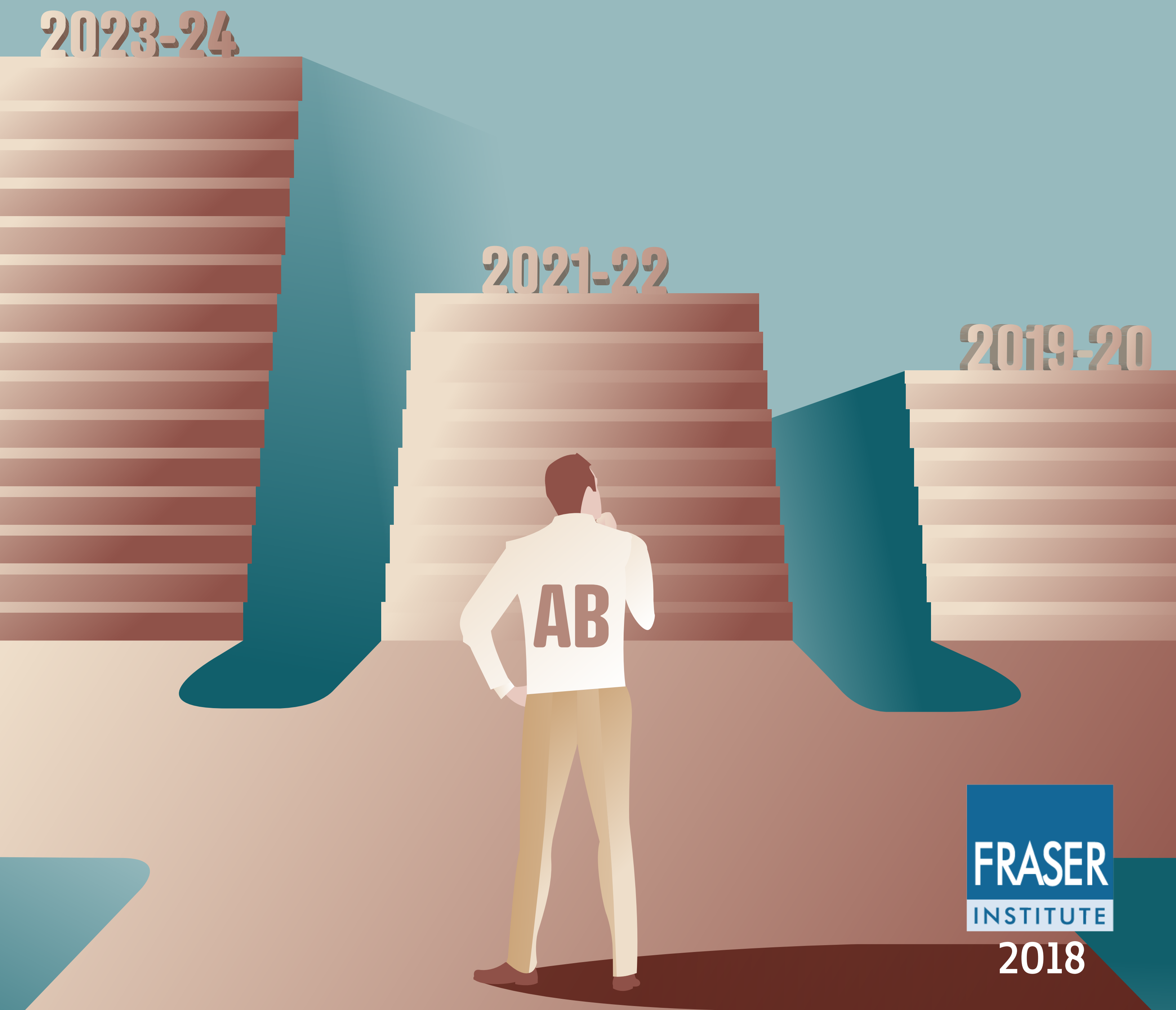
# Alternative Paths for Alberta's Budget:

# **Balance by 2023/24 Is Not Enough**

Steve Lafleur and Joel Emes




FRASER INSTITUTE
2018

2018
Fraser Institute

# Alternative Paths for Alberta's Budget

## Balance by 2023/24 Is Not Enough

by Steve Lafleur and Joel Emes

# Contents

# Executive Summary

Alberta faces significant fiscal and economic challenges. The government has run nearly uninterrupted deficits since 2008/09 and has seen an approximately $57 billion decline in its net financial assets between 2008/09 and 2017/18. The government has stated that it will continue to run significant budget deficits for many years before finally achieving balance in 2023/24. This unambitious target for balancing the budget is not enough for three reasons: running deficits until 2023/24 would significantly add to the province's rising debts; the current budget is based on an elevated level of taxation; and the current fiscal trajectory will mean that the provincial government will remain on the "resource roller coaster".

