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The End of the Alberta Tax Advantage

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Executive summary

This paper examines the extent to which the tax policy changes introduced in Alberta in 2015 have diminished Alberta's tax advantage relative to peer jurisdictions.

Specifically, we compare key tax rates in Alberta before and after the recent tax policy changes to assess whether Alberta still holds a significant tax advantage over other provinces and peer jurisdictions in the United States. We focus on three areas of tax policy that have historically composed the main pillars of Alberta's "tax advantage": personal income taxes, corporate income taxes, and sales taxes.

We find that whereas in each of these areas Alberta until quite recently enjoyed a substantial advantage over all Canadian provinces and most US energy states, that advantage has been substantially undermined or completely erased for two of the three pillars (personal income taxes and corporate income taxes).

Specific findings include:

- Before the tax policy changes, Alberta had the lowest corporate tax rate in Canada. Alberta's "advantage" in this area is gone. Alberta's new provincial corporate tax rate is higher than British Columbia's and Ontario's, and is almost identical to those in Saskatchewan, Manitoba, and Quebec. Alberta can now be considered "middle of the pack" within Canada on corporate taxes.
- In 2014, Alberta had the lowest top combined federal-provincial/state tax rate out of 60 Canadian provinces and American states. After the tax policy changes, Alberta's top personal income tax rate is now the 46th lowest. That means Alberta's top rate is now in the highest third of North American jurisdictions. Comparing the marginal personal income tax rate at four different income levels reveals that Alberta no longer has a distinct tax advantage in any of those levels examined.
- Alberta retains one pillar of its tax advantage in the Canadian context, as it alone among the provinces does not have a provincial sales tax. Relative to American energy jurisdictions, however, Alberta does not necessarily enjoy a sales tax advantage as there are several states with neither a federal nor a state-level sales tax.

We conclude that the notion of a uniquely competitive and pro-growth tax regime that provides the province's economy a distinct advantage is largely obsolete.

This development has important implications for Alberta's future economic growth prospects. To provide context for these implications, this paper briefly discusses the research literature on the relationship between tax rates and economic growth, as well as the evidence surrounding the economic impact of different types of taxes.

The literature suggests low and competitive tax rates are generally beneficial for economic growth, particularly with respect to corporate income taxes and personal income taxes. We demonstrate that Alberta's experience is consistent with this evidence, by providing an analysis of the province's economic performance during the life of the province's "tax advantage." This analysis shows that generally, the province economically outperformed the rest of the country and most peer jurisdictions during that time. For example, Alberta's real GDP growth rate between 2001 and 2014 (at 3.3%) was higher than all other provinces and behind only North Dakota among US energy states.

In a discussion section, the paper also considers the fiscal context in which recent tax policy questions were made, assessing the extent to which they were necessitated by the emergence of large budget deficits. We find that the provincial government had other options available to it to shrink the province's deficit, such as reducing and reforming provincial expenditures, which have increased rapidly in recent years. This approach would have preserved Alberta's tax advantage, and economic theory suggests it would have been beneficial for the province's short- and long-term economic growth prospects relative to the course the government has in fact taken.

In short, the erosion of Alberta's tax advantage documented here should be viewed as the result of discretionary policy choices rather than a necessity imposed upon the government by fiscal circumstances. As a result of these choices, we conclude that the Alberta tax advantage has been, in large measure, erased.

Introduction

Until recently, Alberta could boast of having the most pro-growth tax regime in Canada and one of the most economically competitive tax regimes in all of North America.

Alberta's comparatively low tax rates have previously been referred to collectively as the "Alberta Tax Advantage," or simply the "Alberta Advantage." These terms refer to the fact that the province's lower tax rates have given it an economic advantage over competing jurisdictions that has enabled it to attract investment and people to the province, and promote economic growth and prosperity.

Historically, the province's tax advantage consisted of three primary pillars. These were:

- A single-rate personal income tax rate (PIT)) of 10 percent (all other provinces have multi-bracket income tax systems which include significantly higher tax rates).[1]
- The country's lowest corporate income tax (CIT) rate.
- The absence of a provincial sales tax.

Taken together, these unique features of its tax system made Alberta the lowest-tax jurisdiction in Canada, which represented a significant competitive advantage over peer jurisdictions.

However, in 2015, the newly elected government of Rachel Notley began a substantial overhaul of Alberta's tax system. The specific measures the government took included an increase in the province's corporate income tax rate and the move from a single-rate income tax to a five bracket system with a top statutory rate of 15%.

In this paper, we will examine the extent to which the tax policy changes introduced in 2015 have diminished Alberta's tax advantage relative to peer jurisdictions. Specifically, we will compare key tax rates in Alberta before and after the recent tax policy changes to assess whether Alberta still holds a significant tax advantage over other provinces and

[1] Alberta also has a higher basic personal (and spousal) exemption than other provinces.

peer jurisdictions in the United States, with a particular focus on the three pillars of the Alberta Advantage (PIT, CIT, and sales taxes).

The plan of this paper is as follows: first, we provide an overview of the evidence concerning the relationship between competitive tax rates and economic growth. Next, we describe the evolution of the Alberta tax advantage and provide an overview of Alberta's economic performance during the years (2001–2014) in which it held a clear advantage in all three tax categories identified above. Next, the paper shows how Alberta's tax policies have changed since 2015 and compares the province's new tax rates to existing rates in other Canadian provinces and relevant American states (energy producing jurisdictions) to assess the extent to which the province still does or does not enjoy a meaningful tax advantage. The following section provides a discussion of the fiscal context in which recent tax policy changes have been made, and the final section briefly concludes.

Taxes and Economic Growth

There is a long and robust economic literature on the relationship between marginal tax rates and economic growth. High marginal tax rates are correlated with lower economic growth since they reduce the incentives to work and invest in a jurisdiction.

For instance, an article published in the prestigious *American Economic Review* by economists David Romer and Christina Romer (2010) examined the relationship between the overall level of taxation and economic growth in the United States between 1945 and 2007. They found that increasing taxes by 1% of GDP was correlated with a decrease in real GDP of roughly 2.5–3%.

Of course, different taxes have different impacts on economic growth. Generally speaking, corporate taxes are considered the most harmful of the three major categories of taxation discussed herein, followed by personal income taxes, with sales taxes considered to be less harmful.[2] Several studies have estimated the economic harm done by various taxes.

For instance, Mertens and Ravn (2013) found that a one percentage point cut in average personal tax rates in US states would raise real GDP per capita by up to 1.8% over time. Similarly, in a study of 21 OECD countries, Arnold (2008) found that income taxes are associated with lower economic growth than consumption and property taxes.

Corporate taxes are generally considered to be even more harmful than income taxes.

A study by Johansson et al. (2008) examined OECD data from 21 countries between 1970 and 2005 to estimate the impact of corporate taxes on economic growth. They estimated that reducing corporate income tax (CIT) rates from 35% to 30% reduces the cost of capital by approximately 2.8%, making investment more attractive.

For a Canadian specific perspective, a 2008 federal department of finance study analyzed tax cuts between 2000 and 2004, finding that each

[2] For a discussion, see Johansson et al. (2008), or Ferede and Dahlby (2016).

10% reduction in the after-tax cost of capital lead to a 7% increase in the amount of capital (Parsons, 2008).

Ferede and Dahlby present more recent evidence in an appropriately titled study, *The Costliest Tax of All* (2016). The authors analyzed Canadian data from 1972 to 2010 and confirmed that corporate income taxes are more harmful than personal and sales taxes. Indeed, they found that in five provinces, increasing the corporate income tax would actually cost provincial treasuries money. For Alberta specifically, they found that a corporate tax increase would be roughly three times as damaging as a sales tax increase, and twice as damaging as a personal income tax increase (Ferede and Dahlby, 2016).

Another important concern about corporate taxation is that despite the perception that the burden is borne exclusively by corporations and shareholders, some of the burden is in fact passed on to workers in the form of lower wages. Several studies have reached this conclusion. For instance, a study by Felix (2009) for the Kansas City Reserve Bank examined the impact of corporate tax rates on wages in 47 US states between 1977 and 2005. The author estimated that a one percentage-point increase in marginal state corporate taxes would reduce wages between 0.14% and 0.36%. Some studies have found even greater shares of corporate income taxes being passed on to workers through lower wages. For instance, Arulampalam, Devereux, and Maffini (2012), in a study of nine European countries between 1996 and 2003, found that a dollar increase in the CIT would lead to a $0.49 decrease in wages in the long term. Liu and Altshuler (2013), examining US data, came to an even higher estimate of a $0.60 reduction in wages per dollar increase in CIT revenue. More recently, Suarez Serrato and Zidar (2016) estimated that workers bear between 30% and 35% of the burden of CIT changes.

A recent study by Ebrahimi and Vaillancourt (2016) estimated the effects of corporate income taxes on wages within Canada. They estimated that a one percent increase in statutory corporate tax rates would lead to a reduction in inflation-adjusted hourly wages of between 0.15% and 0.24% (Ebrahimi and Vaillancourt, 2016).

While the economic impact of different categories of tax varies widely, all taxes nevertheless have an impact on economic growth. It is therefore important to maintain a tax environment that is competitive with those in peer jurisdictions. All else being equal, the evidence suggests that lower tax rates should be expected to contribute to higher rates of economic growth, particularly in the case of corporate and personal income tax rates.

Alberta's Tax Advantage, 2001–2014

The term "Alberta Advantage" was first used on the floor of Alberta's legislative assembly in the throne speech of 1993, during which the newly elected government of Ralph Klein committed itself to low and competitive tax rates. The speech, in part, read:

> Unlike some others, my government will not try to buy prosperity through higher taxes. Instead, it will build on Alberta's existing advantage of low taxes and its free enterprise spirit to develop the most competitive economy in North America. The government will strengthen the Alberta Advantage and sell it aggressively around the globe. (Alberta, 1993)

The phrase "Alberta Advantage" has sometimes been used more broadly to focus on Alberta's pro-growth tax, regulatory, and policy regime. However, the quotation above makes it clear that low and competitive tax rates are at the core of the idea of an Alberta Advantage. Throughout this paper, we use the term in its somewhat narrower meaning, focusing exclusively on the province's "tax advantage" without reference to other dimensions of the province's policy regime.

