

Canadian Competitiveness: Remarks

by

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John Deutsch Institute Conference, Queen' University on

Budget 2000

June 23, 2006

*Preliminary. Comments welcome

Introduction

As most of you are aware the news on productivity growth in Canada has not been good. Despite a good number in the latter part of 2005 and first quarter this year the overall picture since 2000 has been decelerating productivity growth (in total business sector) relative to the late 90's while the United States has continued to enjoy quite remarkable rates of labour productivity growth. See chart 1 which was put together in a recent paper by Andrew Sharpe. I want to do two things today. First discuss what I take to be Canada's major challenges with regard to competitiveness. Then to discuss in somewhat more depth what I think may be going on with regard to Canadian productivity growth. And finally to discuss some specifics in the 2006 Budget.

Canada is currently facing three major challenges regarding its international competitiveness. These are:

- A) a permanent(?) increase in real commodity prices, particularly energy
- B) a potential shift in US economic growth and trade patterns over a medium term horizon
- C) A shift in the structure of the distribution and generations of global technological change

Competitiveness in its broadest sense is about productivity, cost levels and the utilization of resources. I am going to focus mostly on the productivity issue, but we should remember that issues such as increasing labour supply could equally be viewed as an issue of international competitiveness.

Dutch Disease

Is Canada suffering from Dutch Disease? Quite possibly. The significant appreciation in the Canadian dollar which has coincided with the commodity boom is strongly suggestive of a classic Dutch disease attacking a small open resource exporter. The poor productivity performance since 2000 during a commodity boom is certainly suggestive of classic Dutch Disease syndrome. The significant Canadian wrinkle on the Dutch Disease of course is that a very large part of the export sector is not a resource exporter, sells cost sensitive manufactured goods in one market (the US) and is heavily concentrated in central Canada. To the extent current exchange rate and the commodity price levels are permanent the structural shift required of the economy both on a sectoral and regional basis is significant. At times like these the overall flexibility of labour market (or not) is an important driver of overall competitiveness. Thus far the Canadian unemployment rate has been low and job creation impressive. Moreover the manufacturing sector in central Canada has adjusted thus far remarkably well to the higher exchange rate vis-à-vis the US dollar. While we have relatively few studies dealing with the issue in detail it appears that productivity increases together with scrapping of inefficient capacity has managed to keep this sector above water. The strong growth in the major export market has been a great plus thus far. Looking forward however there are bound to be some problems. It may well be that a permanent downsizing in relative terms of the central manufacturing sector is in the cards. This will mean further contraction of those sectors which are not cost competitive and cannot upgrade sufficiently to remain internationally

competitive. In these circumstances there may have to be some significant sectoral reallocation of resources. Overall this will probably require further skill and equipment upgrading.

Problems in western Canada are somewhat different. There Dutch disease is manifesting itself in the conventional ways. A booming real estate market, conspicuous consumption, and public sector spending sprees are all evident. Managing the resource boom is largely a provincial matter, but the federal government has some levers. Encouraging higher saving rates, both public and private, and sensible infrastructure development should be high on the list. The energy boom in particular raises some significant opportunities for Canada. But overall the strategy seems to be to let the provinces deal with it. Given the limits placed on equalization economic adjustment has to be accommodated to a large degree through interprovincial mobility of the labour force and internal free trade. Both of these are federal responsibilities. This budget by and large makes little headway on these issues. The short run labour shortage in the West is a problem cited by many businesses and some special measures to facilitate interprovincial labour mobility might be useful at this juncture. Dale Orr has written a very interesting piece just recently on the labour mobility issue which I recommend you read.

Shifts in patterns of US Economic Growth and Trade

The US economy is almost certainly headed for some significant changes. The long boom accompanied by rapid growth in household and government debt, a growing current account deficit, and a financial imbalance between Asia and United States has create and intense debate on how the current situation will resolve itself. The soft landing scenario is one in which US consumption falls, US production rises, the US dollar depreciates, the trade deficit is eliminated and interest rates stay low allowing debt levels to come down gradually. The hard landing scenario is one in which the 'imbalances' are resolved by a US and global recession recession with unpredictable effects for asset markets. What is predictable is that US consumption and output would fall significantly. In either scenario the fallout for Canada is significant. In the soft case Canada would have to adjust a much lower US dollar and reduced demand in sectors such as autos and housing. On the plus side Canadian firms producing intermediate inputs could do well as North American manufacturing as a whole expands. There is little that is good that can be said about a hard landing scenario. A prolonged global recession would put on hold any possible recovery in Canadian productivity. Moreover it could put at risk substantial chunks of Canadian manufacturing if US protectionism were to get seriously out of control. In the latter case Canada might find no alternative but to seek export markets other than the US, most likely in Asia were growth rates are unlikely to stay low for long. This is hopefully a low probability scenario.