In this publication, we use a detailed model of Alberta's finances to project the evolution of Alberta's spending levels, annual budget deficits, and debt accumulation between now and 2023/24 under various spending scenarios. First, we evaluate whether the provincial government is currently on track to meet its target date for eliminating the deficit elimination. It is not: our projection suggests that under existing trajectories for revenue and spending, the province will still have a $5 billion deficit in 2023/24. In the absence of a substantial—and unexpected—increase in revenue, our model suggests, therefore, that a significant slowdown in the rate of spending growth will be required to achieve a balanced budget by 2023/24. Specifically, we estimate that the provincial government will need to hold the growth of program spending to an average annual rate of 0.8% in the years ahead. These forecasts show that a balanced budget can be achieved by 2023/24 without nominal spending reductions. Given the scale of Alberta's fiscal challenges, this represents an unambitious objective.

There are several reasons that running deficits for such a long time into the future will be perilous. First, continued deficits are leading to a significant accumulation of debt. Our projection shows that during the government's proposed timeline for deficit elimination, Alberta's net debt will climb to $62 billion and the cost of servicing the debt will double between now and 2023/24.

Second, the provincial government recently introduced several tax increases that have badly undermined the province's former tax advantage. The spending plan outlined above will leave no room to reduce the province's elevated tax burden. This is particularly important in light of recent decreases in US federal taxes. The province has gone from the lowest top statutory personal income and corporate income tax rates in North America to middle of the pack or worse in a few short years. So balancing the budget on a slow timeline without nominal spending reductions will mean foregoing an opportunity to restore the province's formerly unambiguous advantage within North America as a result its low tax rates.

Third, this plan would not allow the province to get off the "resource roller coaster". In other words, it would continue to use 100% of non-renewable resource revenue for

current spending rather than contributing a portion to the Heritage Trust Fund, as was envisioned when the fund was created. Moreover, failing to get off the resource roller coaster leaves provincial finances vulnerable to future fluctuations in commodity prices.

What level of spending restraint or nominal reductions would be needed to achieve a balanced budget sooner or create fiscal room to address these? Our forecasts suggest the budget can be balanced one year ahead of schedule (by 2022/23) by holding the growth of program spending to 0.25% annually starting in 2018/19. Further, with modest annual spending reductions of 0.55% between now and 2021/22, the deficit could be eliminated two years ahead of schedule. Balance could be achieved by 2020/21 by reducing program spending at an average annual rate of 1.85% and, finally, the budget could be balanced by 2019/20 if the government were to reduce nominal program spending by 4.7% annually over the next two years.

We have not evaluated the specific advantages and disadvantages of the various deficit elimination strategies laid out above, but it is evident that balancing the budget at an earlier date would reduce the accumulation of debt while giving the provincial government room to provide tax relief and to reduce the province's reliance on revenue from non-renewable resources.

# Introduction

Alberta faces severe economic, fiscal, and policy challenges. Between 2014 and 2016, the provincial economy contracted by roughly 16.4% in nominal terms. The province's public finances, which until recently were the envy of the country, are in disarray. Although Alberta's debt burden is still smaller than that of other Canadian provinces, large budget deficits each year are quickly closing the gap and Alberta is projected to rack up tens of billions in new debt in the years ahead. Partly in response to the ballooning budget deficit, in 2015 the Notley government introduced increases to provincial personal and corporate income taxes, substantially undermining the "Alberta tax advantage" the province had previously enjoyed over other jurisdictions in North America.

The province's regular multi-billion dollar budget deficits represent a significant policy problem. These deficits are a potent symbol of the change in Alberta's fortunes over the course of recent years, and credit rating agencies have pointed to the deficit and the absence of a plan to reduce it quickly as a primary cause of credit rating downgrades (French, 2017). The sitting government has explicitly acknowledged that large, persistent budget deficits are problematic by stating its intention to return to balanced budgets by 2023/24.