As noted in the above quotation, some of Alberta's tax rates were already comparatively low during the 1990s, and the province was unique in Canada in that it did not have a sales tax. However, Alberta began to solidify its status as an outlier province with a genuinely significant tax advantage during the early 2000s when the provincial government began a process of significantly reforming and reducing the province's corporate and personal income taxes.

This process began in 2001, when Alberta eliminated its multi-bracket personal income tax system and replaced it with a single-rate tax of 11%. The rate was later reduced to 10%. At the same time, the basic exemption for personal income taxes was increased by 63% to $11,620 and the spousal exemption was nearly doubled to $11,620. These steps were taken in part to reduce the tax burden for lower income Albertans, and

the exemptions were indexed to inflation to prevent "bracket creep" from reducing the value of those exemptions over time (Alberta Treasury Board and Finance, 2000).

In 2001, Alberta also began the process of substantially reducing its business taxes. In 2011, Alberta's General Corporate Tax Rate was reduced from 15.5% to 13.5%. From there, the tax was gradually reduced each year, reaching 10% in 2007, where it would remain for the next 8 years. Between 2001 and 2006, the province's small business rate was cut in half from 6% to 3% (Alberta Treasury Board and Finance, 2016b).

The result of this process was that Alberta emerged with a uniquely pro-growth and competitive tax regime within Canada, and one that was generally also competitive with low-tax energy jurisdictions in the United States.

The tax advantage with which Alberta emerged from the reform process just described had three primary pillars: a low, single-rate personal income tax with high basic and spousal exemptions, a corporate income tax rate that was far below the national average (and in fact was the lowest in Canada), and the absence of a sales tax. These features of Alberta's tax system, all unique within Canada, made Alberta the lowest tax jurisdiction in Canada and cumulatively created a significant tax advantage over most North American jurisdictions.

Alberta's Economic Performance Relative to Peer Jurisdictions, 2001–2014

As discussed in an earlier section, economic theory and empirical research from around the world suggests that Alberta's tax advantage during the early years of this century, and particularly its low personal income and corporate income taxes, would have contributed significantly to economic growth and prosperity in the province. Alberta's economic track record since 2001 when the Alberta Advantage began to be solidified conforms to this expectation. In this section, we briefly review Alberta's economic performance relative to other Canadian provinces and energy producing jurisdictions in the United States demonstrating that the years during which the Alberta Advantage was most pronounced (2001–2014) were generally characterized by very strong economic performance in the province. In a recent analysis of Alberta's economic performance, Di Matteo, Clemens, and Emes (2014) compared Alberta to a selection of US states and Canadian provinces in which energy composes a significant proportion of the economy.[3] The American states included in the analysis were Alaska, Wyoming, Louisiana, Oklahoma, Texas, North Dakota, and Colorado.

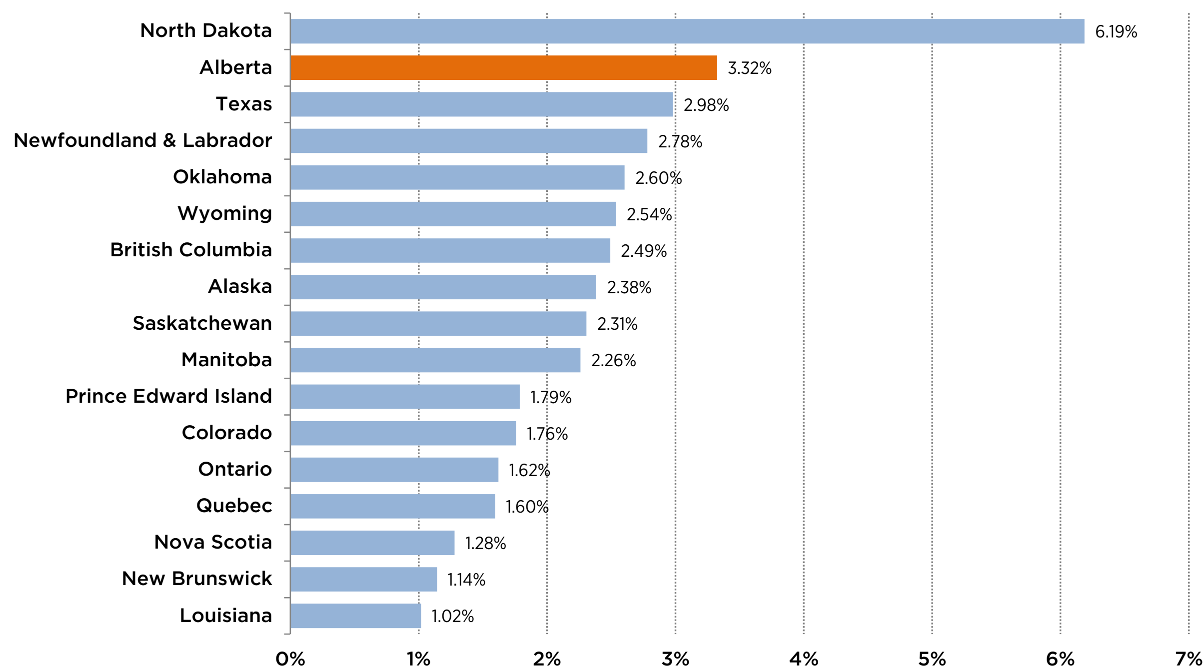
In this report, we compare Alberta's economic performance to the economic performance of the other nine Canadian provinces, as well as the American energy producing states listed above.

We begin by comparing average annual real (inflation adjusted) economic growth in Alberta to the other Canadian provinces and to key energy producing American states. Figure 1 shows that from 2001–2014, Alberta's real economic growth averaged 3.3% annually. This was, by a significant margin, the highest economic growth rate in Canada.

Alberta's economic growth rate also outpaced most of the energy producing US states included in this analysis. Only North Dakota, which

[3] For a discussion of the methodology, see Di Matteo, Clemens, and Emes (2014).

Figure 1: Average Annual Real GDP Growth, 2001-2014



Sources: Statistics Canada (2016g); Bureau of Economic Analysis (2016b); and calculations by authors.

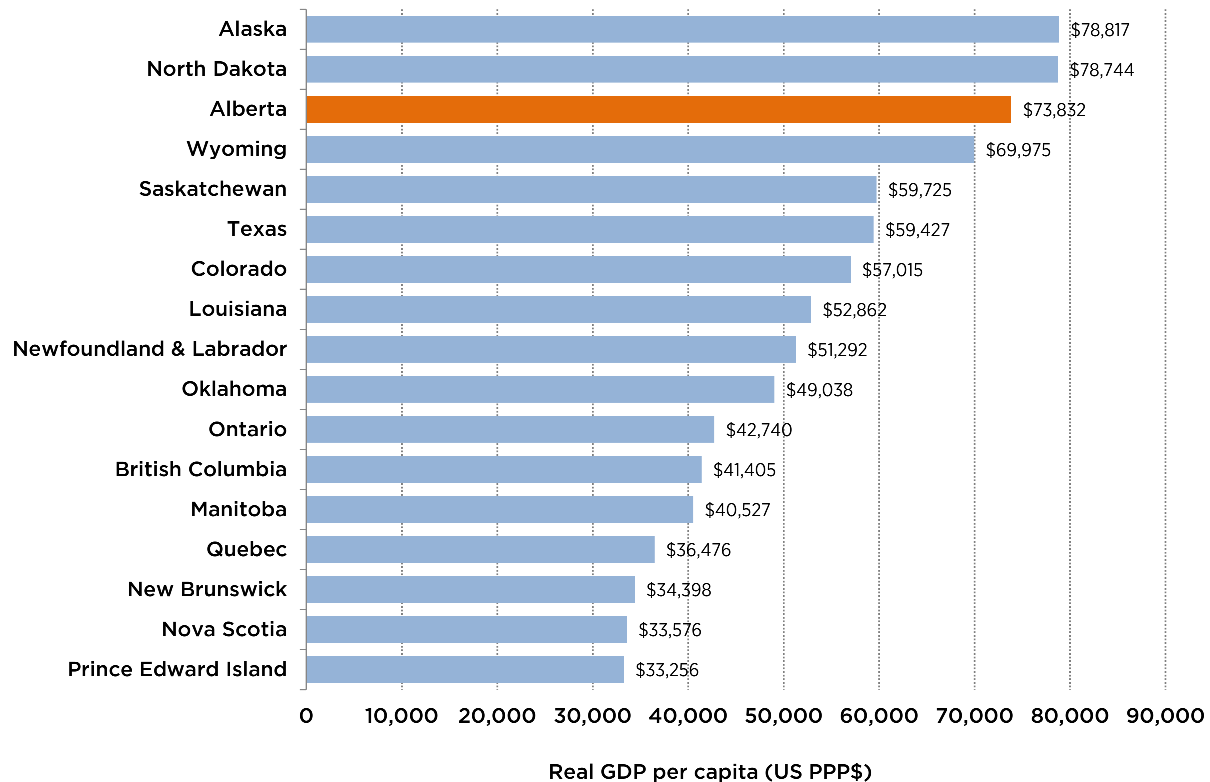
saw its economy grow at an average annual rate of 6.2% during this period, performed better according to this key metric.[4]

Alberta's rapid rate of economic growth from 2001–2014 allowed the province to consolidate its position as one of the most prosperous places in North America and, indeed, in the world. As figure 2 shows, by 2014 Alberta's real GDP per capita had climbed to $73,832, the third highest level of the jurisdictions analyzed here, roughly $5,000 less than first place Alaska.[5]

[4] This rapid growth rate was largely due to the development during this period of North Dakota's previously small natural gas industry.

