



GOING FOR GOLD

Business Taxation in Western Canada: Settling for a Personal Best?

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GOING FOR GOLD

The Western Canadian Economy
in the International Arena

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GOING FOR GOLD

Western Canada's economic prosperity is not only good for the West, but for Canada as a whole. But the West cannot rest on its laurels. Like the athletes training for the forthcoming Winter Olympics in Vancouver, western Canada needs to be at the top of its game if it is to continue to compete successfully in the international economic arena, especially as its competitors step up their games. If we are not successful, our standard of living will fall.

The GOING FOR GOLD Project is examining how best to position western Canada in the global economy through a series of research papers, consultations and a seminal economic conference in Vancouver in the fall of 2009.

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This paper was prepared by Dr. Kenneth McKenzie of the University of Calgary's Department of Economics. The paper is part of the Canada West Foundation's Going for Gold Project Research Paper Series. Each paper examines a key issue related to improving western Canada's ability to compete and win in the global economy over the long-term.

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Leading the Way: The GOING FOR GOLD Project Research Paper Series

The primary goal of the Canada West Foundation's GOING FOR GOLD Project is to ensure that Canadians make the right public policy decisions for improving the ability of the country and its regions to compete in the upper echelon of the global economy. The ultimate goal, however, is to ensure that Canada experiences the long-term economic prosperity that underpins a high quality of life and an inclusive and caring society in which all citizens can participate and thrive.

The GOING FOR GOLD Project's *Research Paper Series* helps achieve these goals by providing thoughtful and timely information combined with practical options for improving public policy's role in fostering Canada's economic competitiveness. The diversity of topics covered by the series is intentional and highlights the many facets of public policy that will need to be working in concert if western Canada—and by extension Canada—are to succeed in the global economy in the decades ahead.

We cannot rest on our laurels and we cannot be reactive. We must take proactive steps today to ensure a prosperous tomorrow. The countries that fumble the public policy ball will fall behind in the global economy and see the opportunities available to their citizens shrink. Much of what must be done is beyond the scope of public policy; it is just one factor, but it is a critical factor. Bad economic policy will hamstring us just as good public policy will propel us forward.

It is important to note that winning in the global economy does not mean that other regions and other countries must lose. Even though only one competitor can rank first, healthy competition can bring out the best in all countries. There is much that Canadians can achieve by working with international partners. This, in turn, will improve economic outcomes both at home and abroad. There is also much that Canada can learn from the experiences of other jurisdictions and this is a key element of the research papers.

There is much to discuss and there is much to be done. Ask any Olympic athlete if their training is ever complete and they will say that they are always training, preparing, and searching for the competitive edge. The same is true of public policy aimed at improving our economic competitiveness—it will always be a work in progress.

The authors of the papers were given the freedom to explore key topics as they saw fit. As a result, the series does not provide a complete set of policy recommendations or a master plan for global economic dominance. Nor does it represent the "top 10" things that must be done to make western Canada more competitive. Rather, it provides a set of useful *examples* of what can and should be done combined with provocative recommendations across a broad range of relevant policy files.

As the global economy continues to suffer from bad decisions and bad public policy, it is more important than ever for research institutes like the Canada West Foundation to step back from the ups and downs of the day-to-day and provide policy suggestions aimed at the underlying structures of our economy and its long-term success.

The papers are part of a larger consultation process that will culminate in a seminal conference on economic competitiveness in the fall of 2009 in Vancouver. The conference will bring international experience as well as western Canadian knowledge to bear on the question of competitiveness.

For more information about the GOING FOR GOLD Project, please do not hesitate to contact me at roach@cwf.ca.



Robert Roach
Director of Research

Executive Summary

This paper examines the competitiveness of the business tax regimes in Canada's four western provinces. The discussion focuses on the tax burden imposed on investment, as measured by the marginal effective tax rate (METR) on capital. With all of the provinces employing essentially the same corporate income tax base, determined by the federal government, differences in the taxation of capital across the provinces can arise for five basic reasons. The first, and most obvious, is differences in provincial corporate income tax rates. The second is differences in capital tax rates across the provinces. The third is differences in the effective sales tax rate levied on business inputs. The fourth is differences in federal tax credit incentives for targeted investments which may differ across the provinces. The fifth is differences in provincial tax credit incentives for targeted activities, such as R&D.

The computation of the METR on capital allows all of these differences to be taken into account in a straightforward manner. Comparing the METR on capital across Canada's provinces and internationally across eighty countries, the paper concludes that Canada as a whole, and the western provinces in particular, do not have a particularly competitive business tax regime internationally, though things are improving. In keeping with the "going for gold" theme of this series of papers, it is clear that Canada in general, and the western provinces in particular, are not currently even "on the podium." While some provinces are achieving "personal bests," in an international context we are falling somewhat short. While scheduled reductions in the federal and some provincial corporate income tax rates will move the country, and the provinces, closer to the podium, there is still substantial room for improvement. If the western provinces are truly going to "go for gold," they will have to be more aggressive in addressing some of the current difficulties with their business tax regimes.

Several reforms that can take place within the context of the current tax regime are suggested. Most important are a reduction in the provincial corporate income tax rates and the harmonization of provincial sales tax systems with the federal GST, particularly in BC, Saskatchewan and Manitoba. It is argued that reducing the corporate income tax rates in the western provinces would increase investment, growth and

the standard of living, and would not, in the long run, have a substantially negative impact on government revenue. The harmonization of provincial sales taxes with the GST would remove a significant impediment to investment resulting from the taxation of business inputs under the existing systems.

Another approach would be to undergo a more fundamental, some might call it "radical," reform of the taxation of businesses in western Canada. There are several options in this regard. One approach, proposed in previous work by Richard Bird, Ken McKenzie and Jack Mintz, would be to implement a completely different approach to business taxation—a *business value tax* (BVT).

The idea behind the BVT is to lower the taxation of business capital by expanding the corporate tax base away from "income" toward business value added. Businesses add value by combining labour and capital with other purchased inputs. The value added by labour is the cost of labour (wages) while the value added by capital is the cost of capital (both debt and equity). In broad terms, the BVT base consists of revenues, less purchases of current inputs except labour, less depreciation allowances, less royalties paid to the Crown. In general terms, the BVT base can be calculated simply by adding back the appropriate amounts of interest and wages to the CIT base as it is currently calculated. The BVT base is thus considerably broader than the CIT base, and therefore requires a much lower rate to generate the same revenue.