Achieving a balanced budget by 2023/24 is a realistic but unambitious objective. It would require no spending reductions, requiring only some moderation in the pace of the growth in spending compared to what has prevailed in recent years. There are several reasons that running deficits for such a long time into the future will be perilous. First, the long delay before returning to balance means a continued rapid accumulation of debt, which brings real costs to Alberta's taxpayers in the form of higher interest payments. Second, the government's plan relies on increased revenue from higher PIT and CIT rates for the foreseeable future to meet its modest timeline, restricting the ability of the provincial government to regain Alberta's historic tax advantage. Third, the plan relies on a strong rebound in resource prices over a lengthy period of time to do much of the work of closing the fiscal gap between spending and revenues. This comes with the risk of even more deficits and accumulating debt if the forecast rebound does not come to pass. Finally, this timeline means several more years of relying on revenue from natural resources to fund current activities rather than contributing a portion of the revenue to the Heritage Fund for the benefit of future generations of Albertans.

This publication presents an analysis of the level of spending restraint needed to achieve the government's objective of returning to a balanced budget by 2023/24, given current fiscal projections. It then assesses and quantifies the costs and risks that will result from adhering to such a lengthy timeline for returning to a balanced budget, and considers the benefits of a more ambitious approach to fiscal consolidation aimed at balancing the budget more quickly and creating the fiscal room needed to re-establish Alberta's tax advantage.

The plan of the publication is as follows. The first section provides an overview of Alberta's current fiscal challenges. The second section shows what would be required to balance the budget within the government's proposed timeline. The third section explains why simply balancing the budget is not enough, given that Alberta's tax advantage has been compromised and that the province has accumulated significant net debt. The fourth section provides estimates of the spending discipline that would be required to allow the province to restore Alberta's tax advantage and return to balance more quickly than the government currently proposes.

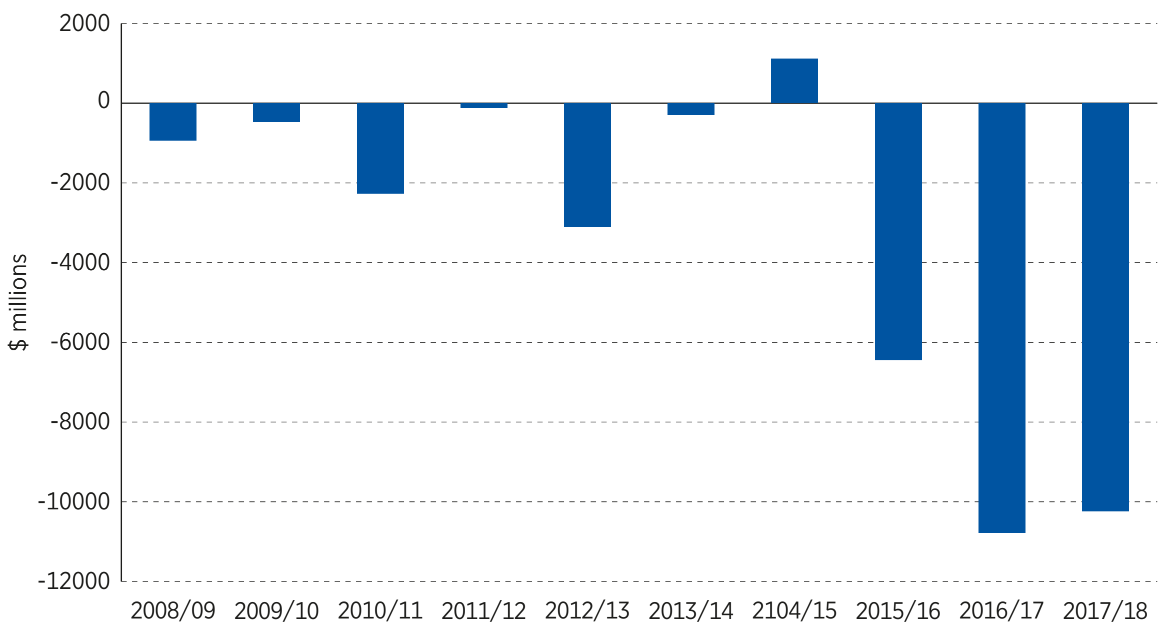
The model we present in this paper is built from the historical fiscal summary in the 2016/17 annual report (Government of Alberta, 2017), the 2017 budget (Alberta Finance, 2017a), and the most recent quarterly report (Alberta Finance, 2017c). Projections beyond 2019/20 are typically made using recent growth rates calculated from the 2017 budget but some (most notably personal and corporate income tax revenue) are grown using nominal GDP. In all our figures: 2016/17 values are actual; 2017/18 values are from the 2nd quarter update; 2018/19 and 2019/20 values are from the 2017 budget but have been modified to account for the updated 2017/18 values; and, 2020/21 through 2023/24 values are our projections. All values beyond 2019/20 in tables and figures are from our projection.

