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SUMMARY

- This essay reviews some of the common misunderstandings related to capital gains and their taxation.
- First, a significant body of research concludes that taxes on capital are among the most economically damaging. Two of the more important adverse effects from higher taxes on capital gains are that they raise the cost of capital and discourage entrepreneurship.
- Second, of the 36 industrialized countries included in the analysis, Canada currently ranks between 16th and 19th highest depending on the province for our capital gains tax rate. If the inclusion rate is increased to 75 percent, Canada's ranking is between 5th and 7th highest, depending on the province, for capital gains tax rates.
- Third, it is commonly believed that is largely the rich who earn capital gains, but this is a result of the way in which income is measured in most analyses. Specifically, the capital

- gains themselves are included in the measurement of income, which inflates the income of people claiming capital gains. The share of capital gains taxes paid by those earning more than \$150,000 per year (in 2020) falls from 77.4 percent when the capital gain is included in income to 48.0 percent when it is excluded. In other words, those earning less than \$150,000 a year pay a much greater portion of capital gains taxes than many believe.
- Moreover, the share of capital gains taxes increases from 12.8 percent for those earning less than \$100,000 when the capital gain is included in income to 38.4 percent when it is excluded.
- The analysis of who actually pays capital gains taxes, research on the consequences of higher capital gains taxes, and Canada's current lack of competitive advantage all point to the same conclusion: capital gains taxes should not be raised.

Introduction

Governments in Canada use a variety of mechanisms to collect revenue. Taxes often apply to income, but governments tax other activities as well, including consumption and investment. One type of taxation that will be the focus of this essay is capital gains taxes.

Capital gains taxes in Canada apply to the sale of capital property. This generally refers to something purchased for investment purposes or to earn income, including depreciable property and such items as real estate, securities and other investments, as well as equipment¹ (Canada Revenue Agency, 2020). Capital gains taxes can be incurred by either individuals or corporations upon the sale of eligible investments.

The application of capital gains taxes in their current form in Canada dates back to 1972. Since then, capital gains taxes have applied in some form to most sales of capital property. Only a portion of capital gains in Canada are included in taxable income. The inclusion rate, which is the share of the capital gain that is taxable, was initially 50 percent in 1972, raised to 66.7 percent in 1988, and raised again to 75 percent in 1990. Under the Chrétien government, two rounds of reductions were introduced to bring the inclusion rate down to 50 percent, where it has remained since 2000. A number of other, smaller changes have occurred in the past four decades, but this has been the basic structure since the inception of the capital gains tax system in Canada (Vaillancourt, 2019).

Recently, debate over the tax treatment of capital gains has intensified. Specifically, the federal government has repeatedly indicated its interest in increasing the tax on capital gains (Veldhuis and Fuss, 2020).

This essay is divided into three parts. Part one summarizes the existing economic research on capital gains. Part two examines Canada's capital gains taxation competitiveness with that of other OECD countries. Part three corrects a common misunderstanding about who actually pays capital gains taxes, specifically addressing whether it is true that the rich largely pay capital gains. We conclude with a brief discussion that ties the themes of first three sections together.

Part 1: What does the existing research tell us about capital gains?

Costs and efficiency

A large body of research has been conducted in Canada and other countries in an effort to further our understanding of taxation. One area of study that is particularly relevant to our discussion is the research on capital gains, and specifically the effects on efficiency, investment, entrepreneurship, and the cost of taxation, as well as other more technical items.

One way to measure the cost efficiency of taxation is known as the marginal efficiency cost (MEC). Research in this area calculates the efficiency cost of raising one additional dollar of revenue from a particular type of tax. By efficiency, we broadly mean the best possible use of society's scarce resources, or in other words, the allocation of those resources that yields the highest economic output. Put differently, efficiency cost measures the degree to which different taxes impose economic costs on society so as to allow the lowest cost alternatives to be

¹ This section is meant to be a general overview. There are a variety of exemptions and complexities to the specific application of capital gains taxes in Canada that are beyond the scope of our discussion here.

identified and hopefully relied upon to a greater degree than the higher cost options.

