

No Free Lunch for the 99 Percent



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Estimating Revenue Effects from Taxes on Top Earners

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Contents

Executive Summary / i

Introduction / 1

Recent Developments Surrounding Top
Marginal Income Tax Rates / 2

The Revenue Implications of Higher Personal
Income Taxes on Top Earners / 4

The Limitations of Other Strategies for Generating Income
from Top Earners and Wealthy Canadians / 14

Discussion / 19

Conclusion—No Free Lunch for the 99 Percent / 22

Appendix—Methodology / 23

References / 25

About the Authors / 30

Acknowledgments / 31

Publishing Information / 32

Supporting the Fraser Institute / 32

Purpose, Funding, and Independence / 33

About the Fraser Institute / 33

Editorial Advisory Board / 34

Executive Summary

Across North America pundits have advocated, and politicians have implemented, higher marginal income taxes on individuals and households near the top of the income distribution. Calls to increase income taxes on the top one percent of taxpayers have been particularly prevalent. The most common rationale for these types of tax increases is to fund additional government spending. But, several recent analyses have indicated that these tax rate increases have generated little, if any, additional revenue for governments in Canada.

Although governments across Canada at the federal level and in five provinces have in recent years heeded the call and raised their top marginal personal income-tax rate, the effect of these tax increases on government revenue has been disappointing. As a result of changes in economic behaviour on the part of those affected by the increased rate, increases in the tax rate have generated little additional revenue. The evidence of weak effects upon revenue have been particularly compelling in several recent analyses of the 2016 federal income-tax increase. This study reviews that literature and provides an independent analysis of the revenue effects of further increases to the top federal PIT rate above its current level in 2021. It arrives at the same conclusion of negligible revenue effects.

Raising the top personal income-tax rate has limited scope to increase government revenues in Canada given current administrative and enforcement rules and infrastructure. However, other approaches to generate money from individuals in the top one percent of income earners and other wealthy Canadians have been proposed. This study discusses several of these ideas and identifies challenges that limit their ability to raise significant additional revenue from high-income Canadians. More specifically, we examine increasing corporate taxation, implementing a wealth or estate tax, and raising the effective rate of tax on capital gains. In each case, we find that the shrinkage of the tax base, tax avoidance, and the complexity of tax incidence impose significant limitations on the ability of these taxes, even taken cumulatively, to raise sufficient revenue from the top one percent to fund a major expansion of the federal government.

This evidence suggests that financing a major expansion of government over the long term will require tax increases that affect individuals and economic families across a wider range of the income and wealth spectrum. Specifically, we calculate that, to offset

a 20% increase in federal spending through a broader “across the board” increase to personal income tax, would require increasing each tax bracket by 5.5 percentage points. This would raise the bottom tax bracket from 10% to 15.5%. Alternatively, we show that offsetting a similar expansion in the size of the federal government (assuming no behavioural effects) by increasing the GST would require an 11 percentage-point increase, from its 5% level today to 16%.

The policy implication of this analysis is that there is “no free lunch for the 99 percent” of taxpayers in Canada. The evidence does not support the notion that higher taxes on wealthy Canadians alone can fundamentally alter the federal government’s capacity to finance new spending. Instead, generating sufficient revenue to significantly increase federal spending would require broader-based taxes that generate revenue from individuals and households across a larger range of the income and wealth spectrum.

Introduction

Across North America in recent decades, pundits have advocated, and politicians have implemented, higher marginal income taxes on individuals and households near the top of the income distribution. Calls to increase income taxes on the “top one percent” have been particularly prevalent. Since the onset of the 2008/09 recession, Canadian policy makers at the federal level and in five provinces have heeded this call, increasing their top marginal tax bracket. At the federal level, the top tax bracket approximately coincides with the top one percent of income earners.

This study provides a brief survey of recent research about the efficacy of these increases to the top marginal income-tax rate as a revenue generating tool. It also discusses the related issue of the potential for further increases in the top income-tax rate to generate additional revenue and discusses other options for raising revenue. We also examine alternative options for raising tax revenue from high income and wealthy families and discuss the implications for public finances. To summarize, we seek to assess the extent to which a range of policies aimed at taxing Canadians in the top one percent would be likely to generate sufficient revenue to finance a major expansion in the role of government¹ or, rather, if a substantial increase in government spending over time would require tax increases across a broader range of the income and wealth spectrum.

The plan of the paper is as follows. In the first section, we examine the extent to which governments across Canada have increased personal income-tax (PIT) rates since the end of the 2008/09 recession. Next, we provide a brief overview of recent evidence surrounding the revenue effects of the recent increase to the top marginal income-tax rates on those earning a high income. In the following section, we briefly examine alternative strategies that have been presented for obtaining additional revenue from high-income and wealthy households. We then consider the implication of these results for public finances in Canada and the extent to which higher taxes on the top one percent can finance a substantial expansion in the size of government and public services. A final section briefly concludes.

1. For example, a recent publication (Hemingway, 2021) published by the Canadian Centre for Policy Analysis recommends increasing federal program spending by 20.3% relative to the current baseline scenario by 2024/25. This estimate is a provides a useful point of reference when the concepts of “substantial” or “significant” increases in spending or taxation are introduced. Further, given the recent agreement to parliamentary co-operation between the federal Liberals and NDP, it is noteworthy that a recent analysis showed that implementing all of the spending commitments promised in the Liberal and NDP campaign platforms in the most recent election would increase real per-person spending to approximately 18% higher than the pre-COVID levels of 2019/20 (Fuss, Palacios, Li, and Hill, 2021).

Recent Developments Surrounding Top Marginal Income Tax Rates

In recent years across North America, there have been widespread calls to increase taxes on high-income and wealthy individuals. For example, an online petition recently posted by the Broadbent Institute (2021) asks supporters to endorse its call to “Tax the Rich: Fund Progress Now”. As we will see, governments across the country have heeded this advice in recent years with, by far, the most popular tool for achieving these objectives being increases to the top marginal personal income-tax rate.

Multiple rationales have been presented for raising marginal income-tax rate for high earners. Prime Minister Justin Trudeau explained his government’s decision to increase the top marginal federal tax rate from 29% to 33% as a method for generating revenue to fund a reduction in the tax rate for one of the lower brackets from 22% to 20.5% (Aiello, 2021). Ontario’s government framed its increase to its top income-tax rate in 2012 as a measure intended to reduce the large deficit then facing the province, explicitly calling its new highest tax bracket “the deficit-fighting high-income tax bracket” (Ontario, Ministry of Finance, 2012). Analysts writing for the Canadian Center for Policy Alternatives have suggested that increased revenue from a higher top tax bracket could be used to finance an expansion in government programs and services (Sanger and Osberg, 2019).

Although the governments enacting them have identified different reasons for doing so, increases to the top PIT rate have been implemented by several governments across the country. As noted, the federal government in 2016 increased its top PIT rate from 29% to 33%. There have also been increases at the provincial level since the end of the 2008/09 recession. **Table 1** shows changes in the top provincial tax rate between 2010 and 2021. British Columbia increased its top PIT rate by 5.8 percentage points. Alberta raised its top rate by 5 percentage points. The increase in Ontario was 3.12 percentage points. Quebec increased its top rate by 1.75 percentage points, New Brunswick by 6.0 points, and Newfoundland & Labrador increased its top rate by 3.9 percentage points.²

Of course, federal and provincial tax rates are applied to the same tax base, which means taxpayers in these provinces were subjected to near simultaneous federal and provincial

2. In 2010, Canada’s federal top rate of 29% was applied to taxable incomes over \$128,800. In 2021, the top rate of 33% applied to taxable income over \$221,708. At the provincial level, in 2021 the top tax rate is applied to taxable income between \$72,885 in Manitoba and \$314,928 in Alberta.

