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Executive Summary

British Columbia faces significant tax competitiveness issues, particularly with respect to the tax treatment of businesses in the province. The province's sales tax system—unlike that of many of its competitors—taxes a wide range of business inputs. Despite a corporate income tax rate that puts BC in the middle of the pack among Canadian provinces, this feature of the province's sales tax pushes BC's marginal effective tax rate (METR) on investment higher and creates competitiveness challenges, both of which discourage investment.

British Columbia has long had tax competitiveness challenges, but these have been exacerbated significantly in recent years with the provincial government's implementation of a wide range of tax increases. Specifically, the province has increased its corporate income tax rate, raised the top personal income tax rate, introduced a new payroll tax, and has continued to increase its carbon tax rate, which is currently the highest in North America. These more recent tax measures will all add to the costs of investing in the province.

As BC's tax system becomes less competitive, the province faces increasing competitive pressures from other jurisdictions. Of particular significance are the sweeping tax changes that the United States enacted in 2018 that have greatly reduced taxes on investment across the country. In the absence of reform, BC's waning tax competitiveness risks pushing investment that is critical for the province's economic and productivity growth to other jurisdictions. Prior to the tax reforms in the US, British Columbia's METR, though the highest in Canada, was lower than the American average. That situation is now reversed, and BC is at a disadvantage relative to the American average METR.

This paper analyzes British Columbia's tax competitiveness problems and assesses the extent to which recent tax policy changes have made matters worse. We identify a number of ways in which BC's tax regime and recent changes to it discourage investment.

On personal income taxes, we show that British Columbia now has the ninth highest combined federal and provincial personal income tax (PIT) rate out of the 61 American states (including Washington, DC) and Canadian provinces. Further, we show that BC's top tax rate threshold is

substantially lower than is the case in many American jurisdictions with whom we compete.

On business taxes, recent increases have increased the statutory corporate income tax (CIT) rate from 10 to 12 percent. This increase has exacerbated the business investment competitiveness problems created in the province by the existence of a sales tax on business inputs. Notably, the recent increases in the CIT have wiped out a reduction made in 2008 that was designed to partly offset the effects on business competitiveness of the implementation of a carbon tax. As a result, firms in British Columbia now not only face the highest carbon tax in North America, but they no longer enjoy any of the offsetting benefits that briefly existed as a result of lower CIT rates.

On the carbon tax itself, as noted, BC's is the highest in North America. Furthermore, whereas key competitors, including Alberta, have measures known as Output-Based-Allocations (OBAs) that help offset negative competitiveness effects for large emitters, BC's policy has no such measures, putting firms in the province under additional competitive pressure.

In addition, BC has implemented a number of additional tax increases in recent years, including the creation of a new payroll tax to fund health services and an increase to the property transfer tax.

This paper documents the extent of BC's tax competitiveness problem, shows how recent changes have made matters worse, examines several related economic statistics, and briefly discusses the implications of BC's competitiveness challenges for the province's long-term economic prospects.

Introduction

British Columbia faces significant tax competitiveness issues, particularly with respect to the tax treatment of businesses in the province. For years, the province's tax system, which includes a provincial sales tax that applies to a wide array of business inputs, has discouraged investment, which has negative long-run implications for the provincial economy.

In addition to this long-standing problem, the provincial government has also begun raising taxes in a number of different areas. Some of the more significant recent tax increases include higher corporate and personal income tax rates and an increase in the carbon tax rate. In addition, in its 2018 budget, the provincial government announced a new payroll tax. These more recent tax measures all add to the costs of investing in the province and exacerbate BC's tax competitiveness challenge.

As BC's tax system becomes less competitive, the province faces increasing competitive pressures from elsewhere. Of particular significance are the sweeping tax changes that the United States enacted in 2018 that have greatly reduced taxes on investment across the country. In the absence of reform, BC's waning tax competitiveness risks pushing investment that is critical for the province's economic and productivity growth to other jurisdictions.

This paper analyzes British Columbia's tax competitiveness problems and assesses the extent to which recent tax policy changes have made matters worse. Its first section begins by providing a short discussion of the importance of tax policy for attracting investment, and examines specific features of tax policy in BC that historically have been harmful to provincial competitiveness. The next section assesses the extent to which recent tax increases in the province have exacerbated the province's tax competitiveness challenges. The paper then reviews growing competitive pressures in the US and other Canadian provinces before concluding.

¹ Business inputs are goods and services that companies purchase and use in order to undertake their own production activity. Examples include computers, telecommunications services, transportation services, energy, office furniture and supplies, legal services, etc.

