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Growing Small Businesses in Canada Removing the Tax Barrier

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Executive summary

This paper examines a barrier to the growth of small businesses in Canada. As businesses grow beyond what is deemed to be “small business” (income in excess of \$300,000 to \$450,000 depending on location) they face large increases in business income-tax rates. Economic research outlined in this paper indicates that such increases act as a strong disincentive for growth and expansion.

The federal government and every province except Quebec currently (2005) offer reduced business income-tax rates to eligible small businesses. Quebec will implement preferential treatment in 2006. The current preferential income-tax rates for small businesses range from a low of 2.0% in New Brunswick to 6.5% in Prince Edward Island. This compares with general business income-tax rates ranging from 11.5% in Alberta to 17.0% in Saskatchewan. The federal government also offers a substantial discount: 12.0% for small businesses compared to 21.0% for general businesses.

The combined federal and provincial preferential small business income-tax rates, while designed with good intentions, have resulted in steep increases in statutory business income-tax rates for successful businesses that grow and expand. The smallest increase experienced by growing firms that move from the preferential small business income-tax rate to the general business income-tax rate occurs in British Columbia, Ontario, and Prince Edward Island, where the applicable statutory rates double. The largest increase occurs in New Brunswick where the statutory rate jumps 142.9%.

Published research indicates that such steep increases in business income-tax rates create a powerful barrier, or disincentive, for entrepreneurs to expand their businesses. The large increases in business income-tax rates as firms move from the small business income-tax rate to the general business income-tax rate creates strong incentives for firms to avoid increases in taxation by reorganizing or by paying out additional monies in salaries and bonuses rather than growing and expanding.

The general evidence regarding the effect of these steep increases in business income-tax rates is further supported by a specific analysis, a 1997 study by Professors Hendricks, Amit, and Whistler (1997) for the federal government’s Technical Committee on Business Taxation. Hendricks et al., the only known study to review this issue to date, concluded that the steep increases in business income-tax rates impeded the growth and development of small business. In addition, the authors found that it was mature small businesses rather than newer small businesses that benefited from the small business deduction and that firms were responding strongly to the tax incentives to remain small.

The way to remove this barrier is to eliminate the preferential business income-tax rate for small businesses by reducing the general business income-tax rate. Given the overwhelming evidence of the damaging and costly impacts of business taxes on an economy, it makes little sense to equalize general and small business income-tax rates by raising the small business income-tax rate. The optimal solution is to reduce the general business income-tax rate while aggressively increasing the small business income eligibility threshold in order to reduce the steep increases in business income-tax rates at both the federal and provincial levels.

Introduction

There is increasing recognition that the growth of small and medium-sized businesses are important to the overall health of an economy. Small and medium-sized businesses increase employment, introduce new products and production techniques, and challenge the status quo, characteristics that are essential to a prosperous economy. Unfortunately, in the rush to encourage small and medium-sized businesses through the creation of a preferential rate of business income tax for small business, governments across Canada may very well have established a barrier that impedes small businesses from growing and expanding. [1]

This study is the first in a two-part series examining income-tax barriers to the growth and development of small businesses. It first outlines scholarly research on the influence of taxes, both upon small businesses and entrepreneurial activity as well as more broadly. Second, it examines the existing statutory rates for business income tax across the country. Third, it summarizes the only empirical analysis completed to date assessing the effect of preferential income-tax rates on small businesses. The second paper in this series, slated for release in 2006, will expand upon the analysis presented here.

The organization of this study is as follows. First, we present an overview of existing academic, peer-reviewed research on the effects of taxes on behaviour, that is, on work, savings, and investment. Next is a review of research on taxation and its effects on entrepreneurship. The final section summarizes studies investigating the different costs associated with different types of taxes.

The second section of the paper presents the current statutory business income tax rates, including both the general and the preferential rate available for small businesses. This section of the study documents the large incremental increases in the statutory business income tax rates incurred by small businesses as they grow and expand.

The third section of the study discusses the only study known to date that has analyzed the effects of preferential income-tax rates on small businesses, *Business Taxation of Small and Medium-Sized Enterprises in Canada*, written by Professors Hendricks, Amit, and Whistler for the Technical Committee on Business Taxation.

The final section gives conclusions and a set of recommendations designed to overcome problems that have been identified.

1 Review of existing research

Different taxes impose different costs on our society. To show how this is so, this section provides, first, a broad overview of research investigating the relationship between taxes and behaviour, that is, work, savings, and investment; second, a more narrow discussion of research on taxation and entrepreneurship; and, third, a summary of research on the economic costs of different taxes with particular emphasis on a recent study by the Federal Department of Finance.

General research on taxes and incentives

Economists generally agree that people respond to incentives. That is, people make decisions by comparing the costs and benefits of a particular action and, when either the costs or benefits change, people's behaviour also changes. A critical question is whether or not taxes distort people's incentives and thus their behaviour. How, then, do taxes and tax rates affect labour supply, investment, and savings?

Importance of marginal tax rates

The tax rate most important to an individual deciding whether to work an additional hour, to increase human capital through education, or to invest savings is the marginal tax rate, the tax rate on the last dollar of income earned. [2] It matters most because it is the rate that is used to calculate the return to incremental economic activity. The higher the marginal tax rate, the lower the return to additional productive activity. This reduces incentives for individuals and families to work, save, and invest. [3] Likewise, businesses also respond to incentives. That is, business taxes such as corporate income taxes, corporate capital taxes, and sales taxes applied to business inputs alter the after-tax rate of return of investments and increases the cost of capital for firms, which can alter their decisions about investment and capital allocation.

Tax rates and labour supply

Tax rates influence the behaviour of individual workers by altering the returns to labour. That is, changes to marginal tax rates alter the amount of additional income individual workers retain for their personal use after taxes are paid. This is a critical aspect of tax research since tax rates have been seen to influence entrepreneurial decisions.

One of the principle articles regarding marginal tax rates and labour supply is the 1995 article by Harvard Professor Martin Feldstein, "Behavioral Responses to Tax Rates: Evidence from the Tax Reform Act of 1986," published in *American Economic Review*. [4] Feldstein reviewed all of the major literature available on the impact of the Tax Reform Act of 1986 on labour supply in the United States. [5] He concluded that working hours and participation rates of men were generally insensitive to net wages but that working hours and participation rates of married women were substantially more sensitive. He further found that taxes affected the labour supply of men since the amount of "labour" also depended on the intensity of work effort, the

nature of the occupation, on-the-job acquisition of skills, and many other dimensions that can be influenced by changes in tax rates. [6]

Steven J. Davis and Magnus Henrekson (2004) recently published an interesting study investigating the long-run effects of national differences in tax rates on labour income, payrolls, and consumption. [7] The authors posit that higher tax rates reduce work time in the private sector and increase the size of the underground economy. After examining data from industrialized countries spanning the 1990s, they found that a difference in tax rate of 12.8 percentage points [8] leads to 122 fewer market work hours per adult per year, a decline of 4.9 percentage points in the employment rate, and an increase in the underground economy of roughly 3.8% of GDP.

Another recent study by Emanuela Cardia et al. (2003) attempted to isolate the effect of distortionary taxes on labour supply across several countries, including Canada and the United States. They found that a 10% decrease in marginal tax rates increased the weekly hours worked by between 4.5% and 18.0%, depending on the country and sample period: a 10% decrease in marginal tax rates increased weekly hours worked in Canada by 9.9% and, in the United States, by between 12.8% and 18.0%.

There is also evidence from European countries that tax rates influence labour supply. For example, Richard Blundell et al. (1998) examined changes in tax policy in the United Kingdom from 1978 to 1992 and their impact on labour supply. [9] They concluded that changes in after-tax wage rates were positively related with hours of work. [10]

In addition, Nobel-Prize-winning economist, Edward Prescott, found that the lower marginal effective tax rate on labour income in the United States compared to many European countries almost completely explained the differences in the labour supply (from 1993 to 1996 Americans worked 50% more than Germans, French, and Italians) (Prescott, 2004).