Table 1: Top statutory marginal income-tax rate (%), provincial, federal, and combined, 2010 and 2021

	2010			2021		
	Top provincial rate	Top federal rate	Combined top rate	Top provincial rate	Top federal rate	Combined top rate
Canada		29.00			33.00	
British Columbia	14.70	29.00	43.70	20.50	33.00	53.50
Alberta	10.00	29.00	39.00	15.00	33.00	48.00
Saskatchewan	15.00	29.00	44.00	14.50	33.00	47.50
Manitoba	17.40	29.00	46.40	17.40	33.00	50.40
Ontario	17.41	29.00	46.41	20.53	33.00	53.53
Quebec	24.00	24.22 ²	48.22	25.75	27.56	53.31
New Brunswick	14.30	29.00	43.30	20.30	33.00	53.30
Nova Scotia	21.00	29.00	50.00	21.00	33.00	54.00
Prince Edward Island	18.37	29.00	47.37	18.37	33.00	51.37
Newfoundland & Labrador	14.40	29.00	43.40	18.30	33.00	51.30

Notes: [1] Personal income tax rates include surtaxes where applicable. [2] **Quebec:** The federal personal income-tax rate is lower in Quebec as a result of the Quebec Abatement, which is applied because Quebec has opted out of various federal programs. For more information, see <<https://www.canada.ca/en/departement-finance/programs/federal-transfers/quebec-abatement.html>>.

Sources: CRA, 2021; Revenu Quebec, 2021; calculations by the authors.

tax increases that combined to produce a substantial increase to the top combined rate. This ranged from a low of 5.1 percentage points in Quebec to a high of 10 percentage points in British Columbia. **Table 1** shows the changes in provincial, federal, and the combined top marginal tax rates since 2010.

This section clearly shows that over slightly more than the past decade governments across Canada have responded to calls to generate more tax revenue from the “top one percent” or “the rich” by raising the top marginal income-tax rates. This has been, by far, the most frequently used significant tool governments have used in an effort to achieve this objective. However, there are good reasons to be concerned about the efficacy of this tool for generating revenue. We turn to briefly discuss these challenges in the next section.

The Revenue Implications of Higher Personal Income Taxes on Top Earners

This section provides an overview of recent research on the revenue effects of higher top marginal tax rates on high earners. It should be established beforehand, however, that setting tax rates at the revenue-maximizing point is not necessarily an appropriate objective of tax policy either for any specific tax or the overall tax system. Changes to tax policy that produce small amounts of additional revenue at the margin but also cause substantial economic distortion and negative effects on economic growth are likely undesirable. Ultimately, tax efficiency, equity, economic freedom, and adequacy of funds for public services have all been identified as factors that may influence tax-policy preferences. This discussion, therefore, should not be taken to imply that maximizing income-tax receipts from high earners is an appropriate policy goal but, rather, to provide an overview of recent evidence to assess the extent to which higher personal income-tax rates on high earners can in fact produce additional revenue for governments in Canada given current administrative and enforcement rules and infrastructure.

Provincial-level research on PIT increases on top earners

As noted, several governments across Canada have increased their top marginal income-tax rates. The stated rationale has been to increase revenues in order to achieve a range of objectives—of greatest importance, raising revenue to reduce the rate applied to lower tax brackets, reducing budget deficits, or financing additional spending. However, the extent to which increasing top income-tax rates and particularly income taxes faced only by the top one percent of income earners to actually achieve this objective is questionable.

The amount of revenue generated by any tax is a function of two things. The first, discussed above, is the rate of taxation. The second is the size of the tax base to which that tax rate is applied. These two variables are related. Specifically, higher tax rates generally have the effect of reducing the size of the tax base to which they are applied. In the case of increased rates of taxation on personal income, the tax base may shrink because of a reduction in taxable personal income reported at the levels at which higher rates are applied. This can be the result of reductions in economic activity resulting in less earned income, through changes in tax strategies, and other forms of legal and illegal tax

avoidance. This reduction in the size of the tax base can either partially or entirely offset the revenue gains from a higher rate. In some instances, at least theoretically, a higher rate may actually produce less revenue all else being equal, than a lower one because of the effect on behaviour and the size of the tax base.

To understand the revenue effects of recent increases to high marginal personal income-tax rates in Canada, it is therefore necessary to consider the elasticity of taxable income (ETI), which is the extent to which rate increases produce a change in taxpayers' behaviour that reduces the size of the tax base. A higher ETI means a larger behavioural response and greater reduction of the tax base than a lower ETI.

Unfortunately, measuring ETI for high earners is not straightforward. In fact, because rate increases tend to occur coincidentally with changes in other policy and economic variables, as Michael Smart and James Uguccioni write, identifying taxpayer response to changes in top-bracket taxes is "notoriously difficult". They further note that this difficulty is responsible for the existence of a wide range of behavioural responses and the lack of consensus in the research literature about the revenue effects of higher marginal taxes on top earners (Smart and Uguccioni, 2019).

Ferede (2019) provides an overview of recent research on taxpayers' responsiveness to increases to top PIT rates. Ferede writes that there is significant American research on these questions with diverse findings. These include research suggesting a high level of responsiveness as well as empirical studies from Goolsbee (1999, 2000), Gruber and Saez (2002), and Girtz (2007) that find low levels of responsiveness by taxpayers.

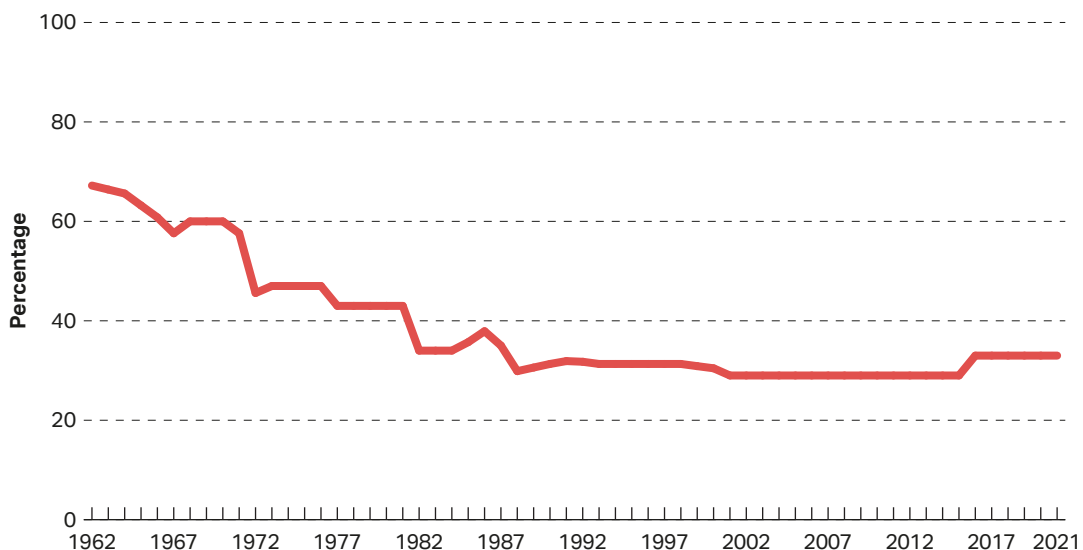
Ferede's review notes that there is far less Canadian research on these questions and, until recently, the majority of what did exist was focused on provincial tax policy. That research has generally found relatively high rates of taxpayer responsiveness for high-income tax increases. Milligan and Smart (2016, 2019), Dahlby and Ferede (2012, 2018), and Laurin (2012) all estimate high ETI for high-income earners. This being the case, these studies suggest that increases in provincial rates on high-income earners would not yield substantial additional revenues for provincial governments. Moreover, since the provinces and the federal government share a tax base, reductions in taxable income as a result of higher provincial taxes would also create a tax externality and therefore reduce federal revenue, further undermining the usefulness of provincial tax increases on high marginal rates as a tool for raising overall government revenue in the Canadian federation.