Previous work suggests that the METRs on capital under a BVT would fall by from 6 to 10 percentage points from the levels under the existing corporate income tax. This would result in a significant reduction in the taxation of capital in western Canada, and would make the tax regime very competitive by international standards.

Implementing a BVT at the provincial level in the western Canadian provinces would obviously be a significant departure from the current approach to taxing businesses. However, if western Canada wants to take a bold step towards "going for gold," the BVT would be one way of accomplishing this goal.

Abstract

This paper examines the competitiveness of the business tax regimes in Canada's four western provinces. The discussion focuses on the tax burden imposed on investment, as measured by the marginal effective tax rate (METR) on capital. It is concluded that while the competitiveness of the business tax systems in western Canada has improved over the past several years, achieving "personal bests" in most cases, it still has a significant way to go for the region to emerge as a "medal contender" in an international context. Several reforms within the context of the current tax regime are suggested. These include reductions in the provincial corporate income tax rate and, in BC, Saskatchewan and Manitoba, the removal of provincial sales taxes on business inputs by way of the harmonization of provincial regimes with the federal GST. More dramatic reform, and a significant reduction in the METR, could be achieved by way of the implementation of a Business Value Tax (BVT). The BVT would broaden the business tax base to reflect the value added by labour and capital, resulting in a substantial reduction in the burden of the tax system on investment and the elimination of several distortions which characterize the current corporate income tax.

1. Introduction

In the midst of the current economic malaise precipitated by a world wide financial crisis, it is easy to lose sight of important structural policy priorities. With much of the policy attention focused on financial markets and bailouts, policy issues of more fundamental, structural nature have been put on the backburner.

While this is understandable, it could be argued that at least some of the blame for the economic difficulties we find ourselves in have their roots in structural imbalances in both the public and private sector. In the US fiscal imbalances at the federal level have been large and persistent for several years. The government spending spree has been matched by households, as household savings rates have fallen to new and persistent lows.

While the Canadian fiscal situation is better—at both the government and household level—by world wide standards household savings rates are quite low, and for the first time in several years there is talk of the possibility of the federal and some provincial governments going into deficit.

Discussions of business tax reform are, perhaps, a low priority in this context. While this is understandable, it is also a mistake. The structural imbalances at the macro level, and our ability to weather and respond to economic shocks are, to some degree, determined by microeconomic considerations related to things such as the design of tax and expenditure programs. While governments at the provincial and federal level will no doubt be preoccupied with the current economic mess over the next several months (if not years), they must not lose sight of longer-term underlying policy priorities.

This paper highlights several policy priorities on the business tax front, primarily from the perspective of the four western Canadian provinces. The focus is on taxes that impose on business capital, and therefore impinge upon investment decisions.

The discussion begins with a description of the current state of corporate taxation in the western provinces. The basis for comparison will not only be the other Canadian provinces but, more importantly, the rest of the world. Corporate investment is increasingly mobile

internationally. While capital markets have been partially paralyzed by the current credit crunch, when things ease up, and they will, corporations will be looking for new investment opportunities around the world. While these investment decisions are driven by myriad considerations, the competitiveness of the tax regime is important.

This will be followed by a discussion of several reform possibilities. It is argued that while things are improving on the business tax front in Canada in general, and western Canada in particular, the improvements can be thought of as achieving a “personal best” rather than “going for gold.” If western Canada is going to emerge as a world economic leader, it can only do so in the context of a competitive corporate tax regime which does not discourage capital investment. Two “easy” reforms that can take place within the context of the current tax system are highlighted—a reduction in provincial corporate income tax rates (most particularly in Saskatchewan and Manitoba); and the removal of provincial sales taxes on capital, which is best accomplished by harmonizing provincial sales tax systems with the federal GST. A more “radical” approach is also discussed, which would abandon the corporate income tax altogether and tax businesses by way of a Business Value Tax (BVT).

2. Corporate Taxation in Canada

Several taxes levied by both the federal and provincial governments impinge upon the capital investment decisions of businesses. The most important is the corporate income tax (CIT). Corporate income taxes in Canada are levied by both federal and provincial governments. With the exception of Alberta, Ontario and Quebec, the federal government collects and administers corporate income taxes on behalf of the provinces under the Tax Collections Agreements. The provinces party to the agreements must use the federal definition of corporate taxable income, and can therefore not define their own deductions for the determination of the tax base, though they may grant tax credits against provincial income tax payable to provide incentives for various activities (e.g., R&D). While the three provinces outside of the tax collection agreements can in principle define their own corporate income tax base, with very few exceptions they follow the federal definition of taxable income. As such, for all intents and purposes the federal government sets the corporate income tax base, and chooses its own tax rate on this base, as well as any credits for particular activities that may be claimed against federal taxes payable; the provinces then choose their own tax rates on the same base, along with any tax credits that may be claimed against provincial taxes payable.

Figure 1 displays information on corporate income tax rates for “large” corporations in Canada, at both the federal and provincial level, both currently and to 2012 on the basis of current budget announcements. At the federal level, the corporate income tax rate has been declining for the past several years, and will continue to do so for the next few years, with it scheduled to fall to 15% by 2012. This is a significant decrease in the federal CIT rate; as recently as 2005 the general federal corporate income tax rate was 29.12%, and has been much higher in the not so distant past. As will be discussed later, this is in general accordance with worldwide trends.

The provinces have followed suit, though some have been notably more aggressive in this regard than others. In terms of the general (non-manufacturing) corporate income tax rate, the rates in the western provinces tend to be lower than the rest of the country, ranging from a low of 10% (Alberta) to a high of 12% (Saskatchewan and Manitoba), compared to a low of 11.9% (Quebec) and a high of 16% (Nova Scotia and Newfoundland) in the rest of the country. This is also the case in the manufacturing sector, where some provinces impose lower rates (Saskatchewan, Ontario, Newfoundland), with Newfoundland’s very low 5% rate on manufacturing worthy of particular mention.