British Columbia's Tax System and the Related Competitiveness Challenges

Taxation is an important area of public policy that can influence a jurisdiction's attractiveness for investment and mobile, skilled labour.² Taxes affect investment decisions because they change the costs and benefits associated with various investment choices, thereby altering the behaviour and incentives of individuals and firms (Murphy, Clemens, and Veldhuis, 2013). For example, taxes have been shown to influence a business's decisions about who to employ, how many people should be employed, and how much individuals will choose to work. Taxes also affect decisions about whether new pieces of machinery or equipment should be purchased. At a more basic level, they also influence decisions about whether to open a business, expand it, or even continue to operate. For example, higher sales taxes that apply to capital goods, like BC's provincial sales tax (PST), can increase the costs of the goods comprising a business's investment and thus reduce the return on the investment in the future; the overall effect is that firms will tend to invest less.

Given the effect that tax policy has on fostering investment and improving productivity, the focus of tax reform should center not only on business and capital taxes, but on other taxes, too, such as personal income taxes and carbon taxes. For example, economic research has found that access to higher skilled workers can increase the productivity of firms (Moretti, 2004). However, higher personal income taxes can decrease workers' take-home pay, which in turn affects the total number of hours they will choose to work, the types of jobs they will pursue, and their overall work effort (Murphy, Clemens, and Veldhuis, 2013).

For these and other reasons, a competitive overall tax system with clear and consistent polices can make BC an attractive place for business-

 $^{^2}$ For a more thorough overview of the research literature on this topic see Murphy, Clemens, and Veldhuis (2013).

es, which have many jurisdictions aggressively competing for their investment and for skilled workers.³

Before examining the BC government's recent tax changes, it is important to first understand the competitive backdrop against which these taxes have been levied—and why, even before those changes, BC's tax system was uncompetitive in its treatment of investment. This issue largely stems from the province's use of a retail sales tax, the PST. The problem with this tax is that it applies to capital purchases (such as equipment or construction materials). With a value-added tax, like the federal Goods and Service Tax, the taxes levied on capital purchases can be deducted. Overall, the PST makes investment more expensive in BC, which in turn results in a lower level of investment over time, all other things being equal.

A measure developed by economists known as the marginal effective tax (METR) enables us to make a comparison between provinces of the difference in taxes on new investments. Bazel, Mintz, and Thompson (2017) explain that the METR is equal to the "portion of capital-related taxes paid as share of the pre-tax rate of return on capital for marginal investments" (p. 4). This measure includes corporate income taxes, sales taxes on capital (such as the PST),⁵ and other taxes that may also apply to capital purchases. Figure 1 displays the average METRs (for all sectors) by province in 2017. British Columbia currently has the highest tax burden on new investment of any province, with an average an METR of 27.7 percent.⁶ This is more than 16 percentage points higher than in Newfoundland & Labrador, which has the lowest METR in the country. BC's tax treatment of new investment is also much costlier than in Alberta,

³ While tax policy is an important contributing factor in investment location decisions, it is by no means the only one. There is no perfect relationship between competitive tax policy and investment attractiveness from jurisdiction to jurisdiction because different states, provinces, and countries offer other, often less tangible but still important differences. Competitive tax policy is therefore not a silver bullet, but rather, a tool governments can use to help attract investment and drive growth, all else being equal.

⁴ For an in-depth overview of the METR see McKenzie (2016).

⁵ BC briefly moved to a harmonized HST value-added tax regime in 2009/10 which would have substantially reduced the province's METR, but reversed course after fierce political opposition and a referendum in which voters rejected the change. The move to an HST was intended to reduce capital and production costs for businesses operating in BC and thereby reduce the METR, so the reversal of that change caused the METR to increase steeply.

⁶ BC's METR has also gone up recently due to increases in the general corporate income tax, as will be discussed below.

BC MB SK Canada AB ON NS QC PEI NΒ NL 0% 5% 10% 15% 20% 25% 30%

Figure 1: Marginal Effective Tax Rates on New Investment by Province, 2017

- 1) Excludes transfer taxes.
- 2) Data for this report was collected prior to the Federal government's tax policy changes announced in the last fiscal update of 2018. The federal tax policy change has reduced the METR for all provinces, without influencing the rank order shown here.