Summary of empirical analysis of the change in federal tax policy

Veall (2012) summarized the state of the pre-2016 research (again, mostly conducted at the provincial level) in a 2012 paper, writing “my review of research in Canada leads me to believe that, given current knowledge there is some risk that increases in the top marginal rate might raise little or no revenue”. The more recent empirical analyses summarized below, in large part focusing on the change to the top marginal rate in 2016, have generally confirmed Veall’s assessment.³

Ferede notes that there has been much less research on higher top marginal income-tax rates at the federal level—likely because prior to 2015 there had not been an increase to top marginal rates in Canada for decades (figure 1). Ferede does refer to a single study from Silamaa and Veall (2001) that exploited a 1988 tax reform to estimate the ETI from federal tax increases. Their result showed a relatively low level of responsiveness (an ETI of 0.25) for the entire income distribution, but a much higher one for self-employed and high-income individuals of well over 1.0. This finding is consistent with subsequent findings from Milligan and Smart’s provincial analysis (2016) that showed a much higher ETI for higher-income individuals—and particularly those in the extreme

Figure 1: Top marginal federal income-tax rate (%) in Canada, 1962–2021



Source: Finances of the Nation, 2022.

3. It is important to note, however, that Veall argues for broadening the tax base by eliminating various tax expenditures more likely to be used by higher-income individuals as a viable option for raising revenue. He cites Registered Education Savings Plans and the tax treatment of stock options specifically.

tail end of the income distribution—than for individuals with lower incomes. This is highly relevant from a policy perspective because shifting income across provincial lines is, for several reasons, more straightforward than doing so across international borders and, theoretically, we should expect similarly sized and structured PIT increases to have a lower ETI at the federal level than at the provincial one.

However, in 2016 the newly elected government of Justin Trudeau raised the top personal income-tax rate—those paying this rate happened to be closely linked⁴ to the top one percent of income tax filers—by 4 percentage points from 29% to 33%. This permitted, and in fact initiated, a small wave of new research exploiting the change in tax policy to estimate the ETI of high-income earners in Canada and the revenue effects of higher marginal tax rates targeted to this group. The results of these analyses have been broadly similar to the majority assessment of taxpayers’ responsiveness to rate increases that prevailed amongst provincial-level studies. This is to say that independent analyses found that taxpayers’ responsiveness was sufficiently high that the 2016 increase in the upper-income marginal tax rate produced little if any increase in overall government revenue in Canada.

Laurin (2018) found that, after accounting for behavioural effects, the 2016 tax increase generated an additional \$1.2 billion annually in additional revenue for the federal government. However, Laurin found that as a result of the erosion of the tax base, which is shared by the provincial governments, these revenue gains at the federal level were offset by a \$1.3 billion decrease in provincial tax revenue, resulting in no overall gain for governments in Canada.

Ferede (2019) found that, after controlling for behavioural responses, the 2016 tax increase yielded “very little” additional revenue, and only in the short term. Ferede found that in the long run, because of the reduction in taxable income, the federal government will collect less money as a result of the tax increase than they would have in its absence.

Smart and Ugonucci (2019) find that the tax increase would have produced a mechanical effect of \$2.7 billion, which means the tax change would have generated \$2.7 billion in the absence of any behavioural response. However, they found that base-shrinking behavioural changes resulted in lost federal tax revenue of \$1.7 billion. Coupled with losses in provincial revenue this left federal and provincial combined revenue in Canada “essentially unchanged”.

4. The income threshold for the top one percent was \$222,135.

Key conclusions of recent analyses of marginal tax increases on high-income earners

Veall (2012). *Top Income Shares in Canada: Recent Trends and Policy Implications*

"My review of research in Canada leads me to believe that, given current knowledge there is some risk that increases in the top marginal rate might raise little or no revenue."

Laurin (2018). *Unhappy Returns: A Preliminary Estimate of Taxpayers Responsiveness to the 2016 Top Tax Rate Hike*

"Alexander Laurin finds the underlying behavioural response of taxpayers resulted in \$1.2 billion in fresh revenue for the federal government but cost provincial treasuries about \$1.3 billion in lost tax revenues."

Ferede (2019). *The Revenue Effects of Tax Rate Increases on High-income Earners*

"Our dynamic revenue estimation that explicitly incorporates behavioural responses shows that the four percentage point increase in the top federal income tax rate would yield very little additional revenue – and for the first nine years only."

Smart and Ugucioni (2019). *Estimating taxpayer responses to top tax reforms* (prelim. version)

"We estimate medium-term and short-term retiming to recent top tax increases in Canada. Estimated avoidance response are large and persistent over time, suggesting that revenue gains to the reforms have been extremely small."

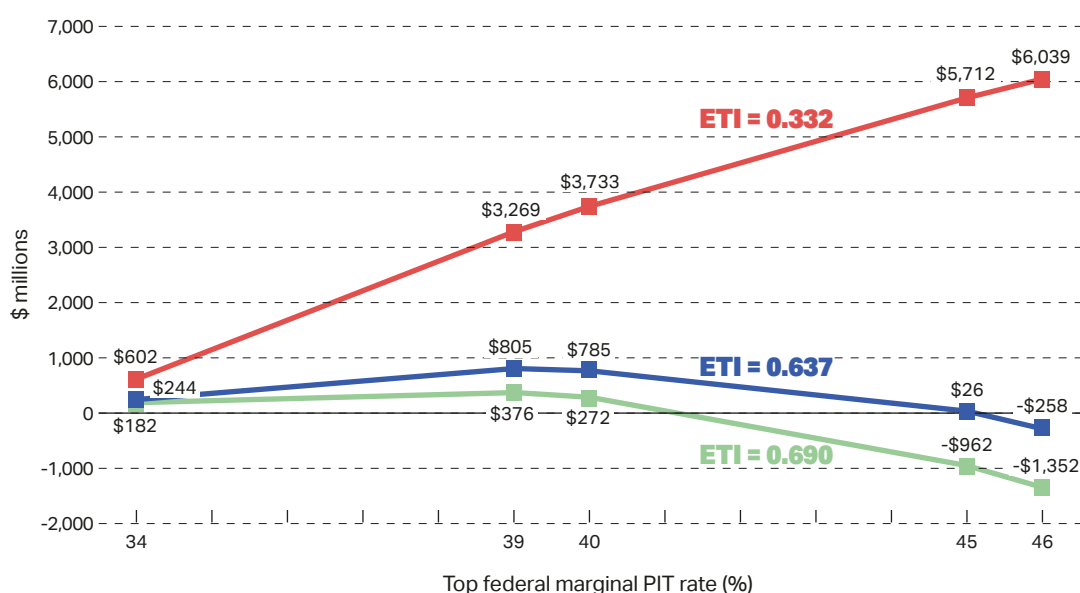
These analyses suggest Canada is near its revenue-maximizing combined federal/provincial top marginal personal income-tax rate given current administrative and enforcement laws and regulations (a topic to which we return in the next section).

Finally, to provide further context we have conducted an independent analysis of the effects of further increases to the top federal PIT rate above its current 33% level. We find that a one-percentage point increase to the top federal PIT would generate an increase in federal personal income-tax revenues of \$992 million under the static model ("mechanical" impact or no behavioural response). Adjusting this result to include behavioural responses, federal PIT revenues would increase by just \$244 million. These revenue gains are largely counteracted by the negative effect of tax externalities to the province, because the provinces will suffer reduced taxable-income bases without any compensating rise in their tax rates. In fact, a one-percentage point increase to the top federal PIT rate would reduce provincial government tax revenues by \$350 million. As a result, we estimate that a loss of aggregate government revenue of \$106 million would be caused by the increase of one percentage point to the top federal PIT rate.⁵

5. Appendix 1 gives the details of the methods used to produce this estimate.

Figure 2a, figure 2b, and table 2 show the estimated federal and provincial tax revenue effects resulting from increasing the federal tax rate on the top one-percent of income earners, for three ETI scenarios. Adopting the ETI of 0.637 used by Smart and Ugonucci (2019), if the federal top PIT rate increases by six percentage points (from 33% to 39%), the impact on federal tax revenue is maximized, after accounting for behavioural responses. Our calculation also shows that, while increasing the current top federal PIT rate would continuously cause a loss in combined federal/provincial tax revenue of at least \$106 million or more, there is a limit for the federal government to increase the top PIT rate should it want to collect positive tax income at the expense of reducing the provincial revenues. When the top PIT rate increases to 46% (an increase of 13 percentage points), the net tax impact to the federal tax income after adjusting for behavioural effects started to become negative (–\$258 million). Our analysis reaches conclusions similar to those of Laurin (2018), Ferde (2019), and Smart and Ugonucci (2020) of negligible or slightly negative effects on aggregate federal/provincial revenues from further PIT increases. From all the studies reviewed, the lowest ETI (0.332) was found by Ferde (2019) and the highest (0.690) by Smart and Milligan (2014). The results using both values are shown in figures 2a and 2b and table 2, in order to give an idea of the lower and upper bounds, under three different ETI values, for the estimated federal and provincial tax revenue impacts resulting from increasing the top federal tax rate.