As indicated above, the federal corporate income tax rate is slated to fall by 4 percentage points over the next four years. Some of the provinces have also announced reductions in their corporate income tax rates. Importantly, all of the announced reductions will take place in the western provinces—British Columbia, Saskatchewan and Manitoba have all announced rate reductions over this period. The

Figure 1: General and Manufacturing (in brackets) Corporate Income Tax Rates in Canada, Large Corporations, 2008-2012, %

	2008	2009	2010	2011	2012 and beyond
Federal	19.5	19.0	18.0	16.5	15.0
British Columbia	11.5	11.0	10.5	10.0	10.0
Alberta	10.0	10.0	10.0	10.0	10.0
Saskatchewan	12.5 (10.0)	12.0 (10.0)	12.0 (10.0)	12.0 (10.0)	12.0 (10.0)
Manitoba	13.5	12.5	12.0	12.0	12.0
Ontario	14.0 (12.0)	14.0 (12.0)	14.0 (12.0)	14.0 (12.0)	14.0 (12.0)
Quebec	11.4	11.9	11.9	11.9	11.9
New Brunswick	13.0	13.0	13.0	13.0	13.0
Nova Scotia	16.0	16.0	16.0	16.0	16.0
Prince Edward Island	16.0	16.0	16.0	16.0	16.0
Newfoundland	14.0 (5.0)	14.0 (5.0)	14.0 (5.0)	14.0 (5.0)	14.0 (5.0)

Figure 2: Corporate Income Tax Rates and Thresholds (in brackets, thousands of \$) in Canada, Small (CCPC) Business Income, 2008-2012, %

	2008	2009	2010	2011	2012 and beyond
Federal	11.0 (\$400)	11.0 (\$400)	11.0 (\$400)	11.0 (\$400)	11.0 (\$400)
British Columbia	3.5 (\$400)	3.5 (\$400)	3.5 (\$400)	3.5 (\$400)	3.5 (\$400)
Alberta	3.0 (\$460)	3.0 (\$500)	3.0 (\$500)	3.0 (\$500)	3.0 (\$500)
Saskatchewan	4.5 (\$500)	4.5 (\$500)	4.5 (\$500)	4.5 (\$500)	4.5 (\$500)
Manitoba	2.0 (\$400)	1.0 (\$400)	1.0 (\$400)	1.0 (\$400)	1.0 (\$400)
Ontario	5.5 (\$500)	5.5 (\$500)	5.5 (\$500)	5.5 (\$500)	5.5 (\$500)
Quebec	8.0 (\$400)	8.0 (\$400)	8.0 (\$400)	8.0 (\$400)	8.0 (\$400)
New Brunswick	5.0 (\$400)	5.0 (\$400)	5.0 (\$400)	5.0 (\$400)	5.0 (\$400)
Nova Scotia	5.0 (\$400)	5.0 (\$400)	5.0 (\$400)	5.0 (\$400)	5.0 (\$400)
Prince Edward Island	3.2 (\$400)	2.1 (\$400)	1.0 (\$400)	1.0 (\$400)	1.0 (\$400)
Newfoundland	5.0 (\$400)	5.0 (\$400)	5.0 (\$400)	5.0 (\$400)	5.0 (\$400)

western Canada, currently only Saskatchewan and Manitoba levy taxes on the capital of non-financial corporations, with Saskatchewan slated to eliminate its capital tax by 2009 and Manitoba by 2011. The other provinces are scheduled to phase-out capital taxes on non-financial corporations over the next six years; by 2013 there will be no federal or provincial capital tax levied on non-financial corporations in Canada.

general combined federal and (arithmetic) average provincial corporate income tax rate in Canada in 2008 was 32.69%; based on current budget announcements on the part of the federal and provincial governments this is expected to decline to 26.39% by 2012.

Figure 2 displays federal and provincial corporate income tax rates for “small” Canadian Controlled Private Corporations (CCPCs). Again, we see the CCPC rates are relatively low in the western provinces. Also displayed in the figure are the income thresholds below which the CCPC rates apply. Most provinces utilize the federal threshold of \$400,000, with the exception of Alberta, Saskatchewan and Ontario, which have slightly higher small business thresholds.

Aside from the corporate income tax, both the federal government and the provinces impose explicit taxes on corporate capital. Though the details differ across provinces, generally speaking, these taxes are levied on the stock of capital (debt plus equity) in excess of a threshold. The rates differ between financial and non-financial institutions, with the rates on financial institutions imposed at much higher rates. The capital tax rates for non-financial corporations are shown in Figure 3 and for financial institutions in Figure 4. The federal government eliminated its capital tax on non-financial corporations in 2006. Many of the provinces have since followed suit. In

Figure 3: Capital Tax Rates in Canada, Non-Financial Institutions, 2008-2012, %

	2008	2009	2010	2011	2012 and beyond
Federal	-	-	-	-	-
British Columbia	-	-	-	-	-
Alberta	-	-	-	-	-
Saskatchewan	0.25	-	-	-	-
Manitoba	0.50	0.40	0.40	-	-
Ontario	0.285	0.225	0.150	-	-
Quebec	0.360	0.240	0.120	-	-
New Brunswick	0.100	-	-	-	-
Nova Scotia	0.250	0.225	0.200	.150	.100 (0 in 2013)
Prince Edward Island	-	-	-	-	-
Newfoundland	-	-	-	-	-

Figure 4: Capital Tax Rates in Canada, Financial Institutions, 2008-2012, %

	2008	2009	2010	2011	2012 and beyond
Federal	-	-	-	-	-
British Columbia	3.0	3.0	3.0	3.0	3.0
Alberta	-	-	-	-	-
Saskatchewan	3.25	3.25	3.25	3.25	3.25
Manitoba	3.0	3.0	3.0	3.0	3.0
Ontario	0.86	0.68	0.45	-	-
Quebec	0.72	0.48	0.24	-	-
New Brunswick	3.0	3.0	3.0	3.0	3.0
Nova Scotia	4.0	4.0	4.0	4.0	4.0
Prince Edward Island	5.0	5.0	5.0	5.0	5.0
Newfoundland	4.0	4.0	4.0	4.0	4.0

imposed in New Brunswick, Newfoundland and Nova Scotia, and provincial sales taxes (PST) imposed in all of the other provinces except Alberta, which imposes no sales tax.²

1 I distinguish between general sales taxes levied on a broad range of goods and services and excise taxes levied on particular, narrowly defined goods. The focus here is on the former.