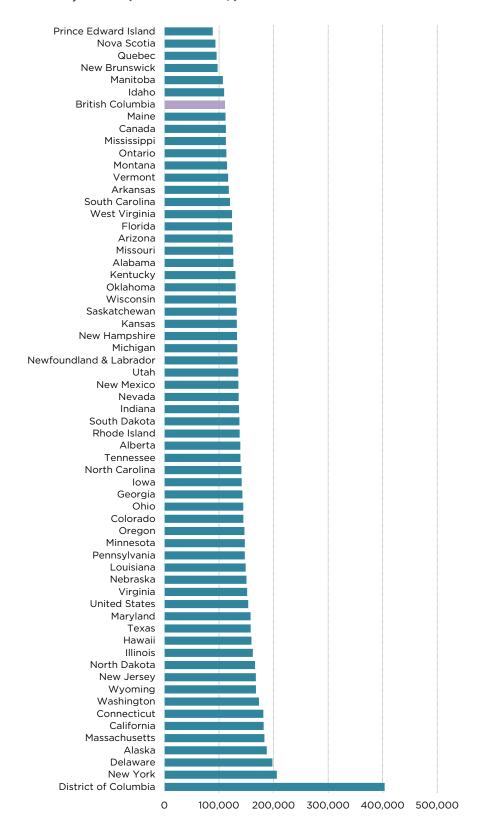
Source: Bazel, Mintz, and Thompson (2018).

Ontario, or Quebec. The only provinces with similarly high METR's are Manitoba and Saskatchewan, which also impose retail sales taxes.

British Columbia's tax system already imposes a relatively high cost on new investment, dampening the overall competitiveness of the province's economy. Economic theory suggests that this approach to tax policy should discourage investment and productivity. Empirical evidence for British Columbia is consistent with the theory. Although other factors are also at work, BC lags the national average on business investment per

 $^{^7\,}$ In its 2018 budget, the BC government confirmed that sales tax on business purchases of electricity—one major input to business activity—will be eliminated over two years, saving business \$82 million once fully implemented.

Figure 2: GDP Per Worker, PPP Adjusted, Canadian Provinces and US States, 2016 (Current CA\$)



Sources: Statistics Canada (2018a); Bureau of Labor Statistics (2017); OECD Data (2018); Bureau of Economic Analysis (2018).

30,000 25.000 20,000 15.000 10,000 Canada 5.000 British Columbia 0 1981 1986 1991 1996 2001 2006 2011 2016

Figure 3: Real Business Investment per Worker (Excluding Residential), 1981-2016 (2016 \$)

Note: This includes business investment in non-residential structures, machinery, equipment, and intellectuall property products.

Sourcs: Authors' calculations from Statistics Canada's Table 384-0038, Table 380-0064, Table 282-0012, Table 384-0039, Table 380-0102.

worker (including and excluding residential investment) and real GDP per worker. In fact, as figure 2 shows, real economic output per worker in BC is below the Canadian average and is the 7th lowest among the 61Canadian provinces and US States combined.

This outcome is not surprising given the pattern of weak business investment in the province. Figure 3 shows that real business investment per worker (excluding residential investment) has been consistently below the national average since the early 1980s. The gap has actually widened in recent years.

These data further demonstrate that BC's tax competitiveness problem is deterring investment and undermining productivity in the province.

Assessing the Impact of Recent Tax Policy Changes

Given BC's tax competitiveness challenge described above and the province's poor ability to attract investment and boost productivity, the provincial government should make it a high priority to reduce taxes on new investment. Unfortunately, government policy is moving in exactly the opposite direction. Over the last year and a half, BC's government has steadily increased a number of different taxes while also introducing some new ones. Table 1 summarizes the wide ranging changes to BC's tax system that have taken place in this period. All told, the taxes listed in table 1 are expected to cost more than \$3.6 billion in 2019/20.

The tax increases will undermine economic performance by further increasing the costs imposed on new investment and making it harder to recruit and retain highly skilled labour. Below we review some of the more important tax changes and explain what they are likely to mean for BC's economic competitiveness.

Personal income taxes

Like all other Canadian provinces, combined federal and provincial personal income taxes (PIT) in BC lead to competitiveness challenges relative to US states. Among the provinces, the top PIT rates are clustered in a relatively narrow band between Alberta's at the low end (48 percent) and Nova Scotia's at the high end (54 percent). Almost every Canadian province has a higher top PIT rate than almost every US state.

Canadian provinces are already uncompetitive; the BC government's decision to raise the top provincial PIT rate has made matters worse. Specifically, this change has increased BC's top combined federal/provincial PIT rate to 49.8 percent which, as figure 4 shows, means that BC now has the 9th highest top PIT rate of all 61 Canadian provinces and US states (including Washington DC).