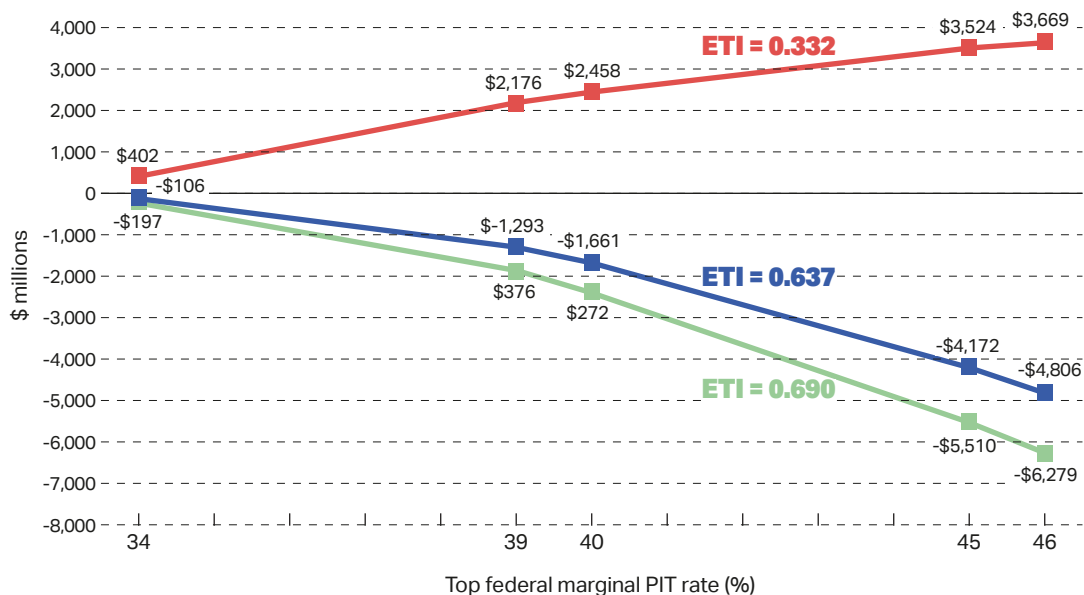
Figure 2a: Estimated federal tax revenue impacts on top one percent of income earners (\$222,135), 2021



Note: Taxable income of affected high-income taxpayers is reduced by the ETI times the change in taxpayers' combined federal/provincial net-of-tax marginal rate.

Sources: see table 2.

Figure 2b: Estimated federal and provincial tax revenue impacts on top one percent of income earners (\$222,135), 2021



Note: Taxable income of affected high-income taxpayers is reduced by the ETI times the change in taxpayers' combined federal/provincial net-of-tax marginal rate.

Sources: see table 2.

Implication for the prospects of increasing personal income-tax revenue from top-earners

In short, post-2016 research provides scant evidence that the upper-income tax rates already implemented have in and of themselves generated very much revenue and therefore that additional rate increases are unlikely to produce significant new revenue and may in fact reduce revenue for Canadian governments over time.

The view that a higher PIT rate has little revenue raising potential is not, however, unanimous. Osberg (2015) notes that the effective tax rate paid by individuals in the top one percent of the income distribution is significantly lower than the top marginal rate. Partly on this basis, Osberg argues substantial additional revenue could be raised by further increasing the top marginal rate. He argues the issue of taxpayers' responses to increases that would otherwise decrease the size of the tax base can be largely offset by new administrative procedures and rules to reduce legal tax avoidance and more aggressive actions (for example, whistle-blower laws like those in the United States that provide rewards for taxes recovered) to reduce illegal tax evasion (Osberg, 2015: 32). Smart and Ugonucci also conclude their analysis stressing the importance of access to "substantial tax avoidance" as an important reason that it is "unlikely that further increases in top marginal rates can increase the tax actually paid by the rich".

Table 2: Estimated federal and provincial tax revenue impacts (\$millions) due to changes in the federal tax rate on the top one percent of income earners, 2021

	Rise by				
	1pp 34%	6pp 39%	7pp 40%	12pp 45%	13pp 46%
Elasticity of Taxable Income (ETI) = 0.637					
Federal Government					
<i>Net proceeds estimate without behavioural responses</i>	992	5,951	6,943	11,902	12,894
<i>Net proceeds estimate with behavioural responses</i>	244	805	785	26	-258
Provincial Governments					
<i>Erosion of the personal income tax base as a result of behavioural responses</i>	-350	-2,097	-2,446	-4,198	-4,548
Total —federal and provincial governments, net proceeds with behavioural responses	-106	-1,293	-1,661	-4,172	-4,806
Elasticity of Taxable Income (ETI) = 0.332					
Federal Government					
<i>Net proceeds estimate without behavioural responses</i>	992	5,951	6,943	11,902	12,894
<i>Net proceeds estimate with behavioural responses</i>	602	3,269	3,733	5,712	6,039
Provincial Governments					
<i>Erosion of the personal income tax base as a result of behavioural responses</i>	-182	-1,093	-1,275	-2,188	-2,370
Total —federal and provincial governments, net proceeds with behavioural responses	420	2,176	2,458	3,524	3,669
Elasticity of Taxable Income (ETI) = 0.69					
Federal Government					
<i>Net proceeds estimate without behavioural responses</i>	992	5,951	6,943	11,902	12,894
<i>Net proceeds estimate with behavioural responses</i>	182	376	272	-962	-1,352
Provincial Governments					
<i>Erosion of the personal income tax base as a result of behavioural responses</i>	-379	-2,272	-2,650	-4,547	-4,926
Total —federal and provincial governments, net proceeds with behavioural responses	-197	-1,895	-2,377	-5,510	-6,279

Notes: [1] Top one-percent of income earners are those with incomes above \$222,135. [2] Taxable income of affected high-income taxpayers is reduced by the ETI times the change in taxpayers' combined federal/provincial net-of-tax marginal rate.

Sources: Ferede, 2019; Smart and Milligan, 2014; Smart and Ugucconi, 2019; calculations by authors based on Statistics Canada's SPSPD/M (version 29) with an elasticity of taxable income (ETI) of 0.332, 0.637, and 0.69.

The implication of the argument made above by both Osberg and Smart and Ugonucci is important for this paper's investigation of the limits of possible revenue generation from high-income and wealthy individuals. The reduction in the size of the tax base from increases to tax rates is not simply a result of an erosion of the tax base from so-called "real" behavioural effects, that is, a reduction in economic activity. An increased incentive for tax avoidance also plays a role. The extent of each contributing component to the overall reduction in the base helps determine the extent to which that reduction may be offset by reforms to administration and enforcement of tax law.

Unfortunately, if in Smart's words measuring overall taxpayer responses to rate increases is "notoriously difficult", teasing out the effects of the actual economic efficiency costs from tax avoidance may be even harder. In his assessment of the lack of evidence surrounding the magnitude of income sheltered in trust accounts or offshore accounts and holding accounts, Osberg concludes there is "little reliable information on the full extent of tax avoidance and evasion in Canada".

The difficulty of separating the effects of reduced economic activity from other activities that reduce tax revenues makes it useful to calculate the upper limit of revenues that could be collected if the entirety of the change in the size of the tax base observed in the studies identified above is the result of tax avoidance and evasion that could be effectively offset at no cost through improved enforcement. In other words, we here consider the implications for Canadian public finances if the full mechanical effect of the tax increases described above could in fact be collected with no behavioural responses to the policy change whatsoever.

