

# Confessions of a Serial Productivity Researcher

Don Drummond<sup>1</sup>  
*Queen's University*

## ABSTRACT

With an ageing population and declining labour force growth productivity is becoming increasingly important as a source of economic growth. Despite this importance, governments fear the productivity word because of public misunderstanding of its meaning. For many years the author believed that Canada's weak productivity performance reflected inappropriate public policy. Despite most of the public policy agenda that was put forward to improve productivity being implemented, productivity growth in this country since 2000 has actually deteriorated. This suggests that the private sector bears more responsibility for Canada's productivity malaise than previous thought. A research agenda with a focus on firm behaviour from a micro approach is needed to obtain a deeper understanding of Canada's terrible productivity record and to develop actions to boost productivity growth.

## RÉSUMÉ

Comme la population vieillit et la croissance de la population ralentit, la productivité prend une importance grandissante en tant que source de croissance économique. Malgré son importance, les gouvernements ont peur d'utiliser le terme " productivité ", car le public comprend mal son sens. Pendant de nombreuses années, l'auteur a cru que le faible rendement du Canada en matière de productivité était le résultat de politiques publiques inadéquates. Malgré la mise en œuvre de la majorité du programme de politique publique proposé pour améliorer la productivité, dans les faits, la croissance de la productivité au pays s'est détériorée depuis 2000. Cette situation suggère que le secteur privé serait plus responsable du ralentissement de la productivité au Canada que l'on a cru dans le passé. Il faudrait mettre en place un programme de recherche visant les comportements des entreprises selon une approche microéconomique pour arriver à une meilleure compréhension du bilan désastreux du Canada en matière de productivité et prendre des mesures pour stimuler la croissance de la productivité.

I APPEAR BEFORE YOU TODAY to confess my failure. As time is limited I will restrict myself to one failure, that being everything I have ever done on productivity. At a minimum I am hoping the confession will bring some sort of

cleansing. More optimistically, I look to it as part of a redemption process. I do not know what is in it for you, the reader. But I do not want you to leave because the rousing finish features a desperate plea for your help. It is

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1 The author is Matthews Fellow in Global Public Policy in the School of Policy Studies at Queen's University. From 2000 to 2010 he was Senior Vice-President and Chief Economist at the TD Bank. From 1978 to 2000 he worked at Finance Canada rising to the position of Associate Deputy Minister. This article is a revised version of an invited lecture given at the annual meeting of the Canadian Economics Association at the University of Ottawa, June 4, 2011. Email: don.drummnd@queensu.ca.

only with such help from my friends that there is any chance of redemption.

Perhaps it is fitting to look at my failure on productivity in terms of my productivity. The input includes decades of research and many years when I had the opportunity to shape and implement public policy that might affect productivity. In brief, the input is considerable although as part of my feeble defense I note productivity was not the singular topic I pursued.

### Canada's Recent Productivity Record is Terrible

No matter the perspective, the output side is pathetic. Output per hour worked in the business sector only grew 0.7 per cent per annum in Canada over the past decade (Chart 1). As there was some capital deepening, multi-factor productivity did not grow at all. Not only is this record inferior from the Canadian historical perspective, but it is one of the slowest paces of productivity growth internationally. Despite all its ailments, the U.S. economy churned out a