Tax rates and savings

Savings are critical within an economy since they finance the investments that provide new machinery, better technologies, and new methods of producing both new and existing products. Tax rates directly affect savings by changing the after-tax rates of return available to investors.

Eric Engen and William Gale (1997) investigated the impact on savings of a switch from the current progressive income-tax system in the United States to a flat-rate consumption tax. The authors hypothesized that reducing taxes on new savings would increase the after-tax rate of return to saving and provide an incentive for families to save more. Using a simulation model, the authors estimated that such a change would increase the long-term savings rate by approximately half of a percentage point and increase GDP by about 1% to 2% in the long run.

Vito Tanzi and Howell Zee (2000) investigated the relationship between taxation and household savings rates in OECD countries over 25 years. The authors found that total taxes, income taxes, and consumption taxes negatively affected household savings rates. In addition, income taxes were found to have a much greater impact on savings than consumption taxes, a finding that led the authors to conclude that replacing income taxes with consumption taxes would result in an increase in the household savings rate.

An important study by Altig et al. (2001) published in the *American Economic Review*, compared the effects of fundamental tax reform in the United States. They examined five revenue-

neutral reforms (proportional income tax, proportional consumption tax, standard flat tax, and two flat-tax options with transition relief) that broadened the tax base and reduced statutory marginal tax rates on labour and savings. The authors found that each tax reform had a positive impact on the net saving rate and that the move to a proportional consumption tax would have the most substantial effect.

An interesting method of determining whether or not marginal tax rates affect savings behaviour is to ask whether tax-deferred savings accounts are affected by marginal tax rates. The theory is that the more tax one must pay on an additional dollar of income (higher marginal rate), the greater incentive one has to reduce the portion of the dollar that is subject to tax. For example, investing in Registered Retirement Savings Plans (RRSPs) would reduce the portion of addition income subject to income tax. Kevin Milligan (2002) found that an increase in the marginal tax rate of 10 percentage points increased the probability of participation in tax-deferred accounts, specifically RRSPs, by 8%.

Milligan's findings were supportive of previous work completed in both Canada and the United States. Joulfaian and Richardson (2001) found that higher marginal tax rates tended to increase the probability of participation in tax-deferred retirement savings plans in the United States. Similarly, O'Neil and Thompson (1987) investigated the effect of the Tax Reform Act of 1986 on Individual Retirement Account (IRAs) usage and found that a decrease in the marginal tax rate of one percentage point decreased the probability of participation in an IRA by between .05% and 1%. [11, 12]

Tax rates and investment

There is an increasing consensus that capital investment is critical to the future well-being of a society. As discussed in the previous section, capital investment provides the tools (machinery, equipment, new technologies, etc.) that enable societies to become more productive. One of the most influential studies examining the relationship between business-tax policy and investment expenditures is Robert Hall and Dale W. Jorgenson's "Tax Policy and Investment Behaviour," which was published in the *American Economic Review* (1967). Examining the effects of three major tax revisions in the postwar period in the United States, the authors found that tax policy was highly effective in changing the level and timing of investment expenditures. [13]

Many subsequent studies have found that taxes have a significant impact on investment. [14] For example, Steven R. Fazzari, Glenn Hubbard, and Bruce Petersen (1988) found that lower average tax rates increased the amount of earnings firms have to reinvestment in capital spending. Jason Cummins, Kevin Hasset and Glenn Hubbard (1994) examined US tax reforms and found that the pattern of investment changed significantly and in a manner consistent with the tax changes subsequent to every major business tax reform since 1962.

A paper by Cummins et al. (1996) investigated the impact of tax reforms on investment in 14 OECD countries. Using data on the investment decisions of over 3000 firms from 1981 to 1992, the authors found that changes in tax policy had statistically significant impacts on investment behaviour in 12 of the 14 countries, including Canada. More recently, Gustavo Ventura (1999) modelled the effects of a broad-based flat tax reform initiative such as that proposed by Professors Hall and Rabushka. [15] Ventura concluded that the elimination of taxes on capital had a positive effect on capital accumulation. [16]

Business activity

Several studies have investigated the effect of business taxes on decisions about where capital investments should be located. Bartik (1991) examined a host of studies that estimated response rates (elasticities) of American business activity to state and local taxes. He concluded that the elasticity estimates ranged from between -0.10 and -0.60 for studies examining interstate activity with higher negative results for those looking at intrametropolitan activity. In other words, the findings of Bartik imply that a 1% increase in business taxes reduces business activity by between 0.10% and 0.60%.

More recently, Eugene Beaulieu and his colleagues (2004) at the University of Calgary investigated the effect of tax rates on manufacturing activity. They calculated effective marginal tax rates on marginal costs to estimate the real tax effect on marginal activities in the manufacturing sector. [17] The authors concluded that a 1% increase in the effective marginal tax rates on marginal costs (ETMRC) resulted in a loss of manufacturing activity of -0.33% or, more concretely, the loss of 115 manufacturing establishments in Canada.

Tax rates and economic growth

The influence of tax rates, particularly marginal tax rates, on labour decisions, savings, and investment will affect rates of economic growth. Two studies by European researchers Fabio Padovano and Emma Galli provide evidence of the negative effects of high marginal tax rates on economic growth. In their first study (2001), using cross-sectional time-series data for 23 OECD countries from 1951 to 1990, they found that high marginal tax rates and progressivity are negatively correlated with economic growth over the long run. [18] They followed up the original study with supplemental research that more specifically documented the effect of high marginal tax rates using a similar data series. They found that a 10% increase in marginal tax rates decreases the annual rate of economic growth by 0.23% (2002).

A number of other studies corroborate that high and increasing marginal taxes negatively affect economic growth. For example, Koester and Kormendi (1989) found that reducing the progressivity of the tax system while allowing the government the same tax revenue as a percentage of GDP leads to higher levels of national income. Similarly, Mullen and Williams (1994) concluded that “lowering marginal tax rates can have a considerable positive impact on growth ... creating a less confiscatory tax structure, while maintaining the same average level of taxation, enabling sub-national governments to spur economic growth” (1994: 703).

Becsi (1996) found that differences in marginal tax rates across American states have a statistically significant effect on relative rates of economic growth. For the time period examined, Becsi found that “state and local taxes have temporary growth effects that are stronger over shorter intervals and a permanent growth effect that does not die out over time” (1996: 34).

Engen and Skinner (1996) examined a number of studies looking at evidence from the United States and abroad. They concluded that “a major tax reform reducing all marginal rates by 5 percentage points, and average tax rates by 2.5 percentage points, is predicted to increase long term growth rates by between 0.2 and 0.3 percentage points” (1996: 34). [19]

Most recently, the *Journal of Public Economics* published a study of tax structures and economic growth by Young Lee and Roger Gordon (2005). The authors explored how tax policies affected a country’s growth rate using data from 70 countries between 1970 and 1997. They found that corporate tax rates were significantly negatively correlated with cross-country differences in

economic growth, even when controlling for various other determinants and covariates of economic growth. Specifically, the author's estimates suggest that a reduction in the corporate tax rate by 10 percentage points will raise the annual growth rate by one to two percentage points.

Conclusion

The evidence from economic research indicates that tax rates and, especially, marginal tax rates do indeed influence behaviour when it comes to working, saving, and investing. Perhaps most important is the insight that high and increasing marginal taxes have negative consequences on economic growth, labour supply, and capital formation.

Research on taxes and entrepreneurship

Taxes can affect entrepreneurial decisions in a number of different areas. For example, differences between personal and corporate taxes can influence decisions to start a business and the marginal rates of personal and business taxes can affect decisions to expand a business or undertake additional work. This section summarizes academic research investigating the influence of taxation on entrepreneurship.