[5] Some jurisdictions such as Ontario that are particularly dependent on manufacturing were hit especially hard by the global financial crisis beginning in 2008. As such, some of the discrepancy in growth rates was caused by forces other than the tax regime in each jurisdiction. This section of the paper should not be interpreted as ascribing Alberta's strong economic performance in this period entirely to its tax system and to the province's tax advantage specifically. Instead, it shows that Alberta's strong economic performance since the solidification of its tax advantage is consistent with economic theory, which predicts that the province's moderate tax levels (and

Figure 2: Real GDP Per Capita, 2014 (US PPP$)



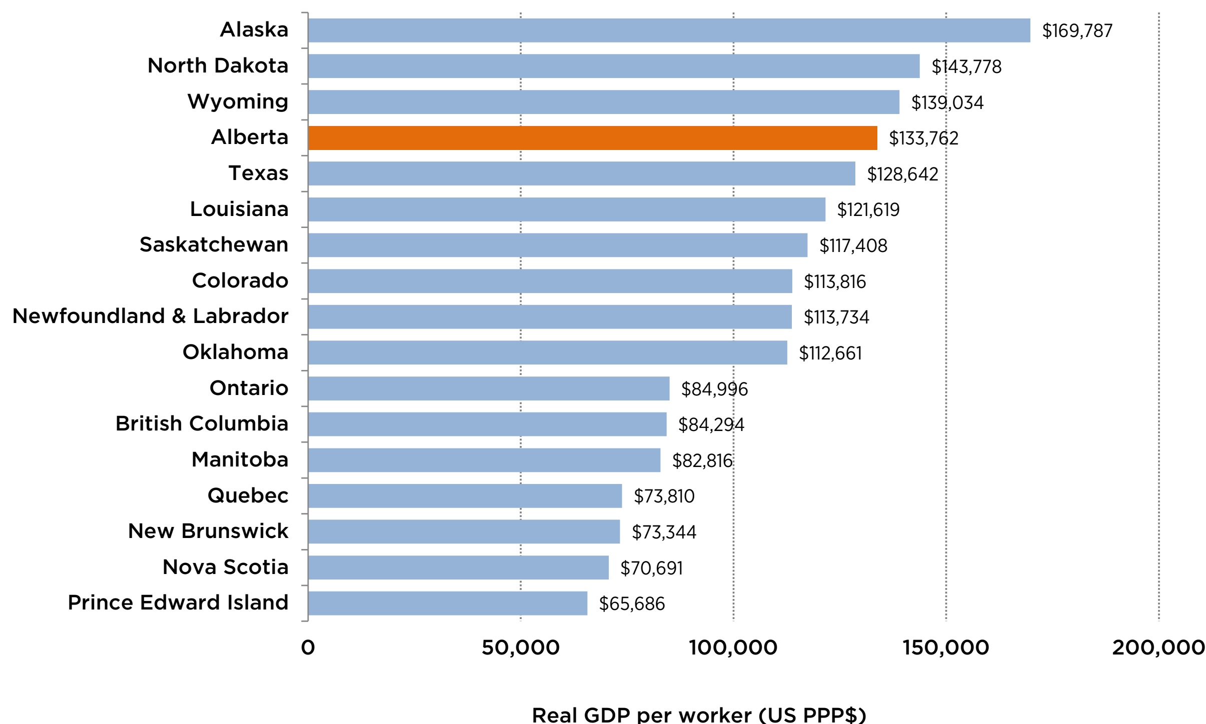
Sources: Statistics Canada (2016g); Statistics Canada (2015); Statistics Canada (2016h); Bureau of Economic Analysis (2016a); Bureau of Economic Analysis (2016b); Bureau of Economic Analysis (2016c); International Monetary Fund (2016), Implied PPP Conversion Rate, April 2016; and calculations by authors.

Alberta's high level of GDP per capita and the resulting high standard of living in the province are driven in part by high levels of economic output per worker. Figure 3 helps illustrate this fact by presenting real GDP per worker in the Canadian provinces and key energy producing American states. Again, on this metric, Alberta outperforms all of the Canadian provinces and most of the American states under analysis. Just three jurisdictions (Alaska, North Dakota, and Wyoming) outperformed Alberta in terms of real GDP per worker in 2014.

The rapid increase in economic output coincided with strong job creation in Alberta during the period under analysis. Figure 4 shows that

particularly its advantage with respect to the PIT and CIT) would contribute to stronger economic growth in the province, all else being equal.

Figure 3: Real GDP Per Worker, 2014 (US PPP$)



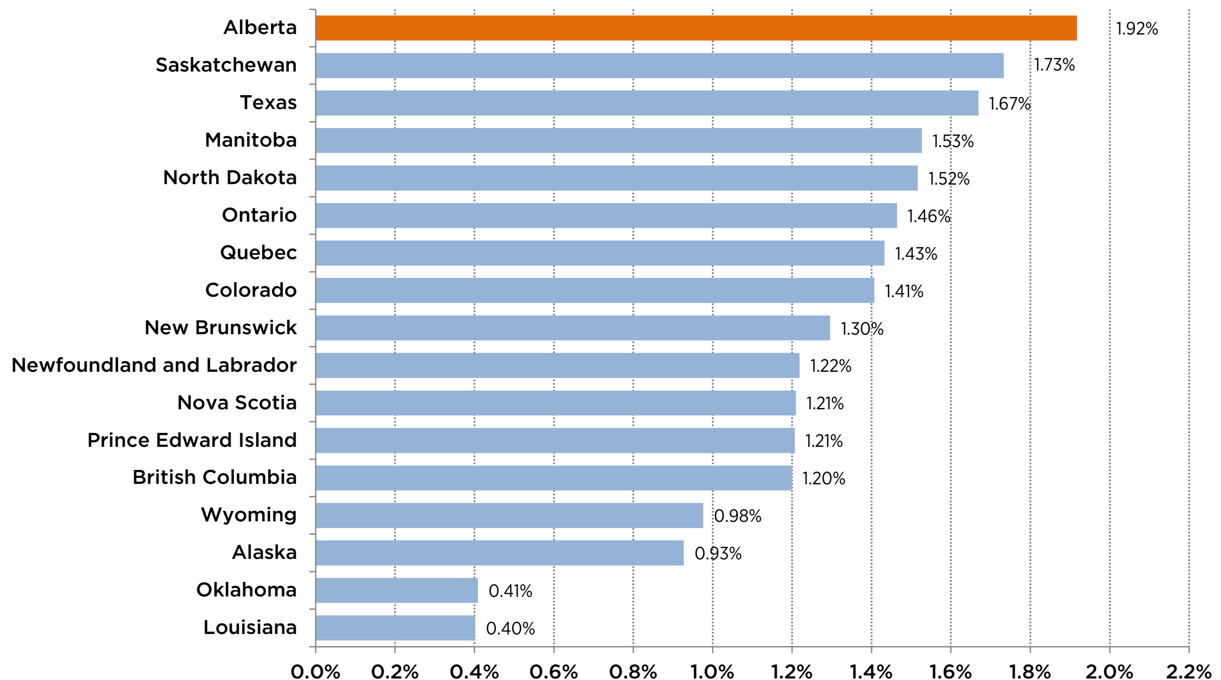
Sources: Statistics Canada (2016g); Statistics Canada (2016e); Statistics Canada (2016h); Bureau of Economic Analysis (2016a); Bureau of Economic Analysis (2016b); Bureau of Labor Statistics (2003-2014), Table 21; International Monetary Fund (2016), Implied PPP Conversion Rate, April 2016; and calculations by authors.

employment in Alberta grew at an average annual rate of 1.9% between 2001 and 2014. This represents a faster rate of job creation than prevailed in any Canadian jurisdiction or any of the US energy states included in this analysis. Clearly, Alberta's job creation record was exceptionally strong throughout this period.

The data presented in this section show that the era during which Alberta's tax advantage was most pronounced was generally a very successful one for the provincial economy. Alberta led the nation in economic growth and job creation from 2001–2014, and also outperformed all competing US energy states examined in employment growth. As a result of this strong growth, the province consolidated its position as the most prosperous province in Canada, and one of the most prosperous places not just in North America, but in the world.

Economic theory and empirical evidence from the around the world would lead one to expect that the tax reforms implemented during the ear-

Figure 4: Average Annual Rate of Total Employment Growth, 2001-2014



Sources: Statistics Canada (2016e); Bureau of Labor Statistics (2000-2002), Table 18; Bureau of Labor Statistics (2003-2014), Table 21; calculations by authors.

ly 2000s would contribute to economic growth and prosperity in Alberta. The province's experience over the 14 years during which it held a decided tax advantage relative to other provinces and most US states conforms to this expectation, as Alberta was indeed one of the top economic performers over the course of that period.

The recent erosion of Alberta's tax advantage

In 2015, the newly elected provincial government in Alberta almost immediately introduced significant changes to the province's tax system. These changes marked a fundamental departure from the province's approach to tax policy in preceding years. Specifically, the new government ended the province's single-rate system for personal income tax, replacing it with a 5-bracket system while increasing the top statutory rate by 50%. The new government also took action that affected the second "pillar" of Alberta's tax advantage: it increased the corporate income tax rate by 20%.

The tax changes led some commentators and observers to declare the "end of the traditional Alberta Advantage" on taxes (Giovannetti, 2015). In this section, we assess the impact of the recent tax policy changes on each of the three key pillars of Alberta's tax advantage to assess whether the province does in fact still enjoy a meaningful tax advantage relative to peer jurisdictions. We compare Alberta's tax rates in each of these categories in both 2014 (the last year of the traditional tax advantage) and this year (2016) to assess whether the province's tax advantage has been eliminated or reduced and, if so, to what extent.