2 The provinces and the federal government also imposes various excise taxes on specific commodities, such as alcohol, tobacco products, gasoline, etc. These taxes do not, for the most part, impinge upon capital.

This is not the case for financial institutions. As indicated in Figure 4, capital taxes on financial institutions are expected to continue in most provinces into the foreseeable future. Moreover, compared to the rates on the non-financial sector, the capital tax rates imposed on the financial sector are very high. The federal government eliminated its capital tax on financial institutions in 2007; Alberta did so in 2005. The other provinces plan to continue to impose capital taxes on financial institutions, with the notable exceptions of Ontario and Quebec who have announced their intention to phase them out by 2011.

Aside from the corporate income tax and provincial capital taxes, other taxes imposed on capital can potentially impinge upon investment. Municipal property and business taxes, for example, are a narrowly targeted capital tax imposed on real property. Unfortunately, a study of property taxes is very complicated given the wide range of jurisdictions and property tax systems involved. They are not included in this discussion.

Another potentially important tax that can impinge upon capital investment are sales taxes. In Canada, there are basically four types of general sales taxes:¹ the federal Goods and Services Tax (GST), the Quebec Sales Tax (QST), the Harmonized Sales Tax (HST)

Figure 5: Statutory and Effective Sales Tax Rates on Capital, Provinces, 2008, %

	Statutory PST Rate	Effective Sales Tax Rate on Capital
British Columbia	7	3.1
Alberta	0	0
Saskatchewan	5	4.9
Manitoba	7	3.3
Ontario	8	3.5
Quebec	7.5	0.1
New Brunswick	8	0
Nova Scotia	8	0
Prince Edward Island	10	6.0
Newfoundland	8	0

Source: Based on Chen and Mintz 2008b.

The GST, HST and QST are all credit and invoice type value added taxes (VAT), and are imposed on a very similar base. Under a credit and invoice VAT, the tax is explicitly removed from capital inputs by virtue of the input tax credit. As such, the federal GST does not apply to capital inputs and does not impinge upon capital investment decisions, and in the four provinces that impose their own versions of the VAT (Quebec, New Brunswick, Newfoundland and Nova Scotia), as well as Alberta (which has no provincial sales tax and therefore only the GST applies), sales taxes do not in general impose upon capital inputs. The remaining five provinces (BC, Saskatchewan, Manitoba, Ontario, Prince Edward Island) impose different variations of the PST.

The PST is designed to be imposed on consumers at the retail level, with business inputs such as capital machinery and equipment largely exempt from the tax. However, due to various design flaws and holes in the exemption systems, some portion of the tax ends up falling on capital inputs, and therefore impinges upon capital investment. Analysis done by the C.D. Howe Institute suggests that, depending on the province, the proportion of the PST that falls on capital ranges from about 44% in Ontario to 70% in Saskatchewan. Figure 5 reports both the statutory sales tax rates and the effective sales tax rates levied on capital in the ten provinces. Of particular note is the fact that three of the five provinces that impose significant PST on capital inputs are western provinces (BC, Saskatchewan and Manitoba).

With all of the provinces employing essentially the same corporate income tax base, determined by the federal government, differences in the taxation of capital across the provinces can arise for five basic reasons. The first, and most obvious, is differences in provincial corporate income tax rates. The second is differences in capital tax rates across the provinces. The third is differences in the effective sales tax rate levied on business inputs. The fourth is differences in federal tax credit incentives for targeted investments which may differ across the provinces. The fifth is differences in provincial tax credit incentives for targeted activities.

Differences in corporate income, capital and sales tax rates have been discussed. Here I briefly address the more important federal and provincial tax credits.

At the federal level the two most important tax credits are the Atlantic Canada Investment Tax Credit (ACITC) and the Scientific Research and Experimental Development (SR&ED) credit. The ACITC is granted at a 10% rate on new buildings and machinery and equipment used primarily in the manufacturing, processing, mining, oil and gas, farming, logging or fishing industries in the Atlantic provinces, the Atlantic offshore region and the Gaspé region in Quebec. The ACITC thus applies to capital expenditures in New Brunswick, Nova Scotia, Newfoundland, Prince Edward Island and parts of Quebec. Capital investments in the rest of the country receive no federal investment tax credit.

The federal SR&ED tax credit is imposed at a 20% rate of qualifying research and development (R&D) expenditures; this credit is 40% refundable. For CCPC's, the SR&ED tax credit rate is 35% up to \$3 million in expenditures, and is fully refundable. While the eligibility rules are complex, as a general rule current R&D expenditures (including wages, salaries, materials and supplies), and capital expenditures on machinery and equipment (but not buildings and structures), are eligible for the federal SR&ED tax credit.

Several provinces offer variations on the federal SR&ED tax credit. Figure 6 contains some of the relevant information for the provincial R&D tax credits. As can be seen from the figure, with the exception of Ontario and Quebec, most of the provinces offering R&D credits simply mirror the federal SR&ED credit in terms of eligibility and, with the exception of Alberta, do not place a cap on the size of the credit. Ontario's Innovation Tax Credit is targeted to smaller firms, and applies the credit to 100% of current R&D expenditures, but only 40% of capital R&D expenditures. Ontario also has a higher credit for R&D expenditures made to research institutes. Quebec also has a credit geared to R&D expenditures to universities and research institutes, as well as a credit for R&D wages which is phased-out as firms get larger.

Figure 6: Federal and Provincial R&D Tax Credits, 2008

	Rates	Notes
Federal	20% Large 35% CCPC	Applies to eligible R&D related expenditures (includes current expenditures and machinery and equipment); CCPC rate threshold is \$3m in expenditures; CCPC credit is fully refundable; large credit is 40% refundable.
British Columbia	10%	Federal eligibility rules; fully refundable for CCPCs; non-refundable for large firms.
Alberta	10%	Federal eligibility rules; max annual credit \$400K; fully refundable.
Saskatchewan	15%	Federal eligibility rules; non-refundable.
Manitoba	20%	Federal eligibility rules; non-refundable.
Ontario	10% Innovation Tax Credit	For firms with taxable income under \$400K and capital under \$25m the credit is available up to \$3m in expenditures; for firms with taxable income from \$400K to \$700K and capital under \$50m a partial credit is available; 100% of current expenditures and 40% of capital expenditures are eligible; fully refundable.
	20% Business Research Institute Tax Credit	For eligible expenditures to an eligible research institute in Ontario up to \$20m in expenditures; fully refundable.
Quebec	37.5%-17.5% R&D wages	For CCPCs with assets up to \$50m get 37.5% credit on R&D wages up to \$3m; phased down to 17.5% for firms with assets from \$50m to \$75m; 50% of wages for unrelated subcontractors are eligible; fully refundable.
	35% Universities and Research Institutes	Credit applied to 80% of eligible R&D expenditures to universities, public research centers, research consortiums, etc.; fully refundable.
New Brunswick	15%	Federal eligibility rules; fully refundable.
Nova Scotia	15%	Federal eligibility rules; fully refundable.
Prince Edward Island	-	No provincial R&D Tax Credit.
Newfoundland	15%	Federal eligibility rules; fully refundable.