The studies presented often use different definitions of entrepreneurship. One of the challenges in developing a better understanding of entrepreneurship is this lack of a clear and accepted definition of what constitutes entrepreneurship and entrepreneurial activity. For example, a commonly used definition of entrepreneurship is self-employment, although most researchers would readily admit that entrepreneurship is much more encompassing than self-employment.

Personal taxes

Donald Bruce has written several studies examining taxes and self-employment (one form of entrepreneurship). [20] His study from 2002 finds, "that higher tax rates on income from self-employment do not increase, and might actually reduce the probability an individual will exit self-employment" (2002: 21)." Similarly, an earlier study (2000) finds that marginal tax rates on income from self-employment that are higher than those on wages and salaries were found to increase the rate of entry into self employment. On the other hand, in a forthcoming paper in *Small Business Economics*, Bruce and Mohammed Mohsin find evidence that, for example, the top capital-gains tax rate and the top corporate income-tax rate negatively affect self-employment rates.

Two papers by Professors William M. Gentry and R. Glenn Hubbard (2004, 2000) provide empirical evidence indicating that there is a strong influence exerted by personal income taxes on entrepreneurship. For example, in "Tax Policy and Entrepreneurial Entry" (2000), they investigated the impact of tax rates and progressivity on the decision to become an entrepreneur (self-employed). The authors estimated that, "the increase in the spread in marginal tax rates from 2 percentage points to 7 percentage points between 1992 and 1993 would lower the probability of entering self-employment by 9%" (2000: 286). Gentry and Hubbard recently re-examined this relationship in their study, "'Success Taxes,' Entrepreneurial Entry, and Innovation" (2004) for the National Bureau of Economic Research (NBER). The results of this second study re-confirmed their initial results.

A series of papers by Robert Carroll and his colleagues, Douglas Holtz-Eakin, Mark Rider, and Harvey S. Rosen, shed light on the relationship between taxes and small business development. In "Income Taxes and Entrepreneurs' Use of Labor" (2000a), published in the *Journal of Labor Economics*, they examined income taxes and entrepreneurial use of labour and concluded that individual (personal) income taxes exerted a substantial influence on the probability that an entrepreneur would hire employees. They specifically found that raising the entrepreneur's tax price ($1 - \text{marginal tax rate}$) by 10% resulted in an increase in the average probability of hiring workers by about 12%. [21] In other words, a decrease in an entrepreneur's marginal tax rate increases the after-tax return of additional work undertaken by the small business and thus provides an increased incentive to hire additional workers.

A subsequent paper by the same group of scholars (2000b), published as a chapter in *Tax Policy and the Economy* (James Poterba, ed.), examined the relationship between personal income taxes and the growth of small firms (another definition of entrepreneurship) in the United States. The authors found that the greater the percentage increase in a sole proprietor's tax price ($1 - \text{marginal tax rate}$) between 1985 and 1988, the greater the increase in the business. For example, empirical analysis revealed that business revenues increased by about 8.4% when the sole proprietor's tax price was raised by 10%.

An earlier paper by Carroll et al. (1998) investigated the relationship between marginal tax rates and entrepreneurial investment. They found that high marginal tax rates lower the returns to investment and the incentives for entrepreneurs and investment: "a 5 percentage point rise in marginal tax rates would reduce the proportion of entrepreneurs who make new capital investment by 10.4%. Further, such a tax increase would lower mean capital outlays by 9.9%" (1998: 2).

Capital-based taxes

Christian Keuschnigg and Soren Bo Nielsen (2004) explore the relationship between capital gains taxes and business start-ups in their study "Start-ups, Venture Capitalists, and the Capital Gains Tax," which appeared in the *Journal of Public Economics*. The authors find that even a small capital gains tax involves a welfare loss and could indeed be a major impediment to the development of a high-quality venture capital that significantly adds value to young innovative firms.

Austan Goolsbee's study, "The Impact of the Corporate Income Tax: Evidence from State Organizational Form Data" (2004b), is a critical contribution to our understanding of how business taxes influence the organization of firms, a central question addressed in this study. [22] Goolsbee hypothesized that, by taxing the income of corporate firms at a different rate than non-corporate firms, taxes play an important role in a firm's choice of organization. The results indicate that increasing the corporate tax burden (and thus corporate taxes relative to personal income tax) negatively affects the share of corporate activity. Goolsbee finds that a "0.01 rise in the corporate income tax rate reduces the corporate share of firms by 0.025, of establishments by 0.019, of employment 0.015 and of payroll and sales around .01" (2004b: 2291).

Goolsbee (2004b) also estimates the impact that progressive corporate income taxes at the state level in the United States have on the incentives for firms to split. Specifically, Goolsbee hypothesizes that a rise in the maximum rate of state corporate tax in states with graduated rates might lead to a decrease in the proportion of corporate establishments to firms (larger firms have more establishments than smaller firms). In other words, a tax increase might provide a firm with

the necessary incentive to break up into numerous small firms with fewer establishments per firm. The empirical results confirm that an increase in the corporate tax rate reduced the number of establishments per firm in the corporate sector

Some important insights can be gleaned from a paper submitted to the Organisation for Economic Co-operation and Development (OECD) by Duanjie Chen, Frank C. Lee and Jack Mintz, [23] entitled *Taxation, SMEs and Entrepreneurship* (2002). [24] The objective of the paper was to provide analysis and recommendations regarding the taxation of small business. Among many recommendations, the study indicated that preferential tax treatment for small and medium-sized enterprises (SMEs) could be creating economic distortions, encouraging tax evasion, and creating artificial disincentives to growth.

Conclusion

The research on the influence of taxes on entrepreneurship is less developed than the more general research on tax incentives. That said, personal income taxes seem to influence the decision of individuals to undertake entrepreneurial activities and capital-based taxes influence the level, quality, and nature of capital investment. More importantly, capital-based taxes influence the organization of firms.

The cost of taxes

Different types of taxes impose different types and levels of economic costs on society. It is important to understand this in order to craft an apt and efficient way to eliminate tax barriers to small business growth and development. Taxes create economic distortions (costs) by altering the incentives to work, save, and invest, and by changing the relative prices of certain activities, goods, and services. Yet taxes are needed to supply the revenues that the state uses to finance the provision of government services. Thus, one of the key goals of any tax system should be to raise revenues in the least distortionary manner. Since different taxes will have different effects on efficiency and economic growth, one of the critical issues in tax policy is the mix of taxes jurisdictions use to raise the revenue they require.

Canada's Department of Finance

The federal Department of Finance recently undertook a study to evaluate the benefits to Canadian society from reducing a number of different taxes (Canada, Dep't of Finance, 2004). To do this, it calculated the long-term economic costs imposed by the main taxes used in Canada, focusing upon the effects that different types of taxes imposed on individual behaviour.

Taxes and behaviour: how and why different taxes impose different costs on society

Taxes on savings and investment Reducing taxes on investment income (interest, dividends, and capital gains) increases the after-tax rate of return, which leads to increased savings and a lower cost of capital for firms. The reduced cost of capital increases investment by making more investment opportunities viable. The resulting increase in capital investment increases worker productivity and ultimately wages. [25]