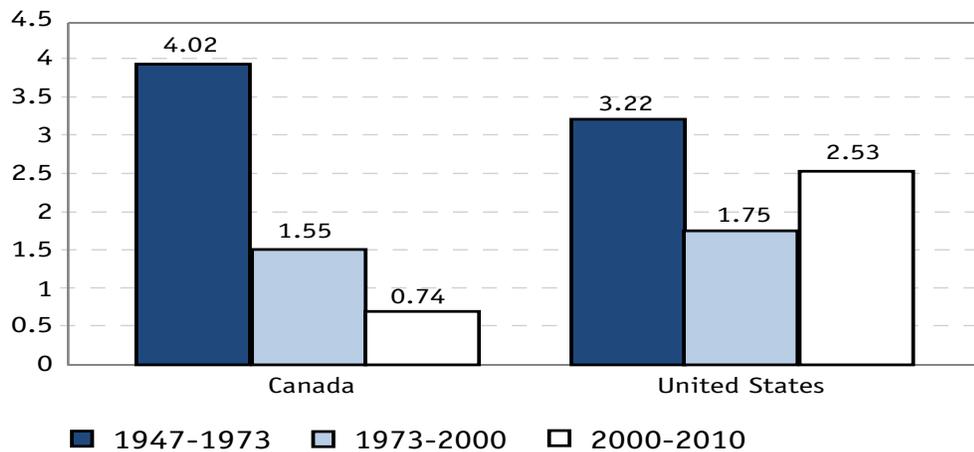
productivity growth rate about triple the Canadian pace. The level of output per hour in the total business sector and in manufacturing in Canada is now only about 70 per cent the U.S. level (Chart 2). The situation is a little better than that if one makes the data strictly comparable, as John Baldwin of Statistics Canada painstakingly and periodically does.

In the 1950s and 1960s Canada had the third highest level of productivity among the original 24 OECD countries. Now it stands 17th. Since 1980 only three of the OECD countries have had a worse productivity growth rate than Canada.

### The Public and Hence Governments will not Talk about Productivity

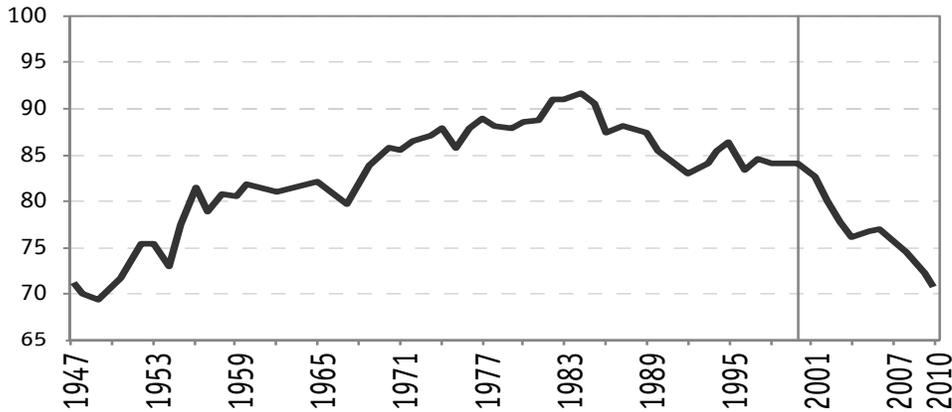
Things are even worse in terms of generating interest in and understanding of productivity among Canadians. Polls and focus groups tend to find that many Canadians think productivity means working harder for less pay. In other

**Chart 1**  
**Real Output per Hour Growth, Business Sector,**  
**Canada and the United States, 1947-2010**  
(average annual growth rates)



Source: GDP in chained dollars and total hours worked from the Productivity and Costs Program of the Bureau of Labor Statistics for the United States, and annual averages of quarterly estimates from the Productivity Program Database of Statistics Canada for Canada.

**Chart 2**  
**Relative Labour Productivity Levels (GDP per hour)**  
**in the Business Sector in Canada, 1947-2010**  
 (Canada as a per cent of the United States, US=100)



Source: CSLS Canada-US Productivity Database

words, exactly the opposite of an economist's definition.

Understandably, Canadian governments react to the public's misunderstanding, even fear of productivity by borrowing a concept from Harry Potter. Just as Lord Voldemort must be referred to as "He-Who-Must-Not-Be-Named" or the "Dark Lord" so must productivity be globally replaced by "innovation" or "competitiveness". In this public environment, government cannot bring itself to mount any sort of campaign with profile to address what is surely a brewing crisis.

My failure includes the capacity to provide sound advice to governments. Indeed, if asked today what policy changes should be implemented to promote productivity growth I would need to say I do not know. Certainly I can recommend tackling the remaining elements of the agenda I have had for a long time. But governments have already done about 70 per cent of that agenda and meanwhile productivity growth slowed. Why should one think implementing the remaining 30 per cent will have very different effects?