The comparisons with American jurisdictions shown in figure 4 highlights BC's personal tax competitiveness problem. For example, the

Table 1: Summary of B.C. Tax Measures Introduced Since April 1, 2017

Tax measures	Effective date	Estimated new costs (\$ millions)	
		2018/19	2019/20
Increase tax rate applicable to individuals earning more than \$150,000 from 14.7% to 16.8%	2018 tax year	306	316
Increase of the general corporate income tax rate from 11% to $12\%^*$	January 1, 2018	313	334
Increase carbon tax to \$50 tonne**	Phased in to April 1, 2022	212	428
Introduce the Employer Health Tax	January 1, 2019	463	1,922
Increase property transfer tax rate to 5% from 3% on the value of residential properties above \$3 million	February 21, 2018	81	81
Increase additional property transfer tax rate from 15% to 20% and expand to more areas of the province	February 21, 2018	35	40
Increase school tax on most residential property in excess of \$3 million	2019 tax year	50	200
Introduce a speculation tax on residential properties	2018 tax year	87	200
Increase luxary surtax rates on passanger vehicles over \$125,000	April 1, 2018	10	10
Increase tobacco tax rates to 27.5 cents per cigarette from 24.7 cents, and to 37.5 cents per gram of loose tobacco from 24.7 cents	April 1, 2018	95	95
Eable online accomodation platforms to collect and remit PST	2018 tax year	16	16

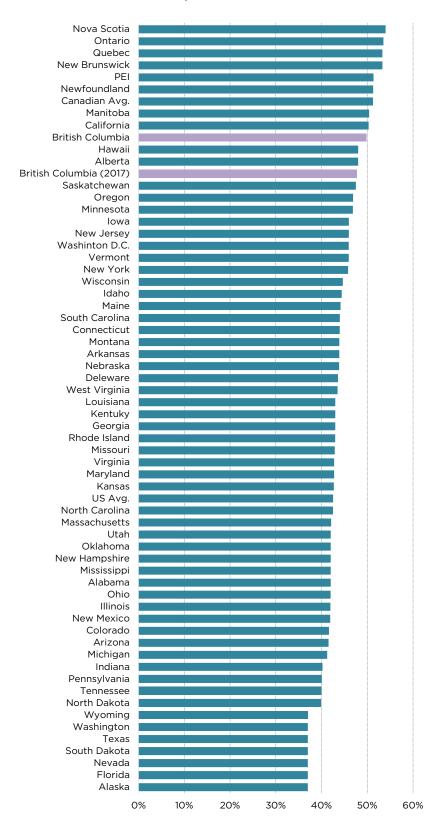
As the elimination of MSP payments and the reduction of the small business CIT rate were tax changes introduced by the previous government that the current NDP-Green coaltion followed through on implementing, they have not been included in the above table.

Sources: 2018 British Columbia Budget.

^{*} Includes increase revenue estiamtes from the higher general CIT rate as well as tax revenue reductions resulting from the lower small business tax rate. Estimates from the 2017 Budget Update.

^{**} Estimates from the 2017 British Columbia Budget Update.

Figure 4: Top Combined Marginal Personal Income Tax Rates, **Provinces and States, 2018**



- (1) Personal income-tax rates include surtaxes where applicable.
- (2) The federal personal income-tax rate is lower in Quebec because of the Quebec abatement, which is applied because Quebec has opted out of various federal programs. For more information, see Canada, Department of Finance (2016). (3) For US states, local income taxes are excluded. (4) Country averages reflect simple averages and not provincial or state population weighted averages.

Sources: Scarboro (2018); Federal and provincial 2018 budgets.

Table 2: Marginal Income Tax Rates at Select Income Levels, 2018

Province/State	Marginal income tax rates at CA\$150,000			Marginal income tax rates at CA\$300,000		
	Combined	Province/ State	Federal	Combined	Province/ State	Federal
British Columbia	43.7%	14.7%	29.0%	49.8%	16.8%	33.0%
Alberta	41.0%	12.0%	29.0%	47.0%	14.0%	33.0%
Ontario	46.4%	17.4%	29.0%	53.5%	20.5%	33.0%
Quebec	50.0%	25.8%	24.2%	53.3%	25.8%	27.6%
Alaska	24.0%	0.0%	24.0%	35.0%	0.0%	35.0%
California	33.3%	9.3%	24.0%	44.3%	9.3%	35.0%
Idaho	31.4%	7.4%	24.0%	42.4%	7.4%	35.0%
Montanta	30.9%	6.9%	24.0%	41.9%	6.9%	35.0%
Oregon	33.0%	9.0%	24.0%	44.9%	9.9%	35.0%
Washington	24.0%	0.0%	24.0%	35.0%	0.0%	35.0%

- (1) Personal income-tax rates include surtaxes where applicable.
- (2) The thresholds are in CAD\$. The 2018 USD/CAD exchange rate is 0.7775 based on TD Economics (2018) average quarterly projection. At this rate, CAD\$150,000 is equivalent to US\$ 116,625 and CAD\$300,000 is equivalent to US\$233,250.
- (3) For US states, local income taxes are excluded.