Personal income taxes

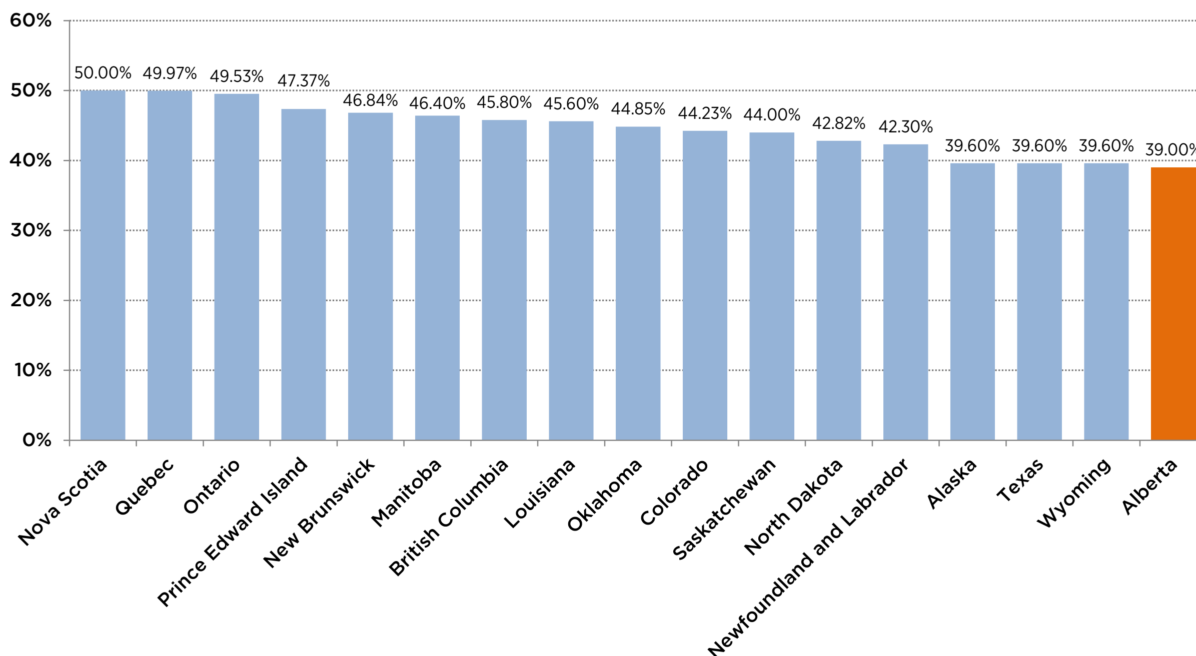
The province's unique-in-Canada single-rate personal income tax was a signature policy of Alberta's tax advantage. The elimination of the single-rate system and its replacement with a five-bracket system on October 1st, 2015, marked an important shift in Alberta tax policy. Here, we assess whether and to what extent that tax policy changes undermined the "personal income tax pillar" of Alberta's tax advantage relative to other provinces and American states.

Figure 5 shows that under the single-rate system, Alberta had the lowest combined top marginal income tax rate (39%) among the Canadian provinces and among the energy producing jurisdictions being analyzed here.[6] In fact, the province's top marginal personal income tax rate was lower than any other province or state in North America.

However, figure 6 shows that Alberta jumped from having the lowest top marginal tax rate in 2014 (39%) to being solidly in the middle of the pack (at 48%) in 2016. There are two major contributing factors to this change. The first is the previously mentioned increase in Alberta's top provincial personal income tax rate, which has brought an end to Alberta's time as the province with the lowest top PIT rate in the country. Alberta's top PIT rate is now nearly identical to Saskatchewan's and British Columbia's and is within five percentage points of Newfoundland & Labrador, Manitoba, and Prince Edward Island. The second factor has been a recent increase in the top federal income tax rate, which was raised by four

[6] Under the previous single-rate tax system, there were some income levels for which there were lower marginal tax rates in other jurisdictions owing to the different brackets and exemption levels. For instance, some middle-income earners in British Columbia faced lower personal income tax burdens than they would have in Alberta. But for the most part, and particularly at the high and low ends of the income spectrum, Albertans faced a lower income tax burden under the single-rate system than taxpayers in almost all other provinces.

Figure 5: Top Marginal Personal Income Tax Rate, Combined State/Province and Federal, 2014



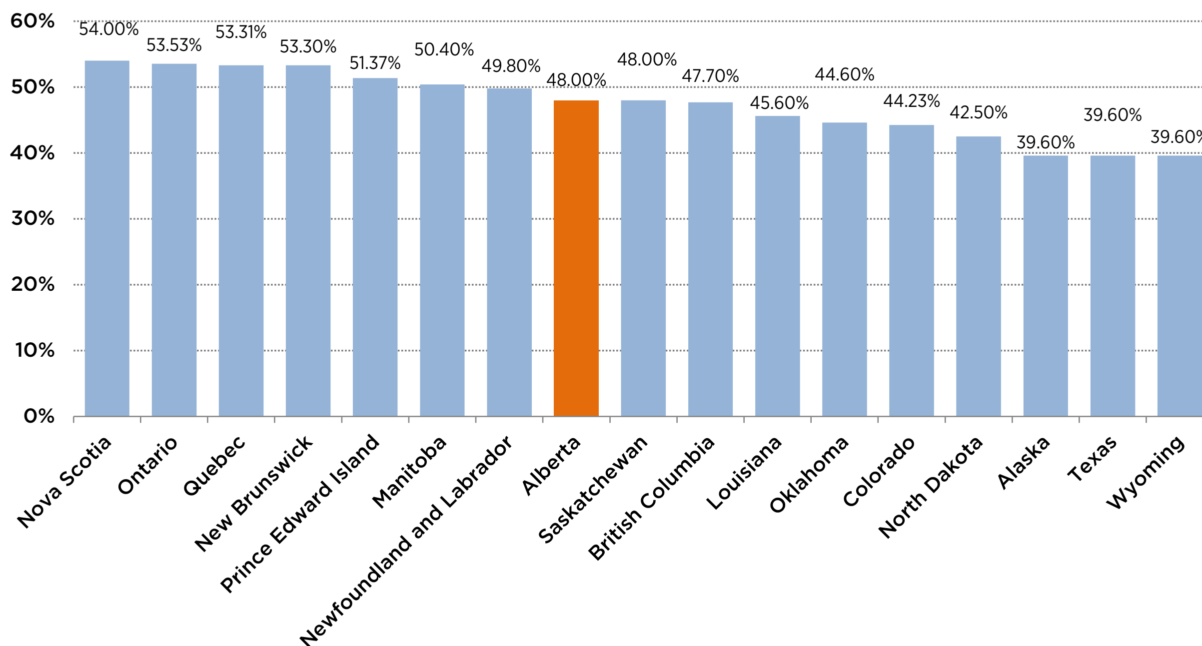
Sources: Canadian Revenue Agency (2016a); PricewaterhouseCoopers (2014); Tax Foundation (2013a); Pomerleau (2013); calculations by authors.

percentage points in 2015. The combined effect of these two tax increases has been that Alberta's top personal income tax rate has gone from being lower than all of the US energy jurisdictions under analysis in 2014 to being higher than all of them in 2016. Figure 6 shows that all seven of the US energy states under analysis here now have a lower top personal income tax rate than Alberta.

The sudden change in Alberta's top personal income tax rate relative to nearby jurisdictions is illustrated even more starkly in figure 7, which shows the top combined income tax rate in every Canadian province and American state (plus Washington, DC). Figure 7 shows that of the 61 major jurisdictions in North America, Alberta's top personal income tax rate now stands in the highest third. In fact, just 17 of the 61 North American jurisdictions have a higher top PIT than Alberta. For reference, Alberta's top rate in 2014 is included in the graphic to illustrate where the province would stand today (with the lowest top rate in North America) in the absence of recent policy changes.

Clearly, when it comes to top combined personal income tax rates, Alberta's tax advantage has been badly eroded by recent policy changes.

Figure 6: Top Marginal Personal Income Tax Rate, Combined State/Province and Federal, Canadian Provinces and US Energy Producing States, 2016



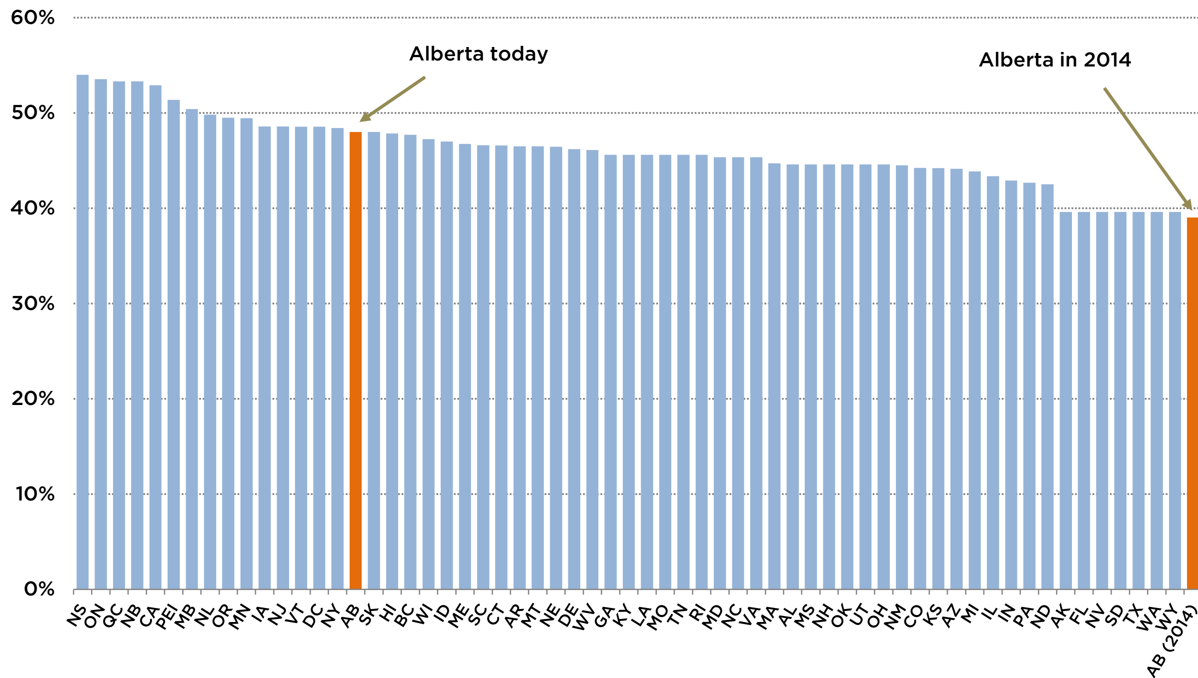
Sources: Canadian Revenue Agency (2016a); PricewaterhouseCoopers (2014); Pomerleau (2015); Tax Foundation (2016); calculations by authors.