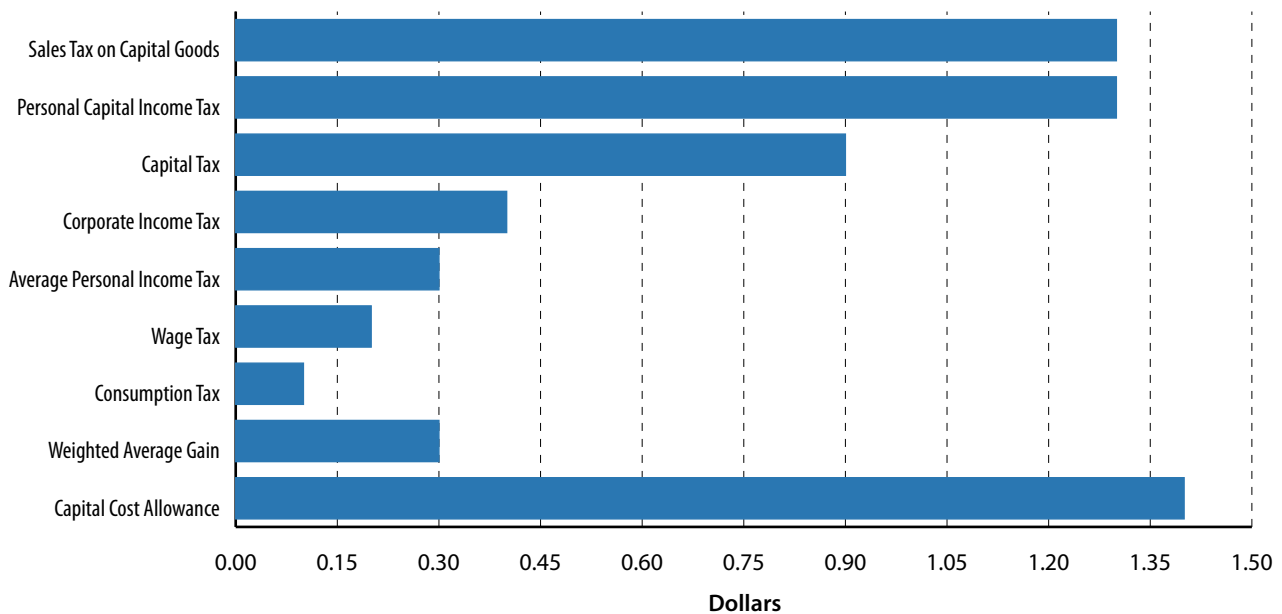
Taxes on capital Reducing taxes on capital, such as corporate income taxes, corporate capital taxes, and sales taxes applied to business inputs, also results in an increased after-tax rate of return, which lowers the cost of capital for firms. Like the previous example, this change results in increased investment and greater capital accumulation, which ultimately has beneficial effects on productivity and wages.

Taxes on wages and consumption Reducing taxes on wages and consumption raises the real wage rate for workers by increasing after-tax wages and decreasing the cost of consumption. This mix of tax reductions increases economic performance by increasing the number of hours worked.

The Federal Department of Finance’s analysis (2004) provided empirical evidence by using what is referred to as a General Equilibrium Model (GEM) to analyze the impact of different taxes. General Equilibrium Models provide a simplified representation of an economy and the interactions among different participants in the market. Specifically, these models are used to determine the impact or results of changes in an economy and allow policy makers to understand the economic consequences of policy decisions more clearly.

The model calculates the benefits of different types of tax cuts by assuming any revenue loss is offset by a non-distortionary “lump-sum” tax increase, which has no incentive effects on work, savings, or investment. Figure 1 presents the benefit estimates calculated by the Department of Finance across a number of different tax cuts. The benefit figures are presented in terms of a \$1 reduction in tax revenue. For example, decreasing personal income taxes on capital (dividends, capital gains, and interest income) by \$1 and increasing lump-sum tax revenues by

Figure 1: Long-run gains in well-being from revenue-neutral reductions



Note: Revenue loss is assumed to be recovered through lump-sum taxation.
 Source: Federal Department of Finance, 2004.

\$1 would result in an increase in society's well being of \$1.30. [26] At the other end of the scale, the smallest benefit (\$0.10) is received from a reduction in consumption taxes.

The results of the analysis indicate that much larger societal benefits are accrued when capital-based taxes, such as corporate capital taxes and corporate income taxes, are reduced. That is, there are much larger benefits for society when taxes imposed on savings and investment are reduced rather than those on wages and consumption.

Other studies: estimates of marginal efficiency costs

A number of studies have documented the economic impacts of various taxes using similar methods. A number of these studies have looked at the marginal efficiency cost (MEC) of taxes, trying to answer the question: What is the additional cost to the economy of raising an additional dollar of revenue from a particular tax?

There are two core studies on MECs. The first, as shown in table 1, presents the MECs calculated by the OECD (1997) for select Canadian taxes. [27] A second set of estimates, shown in table 2, is drawn from a study by Jorgensen and Yun (1991). These values (shown as dollars of economic cost for every dollar of additional tax revenue) are among the most widely cited measures of the marginal efficiency costs of taxation.

The cost estimates provided by the OECD indicate a significant difference in the costs to society from different taxes. Specifically, corporate income taxes (\$1.55) were shown to impose much higher costs than other more efficient types of taxes such as sales (\$0.17) and payroll (\$0.27) taxes. This study, like that of the federal Department of Finance, implies that large economic gains are available to Canadians from simply shifting the tax mix from capital-based taxes and personal income taxes to more efficient taxes such as consumption and payroll. The findings

Table 1: Estimates of marginal efficiency costs (MECs) for select Canadian taxes

	MEC (\$CDN)
Corporate Income Tax	\$1.55
Personal Income Tax	\$0.56
Payroll Tax	\$0.27
Sales Tax	\$0.17

Source: OECD, 1997.

Table 2: Estimates of Marginal Efficiency Costs (MECs) for select US taxes

	MEC (\$CDN)
Capital Income Taxes (Individual & Corporate)	\$0.924
Corporate Income Tax	\$0.838
Individual Income Tax	\$0.598
Payroll Tax	\$0.482
Sales Tax	\$0.256

Source: Jorgensen and Yun, 1991.

contained in Jorgenson and Yun's study, [28] support this conclusion, showing that it costs the economy much more to raise an additional dollar of revenue using capital or corporate income taxes than it does using consumption or payroll taxes.

Conclusion

A common finding throughout studies of the MEC of taxation is that business taxes are much less efficient than payroll or consumption taxes. Estimates of marginal efficiency costs by the federal Department of Finance and by Jorgensen and Yun show that consumption and payroll (wage) taxes are much more efficient (less costly) than income and capital-based taxes and that considerable efficiency gains can be achieved by reconfiguring the tax mix to move away from income and capital bases towards consumption bases.

2 Statutory income-tax rates for business

This section of the study examines the statutory income-tax rates for small and large businesses at both the federal and provincial levels. The key premise underlying this analysis is that the research presented in section 1 of this study suggests quite strongly that large marginal increases in tax rates will have negative effects.

Provincial income-tax rates for business

Table 3 and figure 2 show both statutory general business income-tax rates and statutory small business income-tax rates at the provincial level for 2005. [29] Every province except for Quebec [30] maintains preferential income tax rates for small businesses. The statutory small business income-tax rates range from a low of 2.0% in New Brunswick [31] to a high of 8.9% in Quebec. (Quebec will institute a preferential small business income-tax rate of 8.5% for eligible firms as of January 1, 2006.) Among the nine provinces that now offer preferential income tax-rates, Prince Edward Island maintains the highest statutory rate at 6.5%.

Preferential income-tax rates for small business apply over a the range of income. The thresholds for eligibility vary from a low of \$300,000 in three provinces (Saskatchewan, Prince Edward Island, and Newfoundland) [32] to a high of \$450,000 in New Brunswick. [33] The higher the threshold, the more income a small business can declare without paying the higher general business income-tax rate.

The most important aspect of the statutory business income-tax rates included in table 3 are the incremental increases faced by firms when moving from the small business income-tax rate to the general business income-tax rate. The research discussed above indicates that the larger the incremental increase, the stronger the incentive for businesses to find mechanisms through which they can remain eligible for the small business income-tax rate and the greater the disincentive to grow and expand the business.