### **Despite General Disinterest, Much is at Stake with Productivity**

Much is at stake in this productivity failure. After all, growth in an economy is determined by labour force and productivity. By the end of this decade, Canada's labour force will likely only be growing about 0.3 per cent per annum. If the 0.7 per cent recent productivity growth pace does not improve, then Canada will experience 1 per cent real growth. Add in 2 per cent inflation, and the overall nominal economic pie would only be expanding 3 per cent per year. That will not permit much increase in wages or corporate income. With unchanged tax rates it would mean a similar 3 per cent growth in government revenues, federally and provincially. Try stuffing the recent 6 per cent growth in health care spending into that envelope.

Some have thrown me a lifeline for the defense by suggesting that productivity is not such a great thing. For example, the spoils of productivity are argued to have disproportionately gone to the corporate sector recently. Pro-

ductivity, it is argued, does not equate well with self-perceptions of happiness. I would love to grab these lines, but I do not buy it. To be sure, productivity growth does not ensure higher wages or greater happiness. But try achieving either or both without productivity growth. Productivity growth at least provides hope and choices to a society. How society use its spoils is another matter.

So a victim's impact statement for my productivity crimes would be harsh. In the hope of receiving a light sentence I hasten to try to explain where I went so wrong.

### **The Conventional View was Public Policy was the Culprit**

When I began my journey on productivity I accepted a simple premise. Much of the blame lay at government's doorstep through inappropriate public policies. That government universe included all three levels. The premise was not all that odd. There was much to dislike in public policy in the 1980s and early 1990s. Canada had high and variable inflation. Large and growing public debt. Trade restrictions externally and internally. One of the highest rates of taxation on capital in the world. The list goes on. There was so much wrong with policy that it seemed natural to assume that correcting it would strengthen productivity. I will note at this point I was far from alone in this premise.

Urged on by many others, governments at all levels started to improve the policy setting. We had the Free Trade Agreement (FTA) and then the North American Free Trade Agreement (NAFTA). The inflation targeting regime came into play in 1991. The archaic federal sales tax was replaced with the GST in 1991 and some provinces have come on board since.

Governments arrested the rise in public debt in the 1990s. They reduced inter-provincial trade barriers. They started a quiet revolution

on capital taxation in 2000. Consider that in Ontario the combined federal-provincial corporate income tax rate, including surtax, was almost 45 per cent in 1999. It is headed to 25 per cent. Both jurisdictions scrapped their capital taxes. Depreciation allowances have generally been brought into line with economic life. The 2000 federal budget that started this process was the last I worked on. Had you told me at the time where this revolution would have gone, I would have called you insane. But it happened. And productivity growth weakened.

### **Even by 2006 the Focus was Still on Policy**

I was blind to my failure for quite some time. On September 18, 2006 I published a productivity piece entitled "The Economists' Manifesto for Curing Ailing Canadian Productivity" that I was quite tickled with at the time (Drummond, 2006). The article was an attempt to determine areas of broad agreement among economists for driving up productivity growth. It began as a bit of a lark as I was growing tired of the joke that economists cannot agree on anything. It became more exciting when I realized how much agreement there was on this subject. Differences of opinion were essentially over the relative weights on the various items.

The article pulled together the usual suspects for raising productivity:

- Low, stable inflation;
- Lower public debt-to-GDP ratios;
- Free trade externally and internally;
- Promotion of competition including removal of foreign ownership restrictions;
- Removal of barriers to firm growth, including the jump in taxation from small to large businesses;
- Removal of work disincentives including those embedded in Employment Insurance;
- Reduction in regulatory burden;

- Lower taxation of capital;
- Lower marginal personal income tax rates, especially for very low and modest-income Canadians (although it was noted this might raise labour force participation rather than productivity);
- A shift away from taxing income and capital toward consumption;
- Improvement in the selection and integration of immigrants;
- Increased investment in public infrastructure, especially transportation and electricity;
- Re-investment in education; and
- Attention to the non-PSE steam as well, including literacy, apprenticeships and training

To that point the focus was entirely on public policy and even within the policy sphere, almost exclusively macro-policy.