3. Analysis and Evaluation: Marginal Effective Tax Rates

The variation in provincial tax policies related to capital investment makes it difficult to compare tax regimes across the provinces in terms of their net impact on the incentive to undertake investment. The concept of the marginal effective tax rate (METR) on capital allows us to address this issue in a conceptually simple and straightforward manner.

The METR on capital provides a summary measure of the extent to which various taxes impinge on investment decisions. While somewhat detailed in its determination, the basic idea behind the METR on capital is quite straightforward. It is measured by calculating the amount of taxes paid as a percentage of the pre-tax return on the marginal (break even) unit of capital that would be required to cover the taxes and the financing of that capital with debt and equity.

For example, if a business invests in an incremental unit of capital that yields a pre-tax rate of return equal to 10% and, after the imposition of various taxes on the capital and the income that it generates, the rate of return is equal to 6%, the METR is 40% (10% minus 6% divided by 10%). Thus, in this example, 40% of the pre-tax rate of return on a marginal unit of capital is required to pay the taxes associated investing in the capital. The higher the METR on capital, the greater the extent to which the business tax system discourages and distorts investment. Moreover, variations in the METR across different types of capital and between sector can distort the allocation of capital along these dimensions as well.

The main sources of METR calculations in a Canadian context, and indeed the world, is work undertaken by the federal Department of Finance and the C.D. Howe Institute. In this discussion, I utilize the C.D. Howe Institute METRs, which have recently been updated.³

Figure 7 presents METRs on capital for 2008 and projected to 2012 for all of the provinces and for Canada as a whole. The rates are weighted averages aggregated over both manufacturing and non-manufacturing sectors, and over four types of capital—machinery

Figure 7: Aggregate Marginal Effective Tax Rates on Capital, Large Corporations, 2008 and 2012, %

	2008	2012
British Columbia	30.9	28.2
Alberta	22.0	19.3
Saskatchewan	28.6	26.0
Manitoba	33.8	26.7
Ontario	34.8	31.9
Quebec	21.5	16.9
New Brunswick	11.8	7.0
Nova Scotia	20.7	14.6
Prince Edward Island	33.6	30.9
Newfoundland	15.0	11.3
Canada (Weighted Total)	29.1	25.8

Source: Chen and Mintz 2008a.

and equipment, buildings and structures, inventories, and land. R&D capital is not included; it will be discussed separately below.⁴ The first thing that is evident from the figure is that the METRs in all of the provinces are expected to decline over the next four years. This is largely because of the announced reductions in the federal corporate income tax rate, from its current level of 19.5% to 15.0% by 2012. As discussed above, and shown in Figure 1, some of the provinces (notably BC, Saskatchewan and Manitoba) will also lower their corporate income tax rates over this period. Another contributor to the reduction in METRs over this period is the elimination of provincial capital taxes on non-financial institutions; by 2012 (2013 in Nova Scotia) no provinces will levy general corporate

³ The main sources here are Chen and Mintz (2008a and 2008b). I would like to thank Duanjie Chen and Jack Mintz for generously providing some of the raw numbers and data utilized in these papers.

⁴ R&D expenditures are a small proportion of the capital stock. Their inclusion in the weighted average would have only a small impact on the overall METR.

capital taxes on non-financial institutions. Because of these initiatives, by 2012 the weighted average METR in Canada is expected to fall from its current level of 29.1% to 25.8%.

Comparing METRs across provinces, and focusing on the rates for 2012, we see that with the exception of Alberta, the METRs on capital in the four western provinces are higher than the Canadian average. This may be surprising in light of the fact that provincial CIT rates in the western provinces are generally lower than the rates in the other provinces. The higher capital METRs in the western Canadian provinces arise for two basic reasons. The first is the federal investment tax credit offered for investment in Atlantic Canada and parts of Quebec. This is explicitly designed to lower the cost of capital, and the METR, in these provinces in order to encourage investment on a regional basis.

The second, and more relevant reason from a provincial tax policy point of view, is the imposition of provincial sales taxes on capital inputs. As discussed above, in Atlantic Canada and Quebec provincial sales are removed from capital inputs by virtue of the imposition of a credit and invoice VAT harmonized with the GST. This is not the case in three of the western provinces—BC, Saskatchewan and Manitoba—nor in Ontario or PEI. This significantly increases the cost of capital and the METR on capital in these provinces, outweighing the influence of lower CIT rates. Of course Alberta, without a PST, has a relatively low METR compared to the other provinces.

Although expenditures on R&D constitute only a small portion of capital expenditures, given the perceived importance of innovation in promoting economic growth, the tax treatment of R&D merits a special look. Figure 8 provides METRs on R&D capital. The methodology follows McKenzie 2005 and 2008, and the figures reported in the figure are an update of the calculations presented in those papers; readers are referred to the papers for a detailed discussion of the various R&D tax rates displayed in the figure. The discussion here focuses on the last row in the figure, which reports the aggregate METR on R&D capital. The interpretation of these numbers is identical to the METRs on other types of capital discussed above—these are the proportion of the before-tax rate of return on an investment in R&D capital required to pay taxes.

