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to the Chambre de commerce de Québec
Québec, Quebec
17 October 2002

The Search for Higher Productivity

Given the extent of uncertainty in the world today, we are all naturally preoccupied with near-term issues and prospects. That's understandable. But, at the same time, it's critical that we look past the short-term to the longer-term trends and potential of our economy.

That's why today I have chosen to talk about some of the issues surrounding productivity. Productivity is not something that only economists should care about. Every one of us has a stake in it. Here's why.

Why do we care about productivity?

Productivity plays a critical role when it comes to our national standard of living. Of course, it's not the *only* factor. But without a doubt, productivity growth is *the* main element that contributes to continued improvements in real incomes and our overall prosperity. Rising productivity is also what lets businesses pay higher wages and still keep costs down and remain profitable.

As you can see, there are very good reasons why all of us—as workers, consumers, business people, and managers—should have a better understanding of what generates productivity growth over time. And we should all search for ways to improve our performance on this front.

What drives productivity growth?

What are the factors that work to raise productivity over time?

Labour productivity—that is, the output of goods and services produced per worker—depends on the education and experience of the workers, the amount of capital equipment available to them, and certain other factors that, together, influence how “smartly” human and capital resources are used. Among these are technological innovation and changes in the organizational structures and management practices of enterprises.

Other broader factors that help shape the key determinants of productivity I just mentioned include: competition; openness to foreign trade and investment; public policies; and financial market development.

As you can well imagine, it’s exceedingly difficult to disentangle and measure the individual contributions of all these factors to productivity growth. In any case, my intention today is not to focus on numerical estimates of productivity. Rather, I want to talk about the key elements that determine productivity and about the things we need to do to increase productivity growth in Canada.

What will it take to raise productivity growth?

If we think back to what determines productivity, there would seem to be four ways to improve our performance: higher capital investment, the application of new technology, better business practices, and improvements in the quality of labour. But, in fact, all four are very much interrelated.

Let’s start with capital investment. Improvements to productivity can come through the increased use of machines or through the replacement of old with new machines (which, more often than not, incorporate high-tech features).

This brings me right to the second way of boosting productivity—through the adoption of new technology. A large part of the recent surge in U.S. productivity reflects efficiency gains from the production and use of information and communication technology (ICT). ICT typically includes computer hardware, computer software, and telecommunications equipment.

ICT is what we call a “general-purpose technology.” It can spread and spawn new products, processes, and applications that enhance productivity across a broad range of economic sectors—pretty much like the electric motor did in the late 1800s.

Experience shows that "general-purpose" technologies, like ICT, take time to spread. That's why through this decade and the next, there will still be opportunities to exploit the technologies that were developed in the 1980s and 1990s. So, the basis is there; and there are probably more productivity gains in the pipeline.

But even though new technologies take time to spread, the pace at which they do so is important. That pace depends on how quickly we are out of the blocks innovating, and on what we do after to use those advanced technologies to advantage and to facilitate their diffusion.

I don't have to tell you that this is a clear case of "you snooze you lose." The prime opportunities go to those firms and those economies that are quick to take advantage of the new realities.

Through the first half of the 1990s, Canada lagged the United States in making the investments that are necessary to benefit from the new technologies. But since 1996, there has been a marked increase in such investments in Canada. We are now beginning to see the first signs of a productivity payoff, and our analysis suggests that there will be more efficiency gains from past investments.

Redesigning organizational structures, upgrading skills, managing knowledge

The third key factor that can raise productivity growth is better business practices—better management.

To realize the full potential of new technology, we have to pay a lot more attention to how we integrate it into our business practices, and how we organize ourselves to do business. Experience shows that spending money on state-of-the-art technology will not guarantee sustained large productivity gains unless managers and workers know how to use the new applications to advantage.

It has always proven difficult for managers to think how to change their business practices and organizational structures to fully exploit the advantages of advanced technologies. Today, all of us—in enterprise, in government, or at the Bank of Canada—have a lot to do to adapt our businesses and institutions to get maximum value from our technology investments, and to encourage knowledge sharing among our employees. Knowledge management is of the essence.