The more probable scenario therefore is simply a shift in US consumption and production patterns with a much lower US dollar. The US would most likely shift towards greater production of capital good and service exports, those areas in which it already has a comparative advantage. How would Canada likely adjust in this case? In order to retain competitiveness Canadian unit labour costs would have to remain at levels consistent with a North American perspective. Given a lack of labour mobility across the

Canada-US border it would be important that both wages and other costs (taxes for example) adjust to take up the difference a higher real Canadian dollar would require. At the same time the case for export diversification is obvious. Developing a trade strategy focused on markets in Asia and Latin America would be important for Canadian firms not closely tied to the US market. This could require a major re-orientation for Canadian business which has spent the last two decades adjusting to a North American based business model.

One could argue that the shift in US growth patterns may only be cyclical. I tend to disagree. I think it could very well be a relatively long term shift not unlike what happened to Japan after their boom ended in 1990. It could take a decade or more for US savings to rebuild, for debt levels to return to normal and to restore fiscal balance. The consequences for Canada would be that the trends discussed above will drive productivity policy and Canada-US economic relations well beyond the length of a typical economic cycle.

A New Productivity Growth Paradigm?

Beginning sometimes in the 1990's the productivity growth process in the US took a distinctly different path than that observed historically. This pattern is characterized by a number of important traits. These are

- Globally high rates of productivity growth have been concentrated in the United States, certain small open industrial economies and the BRIC's
- An acceleration in globalization as measured by increased financial market integration, FDI flows and international trade
- The US growth process has been characterized by strong average GDP per capita growth but virtually no change in median real wages for almost a decade; at the same time the very top end of the income distribution in the US has captured almost all the aggregate productivity gains over the last decade
- Smaller open economies such as Canada have not noticed the same productivity trends as the US although there has been a very recent pickup

What is odd about this particular period of US growth is the fact that the productivity gains have not been widely shared. The lack of across the board real wage gains has attracted a lot of attention by those interested in inequality. It is also however an important piece of what is going on with productivity. My thesis is that the mechanisms by which productivity gains are translated into changes in real incomes has been fundamentally altered by a combination of factors and furthermore that these mechanisms are important in drawing inferences about Canadian productivity performance relative to that of the United States.

Let me elaborate. Looking at the US I think there are four factors behind the asymmetric concentration of gains from economic growth at the top end of the income distribution.

- A) the increasing contestability of labour markets on a global scale
- B) the global savings glut
- C) stronger mechanism for protection of intellectual property by incumbent firms

D) globalization and the ITC revolution has increased market size leading to larger firm sizes and increased ability of technological winners in protecting innovation rents from competition.

In the past periods of strong growth have always been associated with real wage gains pretty much across the board. This was true in the 1920's and the post WWII boom of the 50's and 60's. Productivity gains emanating from new innovations quickly found their way into the economy at large via a relatively rapid diffusion process. We would describe this as a 'spillover process' which quickly raised returns to both capital and labour. Increased growth leads to increased demands for labour which drives up wages. At the same time via standard investment effects the return on capital lead to increased capital per worker which further increase real wage gains. What has happened in the US is that this process has been short circuited in a number of ways. The initial growth created innovation is not driving up the bulk of the wage distribution in part due to the contestability of labour markets. Global competition from the BRIC's is keeping wage growth low in both manufacturing and services. At the same time entrepreneurs and innovators are not having to compete for financial capital because of a growth in global savings in the developing world which has found its way largely into industrial country capital markets—the 'global savings glut'. With lack of competitive pressures on wages and interest rates the Schumpeterian winners are keeping a larger share of the monopoly innovation rents. Schumpeter of course argued these rents were temporary but in the current boom the forces mentioned have kept these rents from being dissipated at the same pace. At the same time ICT technology and globalization, and the attendant role of network externalities has increased the power of the winners in these innovation races leading to further persistence in the maintenance of these innovation rents. Countries such as the US which had a large share of the early ICT entrants continues to enjoy substantial innovation rents which still not being competed away. Part of this process is the increased role of the 'superstar' in labour market. Compensation for stars has risen dramatically in markets where network effects give rise to large market size effects for successful individuals—be they rock stars or bioscientists.

One way to think about this process is that in the presence of globalization the national economy can be divided into the innovation sector and the goods and services sector. Both of these sectors are global in terms of with whom they interact but the goods and services sectors are globally contestable—that is the returns in those sectors are driven by international competition and global supply and demand. The innovation sector on the other hand is substantially more isolated from global contestability for reasons alluded to above.