Sources: Scarboro (2018); TD Economics (2018).

average top combined federal/state marginal PIT rate in the United States is 42.5 percent, 6 percentage points lower than BC's current top PIT rate. Neighbouring states Alaska and Washington have top marginal PIT rates that are approximately 12 percentage points lower than BC's top rate as neither has a state level PIT. The rate differentials between BC and other jurisdictions are a competitiveness problem on their own, but of course PIT competitiveness is evaluated by more than just tax rates.

On top of the PIT rate itself is the threshold at which it applies. The income threshold at which BC's top PIT rate applies is substantially lower than the thresholds in other key jurisdictions. In 2018, BC's top marginal PIT rate took effect once an individual reached an income level of \$150,000. This is much lower than the top income tax rate thresholds for Ontario (\$220,000) or Alberta (\$307,547). Canada's top tax rates tend to apply at lower levels of income than in most American states (Lammam

et al., 2016). For example, for a single filer in 2018, Canada's top federal income tax threshold begins at \$205,842, whereas the top federal PIT tax rate threshold in the US is approximately CA\$643,087. A similar pattern is generally (but not always) the case when comparing top rate thresholds for sub-national PITs.

Table 2, which indicates the marginal tax rate that individuals earning \$150,000 and \$300,000 face, shows how these differences in tax policy alter the incentives for economic behaviour for higher-earning individuals in several Canadian provinces and American states. As table 2 shows, an individual earning \$150,000 in British Columbia faces a combined PIT rate of 43.7 percent on the next dollar they earn. This is much higher than in any of the US states included in this analysis. By comparison, if an individual earns the equivalent of CA\$150,000 in Washington State, they face a top combined tax rate of just 24 percent on the next dollar they earn. This is almost half of what the same individual faces in BC. Likewise, while the gap is less, an individual earning CA\$300,000 in BC also faces a substantially higher top marginal PIT rate than a similarly placed individual in any of the US states included in the analysis.

As is the case in all Canadian provinces, the top combined federal and provincial PIT rate in British Columbia compares unfavourably with the top rates in the United States. BC also has a relatively low threshold at which the top provincial marginal PIT rate begins, even by Canadian standards, which compounds the problem of high marginal tax rates for skilled managers and professionals. At higher income levels, Canada has long had appreciably higher tax rates than the US on highly productive skilled professionals. However, this gap has widened in recent years, which exacerbates the problem.

The comparatively higher tax rates and the comparatively lower thresholds at which they apply are a drag on BC's economic competitiveness, particularly its ability to attract and retain talented and mobile professionals, and to nurture entrepreneurship in the province. Just as jurisdictions compete for capital in a globalized world, they also compete for highly skilled workers. Tax policies that reduce the take-home pay for these workers more than is the case in other jurisdictions can have an adverse effect on the incentives for highly skilled workers to locate or stay in a given jurisdiction. High PIT rates can also reduce the incentives for individuals to engage in entrepreneurial activities. Entrepreneurship is inherently risky and requires entrepreneurs to invest considerable time and often money into the enterprise if it is to be successful. However, if the business venture is successful, when the entrepreneur receives the financial rewards from their endeavor, they can end up facing significant taxes on their income (labour income, capital gains, and/or dividends). At a time

when governments in Canada frequently identify entrepreneurship, innovation, and productivity growth as important objectives, it is noteworthy that policy trends in Canada, and especially in BC, have been counterproductive to this objective; they have increased taxes on the most productive segments of the working population.

Recent empirical research has established the negative link between high marginal personal income tax rates and entrepreneurship in Canada. Overall, a 1.0 percentage point increase in the top statutory PIT rate was found to be associated with a 0.06 percentage point reduction in the "business entry" rate—a common measure of entrepreneurship—in the shortterm, and a 0.21 decrease in the long-term. In BC specifically, in the first few years after it was implemented, a 1.0 percentage point increase in the provincial top PIT rate was found to decrease the number of new businesses by 87 a year. After the increase had been in place longer, the decreases in the number of new businesses rose to 315 a year (Ferede, 2018).

Corporate income taxes

As noted previously, British Columbia also faces serious business tax competitiveness problems. Due to a sales tax on business inputs, the average METR in BC is currently the highest in Canada.