The “Manifesto” only had one paragraph on private sector behaviour. And even that merely reflected a debate among economists on the degree to which government should subsidize or penalize certain behaviour.

### **A Light Goes on in 2010**

By 2010 it struck me that governments had acted on about 70 per cent of this agenda. And productivity growth had not increased. In fact it had weakened. Of course one could argue it would have declined even more without the policy improvements. But it does not strike me that this defense would generate much sympathy in a jury.

So one must ask the question. If implementing 70 per cent of the original agenda did not bring on stronger productivity growth, can one be confident doing the remaining 30 per cent will do the trick? Or one can ask whether the lags are simply very long. Perhaps the previous bad policy setting so affected the business climate that it

will take years to see the full repercussions of policy change.

Either way, one cannot and should not feel confident that the trick to strengthening productivity growth lies in completing this policy agenda. That does not mean the agenda should not be completed. It does mean that other things have to be looked at. When one is going down a road for a long time and finally realizes it is a dead end, one might as well back up and see if there is another route to getting somewhere.

### **Business Behavior Must be Scoped for Answers**

That other route has to be private sector business behaviour. Why has not the Canadian business sector been more competitive, more entrepreneurial, more productive? One must look into this residual in the production function and try to determine what is going on.

For me a strong clue to look more carefully at firm behaviour came from the 2003-2007 experience when record retained earnings and a sharply appreciating Canadian dollar only produced modest real increases in Canadian investment in machinery and equipment and almost no change in nominal values. Why did corporations just sit on their profits over this period? Did they not realize that this was a golden opportunity to ramp up their productivity to better withstand global competition? Why instead, did they leave so much of their earnings in corporate bank deposits?

The corporate tax revolution had not reached its peak then, but surely taxation was not a strong obstacle. The only explanation I have ever heard from business is that they expected the appreciation to be temporary and when they finally realized it was not, their bottom line started to be hit by the recession.

Increasingly the questions I have on productivity are not macro in nature, but are routed in

private business behaviour. Why does only 4 per cent of Canadian SME revenue come from exports to the emerging economies? Why do we have a much higher concentration of small firms than the United States? Why did not firm size grow in response to NAFTA, as had been predicted? Why did so many of the firms I dealt with while at TD Bank try so desperately to remain below the small business income threshold? I could go on.

### **Productivity Research Needs to Shift to Micro-perspectives**

The point is that the productivity research effort must shift. It must go more micro than macro. But the micro analyses must be aggregated in a fashion to explain the overall national trends.

New data must be exploited. Fortunately there are promising developments on that front. Statistics Canada has long had valuable business micro data but due to resource and confidentiality restraints the data have been principally available only to internal researchers. I understand Statistics Canada has received funding to address confidentiality issues, provide documentation, and ultimately make the data available to a broader pool of researchers. We also now have Industry Canada's Survey of Innovation and Business Strategies. The Bank of Canada's business survey might also yield insights.

The pool of researchers needs to be expanded. Reformed macro-economists are welcome. But interesting answers seem more likely to come from micro-economists and researchers in labour markets, industrial organization and business management.

The domain of researchers must also go beyond government and academia. Let me use Canada's under-investment in information and communications technology (ICT) as an example. Canada has less than one-half the stock of ICT per hour worked that the United States has.

Those in the industry say the actual situation is even worse because Canadian firms tend to use the same equipment less productively than their American counterparts.

Why do Canadian and U.S. firms deal with ICT so differently? Surely companies in the sector like IBM and Microsoft should have interesting answers? So should Canadian management consulting firms, on this and a host of other questions. Such companies regularly do benchmarking tests of Canadian firm behaviour against that in the United States and elsewhere. What do these studies reveal about Canadian productivity? Companies such as banks with large corporate client bases should be able to shed some light on why Canadian firms seem reluctant to grow.

International economic organizations must join the research effort as well. Canada should be the poster child for the OECD and IMF because we adopted most elements of their paradigm. They preached that stable macroeconomic policy and sound structural policy would generate productivity-based growth. It has not in Canada's case. We are making these organizations look bad. Why would other countries follow their advice when it has not worked well in the case of Canada. We put on the recommended make-up but have not turned out to be so pretty. The situation is even worse for New Zealand, the original hope as poster child. These organizations could kick Canada out for contaminating their data, or they could help us figure out what has gone wrong.

