Budget 2014: Re-balancing Innovation Support Programs
The 13th Annual RE$EARCH MONEY Conference
National Arts Centre, Ottawa | 22-13 April 2014
Day 1 - 22 April 2014

Budget 2014: The Road Not Taken

David Watters, CEO, Global Advantage

Watters premised his remarks by declaring that he examined the budget from the perspective of its impact on innovation, research and development, and science and technology generally. This year he has concluded that the country is on the wrong path in terms of investments in these areas, and more specifically the amounts of those investments. Nevertheless, he suggested that there will be an opportunity to make incremental investments in the next budget, and he promised to conclude with some targets for those investments.

Recalling the news coverage of the budget on February 11, he played a Global News summary of budget coverage. During that coverage, correspondent Tom Clark dismissed this budget as the forgettable warm up act for the more significant budget that would be announced next year in the immediate lead-up to an election. In fact, he suggested that this budget represented a chance to trot out items that you would not want to showcase during an election year, such as a cut to the armed forces.

“There really wasn’t a lot in this budget, but the question is why,” said Watters. “The expectation is that once the government does reduce the deficit — which is expected in the next budget — then you’re going to have a lot of fiscal room for significant initiatives.”

He identified three components to the budget:

1. Economic Development and Prospects
2. Supporting Jobs and Growth
3. Return to Budget Balance

These three aspects are linked by Canada’s significant performance, with the strongest job growth in the G7, coupled with a substantial GDP growth of 2.3%. The only concerning feature might be export markets, where low commodity prices could be caused by ongoing uncertainty afflicting other markets. Nevertheless, all of this positions the government for a balanced budget in 2015.

Watters found it striking that the Prime Minister made a rare pronouncement that he would like to see the debt-to-GDP ratio reach 25% within seven years, down substantially from its current rate of 32%. “It’s rather a remarkable commitment that he has made, and something that is quite achievable for Canada.”

Even so, restraint has not slackened, as further cuts in spending to federal services have yielded some $9 billion in saving.

As for the core of the budget — item 2, Supporting Jobs and Growth — Watters points to four sections:

1. connecting Canadians with jobs;
2. fostering jobs, innovation, and trade (an $800 million item, although more than half of that is the new Windsor-Detroit bridge);
3. resource development, infrastructure, and transportation;
4. supporting families and communities.

Despite the prominence of these items, however, Watters concluded that the overall amounts were simply too small in proportion to the entire budget (about one-twentieth of one per cent) for these investments to make much of a difference. That being said, he went on to consider the idea that if we are going to have some national debt, then at least we should ensure that it represents an investment that will benefit future generations through job creation and innovation. In contrast to Canada's 32% debt-to-GDP ratio, two other strong economies — Germany and the UK — have ratios of 78% and 89% respectively. "We do have a lot of fiscal capacity to consider new initiatives as we go forward to next budget and subsequent budgets after that."

More specifically, Watters noted that a large proportion of the "new" budget money represented a reallocation of funds. The actual amount of new money in 2014 is about $550 million, a figure that has been consistent over the last several years. This includes $46 million for the granting councils, but when this presumed increase is weighed against inflation, it points to increases on the order of about 1.4%, while inflation is expected to run between 1.7% and 2.4%, marking an actual decrease in support. "We need to acknowledge the fact that we're not giving the kinds of support that we have given to them in the past." Similarly, investments in TRIUMF, AECL, and the Automotive Innovation Fund is really just legacy funding.

Watters did single out three items that he regards as genuinely new: $40 million for mentorship of entrepreneurs, which is part of an accelerator and incubator program; $15 million to Waterloo's Institute of Quantum Computing; and $3M to the Canadian Digital Media Network to create an Open Data Institute, which will address the looming challenges associated with "big data".

"A very, very modest budget," he said, by way of summary. He then referred to two earlier statements made by the Prime Minister. The first was one from the World Economic Forum, a complaint that the return on investments in science and technology were much lower than was satisfactory. The second was similar in nature, a stated desire to obtain better commercial results for every precious dollar allocated to science and technology. "That orientation, as expressed by the Prime Minister, is evident in terms of the funding and financing that is made available."

Returning to the budget, Watters did a comparison of what the budget's $550 million represents in broader terms. Looking at a graph with R&D as a percentage of GDP on one axis and proportion of scientists and engineers in the population on the other, he located Canada in the middle of the pack of developed nations. At the same time, the relative location of that pack is changing as

a number of developing countries move aggressively to accelerate their R&D activities. As a lighter comparison, he noted that major league baseball player Miguel Cabrera recently signed a contract for $292 million, while Canada is hoping to get F-35 fighter jets at a price of $162 million apiece. Similarly, the country is hoping to purchase an icebreaker for $720 million, which is more than the entire amount the 2014 budget has set aside for innovation, but also about half of the cost of owning the Toronto Maple Leaf hockey franchise.