Three things are notable from the calculations. The first is that the METR on R&D capital is negative for all of the provinces. This reflects the fact that the tax system in Canada, at both the federal and provincial levels, subsidizes rather than taxes investment in R&D at the

Figure 8: Marginal Effective Tax Rates on R&D Capital, Large Corporations, 2008

	Alberta	British Columbia	Saskatchewan	Manitoba	Ontario	Quebec	New Brunswick	Nova Scotia	PEI	Newfoundland
METR on R&D Labour	-23.9% -13.0%	-22.5%	-28.0%	-27.0%	-21.8% -10.6%	-30.4% -7.1%	-27.8%	-27.5%	-10.7%	-25.8%
METR on R&D Materials	-29.3% -19.2%	-29.3%	-34.3%	-34.3%	-29.3% -19.2%	-19.2% -19.2%	-34.3%	-34.3%	-19.2%	-34.3%
METR on Contract R&D	-13.0% -13.0%	-22.5%	-28.0%	-27.0%	-32.9% -10.6%	-47.8% -47.8%	-27.8%	-27.5%	-10.7%	-25.8%
METR on R&D Equipment	-33.2% -23.7%	-33.2%	-36.6%	-36.9%	-26.8% -22.8%	-22.4% -22.0%	-37.3%	-37.4%	-23.7%	-38.0%
METR on R&D Buildings	31.0%	33.3%	38.8%	39.8%	39.3%	37.1%	37.7%	42.5%	40.8%	37.4%
Aggregate METR on R&D Costs	-21.6% -13.4%	-22.7%	-27.8%	-27.1%	-24.1% -11.5%	-29.0% -19.2%	-27.7%	-27.4%	-11.6%	-26.4%
TAX WEDGE On R&D	-4.0% -2.5%	-4.2%	-5.1%	-5.0%	-4.5% -2.1%	-5.4% -3.5%	-5.1%	-5.1%	-2.1%	-4.9%
Aggregate METR on R&D	-89.3% -41.2%	-98.4%	-153.5%	-144.7%	-110.9% -33.5%	-172.4% -72.9%	-152.6%	-147.8%	-33.8%	-136.1%

Note: For Alberta, Ontario and Quebec, the first number in the cell is the relevant effective tax rate assuming that none of the provincial caps and limits on R&D tax credits are binding; the second number in the cell assumes that all of the caps and limits are binding.

margin. Thus, the after-tax rate of return on a marginal investment in R&D is actually higher than the before-tax rate of return. This subsidy is typically justified on the basis of knowledge spillovers throughout the economy arising from private investment in R&D. These spillovers mean that the social rate of return on R&D is higher than the private rate of return, which suggests the need for the government to subsidize R&D so that private companies conduct more of it.

Figure 9: Combined (Federal/Provincial/Local) Statutory Corporate Income Tax Rates, OECD Countries, 2008, %

Australia	30.0
Austria	25.0
Belgium	34.0
Canada	33.5
Czech Republic	21.0
Denmark	25.0
Finland	26.0
France	34.4
Germany	30.2
Greece	25.0
Hungary	20.0
Iceland	15.0
Ireland	12.5
Italy	27.5
Japan	39.5
Korea	27.5
Luxembourg	30.4
Mexico	28.0
Netherlands	25.5
New Zealand	30.0
Norway	28.0
Poland	19.0
Portugal	26.5
Slovak Republic	19.0
Spain	30.0
Sweden	28.0
Switzerland	21.2
Turkey	20.0
United Kingdom	28.0
United States	39.3
OECD Average (arithmetic)	26.6

The second thing that is notable from the figure is that the METRs are really negative. For example, the R&D METR in Quebec, assuming that none of the caps and limits on R&D expenditures are binding, is -172.4%. This is a sizable subsidy. Assume, for example, that the required after-tax rate of return on an incremental investment in R&D is 10%. A METR of -172.4% means that the investment in R&D can earn a before tax rate of return as low as 3.7% and still be profitable from an economic point of view. The combination of the federal and provincial R&D credits gives rise to perhaps the most generous R&D tax subsidy regime in the world.

The third noteworthy aspect of Figure 8 is that while all of the provinces provide substantial subsidies to R&D, there is quite a wide variation in the subsidy across the provinces. While it is possible in principle that the tax subsidy to R&D should vary across the provinces to reflect different spillovers associated with differences in the industrial structure, it is unlikely that this is the driving force behind the provincial variation. An alternative explanation is that the provinces may be involved in subsidy competition, and are seeking to effectively steal R&D activity from each other. This is, to be clear, a speculative hypothesis on my part.

So far we have focused on a comparison of business taxation in a Canadian context. But of course Canadian companies compete internationally. Notwithstanding the current paralysis in investment markets, corporate investment is increasingly mobile internationally. While these investment decisions are driven by myriad considerations, the competitiveness of the tax regime is important.

Figure 9 presents the statutory corporate income tax rates in the 30 OECD countries for 2008;⁵ Figure 10 presents international METRs on capital for 80 countries for 2008. Also included in the table are the METRs for Canada in 2012 and the four western provinces for 2008 and 2012.

⁵ Where relevant the combined national and sub-national rate is shown.

Figure 10: International Corporate Effective Tax Rates, 2008

Argentina	46.0%	Botswana	23.3%	South Africa	15.1%
China	45.3%	Tunisia	23.1%	Ghana	14.8%
Chad	40.1%	Tanzania	22.2%	Trinidad	14.8%
Brazil	39.1%	Alberta 2008	22.0%	Czech Rep	14.7%
India	37.6%	Ethiopia	21.9%	Morocco	14.5%
Korea	37.1%	Bolivia	21.9%	Poland	14.0%
Russia	37.0%	Sierra Leone	21.9%	Rwanda	13.8%
France	35.9%	Sweden	21.1%	Chile	13.8%
United States*	35.7%	Zambia	20.6%	Ecuador	13.7%
Japan	35.0%	Georgia	20.5%	Hungary	13.5%
Manitoba 2008	33.8%	Kazakhstan	20.4%	Slovak Republic	12.6%
BC 2008	30.9%	Finland	20.1%	Greece	11.9%
Australia	29.3%	New Zealand	20.1%	Iceland	10.5%
Canada 2008	29.1%	Uzbekistan	20.1%	Egypt	10.4%
Pakistan	28.9%	Jordan	20.0%	Croatia	9.6%
UK	28.7%	Fiji	19.2%	Romania	9.4%
Saskatchewan 2008	28.6%	Luxembourg	19.1%	Turkey	9.2%
BC 2012	28.2%	Portugal	19.0%	Ukraine	8.7%
Italy	28.1%	Thailand	19.0%	Singapore	8.0%
Costa Rica	27.9%	Alberta 2012	19.3	Mauritius	7.4%
Germany	27.3%	Denmark	18.6%	Hong Kong	4.4%
Indonesia	26.9%	Malaysia	18.5%	Latvia	4.2%
Iran	26.5%	Bangladesh	17.8%	Bulgaria	4.1%
Lesotho	26.5%	Madagascar	17.4%	Nigeria	3.1%
Manitoba 2012	26.7%	Netherlands	16.6%	Kenya	1.8%
Austria	26.4%	Uganda	16.4%	Belgium	-3.4%
Saskatchewan 2012	26.0%	Vietnam	16.3%	Serbia	-6.0%
Canada 2012	25.8%	Jamaica	16.2%		
Peru	24.7%	Switzerland	15.5%	Weighted Average**	28.7%
Norway	24.5%	Mexico	15.4%	Simple Average	19.6%