We will now briefly turn to compare Alberta's current PIT rates with those of the other jurisdictions in our analysis at various income levels. Specifically, we consider four different levels of income—$50,000, $75,000, $150,000, and $300,000—in order to account for the fact that each jurisdiction has different tax brackets and exemptions.[7]

Table 1 shows that compared to its Canadian counterparts, Alberta still has relatively low marginal rates at most levels examined. However, at none of the income levels shown does Alberta stand out as having a marked tax advantage over other relatively low-tax provinces. At $50,000 of income, Albertans face the third lowest marginal rate after British Columbia and Ontario. At $75,000, Alberta has the second lowest marginal rate, behind British Columbia, and is within three percentage points of Saskatchewan and Ontario. At $150,000, Albertans face the lowest marginal rate in Canada, despite the introduction of a new, higher rate

[7] See Speer (2014) and Lammam (2010) for an explanation of the income levels chosen.

Figure 7: Top Marginal Personal Income Tax Rate, Combined State/ Province and Federal, All Provinces and States, 2016



Sources: Canadian Revenue Agency (2016a); PricewaterhouseCoopers (2014); Pomerleau (2015); Tax Foundation (2016); calculations by authors.

beginning at $125,000, but the province's "advantage" relative to neighbouring jurisdictions is very small. Alberta's marginal tax rate at $150,000 of income is within two percentage points of British Columbia and Saskatchewan.

Finally, at $300,000 of income, the marginal tax rate in Alberta is currently slightly higher than in British Columbia and is tied with Saskatchewan. Table 1 shows that while at most levels of income Alberta is still a relatively low-tax province, when it comes to personal income tax, it is currently by no means an outlier; it has rates that are very similar to other lower tax provinces at several levels of income. Certainly, the table suggests that Alberta's personal income tax rates no longer stand out as markedly different from the rest of the country at any level of income, suggesting it is not reasonable to speak of a continued distinct Alberta advantage when it comes to personal income taxes.

The relative impact of recent personal income tax increases (at both the provincial and federal levels) becomes much clearer when we compare Alberta's existing PIT rate to competing energy jurisdictions in the United

Table 1: Federal/Provincial Combined Marginal Personal Income Tax Rates at Selected Income Levels, 2016

	Marginal tax rate at $50,000	Marginal tax rate at $75,000	Marginal tax rate at $150,000	Marginal tax rate at $300,000
British Columbia	28.20%	28.20%	43.70%	47.70%
Alberta	30.50%	30.50%	42.00%	48.00%
Saskatchewan	33.50%	33.50%	44.00%	48.00%
Manitoba	33.25%	37.90%	46.40%	50.40%
Ontario	29.65%	31.48%	47.97%	53.53%
Quebec	37.12%	37.12%	49.97%	53.31%
New Brunswick	35.32%	35.32%	49.30%	53.30%
Nova Scotia	35.45%	37.17%	50.00%	54.00%
Prince Edward Island	34.30%	37.20%	47.37%	51.37%
Newfoundland & Labrador	34.00%	35.05%	44.80%	49.80%

Sources: Canada Revenue Agency (2016a); PricewaterhouseCoopers (2016); and calculations by authors.

States. Table 2 shows that when including those states, Alberta has the tenth lowest marginal rate at $50,000, the eighth lowest at $75,000, the eighth lowest at $150,000, and is tied for ninth lowest at $300,000. This is in stark contrast to 2014, when only five states of this sample had lower marginal rates at $300,000 of income.[8]

The analysis presented here shows that while in 2014 Alberta clearly held a personal income tax rate advantage, that advantage was largely erased in recent policy changes. Today, Alberta still has relatively low PIT rates compared to most Canadian jurisdictions, but the province's rates at most income levels are close to those of Saskatchewan and British Columbia. Alberta is no longer an "outlier" in this area of tax policy, and no longer has a meaningful, unique advantage. This fact becomes clearer when the province is compared to energy producing jurisdictions in the United States, many of which now have significantly lower personal income tax rates at various levels of income.

This analysis suggests that the first pillar of Alberta's tax advantage has essentially been erased by the tax policy changes of 2015.

[8] The lower marginal rate at $300,000 of income was due to different brackets. For instance, the top federal US rate begins after more than $400,000, compared to the Canadian federal rate which begins at over $200,000.

Table 2: Canadian and US Energy-Producing States Marginal Personal Income Tax Rates at Selected Income Levels, 2016

	Marginal tax rate at $50,000	Marginal tax rate at $75,000	Marginal tax rate at $150,000	Marginal tax rate at $300,000
British Columbia	28.20%	28.20%	43.70%	47.70%
Alberta	30.50%	30.50%	42.00%	48.00%
Saskatchewan	33.50%	33.50%	44.00%	48.00%
Manitoba	33.25%	37.90%	46.40%	50.40%
Ontario	29.65%	31.48%	47.97%	53.53%
Quebec	37.12%	37.12%	49.97%	53.31%
New Brunswick	35.32%	35.32%	49.30%	53.30%
Nova Scotia	35.45%	37.17%	50.00%	54.00%
Prince Edward Island	34.30%	37.20%	47.37%	51.37%
Newfoundland & Labrador	34.00%	35.05%	44.80%	49.80%
Alaska	25.00%	25.00%	28.00%	33.00%
Colorado	29.63%	29.63%	32.63%	37.63%
Louisiana	29.00%	31.00%	34.00%	39.00%
North Dakota	27.04%	27.04%	30.27%	35.64%
Oklahoma	30.00%	30.00%	33.00%	38.00%
Texas	25.00%	25.00%	28.00%	33.00%
Wyoming	25.00%	25.00%	28.00%	33.00%

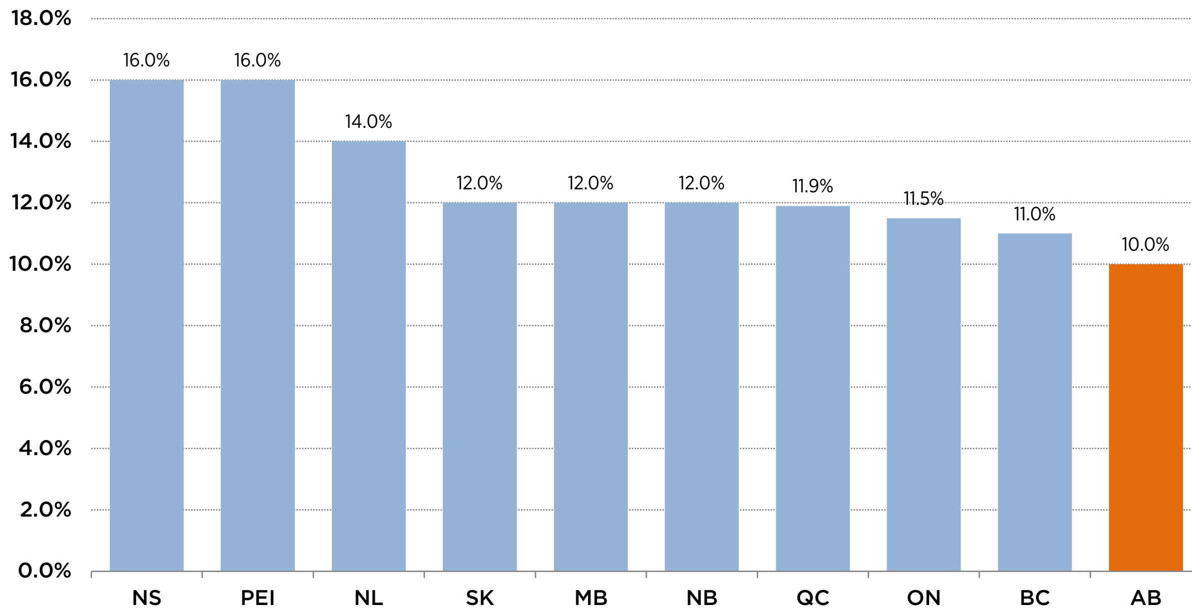
Sources: Canada Revenue Agency (2016a); PricewaterhouseCoopers (2016); Pomerleau (2015); Tax Foundation (2016); TD Economics (2016); Calculations by authors.

Corporate income taxes

During the early years of this century, the government of Alberta also significantly reduced its general corporate income tax rate. The corporate tax rate was gradually reduced from 15.5% in 2001 to 10% in 2006—the lowest rate of any province (Alberta Treasury Board, 2016b). Alberta's lowest-in-the-country CIT rate was the second key pillar of Alberta's tax advantage.