# Alberta's fiscal challenges

Albertans have endured significant economic pain since the sharp decline in commodity prices in 2014 triggered a major recession lasting nearly two years. The decline in oil prices from highs over $100 per barrel to lows under $30 per barrel triggered a 16.4% decline in provincial GDP, an increase in unemployment (peaking at 9%), and a nearly 14% decrease in government revenue. The recession hit government finances hard, leading to a rapid decline in government revenue, a dramatic increase in the size of the budget deficit and acceleration in the pace of government debt accumulation.

There is no doubt that the downturn in commodity prices hurt Alberta's bottom line. However, it would be a gross oversimplification to suggest that the fiscal problems that have emerged in Alberta are solely the result of low oil prices. In fact, government spending decisions, both before and after the oil price slump, are also major contributing factors to Alberta's fiscal problems. To demonstrate that Alberta's fiscal challenges pre-date the fall in oil prices, consider that, by the end of this fiscal year, the Government of Alberta will have run nine deficits in ten years, despite the fact that the provincial treasury was flush with resource revenue during much of that period. As **figure 1** shows, the provincial government has run nearly uninterrupted budget deficits since 2008/09, a period that includes times of both high and low energy prices. Clearly, although the fall in oil prices made things much worse, Alberta's fiscal challenges predate the slump and subsequent recession, as it has run budget deficits in nine of the

Figure 1: Alberta's budget defícts and surplus ($ millions), 2008/09–2017/18



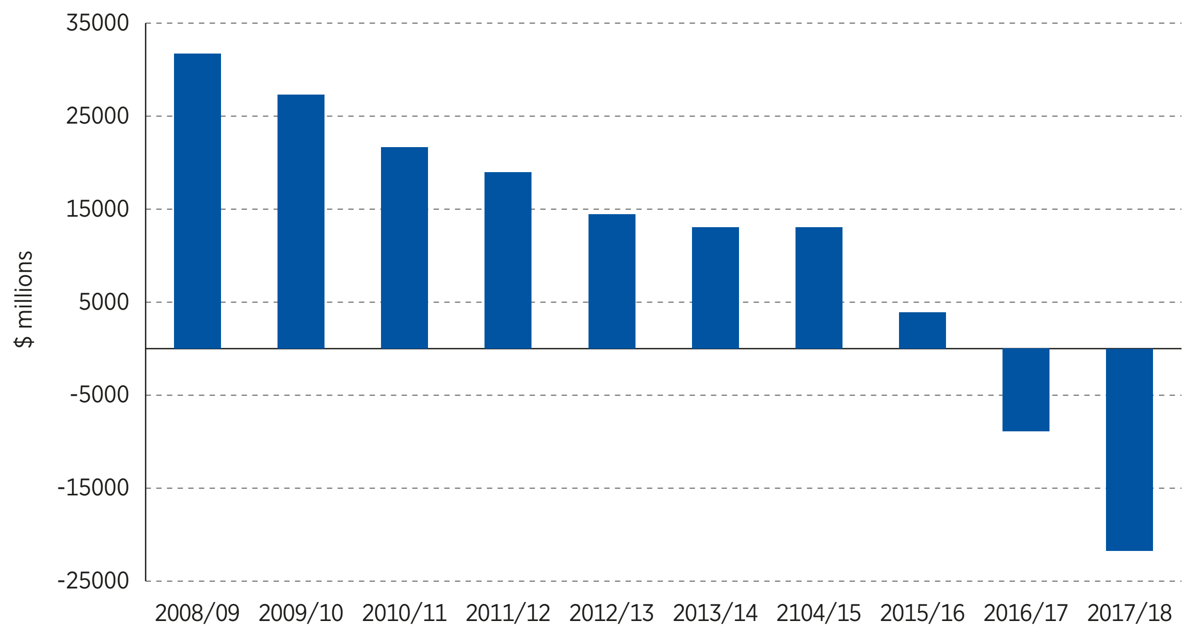

Sources: Government of Alberta, 2017; Alberta Finance, 2017a, 2017c.