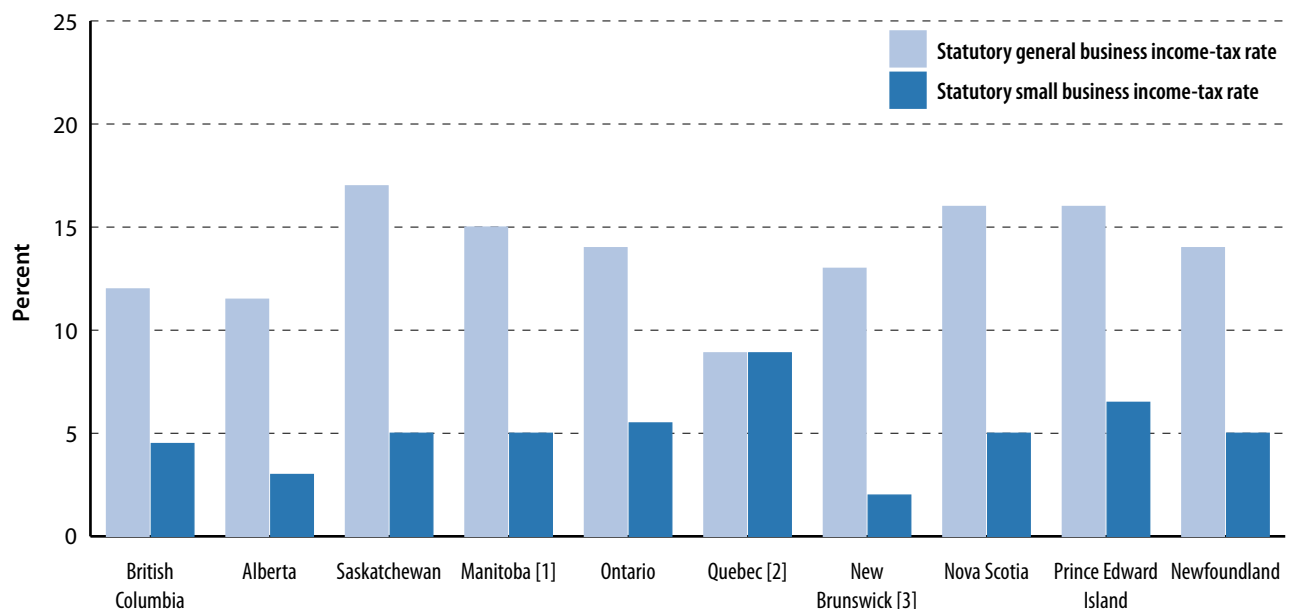
The largest gap between the statutory general business income-tax rate and the preferential small business income-tax rate at the provincial level is in Saskatchewan where the general business rate stands at 17.0% and the small business rate of 5.0%, a gap of 12 percentage points. In other words, the statutory income-tax rate for businesses in Saskatchewan increases 240.0% when a firm moves from the small business income-tax rate to the general business income-tax rate. New Brunswick and Nova Scotia follow closely with a gap of 11 percentage points between the general and small business income-tax rates. [34]

Technically speaking, Quebec has the smallest difference between the general business and small business income-tax rates since it does not differentiate: both types of business face a rate of 8.9%. Once Quebec fully implements its preferential small business income-tax rate and increases the general business income-tax rate, it will still have the smallest increase (3.4 percentage points) from the small business rate to the general business rate. [35] Among provinces that do currently have a preferential income-tax rate for small businesses, British Columbia has the smallest gap (7.5 percentage points). [36] Alberta and Ontario follow closely at 8.5 percentage points. [37, 38]

Table 3: Provincial statutory business income-tax rates in Canada (2005)

	Statutory general business income-tax rate	Statutory small business income-tax rate	Increase in statutory business income-tax rates (percentage point)	Percentage increase from statutory small business to general business income-tax rate	Threshold for small business income taxes (\$)
British Columbia	12.0	4.5	7.5	166.7%	400,000
Alberta	11.5	3.0	8.5	283.3%	400,000
Saskatchewan	17.0	5.0	12.0	240.0%	300,000
Manitoba [1]	15.0	5.0	10.0	200.0%	400,000
Ontario	14.0	5.5	8.5	154.5%	400,000
Quebec [2]	8.9	8.9	—	0.0%	300,000
New Brunswick [3]	13.0	2.0	11.0	550.0%	450,000
Nova Scotia	16.0	5.0	11.0	220.0%	350,000
Prince Edward Island	16.0	6.5	9.5	146.2%	300,000
Newfoundland	14.0	5.0	9.0	180.0%	300,000

Figure 2: Comparison of provincial statutory business income-tax rates (2005)



- 1 Manitoba plans to reduce its small business income-tax rate to 4.0% by 2007 while increasing the threshold to \$400,000; it also plans to reduce its general business income-tax rate to 14.0% by July 1, 2007.
- 2 Beginning January 2006, Quebec will implement a preferential small business income-tax rate of 8.5%. In addition, it plans to increase the general business income-tax rate to 11.9% by 2009, offsetting the previously planned federal business income-tax rate reduction (21% to 19%).
- 3 New Brunswick plans to reduce its small business income-tax rate to 1.0% and increase the threshold to \$500,000 effective July 1, 2007.

Sources: Treff and Perry, 2005; Alberta, Department of Finance, 2005; British Columbia, Department of Finance, 2005a, 2005b; Canada, Department of Finance, 2005; Manitoba, Department of Finance, 2005; New Brunswick, Department of Finance, 2005; Quebec, Department of Finance, 2005.

Combined federal and provincial business income-tax rates

The discussion above of provincial business income-tax rates does not capture the full magnitude of the increases incurred when a firm begins paying the general business income-tax rate rather than the small business income-tax rate because the federal government imposes income taxes on businesses in addition to the provincial levy. The federal government charges business income tax for eligible small business income [39] at a rate of 12.0% while 21.0% is the rate for general businesses. [40] The federal government's threshold for small business income eligible for the preferential small business income-tax rate is \$300,000.

Table 4 and figure 3 show both the combined federal-provincial statutory general business and the combined federal-provincial small business income-tax rates for 2005, by province. The combined statutory federal-provincial income-tax rates for small business range from a low of 14.0% in New Brunswick to a high of 20.9% in Quebec. Of the provinces that currently offer a preferential business income-tax rate for small businesses, Prince Edward Island has the highest combined statutory rate at 18.5%.

The results in the last column of table 4 are startling. This column shows as a percentage the incremental increase from the combined statutory income-tax rate for small business, if present, to the statutory general business income-tax rate. It is quite clear that successful small businesses face stark increases in the applicable business income-tax rate when they move from the preferential small business income-tax rate to the general business income-tax rate.

The largest percentage-point increase in statutory income-tax rates occurs in Saskatchewan where the applicable rate increases from a combined 17.0% to 38.0%, an increase of 123.5%. The largest percentage increase occurs in New Brunswick (142.9%) and is due to their relatively low provincial small business income-tax rate of 2.0%.