The provincial government should be working to address this competitiveness issue. Instead, it has exacerbated the problem by raising the province's general statutory corporate income tax rate (CIT). The 2017 budget update included an increase to the general CIT of one percentage point, taking it from 11 to 12 percent. Until recently, BC's corporate income tax rate was the lowest in Canada. It had been gradually reduced by a total of two percentage points over a five-year period starting in 2008 as part of the tax shift designed to offset revenue growth from the carbon tax. However, a one-point reversal of this reduction under the Clark government combined with an additional point reduction from the new NDP government has completely reversed this reduction. The CIT is an important contributor to the METR (which we have shown is the most important comprehensive measure of business taxation), so this increase to the provincial CIT will exacerbate the province's competitiveness challenge.

The increase in BC's statutory CIT is problematic not only for business investment and competitiveness, but in the short term it will also lead to lower wages in the province. Recent research suggests that at least part of the cost of CIT increases is borne by workers at firms affected by higher CIT rates; that is, the cost is not fully passed on to business owners. Ebrahimi and Vaillancourt (2016) examined Canadian data from 1998 to 2013 and found that a one percent rise in the statutory corporate income

tax rate was associated with a 0.15 to 0.24 percent reduction in the hourly wage rate. Based on 2012 incomes and combined average CIT rates, a one percentage point increase in the CIT rate would reduce annual wages by between \$254 and \$390 in Canada.

Another study by McKenzie and Ferede (2017) confirmed that higher CIT rates dampen employee wages. Their estimates were based on a panel of data from Canadian provinces from 1981 to 2014. Overall, McKenzie and Ferede found that a one percent increase in the provincial corporate income tax rate was associated with a 0.107 percent reduction in the real hourly wage rate. The authors further estimated the impact on aggregate wages from raising an additional dollar of corporate income tax revenue. In BC, that impact was an aggregate reduction of 1.34 or 2.25 percent in the real hourly wage rate depending on whether the model accounted for the effect of changes in the CIT base. In other words, generating an additional dollar of CIT revenue from a higher tax rate imposes a significant cost on wage-earners.

The recent increases in the provincial CIT rate will not only increase costs for business, thereby reducing BC's economic competitiveness, but it will be partially borne by workers in the form of lower wages.

The new payroll tax

In the 2018 budget, the BC government announced that it would be introducing a new payroll tax, the Employer Health Tax (EHT), to replace revenues from the Medical Service Plan (MSP) premiums that are being phased out. The EHT came into effect on January 1, 2019, and applies to firms with payrolls above \$500,000 (BC Ministry of Finance, 2018a).8 The BC government projects that the EHT will raise \$1.92 billion in revenue in 2019/20.

The EHT will be a significant new cost to BC businesses. Under the MSP premium system, individuals paid roughly half of the revenue that the tax raised, while businesses contributed the other half (Peacock and Finlayson, 2018). Under the EHT system, businesses will pay all of the \$1.92 billion that the tax is expected to raise. These extra costs will further undermine BC's economic competitiveness. The MSP Task Force that was set up to determine how to replace the revenues from the MSP recognized that a new payroll tax would have a negative impact on competitiveness.

⁸ The tax rates for the EHT are as follows: firms with payrolls under \$500,000 will not pay the EHT; firms with payrolls between \$500,000.01 and \$1,500,000 will pay 2.925% x (payroll - \$500,000); and firms with payrolls over \$1,500,000 will pay 1.95 percent on their total payroll (BC Ministry of Finance, 2018b).

In its interim report, the task force noted that "[a] payroll tax would reduce the competitiveness of BC businesses at a time when they are facing several competitiveness challenges including expected increases to the minimum wage, CPP increases, and recent tax reform in the US which improve[s] the competitive position of many US businesses" (MSP Task Force, 2018: 4).

Another issue with the EHT is who will ultimately end up paying the costs of the tax. Part of the reasoning for eliminating the MSP premiums and shifting to the EHT has ostensibly been to shield individuals from the cost of the tax. However, similar to the situation with corporate income taxes, workers will pay part of the EHT levy in the form of lower wages. That is because employers view payroll taxes as part of a worker's overall compensation. As payroll taxes increase, there's less money available for employee wages and benefits, or for investments in innovation, expansion, and tools that improve worker productivity. Crucially, over time, employee wages will not grow as fast as would be the case without a payroll tax. In the end, workers ultimately bear most of the cost of payroll taxes through reduced pay.