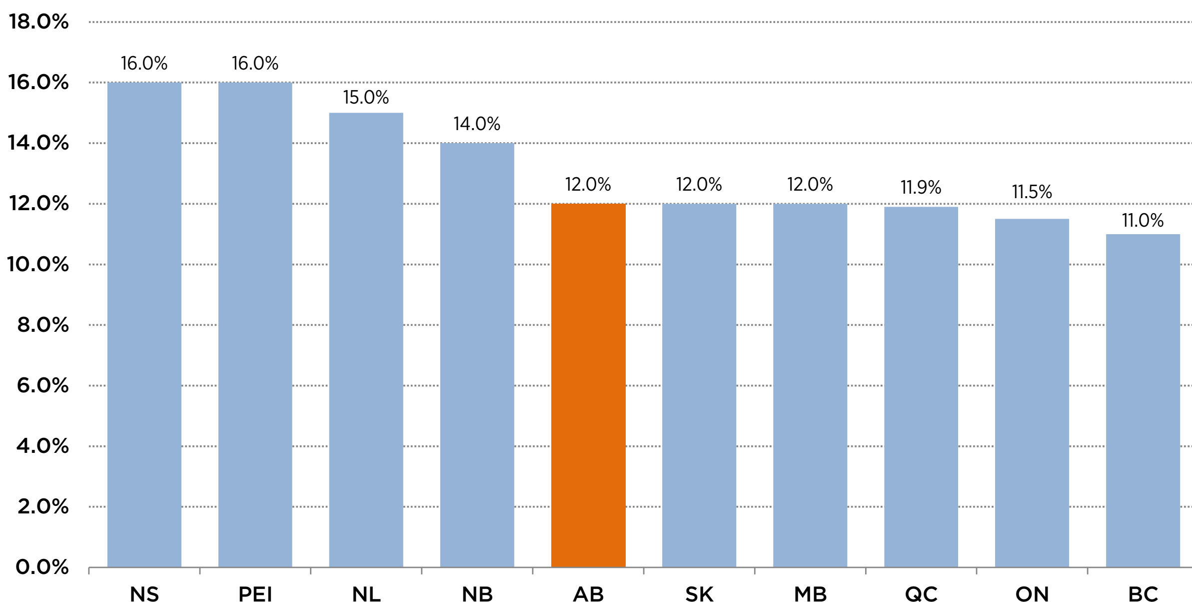
Figure 8 shows that in 2014, Alberta's general corporate income tax rate was one percentage point lower than the next lowest province (British Columbia) and was 2.9 percentage points lower than the average general corporate income tax rate of the other nine provinces (12.9%).

Figure 8: Canadian Provincial General Corporate Income Tax Rate, 2014



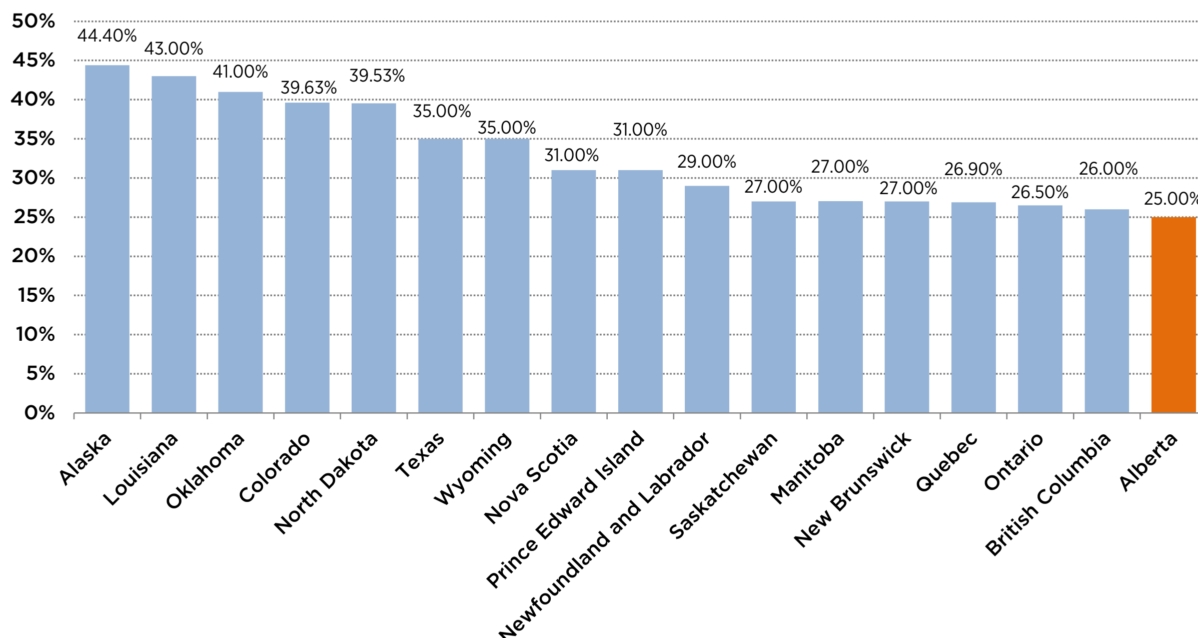
Source: PricewaterhouseCoopers (2014).

Figure 9: Canadian Provincial General Corporate Income Tax Rate, 2016



Source: PricewaterhouseCoopers (2016).

Figure 10: Top Combined Province/State and Federal Corporate Income Tax Rates, 2014



Source: PricewaterhouseCoopers (2014); Tax Foundation (2013); and calculations by authors.

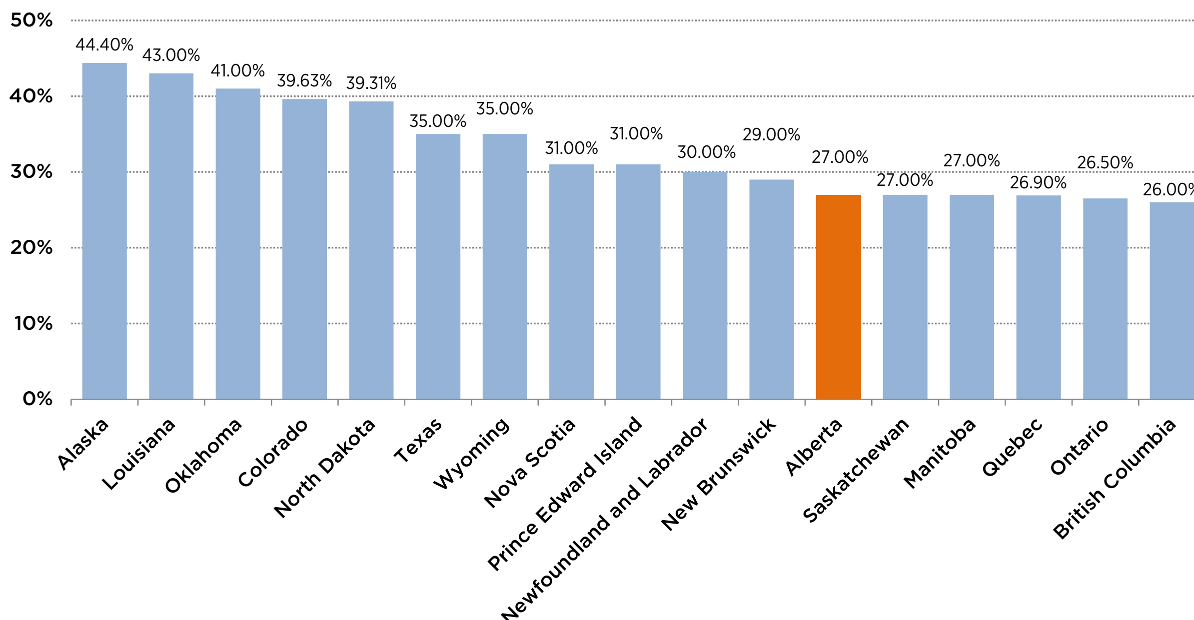
However, in 2015, Alberta's new government increased the general corporate income tax rate to 12%—a 20% increase. Figure 9 helps illustrate the impact of this tax change on the second pillar of Alberta's tax advantage by comparing general corporate income tax rates in the provinces in 2016.

Figure 9 shows that Alberta no longer has the lowest corporate income tax rate in Canada. That distinction now belongs to British Columbia, where the CIT is one point lower than in Alberta. Alberta's general corporate income tax is also now slightly higher than Ontario's and British Columbia's, and is equal to the rate in Saskatchewan and Manitoba. Whereas Alberta once had a clear tax advantage over all of the rest of the country on corporate income tax rates, the province is now solidly in the middle of the Canadian pack when it comes to this particularly harmful form of taxation.

However, figure 10 shows that on corporate income taxes, all Canadian provinces, including Alberta, continue to enjoy a tax advantage relative to the American states.[9] This is primarily due to the fact that the

[9] Some states, including Texas, have "gross receipts" taxes instead of corporate taxes (which is levied upon gross receipts rather than profits). These are not included in the calculation since they are not strictly comparable.