past ten years, including years when oil prices averaged over $90 per barrel. Alberta's tendency to run budget deficits precedes by far the recent fall in commodity prices.

One important underlying cause of Alberta's chronic fiscal problems is the failure on the part of successive governments to restrain spending. As recent research by the Fraser Institute has demonstrated, the nearly uninterrupted deficits since 2008/09 resulted from program spending that has consistently grown more rapidly than the combined rate of inflation plus population growth. Indeed, between 2004/05 and 2014/15, program spending increased by nearly 100%—almost twice what would have been required to keep up with the growth in prices and population (Lafleur, Palacios, Eisen, and Lammam, 2015). Had the provincial government kept spending growth either to the rate of inflation plus population or the rate of economic growth in the decade prior to the 2014 fall in oil prices, the province would have run surpluses throughout most of the past decade and would have found itself in a much better position today, both in terms of its level of net assets and its current budget balance.

This long string of budget deficits, initially caused by a lack of spending restraint and exacerbated by the recent fall in oil prices, has taken a toll on the health of Alberta's public finances. The Government of Alberta had $35 billion in net financial assets at the beginning 2008/09. After a nearly unbroken string of deficits starting that year, in 2016/17 the government had negative net financial assets for the first time since 1999/00. This year, Alberta's net debt is expected to reach $21.7 billion. In total, this represents a decline of $57 billion in a single decade. **Figure 2** shows the deterioration of Alberta's financial position over the past decade, while **table 1** provides a more detailed overview of the evolution of Alberta's finances in recent years.

Figure 2: Alberta's net financial assets ($ millions), 2008/09–2017/18




Sources: Government of Alberta, 2017; Alberta Finance, 2017a, 2017c.

Table 1: Alberta's net financial assets ($ millions) as of March 31st

| | 2015 (actual) | 2016 (actual) | 2017 (actual) | 2018 (estimate) |
|---|---|---|---|---|
| **Financial Assets** | | | | |
| Heritage Savings Trust Fund, endowment, other funds | 18,860 | 19,262 | 19,836 | 20,199 |
| Contingency Account | 6,529 | 3,625 | 2,299 | 0 |
| Self-supporting lending organizations | 19,415 | 20,204 | 20,904 | 21,413 |
| Capital financing account | 0 | 1,892 | 1,394 | 0 |
| Equity in commercial enterprises and student loans | 5,053 | 5,552 | 4,130 | n/a |
| Other financial assets (including SUCH sector) | 16,220 | 13,342 | 17,724 | n/a |
| Other | 21,273 | 18,894 | 21,854 | 21,362 |
| *Total financial assets* | 66,077 | 63,877 | 66,287 | 62,974 |
| **Liabilities** | | | | |
| Liabilities for capital projects | 11,922 | 19,040 | 23,769 | 28,503 |
| Debt for pre-1992 TPP liability | 943 | 944 | 944 | 944 |
| Direct borrowing for fiscal plan | 0 | 0 | 8,585 | 13,228 |
| Self-supporting lending organizations | 17,301 | 17,941 | 18,385 | 18,599 |
| Pension liabilities | 11,196 | 10,566 | 10,023 | 9,786 |
| Other liabilities (including SUCH sector) | 11,661 | 11,467 | 13,482 | 13,636 |
| *Total liabilities* | 53,023 | 59,958 | 75,188 | 84,696 |
| **Net financial assets** | 13,054 | 3,919 | −8,901 | −21,722 |

Sources: Government of Alberta, 2017; Alberta Finance, 2017a, 2017c.