Why does this matter for Canada? Historically Canada's TFP growth owes a great deal to global technology spillovers—some studies such as Keller's put the estimate that roughly 80% of the TFP growth in the period 1960-1990 came in the form of international spillovers--largely from the US. Canada therefore is just like the average worker in the US---global technological change benefits Canada the same way it benefits the average US worker--through spillovers which increase wages driven by increased demand for labour—the latter come either directly from the productivity gains or

indirectly due to increases in real income as a result of productivity induced price deflation. To put it another way the Canada-US productivity gap is a mirror image of the growing gap between median and average real incomes in the United States. Productivity gains which would have fallen on Canadian industry in the past are instead being captured by US innovators. Disentangling the relative quantitative importance of the four factors is research yet to be done. But I would hazard a guess that global contestability of labour markets and the global savings glut are probably at least as important as the other 'structural' characteristics of the New Economy boom or in Dick Lipsey's language-- the dominant global General Purpose Technology . In the last technological wave (post WWII boom associated with factory automation) Canada captured those gains in sectors such as Automobiles simply by adopting US style manufacturing methods; the technology (both physical and organizational) was readily available and labour captured the bulk of those productivity gains. In the current boom this is not happening for the same reasons labour is not benefiting in the US. Global competition is keeping wage and cost of capital pressures at bay; firms within technologically advanced sectors are capturing a larger share of the total gains from innovation; the innovators and managerial classes themselves as well as certain entrepreneurial arbitragers such as venture capital firms also benefit. This process can be seen at work in some select small economies. For example Finland managed to be an early innovator in the telcom sector and retains a lead in that area today.

Ten years when writing on this issue I argued that Canada's low share in the major high tech sectors should not prove a barrier to subsequent economic growth in the Canada. I now think that view was wrong. I underestimated the extent to which the gains to technological change were going to be captured in the form of sector specific innovation rents—somewhat ironic since I argued in my MacDonald Commission study that these type of rents were likely to grow in relative importance overtime. However what's done is done. The current ICT revolution is now entering a mature phase and late entrants therefore must ultimately wait for the broader diffusion of these gains.

So to sum it up my hypothesis is that some part (as yet unquantified) of Canada's competitiveness disadvantage stems largely from an increase in the relative power of the innovator and a reduction in the 'spillover' coefficient with in the overall process of global technological change. Given the large role of the importation of technology this shift has had a relatively larger effect on Canada than is the case in the US, where the effect has been a shift in the distribution of the gains from technological change. Canada's competitiveness therefore can be improved by some factors more than others. This can be done in a couple of ways. First, given that innovation inputs (including here entrepreneurial activity) are earning a larger share of global income policy must focus on improving the national supply of those type of inputs at the expense of the general supply of capital and skilled labour. Second, as a nation we need to improve the pace of technological technology importer we need to focus on increasing the pace at which new technology is adopted and (more controversial) to improve when possible the substitution of domestically produced technology for technology the price of which embodies substantial innovation rents.

Unfortunately if I am correct the tradeoff between growth and inequality may have taken a turn for the worse both at level of the individual and across national economies. This will mean that the political debate over economic growth policy versus social policy is likely to remain contentious.

Productivity and the 2006 Budget

How does all this fit into the 2006 budget? The measures of the 2006 budget focused on productivity were relatively minor, but generally in the right direction. I think the issues raised above are really yet to be addressed, although discussions over issues like equalization must be seen in the contest of these forces.

The traditional competitiveness policy list includes enhancing human capital, improving investment through tax competitiveness (either personal, corporate or capital cost allowances), encouraging domestic R&D and subsequent commercialization, and an outward looking trade policy –either multilateral or bilateral. The 2006 budget takes some steps in these directions. The following is my list of where the budget might have some productivity effects –good and bad. My comments are in italics.

Tax

1. GST reduced by 1 percentage point-

A moderate to nil productivity effect. It overall it would have been better so spend the money on reductions in the corporate tax rate from a straight competitiveness view.

2. Reducing the general corporate income tax rate to 19 percent from 21 per cent by 2010.

3. Eliminating the corporate surtax for all corporations as of January 1, 2008.

4. Eliminating the federal capital tax as of January 1, 2006, two years ahead of schedule.

5. Budget 2006 proposes to eliminate the double taxation of dividends from large Tax measures 1 through 5 all would be regarded as s plus for productivity by encouraging investment. Attracting FDI, and increasing savings. Finance argues that the effect of the measures is to reduce the METR on capital to slightly below US by 2010]

6. Introduction of the Canada Employment Credit—a new tax credit on employment income of up to \$500 effective July 1, 2006, to recognize employees' work expenses for things such as home computers, uniforms and supplies, and doubling the amount of eligible employment income to \$1,000 effective January 1, 2007, and beyond.