Empirical evidence can provide some sense of how the new EHT will affect employee wages. In their study on how CIT rates affect wages, Ebrahimi and Vaillancourt (2016) also assessed how increases in payroll taxes affect wages. They found that a 1 percent increase in the employer portion of the payroll tax rate would reduce the hourly wage rate by between 0.03 and 0.14 percent. Based on payroll taxes and average hourly wages in 2012, a one percentage point increase in payroll taxes would result in a reduction of the average Canadian hourly wage rate in the following year of between \$0.07 and \$0.31, which annually translates into wages that are between \$137 and \$605 lower. In addition, economists at the business school HEC Montréal found, based on Canadian data, that "payroll taxes are passed almost entirely to workers in the form of lower wages" (Deslauriers et al., 2018: 4).

The higher payroll tax costs on BC business from the new EHT will also come at a time when business will already be paying higher payroll taxes due to the federal government's expansion of the Canada Pension Plan (CPP).

Carbon tax

British Columbia has had a carbon tax in place since 2008/09. Another tax change that will affect BC's overall economic competitiveness is the planned schedule of increases to the carbon tax rate. As table 3 shows,

Table 3: Carbon Tax Increase Impact on Gasoline Prices

Carbon tax rate (\$/tonne)	Effective date	Carbon tax paid per litre of gasoline (cents/litre)
\$30	July 1, 2012	6.67
\$35	April 1, 2018	7.78
\$40	April 1, 2019	8.89
\$45	April 1, 2020	10.00
\$50	April 1, 2021	11.11

Source: Author calculations.

the BC government is committed to increasing the price of carbon by \$5 per tonne of emissions each year until the carbon tax rate reaches \$50 per tonne of emissions; in 2018, the tax rose from \$30 to \$35, as the government began to act on its promise to hike the carbon tax. When the carbon tax reaches \$50 per tonne, the tax will add approximately 11.11 cents to the cost of a litre of gasoline.

Given the role of carbon-based energy (gasoline, diesel, natural gas, etc.) in the production processes of many firms, the higher carbon tax rate will impose greater costs on BC businesses. The negative impacts of these costs will amplify the competitiveness challenges BC is already facing with respect to other North American jurisdictions, many of which do not have carbon pricing. Within Canada, some of the negative competitive aspects of BC's carbon tax arguably are lessened by the federal government's implementation of the Pan-Canadian Framework on Clean Growth and Climate Change, which created a benchmark against which the provinces were supposed to implement a form of carbon pricing, with prices across the country set to steadily increase from \$10 in 2018 to \$50 per tonne of emissions by 2022 (Environment and Climate Change Canada, 2016). However, the implementation of pricing systems has been slow or nonexistent in some provinces, and Ontario recently disbanded its cap-andtrade system. In addition, BC's carbon tax is currently applied more broadly than the carbon pricing schemes in place or planned in other provinces. For example, Alberta employs an output-based pricing system⁹ for large

⁹ See Dobson et al. (2017) for a description of how output-based pricing functions and complements carbon pricing.

emitters to help protect the competitiveness of industries that are both emissions-intensive and trade-exposed (Dobson et al., 2017). The federal government has also announced that an output-based pricing system will be part of the federal carbon pricing backstop system that will come into effect in provinces that fail to implement their own, broadly comparable carbon pricing systems (Environment and Climate Change Canada, 2018). BC currently has no rules in place to offset any of the cost of the escalating carbon tax on emissions-intensive, trade-exposed industries. Thus, a comparable large emitter in BC and Alberta would face different costs even if the carbon tax rate was the same.

That being said, in its 2018 budget, the BC government indicated that it would eventually adopt a new program for large emitters to help address their competitiveness challenges. However, as of this writing, the details of such a program have not been released (British Columbia, undated).

Another important change to the BC carbon tax has been the formal removal of the revenue neutrality requirement. When the BC government first introduced the carbon tax in 2008, it explicitly embraced the principle of revenue neutrality (Lammam and Jackson, 2017). Part of the then government's reason for insisting on revenue neutrality was to signal to British Columbian business and residents that the carbon tax would not be a net tax increase. Revenue neutrality was also intended to help mitigate some of the economic costs of the carbon tax. When the carbon tax was first implemented in 2008/09, the provincial government enacted four offsetting tax measures: a reduction in the bottom two personal income tax (PIT) rates; a reduction in the general corporate income tax (CIT) rate; a reduction in the small business CIT rate; and the introduction of the low-income climate action refundable tax credit. While the carbon tax had ceased being completely revenue neutral by 2013/14 due to the inclusion of pre-existing tax measures in the revenue neutrality calculation, much of the carbon tax revenue was still being offset by reductions to personal and corporate income taxes (Lammam and Jackson, 2017). The revenue neutrality commitment has now been abandoned and the BC government intends to use the revenues generated by the carbon tax for various other purposes. This sends a signal to businesses and investors that as carbon tax revenues rise in the future, they will not be primarily used to help offset the negative effects of higher energy and other input costs on businesses operating in British Columbia. Under such a scenario, we would expect to see less business investment in natural resource industries, manufacturing, and other sectors for which energy costs are a significant part of overall production costs.