### **Not so Easy to Separate Policy and Business Culture**

Future research must not abandon the policy perspective. It will prove impossible to completely separate policy and business culture. Perhaps the whole productivity malaise should be blamed on Sir John A. MacDonald. His economic union created walls of protection for

Canadian industry that left them little incentive to be productive. We still have large sectors protected from competition.

Consider the example of the small business corporate tax regime to illustrate the link between culture and policy. And the sheer number of questions for which there are not clear answers. Firm size has to be a key issue in a new productivity research agenda. Certainly relative to the United States, Canada has a heavy concentration of small companies. And small companies are less productive on average than large companies. As well, they do less R&D and they pay lower wages and usually offer fewer employee benefits. For purely political reasons Canadian governments have been driving down the small business tax rate, in a few provincial cases heading to zero. This creates a gap between the small and large business tax rates, meaning that over an extended interval of income gains small businesses face quite high marginal tax rates.

We also observe a clustering of firms just below the small business income threshold and that cluster has been moving up in step with the increases in that threshold over recent years. So there appears to be a circumstantial case that the taxation regime is one of the impediments to the growth in firm size and hence a productivity killer. But we do not observe the same clustering by asset size. So maybe firms are growing but paying out bonuses in order to protect the cherished small business status. But then again it could be argued that it would be better for growth if these small companies retained the earnings rather than bonusing out.

So why do small companies bonus out? Well, in the bad old corporate tax regime up to 2000 that was actually economically rational. The marginal tax rate over the range the small business rate was lost went so high it exceeded the top personal marginal income tax rate. It made sense under this perverse policy setting to take

money out of the company and shift it to the personal realm. But that is no longer the case. Yes, the marginal rates faced by small businesses rise over a span of income. But they do not go that high. There is still much net gain to the company from growing. And the small business marginal tax rate no longer rises above the top marginal personal income tax rate.

Yet I know from speaking to commercial clients of the TD bank that many businesses go to extraordinary lengths to remain in the small business classification for tax purposes. I just do not understand why. If it ever made sense, it no longer does thanks to the quiet corporate tax revolution. Was the culture so engrained it has not yet been dislodged? Are companies not yet aware how the tax scene has been turned upside down over the past decade? As you can see, I have questions. I just do not have many answers. I believe obtaining those answers will require a combination of theory and street smarts.

## **A Coalition of Researchers Interested in a Micro-approach**

Having ever so slowly come to the conclusion by 2010 that the road I was following was a dead end, I have been spending time trying to bring together a coalition of research interests to study the micro-aspects of productivity and to develop and disseminate the data that will be required. I am pleased to say that quite recently I sense some real hope for this initiative. There are several federal government departments interested, above all Industry Canada and Statistics Canada. The presidents of large research-intensive universities are keenly interested and a number of their researchers are responding favourably to the idea. Several management consulting firms and ICT companies have expressed interest. SSHRC is interested, but not yet committed on funding support.

This completes my defense. I confess I have been unproductive in my productivity work. Never one to play the hero, I note I have had accomplices along the route. Errors were made out of misunderstanding rather than malice. I am low risk to re-offend. And finally, I have a plan for redemption.

I simply ask for help rather than punishment. That help involves all of you bringing new research perspectives to Canada's productivity malaise. Together we can make up for an unproductive past. Macro-economists can change perspective. Labour market, industrial organization, business management researchers can throw their

efforts into productivity. Management consulting firms and large companies can build on their firm-level insights. The effort may take a while. But I am hopeful that within 2-3 years we can build a better understanding of why Canada's productivity performance has been so weak and will know what to do about it.

## Reference

Drummond, Don (2006) "The Economists' Manifesto for Curing Ailing Canadian Productivity," *International Productivity Monitor*, Fall, No. 13, pp. 21-26. [www.csls.ca/ipm/13/IPM-13-drummond-e.pdf](http://www.csls.ca/ipm/13/IPM-13-drummond-e.pdf).