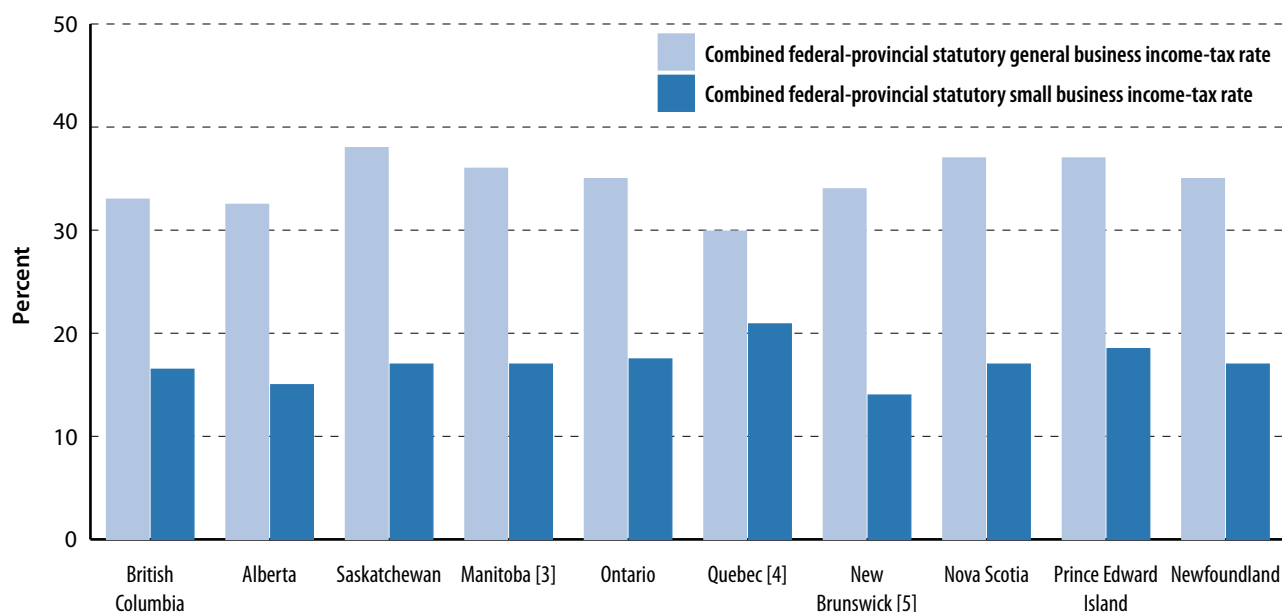
The smallest percentage-point or percentage increase, not surprisingly, occurs in Quebec where the provincial government does not currently offer preferential treatment for small businesses, which face only the increase in rates based on the jump in federal business income-tax rates; this results in a 9.0 percentage-point increase, representing a 43.1% increase. However, even after the province implements its preferential small business income-tax rate (2006) and increases the general business income-tax rate (2009), it will still have the smallest percentage-point increase (12.4) as well as the smallest percentage increase (60.5%). The enormity of the smallest increases indicates how large the incremental increases in statutory business income-tax rates are. That is, even the provinces that maintain the smallest relative increases in statutory business income-tax rates still show large absolute increases.

The smallest percentage-point increase in statutory business income-tax rates for the nine provinces that offer preferential income-tax rates is British Columbia at 16.5 percentage points, followed closely by Alberta and Ontario at 17.5 percentage points. The smallest percentage increase, again amongst the nine provinces that offer preferential tax rates for small businesses, is British Columbia, Ontario, and Prince Edward Island at 100.0%. Both measures indicate stark increases in the statutory business income-tax rates faced by small businesses that succeed in growing and expanding to the point where they face general business income-tax rates. It is this large increase in statutory business income-tax rates that creates a barrier to growth—the strong incentive for businesses to find mechanisms such as paying year-end bonuses or splitting their operations in order to retain their preferential small business income-tax rates.

Table 4: Combined federal and provincial business income-taxes rates in Canada (2005)

	Combined federal-provincial statutory general business income-tax rate [1]	Combined federal-provincial statutory small business income-tax rate [1, 2]	Increase in statutory business income-tax rates (percentage point)	Percentage increase from combined statutory small business to general business income-tax rate
British Columbia	33.0	16.5	16.5	100.0%
Alberta	32.5	15.0	17.5	116.7%
Saskatchewan	38.0	17.0	21.0	123.5%
Manitoba [3]	36.0	17.0	19.0	111.8%
Ontario	35.0	17.5	17.5	100.0%
Quebec [4]	29.9	20.9	9.0	43.1%
New Brunswick [5]	34.0	14.0	20.0	142.9%
Nova Scotia	37.0	17.0	20.0	117.6%
Prince Edward Island	37.0	18.5	18.5	100.0%
Newfoundland	35.0	17.0	18.0	105.9%

Figure 3: Comparison of federal and provincial statutory business income-tax rates (2005)



- 1 Federal government also imposes a 1.12 percent surtax on corporate income tax rates, raising the statutory rate for general business to 22.12 percent and the rate applied to small business to 13.12 percent.
- 2 The Federal Small Business Deduction (preferential rate) applies to reported taxable income below \$300,000.
- 3 Manitoba plans to reduce its small business income tax rate to 4.0% by 2007 while increasing the threshold to \$400,000; it also plans to reduce its general business income tax rate to 14.0% by July 1, 2007.
- 4 Beginning January 2006, Quebec will implement a preferential small business income tax rate of 8.5%. In addition, it plans to increase the general business income tax rate to 11.9% by 2009, offsetting the previously planned federal business income tax rate reduction (21% to 19%).
- 5 New Brunswick plans to reduce its small business income tax rate to 1.0% and increase the threshold to \$500,000 effective July 1, 2007.

Sources: Treff and Perry, 2005; Alberta, Department of Finance, 2005; British Columbia, Department of Finance, 2005a, 2005b; Canada, Department of Finance, 2005; Manitoba, Department of Finance, 2005; New Brunswick, Department of Finance, 2005; Quebec, Department of Finance, 2005.

3 Distribution of small businesses in Canada by taxable income

This section examines the distribution of small businesses eligible for the reduced small business income-tax rate by taxable income. The research presented in the first section of the paper combined with the analysis of statutory business income-tax rates in section two indicates that there is a strong tax-based incentive for small businesses to remain small. To date, the only known empirical analysis of the influence of the preferential small business income tax-rate is a study entitled *Business Taxation of Small and Medium-sized Enterprises in Canada*, written for the Technical Committee on Business Taxation by Professors Kenneth Hendricks, Raphael Amit, and Diana Whistler (1997). [41]

In their study, the authors use the Emerging Business Database (EBD), a longitudinal data-set that has records of all employer businesses that operated in Canada between 1984 and 1993. The EBD included approximately 900,000 enterprises that recorded employees. Most of the businesses in the EBD (96%) are Canadian Controlled Private Corporations (CCPCs) while the remaining 4% were non-CCPCs, including foreign-owned, private enterprises, public enterprises, and others.

An enterprise was added to the database (EBD) when it hired its first employees and was classified as incorporated in any year for which it filed a T2 form with Revenue Canada. [42] An enterprise is considered to exit the database when it no longer files a record of employment with the government.

The study covers a number of important aspects of small business in Canada, including the number of CCPCs versus non-CCPCs and their respective shares contributed to federal tax revenues, distribution of employment, and the value and distribution of the Investment Tax Credit. However, our interest rests solely in the analysis of the Small Business Deduction (SBD) and related areas.

Small Business Deduction (SBD) Analysis

Before summarizing the analyses and findings of the study by Hendricks et al. (1997), it is important to reiterate the meaning of the Small Business Deduction (SBD). Federal, as well as most provincial, corporate income-tax systems are structured on a general rate for all corporations with some sectors (manufacturing and processing) as well as small and medium-sized businesses receiving relief from the general rate. For example, general corporations face a federal corporate income-tax rate of 21% (2005) while eligible small and medium-sized enterprises (SMEs) receive a reduction in the effective rate to 12%. [43]

Similarly, most provinces provide business income-tax relief for not only SMEs but also selected sectors, most notably for manufacturing and processing. Generally, eligibility for the SBD is restricted to Canadian Controlled Private Corporations (CCPC) with capital less than \$15 million. [44]

The results of the analysis by Hendricks et al. are quite revealing and in many cases refute the generally held myths regarding the beneficiaries of the SBD. For example, it is commonly held that small, start-up firms benefit the most from the SBD, but Hendricks et al. indicates quite the opposite. The SBD provides more benefits to established corporations that remain eligible

for the SBD rather than to younger businesses and larger corporations. The authors specifically state that “in any given year, mature CCPCs account for most of the SBD claimed” (1997: 8).

More to the point with respect to this study, Hendricks et al. (1997) found that corporations were responding strongly to the tax incentives embedded in the preferential tax structure for small and medium-sized businesses. They specifically discussed the tax difference that exists between corporate and personal taxes above the SBD threshold (\$200,000):

In Canada, the dividend tax credit rate is set to ensure (approximately) full integration only on corporate income eligible for the small business deduction. The effective tax paid on corporate income above the \$200,000 limit that is distributed as dividends is approximately 16% higher than the personal tax rate. Thus, a CCPC that earns more than \$200,000 has a strong incentive to report taxable income as \$200,000 and to pay out the difference to its owners in the form of wages or bonuses. (1997: 8)

Table 5, derived from table 4.5 in Hendricks et al., illustrates the distribution of firms by their taxable income for 1992. It is clear that the overwhelming majority of firms (98.0%) claimed taxable income below the threshold of \$200,000. A similar pattern holds for the other sample year (1988).