Given that Ferede, Laurin, and Smart and Ugucioni arrived at similar conclusions, we use the latter study for this purpose. The authors find that the mechanical increase in revenue from the federal government's four percentage-point increase to the top marginal personal income-tax rate in 2016 was \$2.7 billion in that year. Total federal income-tax revenue from all taxpayers in 2016 was \$144 billion; meanwhile total federal tax revenues were \$290.9 billion. This means that, even if none of the difference between the mechanical and observed additional income-tax revenue was the result of actual GDP losses from reduced economic activity and could be erased through administrative changes and improved tax collection, the tax change would only have increased federal income-tax revenue by approximately 1.9% or total federal revenues by 0.9%.

Using this procedure, we see that further increases to the top income-tax rate have limited scope for raising substantial additional tax revenue even if we make the unrealistic

assumption of static behavioural responses. An additional 8 percentage-point increase, for instance, would make Canada's top PIT rate (using Ontario as a stand-in for provincial rates) the highest in the OECD (OECD, 2021b). This would increase federal revenue beyond current levels by \$5.4 billion, which is equivalent to just 1.9% of all federal revenues.

Osberg, writing in 2015, prior to the publication of the empirical research that followed the 2016 tax change discussed above, estimated a much lower ETI than those used in the studies listed above as well a much higher point of revenue maximization for the top PIT rate. His analysis found that increasing the top combined federal/provincial rate to 65% would generate an additional \$15.8 billion in government revenue. Osberg's estimate of net tax impact for high income earners is significantly higher than the results found by Ferde (2019), Laurin (2018), and Smart and Ugucioni (2019). Still, his analysis and ETI estimates suggest an increase even this much larger in the combined rate would only increase federal revenue by approximately 6.6% (Canada, Department of Finance, 2021).⁶ While Osberg's results are substantially different from the others discussed in this report, he concludes "raising top marginal rates would represent a significant, but not fundamental, change to tax revenue" in Canada.

6. Based on a calculation of average annual federal revenue from 2008/09 to 2012/13, the years used in Osberg's analysis.

The Limitations of Other Strategies for Generating Income from Top Earners and Wealthy Canadians

The overview above of recent literature on high-income tax policy in Canada, with a particular focus on empirical analysis of the increase in the top marginal income-tax rate, has shown that raising the top personal rate further has limited scope to increase government revenues in Canada. Since, as we saw earlier in this study, raising top PIT rates has been a primary tool governments across the country have used in an attempt to generate revenue to fund various priorities, the research reviewed above is highly relevant as it suggests additional efforts to generate significant revenue along these lines are likely to be ineffective. Other approaches to generating money from individuals in the top one percent of income earners and wealthy Canadians have been proposed. Below is a brief discussion that touches on several of these ideas and identifies challenges that limit their efficacy in raising significant additional revenue from high-income Canadians.

Increase corporate income taxes

One strategy that has been presented for increasing revenue from high-income earners is raising the corporate income tax (CIT) rate. For instance, Sanger (2021) representing the organization, Canadians for Tax Fairness, proposed raising the federal CIT rate from 15% to 20%. There are several concerns with such a proposal. One is that the incidence of the CIT falls largely on individuals who are not high-income earners. A primary reason for this is that the incidence (which individuals actually pay the burden of the tax) of the CIT is divided between owners of corporations, the labour that they employ, and customers. In particular, an increase in the CIT is generally thought to push down the wages of corporate employees (Ebrahimi and François, 2016).

While it is not disputed that the incidence of the CIT is shared to some extent between corporation owners and labour, the extent of the distribution is one of the most hotly debated questions in public finance (McKenzie, 2020). The range of plausible estimates is large. McKenzie reviews a range of recent estimates of labour's share of the CIT incidence. His review finds a wide range of estimates, between about 30% and 80%. However, he also notes that since Canada is a small open economy, we should expect a larger share of CIT incidence to fall on labour than is the case in a larger economy like that of the United States. It is outside the scope of this study to delve further into the research on CIT incidence. For our purposes, it is sufficient to say that the CIT does

not effectively exclusively target high-income Canadians but rather a significant portion falls on labour. The CIT is therefore a flawed instrument if the objective is to increase government revenues by exclusively targeting high-income or wealthy Canadians.

A second perhaps more serious problem with using the CIT as a revenue-generating tool from high-income Canadians is that the CIT is a highly distorting and economically damaging form of taxation. Each dollar of revenue generated from the CIT reduces GDP substantially more than each dollar generated from more efficient forms of taxation such as well-designed consumption taxes like the GST.⁷ As such, in addition to harming the economy more than other forms of taxation, higher CITs—like increases in the income-tax rate on higher-income earners—shrink the tax base and thereby at least partially counteract revenue gains from a higher rate. In fact, Canada’s experience with CIT reductions in the 2000s, when rates were reduced substantially without any observable decline in CIT receipts as a share of GDP, suggests those reductions may have constituted a “free lunch” that boosted GDP sufficiently to entirely offset revenue losses from a lower rate. Of course, much has changed since the early 2000s, but the success of CIT reductions during that time should at least raise questions about the viability of CIT increases as revenue-raising tool. Given the negative effects on economic performance and the unclear incidence, it is clear that raising the CIT rate is an approach ill suited to generating tax revenue from high-income earners.

Impose a wealth tax

Calls for an annual wealth tax on individuals with a high net worth has gained momentum in recent years. Analysts writing for the Canadian Centre for Policy Alternatives (Hemingway, 2021) and the Broadbent Institute (Miller, 2021) have called for explicit wealth taxes. In 2019, the New Democratic Party (NDP) called for an explicit annual wealth tax (Rankin, 2019).

A wealth tax can be more accurately targeted at affluent individuals than the CIT. However, the effective implementation of an annual wealth tax would be challenging from an administrative and compliance perspective, particularly in comparison to taxation of capital income, which already exists in Canada through the CIT and capital gains taxation. Returns on capital income are much easier to assess than many forms of wealth—the value of personally owned businesses, for example (Boadway and Pestieau, 2019).

7. For much more detail on the economic inefficiency of the CIT compared to other forms of taxation, see Dahlby and Ferede, 2016.

Further, an explicit wealth tax targeted at very wealthy Canadians would not generate very much revenue. A recent analysis by the Parliamentary Budget Officer of the effect of a one-percent wealth tax on individuals with net wealth over \$20 million estimated revenue gains of just \$5.6 billion in 2020/21 (PBO, 2019). This would be equal to approximately 1.6% of federal revenue in that year.

A related proposal is the taxation of estates at the time of death or large wealth transfers.⁸ Estate taxes have advantages over other explicit taxes on wealth, the most important being the necessity of a one-time assessment of wealth rather than a re-assessment each year. Still, estate or inheritance taxes have also proven difficult to implement effectively for some of the same reasons that more general wealth taxes are problematic. Across the OECD (2021a), 24 countries have some form of wealth-transfer tax. However, in only four countries do revenues from inheritance, estate, and gift taxes constitute more than one percent of total revenue. This is in part due to successful avoidance through a range of legal tax planning. Largely as a result of these challenges, there is a clear trend towards the elimination of these types of taxes, with 10 OECD countries abolishing estate/inheritance taxes since the early 1970s.

International experience points to the administrative challenges of a wealth or estate tax, while the domestic PBO report shows the limitations of wealth taxes on individuals with very high net worth as a revenue generating tool. While a wealth tax would more accurately target these individuals than increases to the CIT, it would have to be applied to a much broader base of individuals at a much lower wealth threshold than considered in the PBO report to generate substantial revenue, a procedure that would compound the administrative and enforcement challenges.

Increase taxes on capital gains

Finally, we consider proposals to increase taxes on capital gains. Currently, capital gains are taxed as personal income, but 50% of total capital gains each year can be excluded.⁹ In other words, capital gains are taxed at approximately half the rate of labour income. Analysts including Michael Smart and Sobia Hasan Jafry (2022) have called for an increase to the inclusion rate as high as 80%.

8. Canada already applies capital gains in the year of death in the form of a deemed realization. The discussion here considers calls for additional taxes on wealth transfers or inheritance.

9. The exception is an individual's primary residence. Capital gains on primary residences are untaxed. However, it is important to note that the vast majority of primary residences in Canada (along with other forms of real estate) are subject to an annual property tax, a type of wealth tax not applied to other forms of wealth.