Baylor and Bauséjour (2004) modeled the Canadian economy in a working paper published by Canada's Department of Finance. Their research found that personal and corporate taxes impose higher costs than both consumption taxes and payroll taxes. However, their conclusions on the taxation of capital were most interesting. Of the seven types of taxation in their model, one of the two most damaging categories was personal capital taxes (such as capital gains). Put differently, tax reductions on investment (capital) and savings were found to yield greater efficiency gains than all other types of taxes that the authors evaluated. Dahlby and Ferede (2009) also looked at the Canadian economy from a marginal cost of funds (MCF) perspective, a similar approach to MEC. While they did not look specifically at capital taxes, their overall findings on the cost of funds is consistent with Baylor and Bauséjour, and further they note the costly nature of capital taxes (particularly from an investment perspective).

These findings are reinforced by research in the United States which details the costs of imposing taxes on capital. Jorgensen and Yun (1991) estimated the MEC for various types of taxation in the US. Consumption taxes were once again found to be the least damaging, at a cost of just \$0.26 per dollar raised, followed by payroll taxes (\$0.48), personal income taxes (\$0.60), and corporate income taxes (\$0.84). Capital taxes ranked at the top of the list, with a cost of \$0.92 per dollar raised. In other words, the welfare gains from reducing capital-based taxes significantly outweigh the benefits of reducing other forms of taxation (as discussed in Veldhuis and Clemens, 2006).

The "lock in" effect and investment

Aside from the cost of different forms of taxation, research has identified issues with how capital gains are taxed in Canada (and beyond). We mentioned earlier that efficiency relates to the most productive use of society's resources. This concept brings us to another issue that relates to both capital gains and efficiency, known as the "lock-in effect."

Capital gains are taxed on a realization basis. This means that the individual investor does not incur capital gains taxes until such time as he or she chooses to sell the asset, assuming the asset has appreciated in value. The result of this structure is that investors have an incentive to keep their capital invested in a particular asset, even when it may not be the best use of the capital. The result is that capital may not be employed in the most efficient and productive manner. As Clemens, Lammam, and Lo concluded, "capital that is locked into suboptimal investments and not reallocated to more profitable opportunities hinders economic output" (Clemens, Lammam, and Lo, 2014).

From an overall perspective, prominent Canadian economist Jack Mintz (2012) concluded more generally that the lock-in effect is a "drag on the economy." This is due simply to the fact that when investors have incentives to keep scarce capital in a particular investment longer than they otherwise would, this situation prevents that capital from being reallocated to better, more productive uses. Less productive uses of capital mean overall returns to capital are lowered, which affects the strength of the economy as a whole.

Inflation

Before discussing Canada's competitiveness and who actually pays capital gains taxes, there is one other practical issue to mention: inflation, which changes the value of money over time. Inflation has important implications for taxation. For example, inflation is accounted for in Canada's treatment of personal income taxes, which are, by and large, indexed to inflation. This means that personal income tax-related items like the basic personal exemption and income thresholds for the various personal income tax rates are "indexed" to inflation (Canada, 2020), meaning that they rise each year in accordance with the price level.

Unfortunately, an inconsistency arises in the tax treatment of capital gains, insofar as Canada's capital gains tax regime does not account for inflation. An example may be illustrative. Investor One purchases an asset in the year 2000 and is preparing to sell it today, incurring capital gains taxes on 50 percent of the increased value from the time it was bought. This investor has experienced 20 years of inflation, i.e., general increases in price levels, in addition to real appreciation of the asset value itself. Investor Two purchases an asset in 2018, and (for the sake of the example), has experienced the same overall increase in asset value. Since the two assets are being sold for the same price in 2020, with the same overall increase in value and the same beginning price (holding all else constant) both investors will incur the same tax burden.

But are both situations actually the same? Certainly not. Depending on the rate of inflation, Investor One could have experienced no real gain in the appreciation of the asset (i.e., only gains equal to the rate of inflation), while Investor Two, due to a shorter time horizon and thus likely the much smaller impact of inflation, could experience gains that are almost entirely real. In discussing the inflation problem, Mintz and Wilson (2000) noted that even with a low inflation rate of 2.0 percent, the value of an asset held over 20 years will decline by a third in real terms. Yet, as we explained above, both investors incur the same tax burden. The taxation of "inflationary" versus "real" gains is not only problematic from a fairness perspective; it is inconsistent with other aspects of Canada's tax regime.