Figure 11: Top Combined Province/State and Federal Corporate Income Tax Rates, 2016

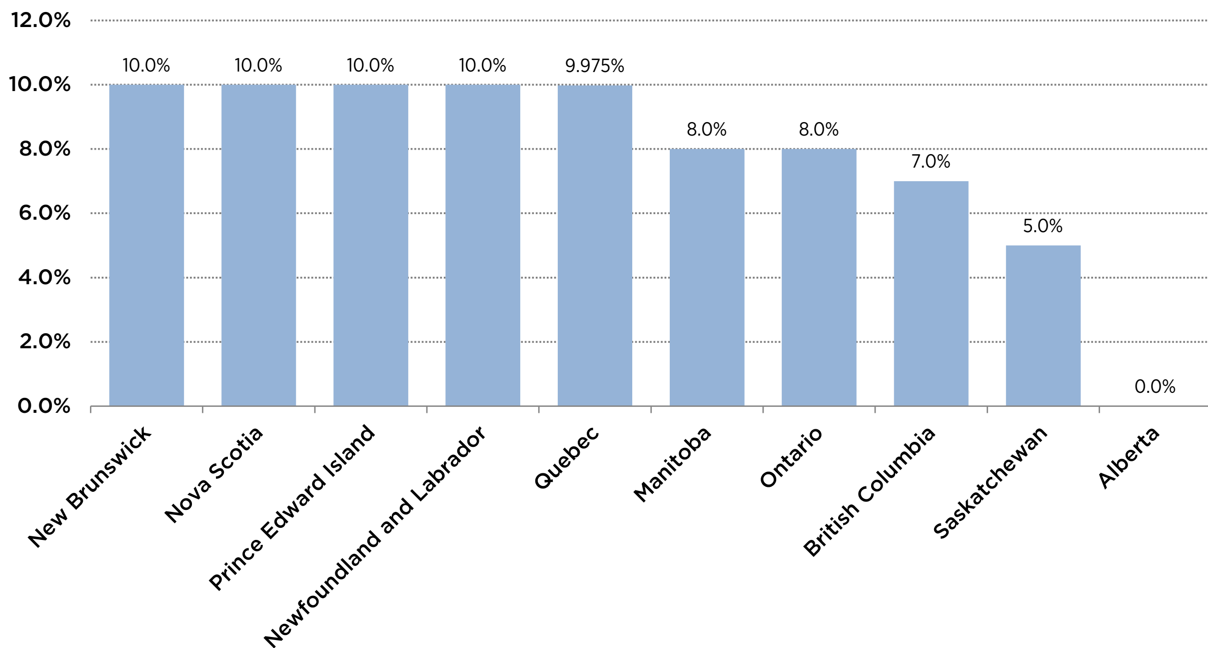


Source: PricewaterhouseCoopers (2016); Kaeding (2016); and calculations by authors.

United States has a much higher federal corporate tax rate (35%) than Canada (15%). Figure 11 shows that while Alberta is now roughly in the middle of the Canadian pack on corporate income taxes, it and all other Canadian provinces continue to enjoy a tax advantage over the American jurisdictions analyzed in this report.

Until recently, Alberta could boast of the lowest corporate tax rate in North America, and a significant tax advantage in this area over every other Canadian province. This constituted the second pillar of Alberta's tax advantage but, as we have seen, this advantage has been substantially eroded. Alberta is now closely aligned with several other provinces when it comes to corporate income taxes, and in fact has a general corporate tax rate that is one percentage point higher than British Columbia's. The notion that Alberta holds a meaningful tax advantage in this area over the rest of the country is obsolete. We can conclude that, like the first pillar, the second pillar of the Alberta tax advantage has been reduced by the policy changes of 2015, and has disappeared altogether in comparison to several Canadian provinces.

Figure 12: Sales Tax Rate—Provincial Portion, 2016



Source: PricewaterhouseCoopers (2016).

Sales taxes

We now turn to the third and final major pillar of Alberta's tax advantage, the absence of a provincial sales tax. This unique (within Canada) feature of Alberta's tax system predates the other two "pillars" of the Alberta Advantage.

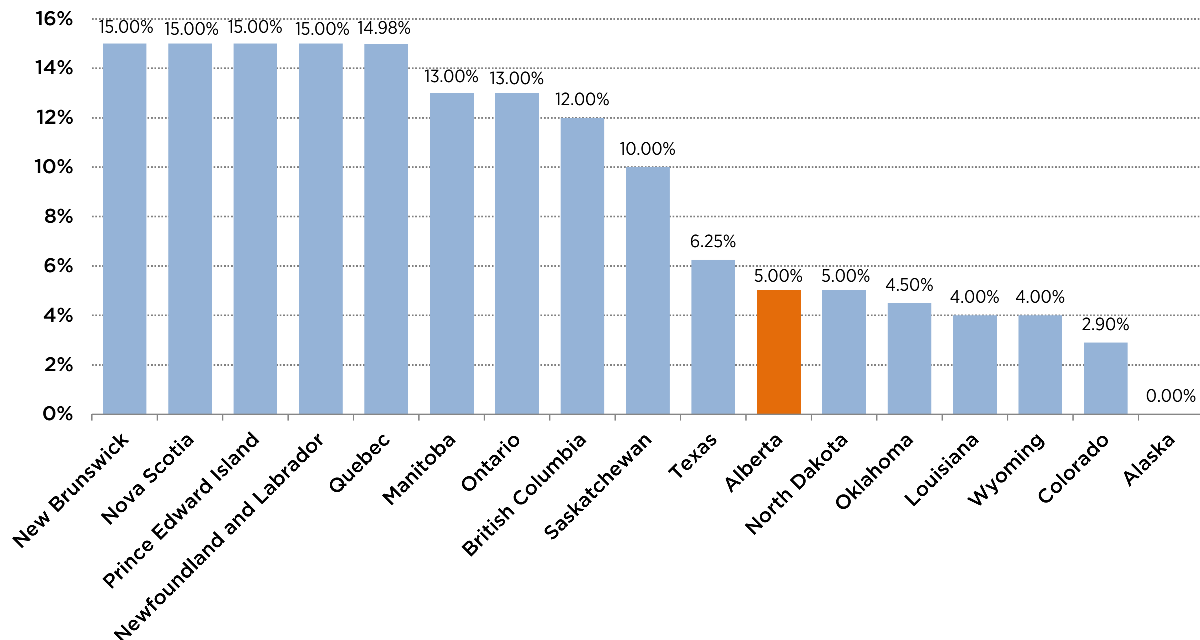
This pillar differs from the first two in that it has not been affected by any policy changes in recent years—the province continues to operate without a provincial sales tax.

As a result, Alberta retains a significant tax advantage in this area, as table 3 shows.

Figure 12 shows the sales tax rates in all Canadian provinces. Alberta stands out with its 0% rate; all other provinces levy a sales tax of between 5% and 10%.

While Alberta enjoys a substantial tax advantage in this area over other Canadian provinces, in some American energy jurisdictions, residents face lower sales taxes than those in Alberta. This is because there is no federal sales tax in the United States, whereas there is a 5% federal Goods and Services sales tax in Canada. As a result, states with low or no sales taxes in the United States can have a lower combined state/federal

Figure 13: Combined Province/State and Federal General Sales Tax Rates, 2016



Note: Rate includes provincial or state plus federal portion.

Source: PricewaterhouseCoopers (2016); and Drenkard and Kaeding (2016).

sales tax rate than the combined provincial/federal sales tax rate of 5% that prevails in Alberta.

Figure 13 compares Alberta's combined federal/provincial sales tax rate to all of the Canadian provinces and the US energy jurisdictions under analysis here. It shows that while Alberta enjoys a big advantage compared to the Canadian provinces, several American states have combined sales tax rates that are comparable to Alberta's, or even lower. In fact, six of the states under analysis have combined federal/state sales taxes that are lower than Alberta's.

Notwithstanding the fact that some American states have even lower sales taxes, we can conclude from this analysis that Alberta's approach to sales tax is an outlier in the Canadian context and that this third pillar of the province's tax advantage is still intact vis-à-vis other provinces, though not against most of the peer states examined.

It may be encouraging to proponents of modest levels of taxation that at least one of the three pillars of Alberta's tax advantage remains. However, it should be noted that from an economic efficiency perspective, the province's sales tax advantage was considerably less important than

the other two pillars of the tax advantage. A considerable body of economic evidence shows that consumption-based taxes are less economically harmful per dollar of government revenue raised than either corporate or personal income taxes.[10] In short, of the three pillars of Alberta's tax advantage, the one that has been left untouched is the least economically beneficial.

This discussion, however, should not be interpreted as dismissing the continued existence of one pillar of Alberta's tax advantage as being completely without economic benefit. While sales taxes are less distortionary than many other forms of taxation, they nevertheless increase the tax burden and therefore have an impact on economic competitiveness.[11]

The analysis presented in this section shows that the third pillar of Alberta's tax advantage—the absence of a provincial level sales tax in the province—is the only one still standing.

Other taxes

This paper has identified three key pillars of Alberta's tax advantage that, taken together, helped make it one of the lowest tax jurisdictions in North America. However, it is important to recognize that these taxes do not represent the whole tax system, and that other tax rates and rules also influence the overall tax burden facing Albertans. In addition to the tax increases that have erased two out of the three pillars of Alberta's tax advantage described above, a number of additional tax increases have also been enacted over the past 18 months.

It is beyond the scope of this paper to analyze these additional tax changes in detail, but they include many increases in fees and various excise taxes. Further, the government has announced a significant increase in the provincial carbon levy which will be set at $20 per tonne in 2017, rising to $30 per tonne when fully phased in in 2018.

These tax changes will also increase the overall tax burden on Alberta's economy.

[10] For instance, see Johansson et al (2008) for a discussion of the relative economic impacts of various taxes, including sales taxes.

[11] Moreover, not all sales taxes are as benign as ideally designed consumption taxes. Specifically, sales taxes that also apply to business inputs are much more economically harmful than pure consumption taxes. Chen and Mintz (2011) have pointed out that the provincial sales taxes in Manitoba and BC in particular make those two provinces much less economically competitive than if they harmonized their sales taxes with the federal GST, so that it wouldn't apply to business inputs.

The Fiscal Context of Recent Tax Policy Decisions

This paper has focused narrowly on a specific question – has Alberta lost its tax advantage relative to other jurisdictions as a result of recent tax policy changes. We have shown that, in important respects, it has. We now turn to briefly discuss the fiscal context in which the tax policy decisions of the last 18 months have been made.

There is no doubt that Alberta faces serious fiscal challenges. At the end of 2016/17, the province will have run budget deficits in eight out of the last nine years and it has seen its financial position deteriorate to the point that this year it will once again become a net debt jurisdiction (its debts will exceed its financial assets) for the first time since 2000/2001.