The efficiency implications of raising the inclusion rate on capital gains is determined to a large extent by the “lock-in effect”, a term used to describe an incentive to retain an asset, and delay the realization to avoid capital gains taxation even when another asset, in the absence of capital gains taxation, would produce a higher expected return. Ken McKenzie (2020b) notes that the debate over the lock-in effect dominates economic debates about the wisdom of higher or lower capital-gains taxes. If the lock-in effect is large, capital gains taxes are more economically harmful; if it is small then these taxes are less harmful.

McKenzie reviews the evidence on this point and ultimately concludes that the size of the lock-in effect in the long-run is “relatively modest”. On the other hand, Baylor and Beauséjour, in a working paper for Canada’s Department of Finance (2002), evaluated the efficiency of seven types of taxation and found that personal capital taxes (such as those on capital gains) are amongst the most economically damaging per dollar raised. A comprehensive review of the evidence on the point is beyond the scope of this paper but McKenzie’s conclusion that the research is “somewhat variable and inconclusive” is reasonable.

In this report, we are considering the efficacy of options for raising revenue from individuals with high income and high net wealth—specifically the top one percent. The extent to which capital gains taxes fall on high-income earners has received significant recent attention. In a forthcoming article to be published in the *Canadian Tax Journal*, Smart and Jafry (2022) use administrative data and find that 57% of capital-gains income flowed to the top one percent of the family income distribution. Recent publications by Thivierge and Laurin (2017) and Whalen and Clemens (2021) question this, arguing that the distribution of capital gains is less top heavy than is commonly believed because some individuals and families declare capital gains very infrequently and sometimes once in a lifetime, which artificially makes them appear to have very high incomes in that year when, in fact, that year is anomalous and their incomes are much lower in other years.

Smart and Jafry (2022) respond to this issue by sorting capital-gains income across the family income distribution while using a 5-year average to sort Canadian families by income group. They find that the top one percent of households in terms of income over a five-year period (2014–2018) collects 41% of capital gains income. This is significantly less than the share that was estimated by previous analyses looking at one year using administrative data. Neither Thivierge and Laurin nor Whalen and Clemens extend their analyses to measuring the share of capital gains flowing to the top one

percent, which is the subject of analysis in this paper. Smart and Jafry do provide an analysis of the top one percent, and so we use their most recent estimate (41%) to consider the possible revenue gains from the top one percent of families from increasing the inclusion rate as they suggest.

Smart and Jafry estimate that raising the capital-gains inclusion rate for families would increase total revenue by \$9.4 billion in 2017. This implies that increasing the capital gains inclusion rate to 80% would generate approximately \$3.9 billion (41% of all capital gains) from the top one percent of households. This would represent an increase in total federal revenue of 1.3%, with additional revenue from families outside of the top one percent (Canada, Department of Finance, 2021).¹⁰ Smart and Jafry also recommend raising the inclusion rate for capital gains for corporations, which would increase their aggregate revenue estimate to \$19 billion. However, as our discussion of corporate income taxes above showed, the distributive effects of this increase to corporate income tax rates are complex. Smart and Jafry's analysis shows that, like several other strategies discussed above, the additional revenue that can be extracted from the top one percent by raising the capital gains inclusion rate is relatively small and would be by itself inadequate to finance a substantial increase in the size of government.

10. We use a five-year average of federal revenue from 2014 to 2018.

Discussion

There are prominent voices calling for an expansion of the role of government in society and an associated increase in expenditures. Jim Stanford (2020), writing for the Institute for Research on Public Policy, has called for “massive fiscal injections” in the years ahead to increase spending in almost every major area of government activity. Similarly, former privy council clerk Alex Himelfarb (2021) argues for a substantial increase in government spending on environmental initiatives and social policy. The Canadian Centre for Policy Analysis (CCPA, 2021) calls for a spending increase of approximately 20% annually by 2024/25. In the political realm, before the last election, the since re-elected Liberal government of Justin Trudeau committed itself to \$78 billion in new spending (LPC, 2021).

These calls for more spending and a larger federal government naturally raise the question of how we should pay for it. Both Stanford and Himelfarb argue for financing this spending through additional debt. This raises the question of who will pay the bill for these programs (either by debt repayment or by financing the increased debt) over the long term. This problem is compounded by the fact that as of the time of publishing its most recent fiscal sustainability report, the Parliamentary Budget Office finds that Canada’s combined provincial and federal finances are already unsustainable; that is to say, absent a change in policy, Canada’s overall ratio of governmental debt-to-GDP is forecast to increase over time (MacPhee, Bergeron, Busby, and Nicol, 2021). The most politically attractive answer to the question of who should pay for a significant expansion of government is “the rich”. More specifically, much political rhetoric in recent years has focused on extracting revenue from the “one percent” by taxing either income or wealth.

The primary tool that governments across Canada have used in recent years to raise tax revenue from individuals at the top of the economic ladder has been to raise their top marginal income-tax rate. However, the evidence surveyed in this report suggests that we may be approaching, or even be at the limit of, the capacity to generate substantial revenue in this way. Several analyses of the increase in the federal government’s top PIT rate have shown that this change in tax policy produced little or no additional revenue for Canadian governments.

If, given this evidence, Canadian governments still wish to raise revenue from high-income or high-wealth individuals, they have other options—but all of them have limitations: none of them—or even all taken together—would generate nearly enough revenue to finance either a major expansion in the role of government, significantly contribute to shoring up public finances, or finance broader tax relief for other Canadians. This study has not sought to provide cost-benefit analyses of these various policy options but rather to investigate their ability to raise sufficient revenue to, borrowing Lars Osberg’s words from his discussion of PIT increases, generate a “fundamental change to total tax revenues in Canada” (2015: 6). The research summarized here suggests that they do not. The implication is that, if governments in Canada wish to take on significant new initiatives or substantially expand spending on existing priorities over the long term in a fiscally responsible manner, they will eventually need to increase taxes on a broader group of taxpayers than just the top one percent. So far, this has not proven to be an attractive option for any government across Canada.

For example, increases to personal income-tax rates below the top marginal rate have not been adopted by any government in Canada in recent history although the PIT is the single largest source of revenue for the federal government and a logical place to begin in considering what type of broad-based tax increase would be needed to finance a substantial expansion of the federal government. We estimate that, assuming no behavioural effects, an “across the board” tax increase, raising each marginal tax rate by 5.5 percentage points would be necessary to increase total federal revenue by 20%.¹¹ This would bring the bottom federal tax bracket, for example, from 15% to 20.5%. However, while we have seen that many governments have increased their top marginal rate in recent years, meaningfully higher PIT rates for middle-income or even upper-middle-income Canadians does not appear to be on the policy radar of governments across Canada.

An alternative broad-based option for generating revenue would be to increase the GST. Increases to very broad-based taxes like the GST that would align Canada with several European countries that help finance large welfare states via significant Value Added Taxes. We estimate that with no behavioural response an increase of 11

11. Calculation by authors using Statistics Canada’s Social Policy Simulation Database and Model (SPSD/M, version 29.0).

percentage points to the GST would increase total federal revenue by approximately 20%.¹² As is the case for broader increases to the PIT below the top marginal rate, a substantial increase in the GST does not seem to be under active consideration by any governments in Canada.¹³

12. We make this calculation based on the estimate by Hill, Palacios, and Clemens (2020) that, with no behavioural response, each additional point added to the GST would generate \$6.875 billion of new revenue. Based on this estimate, it would require an 11% increase to the GST from its current level to increase overall federal revenue by 20%.

13. The CCPA report referred to above (2021) provides a list of proposed tax increases targeted at higher-income earners (though a broader group than the top one percent) that they estimate cumulatively would generate sufficient revenue to offset much of the proposed spending increases. The proposals do not include detailed distributional analysis so it is not possible to ascertain the extent to which they would be targeted at the top one percent. Further, factors such as the interaction between multiple tax increases on economic growth are not considered, which make an assessment of the overall revenue estimates or an analysis of the tax incidence from their proposed tax policy changes difficult.