This is a useful measure in terms of encouraging labour supply.

Small Business

7. Increase the amount of small business income eligible for the 12-per-cent tax rate to \$400,000 from \$300,000 as of January 1, 2007.

8. Reduce the 12-per-cent tax rate applying to qualifying small business income to 11.5 per cent in 2008 and 11 per cent in 2009.

Overall increasing favor tax treatment of small business is not likely to enhance productivity growth. We now have a pretty substantial body of evidence which suggests

Canada's size distribution of firms is too heavily skewed towards the smaller firms. We need to grow small firms into medium size firms. These measures will not help in this regards.

Education and Skills

9. A new tax credit of up to \$2,000 for employers who hire apprentices.
10. A new \$1,000 grant for first- and second-year apprentices.
11. A new \$500 tax deduction for trade's people for costs in excess of \$1,000 for tools they must acquire as a condition of employment. Also, the \$200 limit on the cost of tools eligible for the 100-per-cent capital cost allowance will be increased to \$500.

These are useful policy changes. It is quite evident there are shortages in some of the trades and underinvestment in these types of skills needs to be rectified. I think even more aggressive measures in the direction taken here would be warranted in the future.

12. A new tax credit for the cost of textbooks, which will provide a tax reduction of about \$80 per year for a typical full-time post-secondary student.
13. The elimination of the current \$3,000 limit on the amount of scholarship, bursary and fellowship income a postsecondary student can receive without paying federal income tax.
14. Confirming up to \$1 billion to provinces and territories to support urgent investments in post-secondary education infrastructure.
15. Expanded eligibility for Canada Student Loans through a reduction in the expected parental contribution, starting in August 2007.

Again a modest plus in the direction of improving the supply of post-secondary graduates.

Research and Development

16. Additional federal support for R&D --an additional \$100 million per year as follows:
 - \$40 million per year for the Indirect Costs of Research program.
 - \$20 million per year for the Leaders Opportunity Fund of the Canada Foundation for Innovation.
 - \$17 million per year for the Canadian Institutes of Health Research.
 - \$17 million per year for the Natural Sciences and Engineering Research Council of Canada.
 - \$6 million per year for the Social Sciences and Humanities Research Council of Canada.

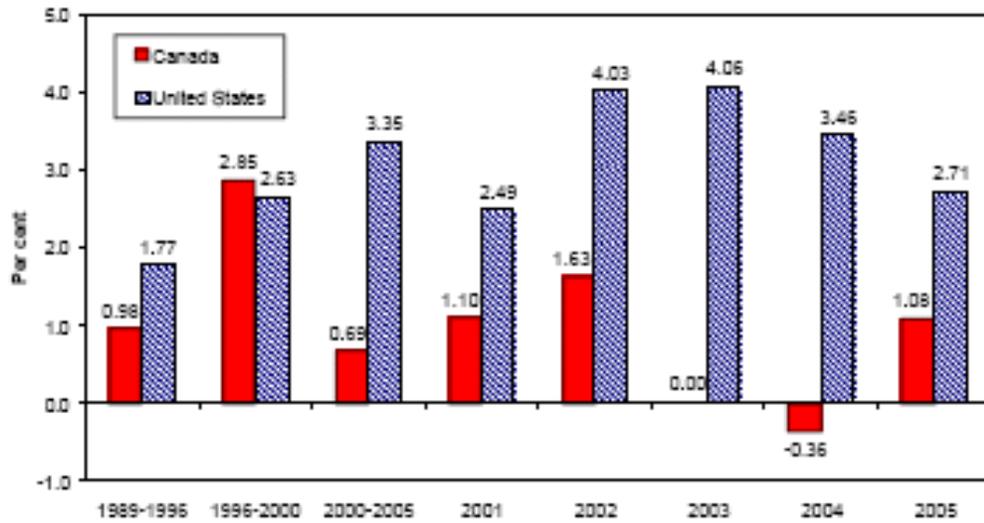
Academics are undoubtedly in favor of these measures. However to be honest we have little hard evidence linking public spending on basic R&D and national productivity growth. Researchers keep looking for this link but have yet to find it. We can only keep hoping.

Bibliography

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Chart 1: Business Sector Output per Hour Growth in Canada and the United States (average annual and annual rates of change, per cent)



Sources: Statistics Canada and US Bureau of Labor Statistics.