Some researchers have likened the inflation problem to a "tax on fictitious income" (York, 2019) because these gains do not represent an increase in real wealth. The result is an increase in the effective rate of tax on savings and investment. A variety of reform options are available; however, for our purposes here it is sufficient to note the inflation problem and how it fits into Canada's overall capital gains tax regime.

The research discussed above clearly demonstrates that capital gains are among the most economically damaging forms of taxation. In addition to more technical concerns, such as taxing inflation, taxing capital gains has been shown to have adverse effects on entrepreneurship and investment, and is a high-cost form of taxation. This body of research provides important background for the current and future state of capital gains taxes in Canada. We will now build on this by examining tax competitiveness and looking at who actually pays such taxes.

² For a broader discussion of the inflation problem as well as the costs and benefits of various reform options (such as indexing), interested readers may consult Lochan (2002).

Incentives

It is also important to consider the incentive effects of capital gains taxes. It is well established that different types of taxes affect the behaviour of individuals and business differently (Feldstein, 2008). What is mainly of concern here is the types of behaviours that are affected by capital gains taxes—two behaviours in particular: entrepreneurship and investment.

One US study looked at the effects of different types of taxes on the self-employment rate (as a way of measuring entrepreneurship). The authors found a 0.11 to 0.15 percentage point increase in the self-employment rate for every one percentage point decrease in the capital gains rate (Bruce and Mohsin, 2006). At a more basic level, higher taxes on capital affect entrepreneurs by making it more expensive to invest in assets, which in turn affects productivity and the ability to generate profit with those assets.3 In general, policies that increase the cost of doing business make it less attractive for individuals to become entrepreneurs, and make business success more difficult for existing entrepreneurs.

Looking more closely at the issue of investment, Veldhuis, Godin, and Clemens (2007) detailed a number of negative investment-related effects that come from our system of capital gains taxes. First, as mentioned above, these taxes impede the reallocation of capital from less productive to more productive uses through the lock-in effect. Second, capital gains taxes reduce returns on investment and therefore have a negative effect on the economy. Third, the authors noted that investment is particularly sensitive to increases in cost, i.e. taxes.

We will expand on the second and third factors by way of an example. When individuals and corporations earn income, they must then decide what to do with that income. Some income will go toward consumption, i.e., the purchase of goods and services. Another portion may be set aside for future use, i.e., savings. What is left is available for investment. For example, a corporation may invest in equipment, or an individual may invest in real estate or mutual funds (among many other possibilities).

When the individual or corporation chooses to sell that asset, assuming it has gained value they will face a capital gains tax bill. The existence of capital gains taxes necessarily reduces the return to the investment in the asset by imposing a cost. Higher capital gains taxes mean lower returns on the investment. The individual or corporation therefore has less incentive to invest (due to the lower return), and therefore may choose to consume more or use their income in another manner. This is important to the economy as a whole because, as we have detailed, investment is crucial for growth (Conference Board, 2011).

Weil (2010) notes a strong positive correlation between total (government and private) physical capital invested per worker and income per worker across developed countries. In other words, countries with higher amounts of physical capital invested per worker tend to have higher incomes. This adds another dimension to our discussion. Taxation of private capital could easily be mistaken as something that only pertains to the rich or is divorced from the concerns of the working class. However, the reality is contrary to this notion. Not only does capital relate closely to incomes, but as we will discuss in more depth later on, capital gains taxes are paid for by middle-income workers more often than one might think.

³ In addition to the direct increase in the cost of doing business that results from capital gains taxes, firms also bear the burden of compliance costs that result.

Part 2: International comparisons and Canada's competitiveness⁴

Given that investors have choices to make about where to allocate capital, Canada's competitiveness on all forms of taxation is an important matter. In this section, we evaluate how Canada's taxation of capital gains compares to that of peer countries in the OECD. Specifically, we evaluate Canada's competitiveness now, and also look at the effect of potential increases to the capital gains inclusion rate.