* If the bonus depreciation is included, the 2008 marginal effective tax rate on capital for the US is 26.5%. ** Weighted by GDP in constant 2000 US dollars for the period 2000-2005. Source: Chen and Mintz 2008b.

From Figure 9 it is evident that the current (combined federal/provincial) statutory tax rate in Canada is quite high by OECD standards. At just over 33% in 2008 it is the fifth highest in the list. While the scheduled reductions that will be fully implemented by 2012 will reduce the rate to just over 26%, this is still only about equal to the current OECD average.

Turning to the capital METRs reported in Figure 10, in 2008 Canada has the 12th highest METR of the 80 countries listed in the table. Of the 30 OECD countries, only 5 (US, France, Australia, Japan and Korea) have a METR on capital higher than Canada. Of the four western provinces, Alberta ranks the best internationally, with a rank of 26th.

While the CIT rate reductions scheduled over the next four years would move Canada to 22nd on the 2008 METR list, and similarly improve the ranking of the western provinces (Alberta, for example, would move from 26th to 42nd), this of course presumes that the other countries make no changes to their business tax regimes.

The inevitable conclusion is that Canada as a whole, and the western provinces in particular, do not have a particularly competitive business tax regime internationally, though things are improving. In keeping with the “going for gold” theme, it is clear that Canada in general, and the western provinces in particular, are not currently even “on the podium.” While some provinces are achieving “personal bests,” in an international context we are falling somewhat short. While scheduled reductions in the federal and some provincial corporate income tax rates will move the country, and the provinces, closer to the podium, there is still substantial room for improvement. If the western provinces are truly going to “go for gold,” they will have to be more aggressive in addressing some of the current difficulties with their business tax regimes. Some possible strategies in this regard are discussed next.

4. Going for Gold: Corporate Tax Reform in Western Canada

Within the context of the current business tax regime, there are two relatively “simple” things that the western provinces can do within the context of the current tax regime to improve the taxation of business income and the competitiveness of their tax regimes (as measured by the METR). The first is to reduce corporate income tax rates. The second is to harmonize provincial sales tax systems with the federal GST.

In terms of CIT rates, both Alberta and BC have provincial corporate income tax rates of 10% (BC by 2010). With a 15% federal CIT rate slated for 2012, the resulting 25% CIT rate will be relatively competitive by OECD standards, though still just below the 2008 OECD average of 26.6% (see Figure 9). More important in this regard are Saskatchewan and Manitoba, with CIT rates of 12%. Reducing these rates to 10% should be top priority in these two provinces.

Governments typically express concern about lowering CIT rates for revenue reasons. There are several responses to this. The first is that governments should be concerned about things other than corporate tax revenues. Corporate income taxes on capital are one of the most economically inefficient taxes in a government’s fiscal arsenal and are unfriendly to investment and growth. Most studies show that corporate income taxes inhibit both the standard of living and economic growth.⁶ For example, a recent empirical investigation of the impact of corporate taxes on growth in a Canadian provincial context was undertaken by Dahlby and Ferede 2008. They show that higher corporate income tax rates in Canadian provinces have led to lower private investment and slower growth. Their empirical estimates suggest that a 10 percentage point reduction in the corporate income tax rate is related to a 1 to 2 percentage point increase in the annual growth rate. They use their estimates to analyze the corporate income tax cut in BC in 2001. They find that the 4.5 percentage point CIT rate cut in BC will lead to an 11.1% increase in real per capita output in the province in the long-run.

This leads to the second response, which addresses the revenue concern rather more directly. Because corporate income taxes inhibit investment and growth (albeit perhaps temporarily), cutting corporate income taxes promotes investment. Higher investment means higher income, which means higher government revenue. Mankiw and Weinzerle 2006 do several calculations of the dynamic revenue feedback from corporate income tax cuts within the context of standard growth models. They show that at least 50% of the static loss in revenue is returned over time through higher investment.

A third response along these lines is provided by an analysis of Canada undertaken by Mintz and Smart 2003. They focus on income shifting between company operations locating in different provinces. Without moving machines or people, a company can reduce its total tax burden through a strategy of borrowing by subsidiaries in high-tax provinces and reducing debt in low-tax provinces. Mintz and Smart 2003 estimate that a cut of one percentage point in the corporate income-tax rate by a single province causes an 8% increase in the corporate tax base due primarily to income shifting.

⁶ Many growth models show that, while the steady state rate of growth is independent of the CIT rate, the standard of living (as measured by per capita GDP) is negatively affected by the CIT. In these models, while growth effects exist only in the transition to the new (higher) level of GDP per capita, the transition period typically lasts for a long time. Thus, the growth effects of CIT rate cuts can be viewed as temporary, but long lasting, while the level (standard of living) effects are permanent.

All of this suggests that reducing CIT rates in the western provinces would increase investment, growth and the standard of living, and would not, in the long-run, have a substantially negative impact on government revenue. A first step Saskatchewan and Manitoba should lower their CIT rates to 10%, to be consistent with BC and Alberta.

The second “simple” thing on the corporate tax front that the western provinces can do to lower the METR on capital, and improve the competitiveness of their business tax systems, is to eliminate the taxation of business capital inputs in their provincial sales tax regimes. As discussed above, this is particularly problematic in the three western provinces that impose a PST—BC, Saskatchewan and Manitoba—and in Ontario. The taxation of business inputs via the PST significantly increases the METR on capital in these provinces, outweighing the influence of generally lower CIT rates. While some of this could be accomplished by reforming existing PST systems, the best approach would be to harmonize the provincial sales tax systems with the federal GST, as has been done in Atlantic Canada. Analysis done by the federal Department of Finance indicates that removing sales taxes on capital goods delivers one of the highest “bangs for the buck” on the tax reform front.⁷ They use a dynamic computable general equilibrium model to estimate that a 1 percentage point reduction in the revenue to GDP ratio generated in this fashion would lead to an almost 2% increase in steady state GDP per capita.