The fourth way to increase productivity growth is by upgrading labour skills. This does not just mean more schooling. It means continuous, on-the-job training to have the skills necessary to reap maximum benefits from new capital investment, and to turn those investments into profits. This, by the way, applies to all employees—not just post-graduates—and to all industries—not just high-tech. We can no longer neglect training for middle managers and other workers. And neither can we neglect training for construction and industrial trades.

Let me also note that technology increases the potential for providing employees with the information necessary to resolve job-related problems, right at their workstations. Banks and insurance companies have taken advantage of this new type of training, and more of us should, too.

The role of public policies

But recognizing these four productivity enhancers—increased investment, adoption of new technology, better management, and improved labour skills—is one thing. Finding the *right* public policy framework that will allow and promote adjustment, and sustain a nation of innovators, is quite another. Yet, it's extraordinarily important that we do so.

What challenges do we face as we look ahead?

The first challenge is to preserve the sound macroeconomic policy framework that we have worked so hard to achieve. Over the past decade, two key initiatives have resulted in low, stable, and predictable inflation and a significant reduction in public debt. I would like to note that the federal government continues to reduce the public debt relative to the size of our economy (debt-to-GDP ratio); and that, for the first time since 1985 this ratio has fallen below 50 per cent. Federal government program spending has also been declining, and it's now less than 12 per cent of GDP.

A low-inflation policy, together with healthy public finances and a declining public debt-to-GDP ratio, is keeping interest rates at levels that are favourable to financing innovation initiatives.

Low inflation encourages business to operate more efficiently and provides the basis for well-informed, long-term decisions, including decisions to invest in new high-tech machinery, equipment, and software. Inflation control also encourages cost control by businesses. And cost reduction is the flip side of productivity improvement.

A monetary policy focused on low inflation and a flexible exchange rate helps the economy to achieve its full potential. In the context of what I've discussed today, this is extremely important because unemployment and excess capacity in the economy are not conducive to investment and innovation.

But even though a sound macroeconomic policy framework is essential, it cannot, by itself, guarantee higher productivity. For that to happen, a number of other conditions must be met. That's where we all face more challenges.

One of those challenges is to avoid propping up outmoded methods of production. If we don't exit the low-productivity activities, we will be limiting the potential overall productivity gains. So our biggest challenge is to facilitate transformation towards more productive economic activities. For an example of that, look no further than the Beauce, where there has been some remarkable economic transformation in recent years. I remember what this region was like in the early 1960s, when its economy depended heavily on traditional industries, such as weaving and spinning mills. Since then, those operations have been replaced by small- and medium-sized innovative, dynamic enterprises.

Another challenge relates to competition. Competition and the openness of an economy are important drivers of productivity growth. Large companies in Canada have certainly learned how to exploit the benefits of openness and competition. They are out there on world markets and they have to survive. So they are taking steps to become more productive. But many of our smaller firms have not yet ventured into global markets. From a public policy perspective, the issue is to encourage those firms to see that it is in their role as entrepreneurs, and in their best interests, to be more outward looking, and to undertake initiatives to increase productivity and reduce costs.

Yet another challenge has to do with channelling savings into investments and allocating capital efficiently. Here, I cannot stress enough the need for a sound, innovative, and vibrant financial sector. This is particularly important at a time when we want companies that plan to adopt new technologies to have adequate access to innovative financing. This means that the financial industry has to evolve from what it was at the end of the 20th century to what it should be at the beginning of the 21st, but without compromising the soundness and stability of our financial system.

Concluding thoughts

Let me conclude. Right now, we are all too focused on our day-to-day concerns with the global uncertainty. What, I hope, I have done today is to encourage us to look past the short term and to remember that, over the long haul, the key to growing incomes and rising standards of living is higher productivity.

In this context, I have discussed some of the challenges we face, and the steps we can take, in our search for higher productivity.

The Bank of Canada will continue to do its part by fostering a climate of low, stable, and predictable inflation conducive to initiatives in innovation, risk-taking, and investment. But all of us have a role to play in raising productivity and enhancing our prosperity.