This rapid accumulation of debt is already imposing real costs on Albertans, and those costs are set to grow in the years ahead. A growing debt means increased debt-service costs for Albertans, which consume scarce resources that become unavailable for other priorities. Annual debt servicing costs for Alberta were negligible as recently as 2008/09—$208 million or 0.53% of total revenue—but they are expected to reach $1.4 billion, or 3.1% of total revenue, in the current fiscal year. These costs are expected to grow significantly in the years ahead.

The rapid growth in government debt is also having the negative consequence that the government's borrowing may be more expensive for taxpayers as the province has seen its credit rating downgraded repeatedly amidst concerns about large persistent deficits and rapid debt accumulation (French, 2017). Although Alberta still carries the smallest debt burden in Canada relative to its GDP, rating agencies, concerned about the sheer pace at which debt is accumulating as well as the absence of a serious plan to arrest it, are sounding alarms about the sustainability of Alberta's fiscal stance and trajectory. [1]

[1] While Alberta's relatively small debt burden means that its current fiscal situation is much healthier than that of other provinces at the time of writing, the sheer speed at which debt is being accumulated could rapidly change the province's fortunes absent fiscal reforms. To wit, the Parliamentary Budget Officer released a report noting that Alberta has a large "fiscal gap" and that "permanent tax increases or spending reductions amounting to 4.6 per cent of provincial GDP ($14.1 billion in current dollars) would

Clearly, Alberta faces serious fiscal challenges that have their roots in the spending decisions of previous governments as well as the recent downturn in energy prices. However, it must also be noted that spending decisions subsequent to the fall in energy prices in 2014 have also contributed to the large deficits and difficult fiscal situation that Alberta finds itself in today.

Despite inheriting a challenging set of fiscal circumstances, the Notley Government did not embark on a program of fiscal consolidation or restraint, and actually increased program spending by roughly 11% in its first two years in office, further driving debt accumulation. This decision to continue increasing spending despite large budget deficits has had important implications for the evolution of Alberta's budget deficit. Consider the fact that from the pre-recession revenue peak in 2014/15 to 2019/20, revenues will grow from $49.5 to $51.5 billion, [2] an increase of 4.4% while expenditures over the same period are expected to grow from $48.4 to $57.7 billion, an increase of 19%. Revenue will have nearly completely recovered (in nominal terms) by next year, and yet the province still faces a large deficit. If the Notley government had chosen to hold nominal spending at the level it inherited upon taking office, [3] the projected deficit would be less than $4 billion next year, and the province would be on track for relatively small deficit in 2019/20. Further, the province's net debt as of 2019/20 would be approximately $17 billion lower than will in fact be the case.

Even if the government had embraced a more modest form of restraint, holding spending growth to the rate of inflation plus population growth, the current deficit would be substantially smaller and the pace of debt accumulation slower. Specifically, next year's projected deficit would be $8.5 billion instead of $9.6 billion. In short, while spending decisions predating the recession and the fall in oil prices caused the explosion of large budget deficits in Alberta, spending decisions since have failed to address the problem and have in fact prolonged the province's large budget deficits and rapid accumulation of debt.

It is worrying that Alberta's provincial government has not yet taken meaningful action to shrink the deficit. It is equally troubling that there are no existing plans to rein in deficits in the foreseeable future: Alberta Finance has published budget estimates up through the 2019/20 fiscal year, and there are increases in program spending projected in every year. The Finance Minister has stated that the government aims to return to a balanced budget by 2023/24, but has not yet laid out a plan showing how this will be done. In the following section, we assess the extent of spending restraint that will likely be required in order to meet the government's modest objective.

---

be required to achieve fiscal sustainability" (2017). Additionally, a report published by the MacDonald-Laurier Institute in 2012 estimated that Alberta has the second highest probability of default among Canadian provinces over a 20-year time horizon, and the greatest probability over a 30-year time horizon (Joffe, 2012). In short, there is no reason for complacency about Alberta's finances despite the currently low debt-to-GDP ratio.

[2] Values for 2018/19 and 2019/20 will not exactly match those reported in the recent budget as the time series have been adjusted with information from the second quarter update.