Conclusion—No Free Lunch for the 99 Percent

This study has shown that in recent years governments across Canada have sought to generate additional revenue by increasing their top marginal personal income-tax rates. We have also shown that the research literature and our own estimate suggest these efforts have likely yielded very little, if any, overall additional aggregate revenue for governments across the country.

Proponents of higher taxes to finance additional spending have called for additional changes in tax policy with the object of increasing tax revenue from the “top one percent”. We have shown that, for a number of reasons related to tax incidence, tax planning or avoidance, and other factors, several of the most commonly proposed changes in tax policy designed to achieve this goal would not extract enough revenue from the top one percent to finance a major expansion in federal spending.

The policy implication of this analysis is that there is “no free lunch for the 99 percent”. The evidence does not support the notion that higher taxes on high-income or wealthy individuals alone can fundamentally alter the federal government’s capacity to finance new spending. Instead, generating sufficient revenue to significantly increase federal spending would require broader -based taxes that generate revenue from individuals and households across a larger range of the income and wealth spectrum.

Appendix—Methodology

This appendix outlines the framework that is used to simulate the revenue effects of changes in the top personal income-tax rate (PIT) that could be used by the federal government. Our main objective is to estimate the revenue effects of increases in the top marginal PIT. The analysis was done using Statistics Canada’s Social Policy Simulation Database and Model (SPSD/M, version 29.0). The SPSPD/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 with approximately 600 variables included for each individual. The variables include earnings, taxes paid, transfers received from government, and demographic characteristics. It is the only database available in Canada that integrates taxes, transfers, and other characteristics.¹² The SPSPD/M currently relies on data from a number of surveys and other sources from 2017, which is then used to forecast to 2021.

The analysis uses SPSPD/M to calculate the total taxable income ($I_t = 0$) and PIT revenues for those individuals whose personal taxable income falls into the top one percent income group (over \$222,135), and how much of their taxable income is “exposed” to the current federal top tax rate ($\tau_{t=0}^f$), defined as

$$I_{t=0}^e = I_{t=0} - C \quad (1)$$

where C is the current threshold of the federal top income-tax bracket.

For the mechanical impact of a top PIT rate hike, the new PIT revenues were calculated manually based on the current exposed income ($I_{t=0}^e$) and the new top tax rate ($\tau_{t=1}^f$). To adjust for behavioural response, the change in taxable income (ΔI) was calculated as follows:

$$\Delta I = I_{t=0} ((1 - \tau_{t=1}^c) - (1 - \tau_{t=0}^c)) / (1 - \tau_{t=0}^c) ETI \quad (2a)$$

where, $I_{t=0}$ is initial taxable income (before change in tax rate), $\tau_t^c = \tau_t^f + \tau_t^p$ is the combined federal/provincial top PIT rate,¹³ and ETI is the elasticity of taxable income.

12. Detailed information and files for current version (29) are available here: <<https://www.statcan.gc.ca/en/microsimulation/spsdm/spsdm>>.

13. We use a weighted marginal rate of 20.49% for the provincial top PIT rate τ_t^p .

Equation (2a) could be re-written as:

$$\Delta I = I_{t=1} - I_{t=0} = I_{t=0} (\tau_{t=0}^c - \tau_{t=1}^c) / (1 - \tau_{t=0}^c) ETI \quad (2b)$$

where, $I_{t=0}$ is initial taxable income (before change in tax rate), and $I_{t=1}$ is taxable income after the change in tax rate; the other variables are as defined before.

The above is negative for tax rate increases. Using (2b) above, one can then compute the new behaviour-adjusted taxable income as:

$$I_{t=1} = I_{t=0} + \Delta I \quad (3)$$

Now suppose C denotes the threshold income for the top income-tax bracket. The behaviour-adjusted taxable income above the threshold income level, which is subject to the new higher tax rate, is:

$$I_{t=1}^e = I_{t=0} - C \quad (4)$$

Then, the behaviour-adjusted federal PIT revenues can be obtained simply by multiplying from equation (4) above by the new federal tax rate. Revenue changes were calculated assuming alternative values for the elasticity of taxable income (ETI) of 0.332, 0.637, and 0.69.

As both the federal government and provincial governments share the same taxable base, there will be a negative impact on provincial tax revenues as a result of the erosion of the taxable income base. SPSD/M is used to calculate the original provincial PIT revenues and the average tax rate for the top 1% income group. The new provincial tax revenue is calculated based on the original average tax rate and new total taxable income ($I_{t=1}$).

References

- Aiello, Rachel (2021). Trudeau on deficit concerns, his 2021 regrets, and what he thinks will define 2022. *CTV News*. <<https://www.ctvnews.ca/politics/trudeau-on-deficit-concerns-his-2021-regrets-and-what-he-thinks-will-define-2022-1.5712061>>, as of February 4, 2022.
- Baylor, Maximillian, and Louis Beauséjour (2002). *Taxation and Economic Efficiency: Results from a Canadian CGE Model*. Working paper. Department of Finance, Canada.
- Boadway, Robin, and Pierre Pestieau (2019). *Over the Top: Why an Annual Wealth Tax for Canada Is Unnecessary*. Commentary No. 546. C.D. Howe Institute. <https://www.cdhowe.org/sites/default/files/attachments/research_papers/mixed/Commentary%20546.pdf>, as of February 4, 2022.
- Broadbent Institute (2021). *Tax the Rich*. <https://www.broadbentinstitute.ca/tax_the_rich>, as of February 4, 2022.
- Canada Revenue Agency [CRA] (2022). *Canadian Income Tax Rates for Individuals – Current and Previous Years*. Government of Canada. <<http://www.cra-arc.gc.ca/tx/ndvdl/fq/txrts-eng.html>>, as of February 4, 2022.
- Canada, Department of Finance [DOF] (2010). *Tax Expenditures and Evaluations 2010*. Government of Canada. <https://www.canada.ca/content/dam/fin/migration/taxexp-depfisc/2010/TEE2010_eng.pdf>, as of February 4, 2022.
- Canada, Department of Finance [DOF] (2021). *Fiscal Reference Tables, November 2020*. Government of Canada. <<https://www.canada.ca/en/departement-finance/services/publications/fiscal-reference-tables/2021.html>>, as of February 4, 2022.
- Canadian Centre for Policy Alternatives [CCPA] (2011). *Alternative Federal Budget*. <<https://www.policyalternatives.ca/sites/default/files/uploads/publications/National%20Office/2021/11/AFB%202022.pdf>>, as of March 1, 2022.
- Dahlby, Bev, and Ergete Ferede (2012). The Effects of Tax Rate Changes on Tax Bases and the Marginal Cost of Public Funds for Provincial Governments. *International Tax and Public Finance* 19: 844–883.

Dahlby, Bev, and Ergete Ferede (2016). *The Costliest Tax of All: Raising Revenue through Corporate Tax Hikes Can Be Counter-Productive for the Provinces*. University of Calgary School of Public Policy. <<https://journalhosting.ucalgary.ca/index.php/sppp/article/view/42577>>, as of February 4, 2022.

Dahlby, Bev, and Ergete Ferede (2018). The Marginal Cost of Public Funds and the Laffer Curve: Evidence from Canadian Provinces. *FinanzArchive / Public Finance Analysis* 74, 1: 173–199.

Ebrahimi, Pouya, and François Vaillancourt (2016). *The Effect of Corporate Income and Payroll Taxes on the Wages of Canadian Workers*. Fraser Institute. <<https://www.fraserinstitute.org/sites/default/files/effect-of-corporate-income-and-payroll-taxes-on-wages-of-canadian-workers.pdf>>, as of February 4, 2022.

Ferede, Ergete (2019). *The Revenue Effects of Tax Rate Increases on High-Income Earners*. Fraser Institute. <<https://www.fraserinstitute.org/sites/default/files/revenue-effects-of-tax-rate-increases-on-high-income-earners.pdf>>, as of January 20, 2022.

Finances of the Nation (2022). *Statutory Tax Rates*. <<https://financesofthenation.ca/statutory-tax-rates/>>, as of February 4, 2022.

Fuss, Jake, Milagros Palacios, Nathaniel Li, and Tegan Hill (2021). *Prime Ministers and Government Spending: Updated 2021 Edition*. <<https://www.fraserinstitute.org/sites/default/files/prime-ministers-and-government-spending-updated-2021-edition.pdf>>, as of April 1, 2022.