Figure 1 illustrates the data for the top capital gains tax rates in OECD countries in 2019 and, for comparison, we include rates for the lowest-tax Canadian province and U.S. states. For the purposes of this comparison, the top capital gains tax rate refers to the tax rate applied to individuals who incur capital gains taxes and who are in the top income tax bracket for personal income taxes. As figure 1 shows, Canada's current taxation of capital gains makes it a middle-of-the-pack country ranging from a low of 23.8 percent in Saskatchewan to a high of 27 percent in Nova Scotia.⁵

⁴ Professor Jonathan Rhys Kesselman raised an issue with the US tax rates on capital gains in a column in the Financial Post (https://financialpost. com/opinion/rhys-kesselman-getting-the-factsstraight-on-capital-gains-tax) which led the authors to review the data taken from the PWC studies. That led to a realization that PWC only included US federal tax rates in its calculation of the capital gains tax rate. A thorough review of all the countries included in figure 1 was completed to ensure that all stated rates are comparable and include multiple

levels of government, if applicable.

One consideration to draw from this data is that Canada has effectively no capital gains tax advantage over more than half of the OECD countries. Some countries such as Switzerland, the Netherlands, Luxembourg, and Belgium have no general capital gains taxes.6

The federal government is facing questions over suggestions that it might increase the capital gains inclusion rate as a possible measure to raise revenue. The government has refused to clarify its position on the possibility of an increase in the capital gains inclusion rate to 75 percent, where it stood as recently as the 1990s. An increase in the inclusion rate to 75 percent would increase capital gains tax rates to between 35.6 percent (Saskatchewan) and 40.5 percent (Nova Scotia) depending on the province. This would result in a deterioration of Canada's competitiveness with respect to capital gains. For instance, of the 36 industrialized countries (OECD countries) included in the analysis, Canada's ranking for its capital gains taxes would deteriorate from between 16^{th} to 19^{th} with current rates to between 5^{th} and 7th highest with a higher inclusion rate. Indeed, depending on the province, only Korea, Australia, Italy, Denmark, Turkey, and certain high-tax US states such as California would have higher capital gains tax rates than Canada.

⁵ As of 2020 there are 37 OECD countries. However, New Zealand was excluded from our analysis due to a discrepancy between different sources on the tax treatment of capital gains.

⁶ For further discussion of countries with no capital gains taxes, consult Clemens and Lammam (2014).

⁷ As mentioned, the effective rate of capital gains taxes depends on personal marginal tax rates, which have been generally rising in Canada in recent years. See Hill, Li, and Palacios (2020) for an analysis of personal income tax rates.