The recent drop in energy prices has exacerbated Alberta's fiscal problems and contributed to an even wider wedge opening up between projected government revenues and expenditures in the years ahead. Figure 14 shows the difference between expenditures and revenues since 2007/08, as well as the projected gap for this fiscal year (2016/17). The figure clearly shows that provincial government spending has consistently been greater than government revenue in recent years, resulting in seven deficits in the past eight years. When energy prices fell in 2015, the deficit quickly grew to approximately $6.4 billion in 2015/16, and is projected to be over $10 billion this year.

The government expects further multi-billion dollar budget deficits over the next several years, meaning that the two lines will converge only slowly. The continued existence of a large gap between spending and revenues will result in a rapid run-up in provincial debt (Lafleur et al., 2016).

The gap between revenues and expenditures represents a substantial challenge for Alberta. The provincial government has justified the tax increases documented in this paper as a necessary response to this challenge, ostensibly because they will help keep the growth of debt in check and contribute to the stability of public finances in the years ahead (Wood, 2015).

Given the previously discussed benefits that Alberta's tax advantage has brought to the province in recent history, this defense raises a crucial

question: was the erosion of its tax advantage an unavoidable necessity in light of the fiscal challenges facing the province?

To answer this question, we return to figure 14 and point out that the gap between the revenue line and the spending line can be reduced through policy action to increase revenues, decrease expenditures, or some combination of the two. Although this is obvious, one would not know that from recent policy in Alberta.

Indeed, the provincial government has taken no meaningful action to reduce expenditures, and plans to continue increasing spending each year throughout the rest of its fiscal plan. In fact, the government plans to increase spending at a significantly faster rate than had been planned in the final budget tabled by its predecessor. For example, the March 2015 Budget projected spending to rise to $50.7 billion by 2018–19—an increase of 4.8% from actual 2014/15 spending levels. By comparison, the Notley Government's 2016 Budget calls for spending to rise to $56.0 billion in 2018/19, an increase of 15.7% from 2014/15 levels.

In short, the current government's fiscal plan and deficit reduction strategy has completely ignored spending reductions as one option for reducing the deficit and slowing the growth of debt. Instead, the fiscal plan calls for significant spending increases in the years ahead.

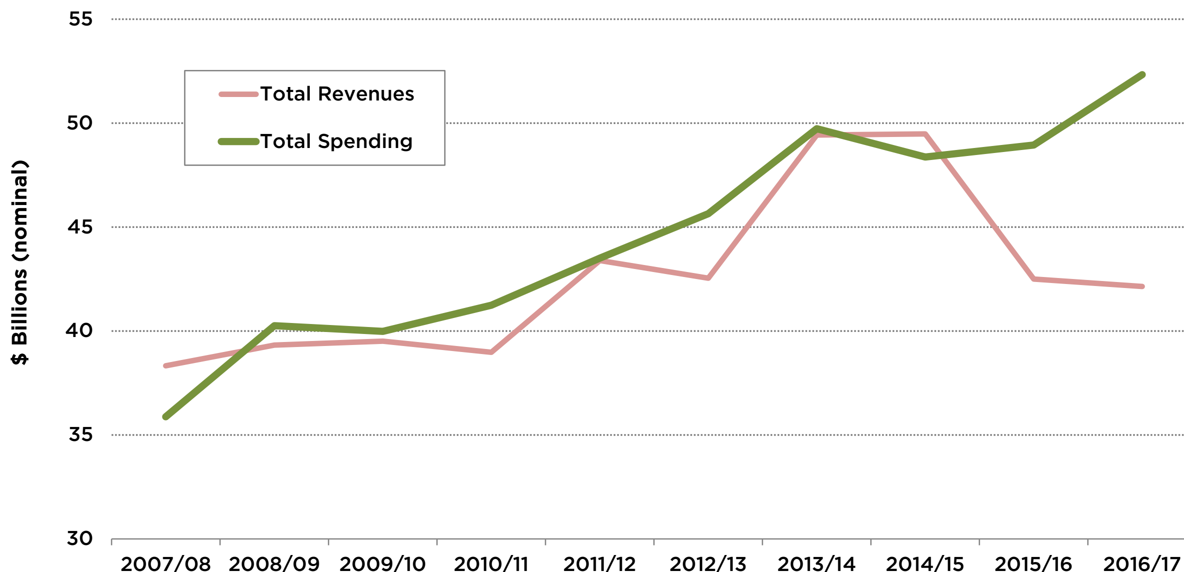
The government's decision to ignore spending reductions as a fiscal consolidation strategy will likely have negative implications for future provincial economic growth. Research from Harvard Professor Alberto Alesina and his co-authors has shown that "fiscal adjustments based upon cuts in spending are much less costly, in terms of (economic) output losses, than those based upon tax increases (Alesina, Favero, and Giavazzi, 2012)."[12] In other words, the international evidence suggests that efforts to eliminate deficits through tax increases are much more economically harmful than efforts focused on spending reductions.

Further, public spending has increased significantly in Alberta for more than a decade, which suggests, at the very least, that the provincial government may have significant scope to reform and reduce expenditures. Previous research has shown that between 2004/05 and 2014/15, program spending in Alberta grew at an average annual rate of 7.3% (Lafleur et al., 2015). That is substantially higher than what would have been required to offset cost pressures resulting from inflation and population growth combined (4.7%).

By refusing to take any action to reduce spending, the new government in Edmonton has paid an implicit compliment to its predecessor's fiscal management by suggesting that there is simply no "fat" at all to be

[12] See also Alesina et al. (2015a; 2015b) for further evidence on the impact of expenditure-based and tax-based fiscal adjustments.

Figure 14: Revenues vs. Total Spending, Alberta, 2007/08 – 2016/17



Note: Program spending is defined as total spending minus debt servicing costs.

Sources: Alberta Finance (2016d); Alberta Finance (2016c); Alberta Finance (2009); calculation by authors.

found in the budget that can be cut. The rapid spending growth noted above suggests this compliment is undeserved and that opportunities for expenditure reductions do in fact exist.

This discussion raises the further question of whether it would be realistic for the government to address its fiscal challenges by focusing on spending alone. This is a broad question that cannot be dealt with fully here. However, we will note that projected provincial revenue for 2019/20 is greater than the province's provincial program spending was in 2015/16. In other words, the government could balance the budget within five years (assuming projected revenues materialize) if it were to hold spending to 2015/16 levels over the course of that time. This suggests the budget could be balanced over a relatively short time through a fiscal consolidation focused on expenditures in a process that would be considerably less aggressive than the consolidation undertaken during the 1990s, when spending was reduced by 10% in nominal terms over a three-year period.

Given these facts, it is not clear that any policy actions to increase provincial revenue were necessary. However, even if the government were

committed to focus on increasing revenue in the years ahead, it could have done so in ways that were less damaging to both Alberta's tax advantage and the provincial economy.

There are ways to increase government revenues that are more or less economically harmful. Among the most economically harmful strategies is to increase personal and corporate income taxes, which is the course the government has chosen. Another option would have been to enhance revenues by raising other less economically harmful taxes, such as taxes on consumption. In Alberta, this would have meant creating a harmonized sales tax (HST).

If an HST were implemented, estimates indicate that it would raise approximately $1 billion for every point of sales tax (Bazel and Mintz, 2013). This approach could have been used instead of the more damaging corporate and personal income tax increases the government introduced, but at significantly less economic cost. Had the government taken this route, it would have eroded one pillar of the Alberta advantage (the sales tax pillar), but preserved the other two. Although it is not at all clear that this step was necessary (given that spending reforms have not yet been attempted as a deficit reduction strategy), it would nonetheless have been preferable from an economic growth perspective to the course of action that the government did take.

The government had three distinct options for addressing its fiscal challenges, each of which had different implications for the survival of Alberta's tax advantage. Those options were:

1. Reform and reduce expenditures (with no impact on the tax advantage)
2. Increase revenue by implementing an HST (which would erode the third most economically important pillar of the tax advantage)
3. Increase revenue by increasing corporate and personal income taxes (which would erode the two most important pillars of tax advantage).

Of these options, the government has chosen to focus on the third, selecting the path that is most destructive of Alberta's tax advantage, and most harmful to the province's long-term economic growth.

It is clear that when it took office, the government faced a severe fiscal challenge and some policy response was advisable. However, the circumstances that the government inherited simply did not necessitate the substantial erosion of the most important dimensions of the Alberta tax advantage documented in this paper. Other choices, including spending restraint and less harmful tax increases, were available. They would have

done as much or more to address the deficit without fundamentally undermining the tax advantage that has served Alberta well for many years.

In this context, the erosion of the Alberta tax advantage described in this paper should be viewed as a discretionary policy choice, and not a necessity imposed upon the provincial government by circumstances outside its control.

Conclusion

This paper has identified the three primary "pillars" of Alberta's tax advantage and discussed the impact of recent policy changes on each. We found that until recently, Alberta enjoyed a substantial advantage over all Canadian provinces and most US energy states in each of these three areas. But for two out of the three pillars, that advantage has been substantially undermined or completely erased.

While the province continues to be unique among Canadian provinces with respect to the absence of a sales tax, Alberta is no longer an outlier when it comes to either personal income or corporate income taxes. In both cases, Alberta is now closely aligned with at least a few other Canadian provinces. The notion that Alberta has a distinct "tax advantage" relative to the rest of the country in either of these two categories is no longer correct.

It should be noted that in neither of these two categories does Alberta now qualify as a "high" tax province. However, this does not change the reality that there has been a fundamental shift in Alberta's position relative to several other jurisdictions. Whereas Alberta was once a uniquely low-tax province in each of these categories, it is now one among many provinces with similar tax policies. In short, the province has gone from having a tax regime that gave it a competitive advantage, to a tax regime that is in the most important respects roughly as competitive as neighbouring provinces and key competitors in the United States.

We therefore conclude that the notion of a uniquely competitive and pro-growth tax regime that provides Alberta's economy with a distinct advantage is, in large measure, obsolete.

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