Giertz, S. (2007). The Elasticity of Taxable Income over the 1980s and 1990s. *National Tax Journal* 60: 743–768.

Goolsbee, Austan (1999). Evidence on the High-Income Laffer Curve from Six Decades of Tax Reform. *Brookings Papers on Economic Activity* 2: 1–47.

Goolsbee, Austan (2000). What Happens When You Tax the Rich? Evidence from Executive Compensation. *Journal of Political Economy* 108, 2: 352–378.

Gruber, J., and E. Saez (2002). The Elasticity of Taxable Income: Evidence and Implications. *Journal of Public Economics* 84: 1–32.

Hemingway, Alex (2021). *Wealth Tax Would Raise Far More Money than Previously Thought*. Canadian Centre for Policy Alternatives Centre. <<https://www.policynote.ca/tax-the-rich/>>, as of February 4, 2022.

Himelfarb, Alex (2021). *More Federal Debt Can Help Build a Better Canada*. Finances of the Nation. <<https://financesofthenation.ca/2021/03/05/more-federal-debt-can-help-build-a-better-canada/>>, as of February 4, 2022.

Laurin, Alexandre (2018). *Unhappy Returns: A Preliminary Estimate of Taxpayer Responsiveness to the 2016 Top Tax Rate Hike*. E-Brief. C.D. Howe Institute. <https://www.cdhowe.org/sites/default/files/attachments/research_papers/mixed/e-brief_283.web%204.pdf>, as of January 20, 2022.

Liberal Party of Canada [LPC] (2021). *Forward for Everyone: Financial and Costing Plan*. Liberal Party of Canada. <<https://liberal.ca/wp-content/uploads/sites/292/2021/09/Forward-For-Everyone-Financial-and-Costing-Plan.pdf>>, as of February 4, 2022.

MacPhee, Sarah, Étienne Bergeron, Carleigh Busby, and Caroline Nicol (2021). *Fiscal Sustainability Report 2021*. Parliamentary Budget Office [PBO]. <<https://www.pbo-dpb.gc.ca/en/blog/news/RP-2122-010-S--fiscal-sustainability-report-2021--rapport-viabilite-financiere-2021>>, as of February 4, 2022.

McKenzie, Ken (2020a). *The Taxation of Capital Income in Canada Part II: The Corporate Income Tax*. Finances of the Nation. <<https://financesofthenation.ca/2020/11/19/the-taxation-of-capital-income-in-canada-part-ii-the-corporate-income-tax/>>, as of February 4, 2022.

McKenzie, Ken (2020b). *The Taxation of Capital Income in Canada Part I: Taxes on Dividends and Capital Gains*. Finances of the Nation. <<https://financesofthenation.ca/2020/11/04/the-taxation-of-capital-income-in-canada-part-i-taxes-on-dividends-and-capital-gains/>>, as of February 4, 2022.

Miller, Katrina (2021). *The Debate on Taxing the Rich Is Here to Stay*. Broadbent Institute (2021). <https://www.broadbentinstitute.ca/tax_the_rich>, as of February 4, 2022.

Milligan, Kevin, and Michael Smart (2016). *Provincial Taxation of High Incomes: The Effects on Progressivity and Tax Revenue*. Institute for Research on Public Policy. <<https://irpp.org/wp-content/uploads/2016/01/aots5-milligan-smart.pdf>>, as of January 20, 2022.

- Milligan, Kevin, and Michael Smart (2019). An Estimable Model of Income Redistribution in a Federation: Musgrave Meets Oates. *American Economic Journal: Economic Policy* 11, 1: 406–434.
- Ontario, Ministry of Finance (2012). *Deficit-Fighting High-Income Tax Bracket*. <<https://www.fin.gov.on.ca/en/media/2012/tax-bk.html>>, as of February 4, 2022
- Organisation for Economic Co-operation and Development [OECD] (2021a). *Inheritance Taxation in OECD Countries*. OECD Tax Policy Studies, No. 28. <<https://doi.org/10.1787/e2879a7d-en>>, as of February 4, 2022.
- Organisation for Economic Co-operation and Development [OECD] (2021b). *Tax Database: Key Tax Rate Indicators September 2021*. OECD. <<https://www.oecd.org/tax/tax-policy/tax-database-update-note.pdf>>, as of February 4, 2022.
- Osberg, Lars (2015). *How Much Income Tax Could Canada's Top 1% Pay?* Canadian Centre for Policy Alternatives. <https://www.policyalternatives.ca/sites/default/files/uploads/publications/National%20Office/2015/10/How_Much_Tax_Could_Canadas_Top_1_Pay.pdf>, as of February 4, 2022.
- Parliamentary Budget Officer [PBO] (2019). *Cost Estimate of Election Campaign Proposal: Net Wealth Tax*. <https://qsarchive-archives.qs.pbo-dpb.ca/web/default/files/Documents/ElectionProposalCosting/Results/32630202_EN.pdf>, as of February 4, 2021.
- Rankin, Christine (2019) “Super-wealth tax” to raise \$5.6B in 1st year, Singh says during Hamilton NDP event. *CBC News* (September 10/11). <<https://www.cbc.ca/news/canada/hamilton/jagmeet-singh-ndp-super-wealth-tax-hamilton-1.5277626>>
- Revenu Quebec (2021). *Income Tax Rates*. Government of Quebec. <<https://www.revenuquebec.ca/en/citizens/your-situation/new-residents/the-quebec-taxation-system/income-tax-rates/>>, as of February 4, 2022.
- Sanger, Toby (2021). *Platform for Tax Fairness*. Canadians for Tax Fairness. <<https://www.taxfairness.ca/en/news/platform-tax-fairness-2021>>, as of March 1, 2022.
- Sanger, Toby, and Lars Osberg (2019). *How High Should Top Tax Rates Go?* Canadian Centre for Policy Alternatives Centre. <<https://www.policyalternatives.ca/publications/monitor/how-high-should-top-tax-rates-go>>, as of February 4, 2022.

- Sillamaa, M.-A., and M.R. Veall (2001). The Effect of Marginal Tax Rates on Taxable Income: A Panel Study of the 1988 Tax Flattening in Canada. *Journal of Public Economics* 80, 3: 341–56.
- Smart, Michael, and Sobia Hasan Jafry (2022). *Why Won't Canada Increase Taxes on Capital Gains of the Wealthiest Families?* Finances of the Nation. <<https://financesofthenation.ca/2022/01/26/why-wont-canada-increase-taxes-on-capital-gains-of-the-wealthiest-families/>>, as of February 4, 2022.
- Smart, Michael, and James Ugucioni (2019). *Estimating Taxpayer Responses to Top Tax Reforms*. National Tax Association. <https://ntanet.org/wp-content/uploads/2020/02/Michael-Smart-Session1526_Paper3214_FullPaper_1.pdf>, as of February 4, 2022.
- Stanford, Jim (2020). *We're Going to Need a Marshall Plan to Rebuild after COVID-19*. Policy Options. Institute for Research on Public Policy. <<https://policyoptions.irpp.org/magazines/april-2020/were-going-to-need-a-marshall-plan-to-rebuild-after-covid-19/>>, as of February 4, 2022.
- Thivierge, Vincent, and Alex Laurin (2018). *Capital Gains Widely Enjoyed, Not Just by Top Earners*. C.D. Howe Institute. <<https://www.cdhowe.org/intelligence-memos/laurin-and-thivierge-capital-gains-widely-enjoyed-not-just-top-earners>>, as of March 1, 2022.
- Whalen, Alex, and Jason Clemens (2021). *Correcting Common Misunderstandings about Capital Gains Taxes*. Fraser Institute. <<https://www.fraserinstitute.org/sites/default/files/correcting-common-misunderstandings-about-capital-gains-taxes.pdf>> as of February 10, 2022.
- Veall, Smart (2012). Top Income Shares in Canada: Recent Trends and Policy Implications. *Canadian Journal of Economics* 45, 4: 1247–1272. <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3546376/>>, as of February 4, 2022.

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