Summary

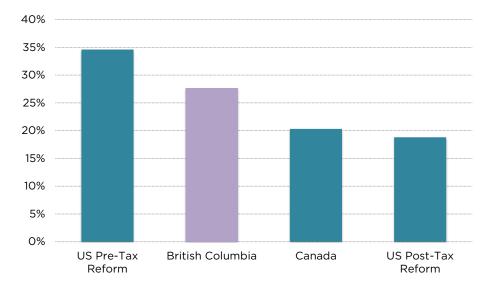
In a little more than a year, the BC government has introduced a large number of tax increases affecting personal and corporate income taxes, payroll taxes, carbon taxes, vehicle taxes, and property taxes, among others. 10 Some of these tax changes are expected to raise substantial revenue—and could have a substantial adverse impact on employers. Taken together, these tax increases pose a significant threat to the economic competitiveness of the province. They will add significant costs to BC businesses, which, in many cases, will ultimately be paid by workers in the form of lower wages. The recent tax increases will exacerbate the relatively high tax burden that BC already places on new investment. In addition, the scale and large number of tax increases send a negative signal to potential investors about trends in the BC business environment. The negative effect of the recent BC tax policy changes is likely to be amplified because other jurisdictions are seen to be reducing the tax burden on investment capital and industrial activity.

 $^{^{10}}$ This short paper has not examined tax policy changes affecting property, housing transactions, or the purchasing of certain motor vehicles.

Competitive Pressures from Abroad

Just when BC is imposing higher tax costs on business, investment, and entrepreneurs, other jurisdictions are lowering their taxation costs. Most notably, the United States federal government has implemented the Tax Cuts and Jobs Act that has dramatically reduced the tax burden on new investment across the country. Some of the key elements of the legislation are a reduction in the federal CIT rate from 35 to 21 percent and an acceleration of capital investment deductions. Hazel, Mintz and Thompson (2017) have estimated the impact of these tax changes on the average METR on new investment in US. Figure 5 displays their results.

Figure 5: Marginal Effective Tax Rates on New Investment, Pre- and Post-US Tax Reform, 2018



Source: Bazel, Mintz, and Thompson (2018).

¹¹ For more in-depth analysis of the tax plan and a greater overview of all the tax changes contained in the legislation see Bazel, Mintz and Thompson (2017).

The US average METR has dropped 16 percentage points due to the recent tax reforms in that country, from around 35 percent to just under 19 percent. This makes the METR in the US nine percentage points lower than in BC, meaning that the cost of investing in BC is now higher than in the US on average, all else being equal. The reduction in BC's economic competitiveness stemming from US tax reform has also been further undermined by the other tax increases implemented by the BC government, as detailed above. The combination of US tax reductions and BC tax $\,$ increases means that the province has become relatively less attractive for investors, which are likely to have have long-term economic consequences.

Conclusion

Higher levels of investment and productivity are critical if policymakers hope to improve the living standards of British Columbians. Yet recent increases in taxes, coupled with long-standing high tax rates on new investment, mean that the province may well be in store for relatively lower levels of economic prosperity. Indeed, in fewer than two years, the BC government has raised personal and corporate income taxes, payroll taxes, carbon taxes, property taxes, and vehicle taxes, among others. And those are in addition to the province already having relatively high tax rates on new investment stemming from the fact that it has a PST that taxes business inputs, rather than an HST that does not. These tax increases have the effect of placing higher costs on business, investment, and highly skilled workers, thereby deterring investment and business expansion. The recent BC tax increases also send negative signals to investors that can further discourage investment.

In sum, as BC raises its taxes, and in so doing increases the cost of investment and undermines the province's economic competitiveness, other jurisdictions, both in the US and in Canada, are pursuing tax policies that reduce costs on investment. The combination of higher taxes in BC and lower taxes elsewhere could lead to less investment, slower productivity growth, and a lower level of overall economic growth in the province.

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Acknowledgments

The authors thank the unidentified external reviewers for their many helpful suggestions and comments on earlier drafts. Any remaining errors are the sole responsibility of the authors. As the researchers have worked independently, the views and conclusions expressed in this paper do not necessarily reflect those of the Board of Directors of the Fraser Institute, the staff, or supporters.

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Date of issue

January 2019

ISBN

978-0-88975-532-1

Citation

Jackson, Taylor, and Ben Eisen (2019). Assessing British Columbia's Tax Competitiveness. Fraser Institute. http://www.fraserinstitute.org.

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