Hendricks et al. concluded that “CCPCs appear to be responding to the tax incentive to keep taxable income below the threshold of \$200,000” (1997: 9). Put differently, the \$200,000 threshold for the SBD seems to create a strong barrier to growth and expansion given the higher tax liability owners will incur if taxable income exceeds the threshold.

One of the explanations offered for the preferential tax treatment of SMEs is that this helps to finance growth. Hendricks et al. examine this aspect of the SBD by following a specific cohort (1984 entrants) over time in order to ascertain whether or not the presence of a preferential tax rate afforded this group greater growth over time. Table 6 replicates table 4.6A from Hendricks et al., and provides a matrix analysis of firms that existed in 1985 and claimed the SBD and their status, by taxable income, in 1993.

Table 5: Distribution of firms by small business deductions (SBDs) (1992)

Taxable Income	Number of Firms	Percent of Total	Cumulative
Missing	17,423	4.2	4.2
\$0	191,216	46.1	50.3
\$1–\$10,000	74,039	17.9	68.2
\$10,001–\$50,000	71,791	17.3	85.5
\$50,001–\$100,000	26,848	6.5	92.0
\$100,001–\$150,000	12,266	3.0	95.0
\$150,001–\$200,000	12,849	3.1	98.1
\$200,001–\$500,000	5,875	1.4	99.5
\$500,001–\$1,000,000	1,257	0.3	99.8
> \$1,000,000	1,106	0.3	100.0
Total	414,670	100.0	

Source: Hendricks et al., 1997: 29; cumulative calculation by the authors.

Table 6: Growth of small businesses by taxable income—number of firms (1985–1993)

Taxable Income in 1985	Status in 1993				Exit	Public	Foreign	Missing	Total
	\$0	\$1–\$200,000	>\$200,000						
Missing	272	178	7	719	8	6	56	1,246	
\$0	3,306	2,145	73	6,854	33	22	171	12,604	
\$1–\$200,000	3,443	5,290	189	4,820	20	19	273	14,054	
>\$200,000	40	59	46	64		5	7	221	
Total number	7,061	7,672	315	12,457	61	52	507	28,125	

Notes: Small Business Deduction (SBD) values have been removed since the primary concern of this paper is the distribution of firms by taxable income. SBD data is available in Hendricks et al., 1997. Most small businesses are Canadian Controlled Private Corporations (CCPCs).

Source: Hendricks et al., 1997: 30 (table 4.6A).

It is quite apparent that most of the firms tracked have not experienced a marked increase in taxable income. For example, only 17% of firms that recorded \$0 taxable income in 1985 were able to increase their taxable income to a positive value between \$1 and \$200,000. In addition, a mere 0.6% were able to achieve an increase in their taxable income to over \$200,000. It is more likely that firms that recorded \$0 taxable income in 1985 experienced \$0 taxable income (26.2%) or actually exited the panel (55.0%).

Hendricks et al. concluded that “relatively few enterprises succeed in making the transition to categories in which they were paying the full corporate tax rate on all or some portion of their earnings” and “that the SBD program plays a significant role in financing growth for only a small fraction of CCPCs.” (1997: 10). In fact, the authors find that “the number of enterprises that made a transition from low or negative profit in 1985 to the high-income bracket in 1993 was only 262, less than 1% [of the sample]” (1997: 9).

Conclusion.

Hendricks et al. (1997) is a critical study since it directly analyzes the issue addressed in this study. The authors conclude that CCPCs are responding strongly to the tax-based incentive inherent in the preferential tax treatment of small businesses. In addition, the authors suggest that the SBD, i.e., preferential tax rates, are financing internal growth only for a very small minority of firms.

Conclusions and recommendations

The federal government and every province except Quebec, which will implement preferential tax treatment for small business in 2006, offers reduced income-tax rates to eligible small businesses. The preferential income-tax rates for small businesses range from a low of 2.0% in New Brunswick to 6.5% in Prince Edward Island. This compares with general business income-tax rates of 11.5% in Alberta to 17.0% in Saskatchewan. The federal government also offers a substantial discount: 12.0% for small businesses compared to a rate of 21.0% for all others.

The combined federal and provincial preferential small business income-tax rates, while designed with good intentions, have resulted in steep increases in statutory business income-tax rates for successful businesses that grow and expand. That is, as small businesses succeed in growing their operations, they risk a substantial increase in the applicable business income-tax rate. The smallest increase experienced by growing firms that move from the preferential small business income-tax rate to the general business income-tax rate occurs in British Columbia, Ontario, and Prince Edward Island, where the applicable statutory rates double. The largest increase occurs in New Brunswick where the statutory rates jump 142.9%.

This should be of concern since there is a large and growing consensus among economic researchers that taxes affect incentives and behaviour. For entrepreneurs, the research indicates that such steep increases in business income-tax rates create a powerful barrier, or disincentive, to growth and expansion. Put differently, the large increases in business income-tax rates as firms move from the small business income-tax rate to the general income-tax rate creates strong incentives to reorganize firms or pay out additional monies in salaries and bonuses rather than growing and expanding in order to avoid increases in taxation.

The economic research is further supported by a specific analysis, a 1997 study by Professors Hendricks, Amit, and Whistler for the federal government's Technical Committee on Business Taxation. Hendricks et al. (1997), the only known study to review this issue to date concluded that the steep increases in business income-tax rates impeded small business growth and development. Specifically, the authors found that it was mature small businesses as opposed to newer small businesses that benefited from the small business deduction and that firms were responding strongly to the tax incentives by remaining small.

The solution is to eliminate the preferential business income-tax rate for small businesses by reducing the general business income-tax rate. Given the overwhelming evidence of the damaging and costly impacts of business taxes on an economy, it makes little sense to equalize general and small business income-tax rates by raising the small business income-tax rate. A much better solution is to reduce the general business income-tax rate while aggressively increasing the small business income eligibility threshold in order to reduce the steep increases present at the federal and provincial levels.

Notes

- 1 The preferential income-tax rate for small business has several objectives other than to encourage the creation of small and medium-sized businesses. Perhaps most importantly, it removes the tax penalty associated with incorporation. In addition, the lower rate provides small businesses with increased cash flow to re-invest in the business. That is, small businesses are thought to have a more difficult time raising external funds than larger businesses.
- 2 For further information, see Chen (2000) and McKenzie et al. (1997).
- 3 In a statistical sense, both average and marginal tax rates can influence economic well-being. For example, a larger size of government (government spending relative to the total economy) with individuals facing higher average tax burdens can translate into lower economic performance. An expanding government tends to get involved in activities not consistent with furthering economic growth. For further information on the size of government, please see Clemens et al. (2003).
- 4 See also Feldstein (1995b) and Feldstein and Feenberg (1995).
- 5 Another study examining the labour-supply effects of the 1986 Tax Reform Act by Nada Eissa (1995) reached similar conclusions. Eissa examined the labour supply of high-income, married women before and after 1986. She found that women from high-income families adjusted their work to take better advantage of increased after-tax incomes available post-reform.
- 6 Feldstein's work was extended by Ziliak and Kniesner (1999) who also examined the 1986 tax reforms in the United States by looking at labour panel data between 1978 and 1987. They concluded that the large-scale reductions in marginal tax rates increased labour supply by about 3%.
- 7 The NBER paper can be found at <<http://papers.nber.org/papers/W10509>>.
- 8 Represents one unit standard deviation in the rich country sample used for the analysis.
- 9 Corroborating evidence from Sweden is provided by Anders Klevmarken (2000). Using longitudinal data covering the post-1991 tax reform in Sweden, which saw reductions in marginal tax rates, he concluded that working women increased their hours in the order of 10%.
- 10 An interesting analysis of physicians' response to tax rates by Norman Thurston (2002) provides some insight into how highly-paid professionals respond to changes in tax rates. Using responses from the Robert Johnson Foundation's Young Physicians Survey (1987 and 1991) Norman found that physicians in states with higher taxes were likely to work fewer hours and more likely to control their work schedule than those in states with lower taxes. He also found that physicians in states with higher taxes are more likely to miss more work due to illness or vacation.
- 11 Hubbard (1985) found that marginal tax rates also have a significant impact on the composition of assets held in savings portfolios.
- 12 Long (1988) updated the work of O'Neil and Thompson (1987) and found that the influence of the Tax Reform Act of 1986 on IRAs was smaller than originally determined but still positive and significant.
- 13 (1) the adoption of accelerated methods for computing depreciation for tax purposes in 1954; (2) the reduction of lifetimes used for calculating depreciation on equipment and machinery in 1962; (3) the investment tax credit for machinery and equipment of 1962.