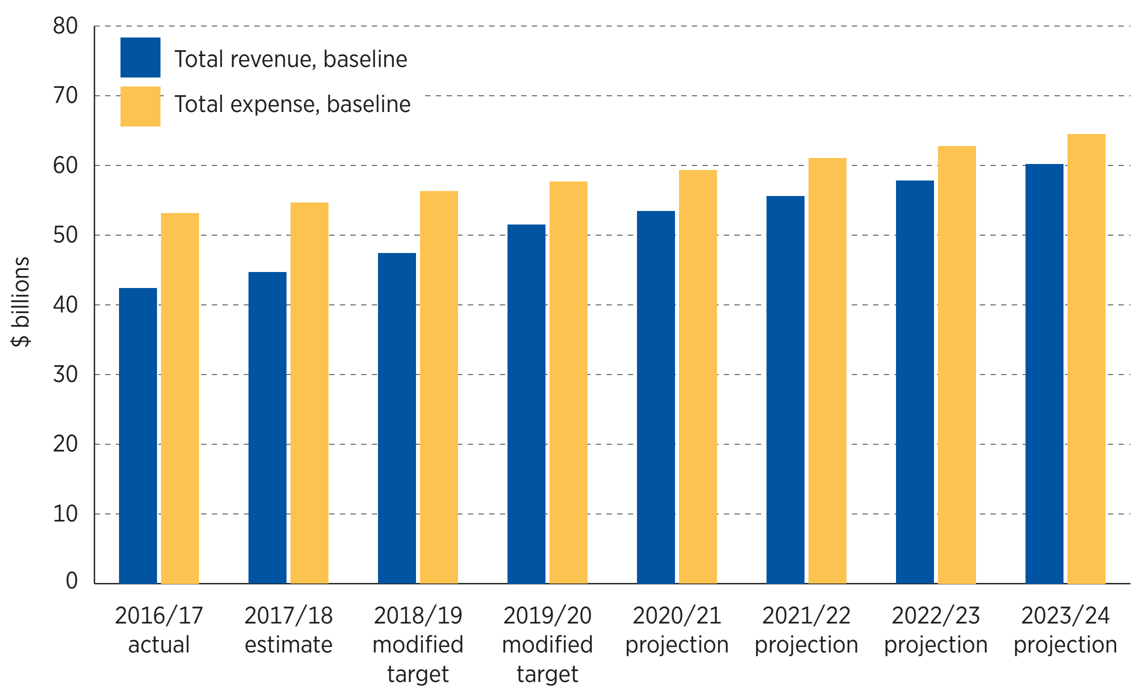
[3] Based on the March 2015/16 budget.

# What would it take to balance the budget within the government's proposed timeline?

While the government of Alberta has not published a plan to begin serious measures to eliminate the deficit before the end of the government's mandate, the Finance Minister has repeatedly pledged to balance the budget by 2023/24. Worryingly, the government is currently not on track to achieve even this modest objective. **Figure 3** provides our baseline projection for the provincial government's future expenditures and revenues through 2023/24 based on the most recent information available. This scenario is our best estimate of how provincial finances will evolve unless there is a deviation from the plans and expectations published in recent government fiscal documents. This scenario makes no assumptions about changes to taxes or other areas, takes government budget and update data as the best available estimates, and uses current spending patterns and the most recent long-term forecasts to build projections.

As figure 3 shows, the government's current revenue and spending trajectories will likely see the deficit shrink somewhat in the years ahead, but it will remain substantial. Indeed, our projections suggest that unless meaningful changes are made to its spending

Figure 3: Alberta's revenue and expense ($ billions), 2016/17–2023/24




Sources: Government of Alberta, 2017; Alberta Finance, 2017a, 2017c; authors' projections.

