an existing technology to a particular business is not costless – it typically requires supporting technologies, investment in complementary development activities and other resources that SMEs often do not have. The author identifies the Industrial Research Assistance Program (IRAP) as a model for providing such resources. IRAP provides technology expertise and advisory services, grants for R&D activities, and networking and partnership opportunities and has a successful track record of promoting technology diffusion, particularly to SMEs. However, its budget is very small, and Sharpe sees large productivity benefits in expansion of the program and creation of others with similar technology diffusion objectives.

#### *Remove provincial sales taxes on purchases of machinery and equipment*

The author points out that capital investment is the vehicle through which many new technologies manifest themselves in the economy – in effect, they are embodied in new capital goods. For example, information technologies are not only found in freestanding consumer products such as personal computers, but are also embedded in capital goods such as vehicles and industrial machinery. But equipment investment rates in Canada are lower than in most other OECD coun-

### THREE POLICY PROPOSALS TO ADDRESS THE PRODUCTIVITY CHALLENGE

- ▶ **Expand government programs to promote technology diffusion.** Canada is too narrowly focused on subsidizing R&D, which benefits only a tiny proportion of business. Sharpe argues for redirecting public resources to the Industrial Research Assistance Program and other similar initiatives to spread the economic benefits of existing technologies across the economy.
- ▶ **Eliminate provincial sales taxes on machinery and equipment.** Sharpe notes that capital taxes are high in Canada, which explains in part why investment rates trail those of other countries. Eliminating sales taxes on investment in the five provinces where they still exist would be, in his view, the most effective way to lower them.
- ▶ **Implement a tax credit for interprovincial job search.** Interprovincial migration rates have trended downward, and Sharpe sees considerable economic benefits in workers relocating to high-productivity jobs and regions. Providing well-targeted tax breaks for job searches in other provinces would be a low-cost way to achieve this goal.

tries, in part due to relatively high tax rates on investment. Sharpe notes that, despite several reductions in federal corporate taxes, the effective tax rate on capital in Canada was 36.6 percent in 2006, one of the highest in the world.

One reason effective tax rates remain high is that five provinces (British Columbia, Saskatchewan, Manitoba, Ontario and Prince Edward Island) impose provincial sales taxes on the purchase of capital goods. Sharpe characterizes this as “extremely bad policy – perhaps unique in its incompetence among developed countries.” Recent evidence shows that investment per capita has grown significantly more rapidly in provinces that have abolished sales taxes on capital inputs.

In practical terms, the easiest way to eliminate sales taxes on capital equipment would be for provinces that have not already done so to harmonize their provincial sales taxes with the GST. Harmonization would mean that purchases of capital equipment, as an input to production, would be deducted for the purposes of calculating sales taxes. Sharpe acknowledges that this would reduce provincial government revenue and force governments to either cut spending or increase other

taxes, but suggests that the federal government might entice them with a promise of financial compensation.

### *Promote geographical migration of workers*

Sharpe's third proposal stems from the fact that productivity levels vary considerably across the country. For instance, in 2006 GDP per capita was just over \$125,000 in Alberta, nearly double the level in Prince Edward Island. Reallocation of factors of production (including employees) from low-productivity activities and regions to high-productivity ones can thus contribute significantly to national productivity growth.

But the author points out that interprovincial migration has trended downward since the 1970s, suggesting that Canadian workers are less likely to seek economic opportunities in other provinces than they were a generation ago. But the potential economic gains of greater migration are considerable: according to the author's own research, interprovincial migration over the past decade has added \$11 billion to Canadian GDP and is a significant contributor to aggregate productivity growth.

To encourage migration further, Sharpe proposes a federal tax credit for expenses associated with job searches in other provinces, similar to the tax deduction for moving expenses. He estimates the cost of such a credit at \$15 million to \$25 million annually, far lower than the anticipated economic benefits. In addition, such a tax credit would be a concrete manifestation of the importance of mobility in today's dynamic and rapidly changing labour markets.

The commentators' reaction to Sharpe's policy suite was mixed. Both Don Drummond and Richard Harris concurred strongly with his proposal to eliminate provincial sales taxes on capital, and Drummond went further to suggest other actions to reduce the tax burden, such as abolishing direct capital taxes where they still exist and reducing personal tax rates in order to sharpen incentives to save and invest. But with regard to the other two proposals, the commentators were more skeptical. Drummond concurred with the conclusion that Canadian policy is too obsessed with R&D at the expense of promoting adopting existing technologies, but argued that such activity is in a firm's self-interest and questioned the wisdom of a large expansion of IRAP. With regard to interprovincial migration, both commentators agreed that more is better, but doubted that it would have a measurable effect on aggregate productivity growth compared to other policy options.

## CONCLUSION

The productivity challenge will become increasingly important as labour force growth slows and income growth comes to depend more and more on working "smarter" rather than working harder. But Sharpe's analysis and the commentators' reactions illustrate that the productivity gap is an example of a "death by a thousand cuts" in that numerous factors have created it and numerous actions are necessary to fix it. As Drummond noted, "There is so much to choose from that it is difficult to narrow down the choice to three options."

## THE CANADIAN PRIORITIES AGENDA

The IRPP's Canadian Priorities Agenda project is designed to initiate a broad-based and informed public debate on policy choices and priorities for Canada over the medium term. Research papers by some of Canada's foremost scholars examine the most effective ways to address the following eight broad policy challenges:

- Human capital
- Climate change
- Natural capital
- Population aging
- Economic security
- Health outcomes
- Productivity
- Trade and globalization

Based on the results of this research, six judges, among Canada's top policy thinkers, each crafted from the eight papers a policy package of the specific recommendations that in his or her view will best enhance the economic and social well-being of Canadians.