Finance Minister Bill Morneau looks to the gallery on Budget Day, and may have played to it as well. Innovation was a budget theme, but still a work in progress. Adam Scotti photo

Innovation and the Budget: Much Policy Left on the Table

Jack M. Mintz

Following on the work of the Advisory Council on Economic Growth, the 2017 budget was long billed as the "Innovation Budget". While the Trudeau government's plans to boost innovation were said to have been trimmed somewhat by uncertainty surrounding the economic impact of the Trump presidency, the budget still contained innovation investment. Economist Jack Mintz breaks it down.

Economic growth per worker depends crucially on two factors: innovations adopted by entrepreneurs and investment. The 2017 federal budget is rightly focused on innovation. Last year, it was rightly focused on public infrastructure. Lacking in both budgets, however, is a plan to support entrepreneurship and private investment, which are both critical to the adoption of new innovations.

This lack of focus on the private sector seems rooted in a misperception of factors leading to growth. Ian Morris, in his acclaimed book, "Why the West Rules—For Now", shows that technology, often resulting from war-making demands, has been one of four major factors explaining economic growth since 14,000 BC. Others include energy capture, societal organization (eg. urbanization) and information technology/communication.

"It is not just supply of innovators but also the demand for their ideas that matters. Demand depends on entrepreneurial businesses that put good ideas into profitable practice."

It is not just supply of innovators but also the demand for their ideas that matters. Demand depends on entrepreneurial businesses that put good ideas into profitable practice.

Productivity Rates (Growth in Output per Working Hour) for Selected Countries: Averaged 2011-15

	Growth in Output per working hour (%)
Ireland*	6.4
Australia*	1.7
Mexico*	1.2
Israel*	1.1
Germany	1.0
Sweden	0.9
France	0.9
Canada*	0.8
United States*	0.3
United Kingdom	0.2
Italy	0.1
G7 average*	0.5
OECD average*	1.2

Note that * indicated 2011-15 only.
Source: OECD Statistics

We know that Canada has many advantages relative to many countries—a relatively good infrastructure, political stability, good rule of law and a well-educated work force—but also several economic disadvantages. We have a small market (manufacturing and services tend to locate near large populations), a less dense labour pool and cold weather. To overcome these disadvantages, we have leveraged policies including free trade to access international markets, immigration policy to access a larger talent pool and business tax reform to improve competitiveness. These policies help contribute to a better innovation climate.

Yet something is still amiss. Canada's growth has been less than stellar, with output per working hour still chugging along at roughly 1 per cent annually. Despite many good public policies adopted over the years, we have not doubled productivity growth rates that would match some high-performing countries.

"Yet something is still amiss. Canada's growth has been less than stellar, with output per working hour still chugging along at roughly 1 percent annually. Despite many good public policies adopted over the years, we have not doubled productivity growth rates that would match some high-performing countries."

While our performance relative to other Organisation of Economic Co-operation and Development countries has improved since the 1990s when we were fourth-lowest, our relative ranking has improved only because of economic slowdowns in other countries since the 2008 financial crisis. Our productivity growth rate since 2011 has been better than the G7 average, but worse than the OECD average (see the table). It falls behind Ireland, resource-based Australia and Mexico although ahead of the United States and Norway.

In a recent paper published in Australia on tax reform, I showed that Canada's private sector investment as share of GDP is far less than in most OECD countries in both manufacturing and services. Where we shine—the resource sector—we have witnessed plunging investment since 2014, especially in oil and gas and mining.

With improved prospects for our middle class over the years through better employment, new threats to

Canadian livelihoods are on the horizon. Disruptive labour-saving technologies being adopted throughout the western world are expected to put many workers out of work in the not-too-distant future.

The 2017 budget therefore stressed innovation at least in words. About $1.5 billion per year of *new* and *redirected* money is spent on skills and innovation, with less than a fifth spent on innovation itself. The most important measures—in dollar terms over five years—include reformed labour market agreements with the provinces ($2.075 billion), expanding Employment Insurance for more flexibility for families ($886 million), innovation superclusters ($950 million) and a new innovation fund ($200 million).

While improving skilled training is a worthy objective, it is unlikely to add to innovative capacity that depends on more than the availability of skilled labour. Besides, much of skill training depends on the effectiveness of provincial educational and training programs, which are vastly larger than federal training programs such as those funded by Employment Insurance. In part this reflects our constitution—provinces jealously guard their role in education and object to federal intrusion.

The federal government does have an important role in funding university and college research. Yet, the granting agency core budgets are nominally frozen in the coming year as the government delays releasing the report of for University of Toronto president David Naylor on science research. Some new funding is directed at targeted research programs. Overall, the budget comes up short.

With the roughly $1.2 billion over five years with new or redirected funds for innovation, the funding is so low it would hardly budge long-term productivity rates. Even so, its logic is based on a faulty premise.

Taking advice from the Advisory Council on Economic Growth, the budget directs funds to “winning” sector clusters. Why such funding is needed is unclear since one would expect entrepreneurs in the private sector would be more than willing to amass the resources on their own to pursue profitable opportunities. The budget’s focus is on six sectors: advanced manufacturing, agri-food, clean technology, digital industries, bio-health and clean resources. While some initiatives may work well, it is far from clear that anyone can predict which sectors and companies will be successful within two decades. Government winner-picking strategies have been spotty at best. For example, Peter Lougheed’s diversification strategies largely failed in Alberta, as shown by Ted Morten and Meredith McDonald in a paper two years ago.

“The budget’s focus is on six sectors: advanced manufacturing, agri-food, clean technology, digital industries, bio-health and clean resources. While some initiatives may work well, it is far from clear that anyone can predict which sectors and companies will be successful within two decades.”

A decade from now, I suspect we won’t move the productivity rate one decimal point resulting from measures taken in this budget.

In my view, a better working model for innovation is for government to reduce the burden of taxes and regulations that make entrepreneurs less willing to implement new projects.

Some of the policies would encourage public-funded universities and colleges to connect better with the private sector to achieve commercialization of research ideas as currently done by the most successful global institutions. Typically, this would require regulatory changes to encourage a stronger connection between entrepreneurs and academics.

We also might want more health innovation but provincial health policies often get in the way (private medical innovators argue it is easier to export product than sell it in Canada). Procurement, for example, is focused on costs savings, not benefits, thereby reducing the demand for innovations.

Regulations based on old practices also make it more difficult for entrepreneurs to implement new processes and sell new products. Regulations also protect incumbents from market competition, reducing the incentive to innovate. It is not surprising that Canada is not at the forefront in world telecommunication markets with a regulated telecommunication sector protected from foreign competition.

Taxes can also impede innovation, especially capital gains taxes. Investors willing to invest in new projects must sell off under-performing assets but capital gains taxes discourage them from doing so. Governments looking to support venture capital unintentionally provide subsidies to poorly operated companies that crowd out better performing companies to raise capital from the market.

The 2017 budget wisely avoided raising capital gains taxes. With potential U.S. tax, trade and regulatory reforms in 2017, it will likely be the case that the next budget will have more meaningful impact on innovation by reducing regulatory and tax barriers in Canada, not raise them. Let’s hope that will be the case. P

Jack M. Mintz is the President’s Fellow and former director (2008-15) of the School of Public Policy, University of Calgary. jackmmintz@gmail.com