- 14 For a more complete discussion of the impact of taxes on investment or capital accumulation, please see Veldhuis and Clemens (forthcoming, 2005).
- 15 For a discussion of the Hall and Rabushka Flat Tax proposal, see Clemens and Emes (2001).
- 16 Ventura also concluded that aggregate labour supply, measured in efficiency units, would also increase.
- 17 The study covered 21 manufacturing industries across six provinces (British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, and Quebec) over a 28-year period (1970–1997).
- 18 Progressivity refers to a structure of tax rates in which income-tax rates increase as an individual earns more income.
- 19 While this may appear small, the cumulative effective can be enormous. They speculated that, if an inefficient tax structure has been in place in the United States from 1960 to 1996, the amount of output currently lost would have totalled more than \$500 billion annually or 6.4% of 1996 GDP.
- 20 Bruce (forthcoming a) provides a detailed literature review of the empirical research on the effects of taxation on self-employment.
- 21 In addition, given that an entrepreneur chooses to employ workers, lower taxes also raise the total wage payments made to workers. The paper estimated that a 10% increase in the tax price would increase the median wage bills of entrepreneurs by 3% to 4%.
- 22 Goolsbee completed another paper in 2004, “Taxes and the quality of capital,” which examined how business taxes influenced the quality of capital.
- 23 Note that Jack Mintz was the head of the federal government’s Technical Committee on Business Taxation (1997). Professor Mintz is widely regarded as one of the leading authorities on taxation in Canada.
- 24 The paper submitted to the OECD by Chen et al. (2002) is quite similar to another paper completed by Jack Mintz and Arthur Anderson examining taxes and venture capital for the Centre for Innovation Law and Policy. The paper summarizes the most significant tax issues affecting venture capital: progressive personal tax rates; high effective tax rates on equity-financed investments; high effective tax rates on risky incomes; tax incentives for start-up investments; tax benefits for private companies. The study offered four broad conclusions: (1) 88% of small businesses do not grow; (2) Canadian venture capital owners tend to sell off shares through private means and use fewer initial public offerings compared to American capital firms; (3) there seems to be significant pools of venture capital available from the Labour-sponsored venture capital funds (LSVCF) that have had difficulty in meeting the 60% business investment limit; and (4) economic returns on investments in LSVCFs have been poor compared to the equity markets.
- 25 While the immediate increase in savings comes at the expense of an immediate decline in consumption, the subsequent increase in savings brings the benefit of higher levels of sustainable consumption in the future.
- 26 The results of the analysis completed by the federal Department of Finance are buttressed by similar findings contained in the 2005–06 provincial budget of Quebec, *2005–2006 Budget Plan*, “Section 6: Encouraging wealth creation.”
- 27 Note that these cost estimates do not include the cost of compliance.
- 28 There are a number of other studies examining the costs of different taxes in the United States: Feldstein (1999); Gravelle (1989, 2004); Gravelle and Kotlikoff (1993); Cai and Gokhale (1997); Lui and Rettenmaier (2004); and Holtz-Eakin and Marples (2001a and 2001b). For a summary of these studies please see US GAO (2005).

- 29 Please note that several provinces, including Quebec, Manitoba, and New Brunswick, have implemented multiple-year business income-tax rate reductions. Details of the various plans are available in the footnotes to this paper as well as in tables 3 and 4.
- 30 It is important to note that Quebec plans to move away from its policy of business income-tax neutrality both by reducing the small business income-tax rate to 8.5% from its current 8.9% for the first \$400,000 in income as of January 1, 2006 and by simultaneously increasing the general business income tax-rate to 11.9% from its current 8.9% by 2009. This increase is meant to offset the previously planned federal business income-tax rate reduction of two-percentage points, from 21% to 19%. It is unclear what the Quebec Government plans to do given the indefinite postponement of this initiative by the federal Government.
- 31 New Brunswick plans to reduce its small business income-tax rate even further to 1.0% while increasing the income threshold for eligibility to \$500,000 by July 1, 2007.
- 32 Note that Quebec technically has a \$300,000 threshold for small business income-tax rates for 2005 but there is no difference between the small business and general business income-tax rates. Please note once again, however, that as of January 1, 2006 the Quebec Government will institute a preferential small business income-tax rate while increasing the general business income-tax rate.
- 33 It is important to note that before 2000 the federal and provincial governments all shared a common threshold for eligible small businesses (\$200,000). Federal tax reforms implemented in 2000 allowed the provinces to set their own thresholds.
- 34 Note that the gap in New Brunswick will increase when they reduce their small business income-tax rate to 1.0% in 2007.
- 35 Represents a percentage increase of 40.0% in applicable statutory business income-tax rates between the two categories of firms.
- 36 Note that this was recently achieved through a 1.5 percentage-point reduction in the province's general business income-tax rate announced in the September 14, 2005 economic update. Prior to this change, it was Alberta and Ontario that had the smallest incremental increase at 8.5 percentage points.
- 37 The largest absolute percentage increase in applicable business income tax rates occurs in New Brunswick, where the rates leap from 2.0% to 13.0%, representing an astounding 550.0% increase.
- 38 Ontario maintains an additional barrier to business growth as a result of the 4.0% surtax imposed on taxable income over \$400,000. The surtax claws back the benefits of the lower small business rate. In other words, marginal rates increase when taxable income exceeds \$400,000 and then decreases after the benefits of the lower rate are completely clawed back.
- 39 In order for small businesses to be eligible for the reduced or preferential tax rate, they must be qualifying Canadian Controlled Private Corporations (CCPC) with assets below \$15 million. In addition, only a certain portion of their income is eligible for the preferential rate. The threshold for income eligibility at the federal level is \$300,000.
- 40 Recall that the federal government imposes a 1.12% surtax on business income-tax rates, raising the actual statutory tax rates to 22.12% for general corporations and 13.12% for eligible small businesses.
- 41 Working Paper 97-11 for the Technical Committee on Business Taxation. Available at <www.fin.gc.ca/toce/1998/brie_e.html>.

- 42 Enterprises whose structure changes as well as those that result from mergers and acquisitions, however, are treated differently. In order to eliminate false deaths and births of firms that would indicate that there are more or fewer firms than is actually the case, an enterprise that changes its name or breaks up into smaller units remains classified as one firm as long as there is no substantive change to the level of employment. If a new firm is created through a merger or acquisition, it is treated as having existed all along, adopting retrospectively the history of the lead enterprise and foregoing the history of the enterprise that was merged or purchased. While the authors acknowledge that losing enterprises from certain cohorts may create potential problems for studying cohort dynamics, they point out that the number of mergers and acquisitions is small and statistically insignificant.
- 43 Note that the federal government also imposes a 1.12% surtax on business income tax rates, raising the statutory rate for general business to 22.12% and the rate applied to small business to 13.12%.
- 44 Note that the preferential treatment begins to be phased out at taxable capital levels of \$10 million and is completely phased-out at levels of \$15 million.

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