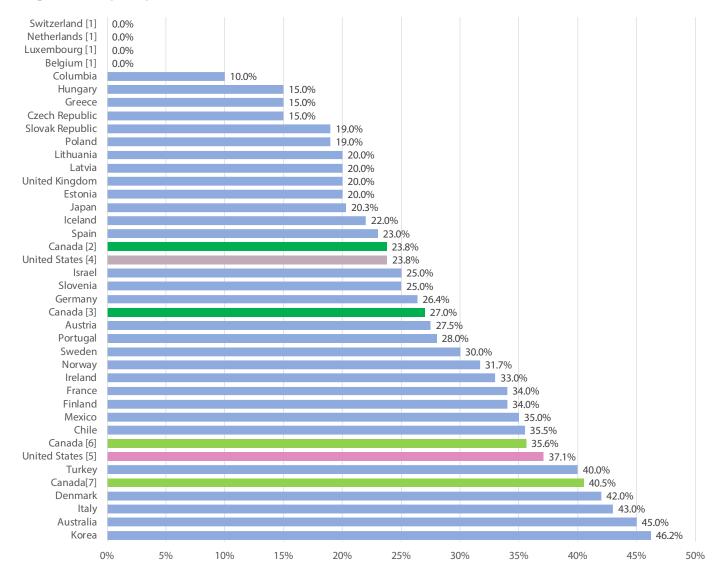


Figure 1: Top Capital Gains Tax Rates for 2019

- 1 These four countries have capital gains taxes but they are narrowly applied to very specific assets and circumstances. See PWC (2020a), KPMG (2020), and EY (2020) for details.
- 2 Saskatchewan has the lowest top marginal personal income tax rate upon which capital gains taxes are calculated. Thus, the lowest combined capital gains tax rate in Canada exists in Saskatchewan at 23.8 percent using the current inclusion rate of 50%.
- 3 Nova Scotia has the highest top marginal personal income tax rate upon which capital gains taxes are calculated. Thus, the highest combined capital gains tax rate in Canada exists in Nova Scotia at 27.0 percent using the current inclusion rate of 50%.
- 4 There are nine U.S. states that have no state-level tax imposed on capital gains, which means in these states only the federal rate applies to capital gains taxes.
- 5 California has the highest state-level capital gains tax rate, which means nationwide the highest combined capital gains tax rate exists in California at 37.1 percent.
- 6 If the inclusion rate were increased to 75%, Saskatchewan would still have lowest combined capital gains tax rate but it would increase to 35.6%.
- 7 If the inclusion rate were increased to 75%, Nova Scotia would still have highest combined capital gains tax rate but it would increase to 40.5%.

Note: As of 2020 there are 37 OECD countries. However, New Zealand was excluded from our analysis due to a discrepancy between different sources on the tax treatment of capital gains.

Sources: PWC (2020a); PWC (2020b); EY (2020); KPMG (2020); authors' calculations.

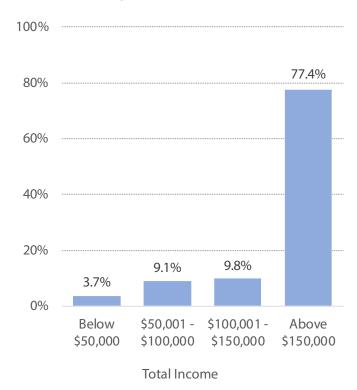
Part 3: Who pays capital gains taxes in Canada?

Having established some of the fundamentals around capital gains taxation in Canada, we now turn to another important question: who actually pays capital gains taxes in Canada? The mention of capital may lead some to think that these taxes are paid for by the wealthiest members of society. However, the data on the distribution of who actually pays capital gains taxes tells a much different story.

To calculate this estimate, we used Statistics Canada's Social Policy Simulation Database and Model (SPSD/M).8 SPSD/M is a micro-analysis system that includes detailed information drawn from a number of specialized databases for more than 1 million Canadians in over 300,000 households. It includes approximately 600 variables for each individual including earnings, taxes paid, transfers received from government, and demographic characteristics. It is the only integrated database available in Canada. The SPSD/M currently relies on data from a number of surveys and other sources from 2016, which is then used to forecast to 2019.

The first step in this analysis is to observe the distribution of capital gains income across different levels of total personal income. Figure 2 shows the share of total capital gains taxes

Figure 2: Estimated Capital Gains Tax by Income Group, 2020



Source: Authors' calculations using SPSD/M 28.0.

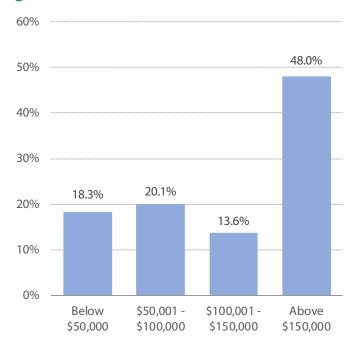
Note: For economic families (all types), distributed by total income for tax purposes.

paid across four different income groups⁹: under \$50,000, \$50,001 to \$100,000, \$100,001 to \$150,000, and above \$150,000. As figure 2 illustrates, the overwhelming majority of capital gains taxes are paid by those with \$150,000 or more in annual income. Specifically, slightly more than three-quarters (77.4 percent) of total capital gains tax was paid by families with

⁸ This description of SPSD/M first appeared in "Is the Canada Child Benefit Targeted to those Most in Need?" by Christopher Sarlo, Jason Clemens, and Milagros Palacios: https://www.fraserinstitute.org/sites/default/files/is-the-canada-child-benefit-targeted-to-those-most-in-need.pdf. The authors are indebted to Joel Emes for his assistance in preparing the calculations for this section within SPSD/M.

⁹ This analysis is based on Statistics Canada's Social Policy Simulation Database and Model. The assumptions and calculations underlying the simulation results were prepared by the authors and the responsibility for the use and interpretation of these data is entirely that of the authors.