Undertaking these two “simple” reforms—lowering the corporate income tax rate and eliminating provincial sales taxes on business capital by harmonizing the PST with the federal GST—would lower the METR on capital in BC, Saskatchewan and Manitoba to the Alberta rate, which is the “gold standard” from a Canadian perspective. This would be a significant improvement and would make the business tax system in western Canada more internationally competitive.

The two basic changes discussed above—a lowering of corporate income tax rates and the harmonization of provincial sales taxes with the GST—would go some way toward reducing the taxation of capital and encouraging investment in western Canada. Without minimizing the challenges involved in implementing these changes, particularly the harmonization of sales taxes, they can “easily” be accomplished within the framework of the current system; they are not “radical” in any sense.

Another approach would be to undergo a more fundamental, some might call it “radical,” reform of the taxation of businesses in western Canada. There are several options in this regard. One approach, proposed in previous work by Richard Bird, Ken McKenzie and Jack Mintz, would be to implement a completely different approach to business taxation—a *business value tax* (BVT).⁸

The idea behind the BVT is to lower the taxation of business capital by expanding the corporate tax base away from “income” toward business value added. Businesses add value by combining labour and capital with other purchased inputs. The value added by labour is the cost of labour (wages) while the value added by capital is the cost of capital (both debt and equity). In broad terms, the BVT base consists of revenues, less purchases of current inputs except labour, less depreciation allowances, less royalties paid to the crown. In general terms the BVT base can be calculated simply by adding back the appropriate amounts of interest and wages to the CIT base as it is currently calculated. The BVT base is thus considerably broader than the CIT base, and therefore requires a much lower rate to generate the same revenue.

To understand the motivation behind the BVT, it is useful to very briefly explore how the BVT base compares to the present CIT base. From an economic perspective, the appropriate tax base for an income tax is *economic income*, which requires the deduction from revenues of the *opportunity cost* of all of the inputs used in production (current expenses, including labour, as well as interest associated with debt, the opportunity cost of equity finance, and economic depreciation). If the appropriate deductions are made, and

7 See Baylor and Beausejour 2004.

8 See Bird and Mintz 2000 and Bird and McKenzie 2001.

the corporate tax is levied on a base consisting of economic income, the METR on corporate capital would be zero, and the CIT would be completely neutral with respect to capital, neither encouraging nor discouraging investment.⁹

In reality, as discussed earlier, the METR on corporate capital is hardly zero in Canada (or elsewhere). This is because the corporate income tax as it exists in practice is not a tax on economic income. This is true for several reasons. Conceptually, one of the most important is that while payments for debt financed capital (interest) are tax deductible, payments for equity financed capital (the opportunity cost of equity) are not. Equity finance, like debt finance, does not come free. The opportunity cost of equity finance arises from the fact that investors in corporations have the opportunity to invest their funds, and earn a rate of return, elsewhere. The need to generate a return high enough to compensate shareholders for the income thus forgone is no less a cost of doing business than is the need to generate a return high enough to pay the interest on debt. Because no deduction for the opportunity cost of equity finance is permitted under the Canadian CIT, the CIT can be viewed as an implicit tax on equity financed corporate capital. This discrimination between debt and equity financed capital serves no rational purpose and is economically costly.

In addition, imposing a tax on corporate capital introduces another important distortion by changing the relative prices of labour and capital.¹⁰ Moving to a business tax base that does not discriminate against capital relative to labour would not only generate the usual benefits associated with lower taxes on capital but also reduce the inefficiencies associated with taxing labour and capital at widely divergent rates.

Although the BVT *explicitly* imposes a tax on corporate capital compared to the implicit tax imposed by the CIT, it does so in a more efficient and sensible manner. By including the value added by labour in the tax base along with capital it allows for a substantial reduction in the effective tax rate on capital. Moreover, by eliminating interest deductibility it taxes equity capital at the same rate as debt capital, reducing yet another distortion caused by the corporate income tax.¹¹

As indicated above, the BVT base is considerably broader than the CIT base. This means that the revenue neutral BVT rate can be very low. Bird and Mintz 2000 calculate that replacing the provincial corporate income tax with a BVT that generates the same revenue would require a BVT rate of under 3% (depending on the province).

Bird and McKenzie 2001 show that the METRs on capital under a BVT would fall by from 6 to 10 percentage points from the levels under the existing corporate income tax. This would result in a significant reduction in the taxation of capital in western Canada, and would make the tax regime extremely competitive by international standards.

Implementing a BVT at the provincial level in the western Canadian provinces would obviously be a significant departure from the current approach to taxing businesses. As is always the case in tax reform, “the devil is in the details,” and in the case of the BVT the details are many and varied. Bird and McKenzie 2001 discuss several of the practical issues that would need to be addressed in implementing a BVT in Canada. However, if western Canada wants to take a bold step towards “going for Gold” the BVT would be one way of accomplishing this goal.

9 This does not, it must be stressed, mean that a CIT levied on economic income (which would have a METR of zero) would generate no tax revenue. To the extent that firms earn positive economic income corporate income taxes would be paid.

10 Of course, labour is taxed under other parts of the tax system, such as the personal income tax and payroll taxes.

11 An alternative approach would be to go the other direction and remove the tax on capital altogether. This could be accomplished in two ways. The first would be to allow a deduction for the cost of equity finance under the existing income tax. While possible in theory, this is difficult to do in practice due to the obvious measurement problems, and is likely to generate other distortions. Another approach is to disallow deductions for the cost of both debt and equity as under the BVT proposal, but to allow for the immediate deduction of capital expenditures, rather than depreciating them over time. This so-called “cash flow tax” would also remove the tax on capital. Although a cash flow tax is a conceptually simple way of eliminating the tax on business capital, and has been recommended many times before in other contexts, it has not so far been adopted anywhere, largely owing to international and transitional considerations (see Mintz and Seade 1991, and McLure and Zodrow 1996).

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