“The issue here is that $550 million may sound like a lot of money — it isn’t. And it’s certainly not when you begin to consider what Canada’s doing relative to other countries. We have to think in totally different terms.”

Looking more generally at a $550 million augmentation to the country’s $60 billion overall investment in R&D, within the larger context of a $4 trillion economy, Watters asked if this is enough. “Are you leveraging enough in terms of promoting research and innovation to be able to produce some significant results? My own personal view is that it isn’t nearly enough.”

He observed that while the government had announced the Global Market Action Plan some months earlier, there was no money put into it. This initiative does focus on SMEs, and wants to double the number of SMEs operating in emerging markets, but without money little will change. Likewise with the consumer agenda, which features new inroads in telecommunication policy. This agenda was mentioned in the Speech from the Throne, as was an international education strategy to attract students from abroad and an aerospace and defence initiative that would use government procurement to drive innovative enterprises. These and other measures have been announced, but none of them represents what Watters regarded as a bold new direction.

He also examined who is carrying out R&D work, noting that it is primarily the business community and universities, as opposed to any significant federal government cohort. These two sectors are the focus of the federal push to improve R&D output. Even so, he displayed a chart showing Canada’s R&D spending relative to GDP, which reveals a decline of about 16% over the past decade. “Most of our competitor countries are increasing the amounts that they’re spending on research and development,” he said.

Watters also acknowledged that innovation and its effects go well beyond the simple measures of R&D activity, and more recent OECD assessments attempt to take stock of more subtle elements such as processes and markets. Meanwhile, the government has still not framed a science and technology strategy.

Turning to the country’s private sector, he suggested that we are still trying to understand its size and structure. An Industry Canada report from September 2013 outlined a significant drop in the number of large corporations in the country, which puts additional emphasis on all other representatives of this sector, who therefore qualify as SMEs. While the average size of a large company is 1550 employees, the average SME has nine. In all, some 24,000 firms conduct R&D

work, the vast majority of them being SMEs; Watters insisted that we must appreciate the heightened risk that this work poses to these smaller enterprises, such as setting aside resources for development work and trying to break into foreign markets. “We don’t yet have an adequate risk-sharing mechanism for these kinds of companies, which we should be trying to strengthen.”

By way of conclusion, Watters observed that Budget 2012 focused on new markets, including various Free Trade Agreements undertakings, and Budget 2013 emphasized industrial sector strategies for aerospace and defence, the auto sector and clean technology, as well as venture capital development. In contrast, Budget 2014 appears to be treading water, which made Watters wonder where we are going. He compared us to being on a Sunday drive in a Model A while our competitors are operating on a Formula 1 track. Coupled with the fact that our GERD is 1.74%, while the OECD average is 2.37%, Watters asked if we would like to get into this race or not.

Taking GERD of 2.37% as a modest goal to attain in the next five years, Watters outlined what would be necessary to achieve it. Achieving this goal would amount to an increase of about $70 billion, about half of which would have to come from the private sector; in order to free up revenue on that scale, export sales would have to increase by around $1 trillion. “This would be a huge task, just to become average. A sustainable Canadian S&T strategy has to be an export strategy. We have to understand these global markets, we have to understand how to access them, we have to understand how to innovate for them.”

As daunting as this prospect may sound, Watters concluded that there is now a real opportunity to get some ideas on the table for integrating these goals into the next budget.

Ron Freedman began the questioning by adding to Watters’ comments about the preponderance of SMEs in the economy and how little we know about them. Freedman underscored the broad spectrum that is covered by this category: “We treat a company with 444 employees, in policy terms, the same way we do a company with four employees. And there’s a world of difference. In all of Canada there are about 7,800 medium-size companies. It’s unbelievable to me that nobody in the federal government knows how many of those companies are in innovation-based sectors. We’ve never run the numbers.”

Freedman also suggested that Canada’s science policy strength lies in an ability to craft a new paradigm every decade or so. “The problem as I see it is that we’ve run out of paradigms; we haven’t had a new one for about 20 years now.” If new money is to be put into this area, then, a new paradigm must accompany it.

Watters responded to this observation by asking what new institutions might have to accompany such a paradigm. “I find it interesting in Canada’s economic growth how governments over time have used crown corporations, such as Canadian National Railway, Air Canada, and Petro-Canada, for a period of time and then you phase them out as they begin to solidify a particular market,” he said. “What we have failed to do is build that kind of institutional framework in any

significant way to support these companies we want to support in the development of their technology and their business."

Doug Barber returned to Watters' argument that growth needs to be export-led, observing that while the number of companies doing R&D has grown steadily, the number of larger companies in a position to engage in exports has declined. Watters confirmed that there is no short-term fix for this trend, but that it can only be corrected with goals that are respected over several generations of government, targets that we can all be held accountable to.

Watters added that another unfortunate aspect of technology development in Canada is the tendency for Canadian entrepreneurs to scale up their operations only to the point of selling it to a larger interest outside the country, something that reflects a lack of support that might help these enterprises remain in Canada and build value as exporters.