Figure 3: Estimated capital gains tax by income group (less taxable capital gains), 2020



Total Income less Taxable Capital Gains

Source: Authors' calculations using SPSD/M 28.0. Note: For economic families (all types), distributed by total income for tax purposes.

\$150,000 or more in annual income. These results certainly buttress the general impression that capital gains income and thus capital gains taxes are largely borne by upper-income earners.

However, for many Canadians, capital gains taxes are incurred irregularly, or perhaps even just once. An example may be illustrative. Consider a small business owner who sells the company (or the assets of that company) as he or she prepares to retire. In that case, the business owner will incur a large capital gain in the year they sell the business or asset.

This is relevant to the understanding of who pays capital gains taxes due to how that one large capital gain shows up in the underlying data. Other research claiming that capital gain taxes are paid only by high-income earners tends to count these individuals among the "high earners." In reality, they often have modest incomes in the years leading up to the capital gain and in years thereafter. However, in the data, they show up as a high earner because for that one year in which they disposed of a capital asset, that sale caused their income to spike temporarily. In other words, the problem with the underlying income data is that it includes the income from the capital gain.

Figure 3 illustrates the updated results of the analysis from figure 2 by removing capital gains income from the calculation of total personal income. That is, the analysis examines the level of personal income before the capital gain income is added. When taxable capital gains are removed from income, the effect of those who have sporadic gains are also removed, and a truer picture of the distribution of capital gains income and taxation emerges.

As figure 3 illustrates, the reality is that less than half of the total capital gains taxes paid are from those who have a personal income (excluding taxable capital gains) over \$150,000. In total, families earning less than \$150,000 pay 52 percent of all capital gains taxes. The largest single category of capital gains tax payers (aside from those who make \$150,000 or more) is those who make \$50,001 to \$100,000, while

¹⁰ This analysis is based on Statistics Canada's Social Policy Simulation Database and Model. The assumptions and calculations underlying the simulation results were prepared by the authors and the responsibility for the use and interpretation of these data is entirely that of the authors.

those with incomes below \$50,000 are responsible for almost one-fifth of the total capital gains taxes paid.

Conclusion

The taxation of capital gains in Canada is an important matter of public policy. As we have seen, capital gains taxes have significant effects on investment and entrepreneurship, among other issues that include efficiency, cost, and overall economic growth.

The literature reviewed here supports either a significant reduction in, or even the complete elimination of, capital gains taxes. This finding is particularly important in light of the data discussed in parts 2 and 3 of this essay. Part 2 demonstrated how Canada is currently a middle-of-the-pack country (compared to the OECD) in its treatment of capital gains taxes, ranking 23rd highest out of 36 countries at a 50 percent inclusion rate. Canada's position would deteriorate to fifth-worst out of 36 should the country move to a 75 percent inclusion rate.

Many proponents of increased capital gains taxes advocate for these policies on the false premise that it is only the rich who pay capital gains taxes. As Part 3 has shown, the share of capital gains taxes paid by those who make more than \$150,000 per year falls from 77.4 percent to 48.0 percent when the income from the capital gain itself is excluded. Moreover, for those earning less than \$100,000, their share of capital gains taxes increases from 12.8 percent when the capital gain is included in income to 38.4 percent when it is excluded. Lower capital gains taxes can have a positive effect on incomes through increased investment and productivity, which runs contrary to the perception that such reforms only benefit wealthy Canadians.

This data provides an important clarification for the calculation of who actually pays capital gains taxes, and this information should bring further clarity to the ongoing discussions about taxing capital gains. We know from the research literature that higher capital gains taxes can have significant adverse effects on investment, entrepreneurship, and productivity growth. However, sometimes these concerns are brushed aside with the simple-and erroneous-claim that capital gains taxes are an avenue to tax the wealthiest members of society. As figure 3 shows, that isn't the case, so we're left with a situation in which not only do higher capital gains taxes cause economic harm, but they are not paid exclusively-or even mostlyby society's higher-income members.

When looking at capital gains taxes, a consideration of who actually pays the tax, Canada's competitiveness position, and a review of the applicable literature all indicate that capital gains taxes should be reduced or even eliminated.

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