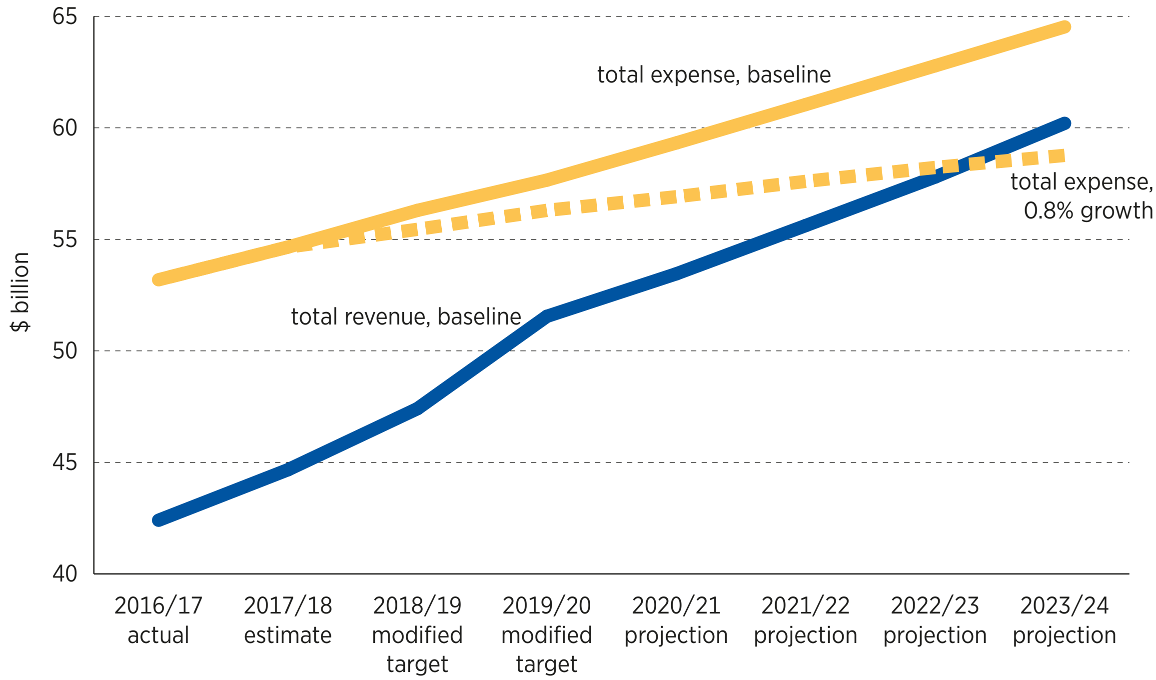
and/or revenue trajectory, the government will still face deficits of over $6 billion through to the end of 2021/22, and will still have a $5 billion deficit in 2023/24—the year of the government's target date for a balanced budget.

This projection is based on the continuation of current spending trends: that is, it assumes that growth in spending in major components of the budget will continue to increase at the same rate as has prevailed in recent years. In other words, and to simplify somewhat, our projection shows that, if Alberta continues along a similar trajectory of spending growth over the next several years as it has been on over the past three years, large deficits will persist into the mid-2020s, even if revenue growth is solid and resource revenues substantially recover. The implication of these projections is that, in order to meet the modest goal of balancing the budget by 2023/24, the government will likely need to alter its spending trajectory in the years ahead. However, the level of restraint required to meet this objective is actually quite small.

This section provides an estimate of the type of spending discipline required to meet that target if fiscal restraint were to begin in the next provincial budget (starting in the 2018/19 fiscal year). One challenge in producing this estimate is that published estimates of revenue and expenditures from the Alberta Department of Finance are only available up to 2019/20. This means that we need to make some assumptions about how revenue will evolve until 2023/24, assuming no major fiscal policy changes or significant macroeconomic shifts. In order to come up with reasonable estimates for government revenue and expenditures through 2023/24, which will give us an idea of how large of a deficit we can expect under the *status quo*, we have extended the growth of revenue and spending using growth rates in the budget, augmented, as necessary, with information in quarterly updates and annual reports.

According to our projection, total revenue in 2023/24 will be roughly $60.2 billion, while total spending will be about $64.5 billion, leaving the province with a projected deficit of $5.3 billion (including the $1 billion risk adjustment as included in the reported surplus for 2019/20 in the 2017 budget). Given that total spending is estimated to be $54.7 billion in the 2017/18 fiscal year, this means that the government could increase annual spending to roughly $5.5 billion over its current level by 2023/24 and balance the budget on their timeline. That would mean increasing total spending at a much slower rate than during their first two years in office. **Figure 4** shows currently projected spending and revenue, as well as projected spending under our alternative scenario of the government increasing program spending by 0.8% annually from 2017/18 to 2023/24. As the figure shows, the government could succeed in balancing the budget over its preferred timeline (by 2023/24) under reasonable revenue assumptions with a slower rate of growth in spending. In summary, balancing the provincial budget over the government's proposed timeline would not only be achievable without cuts, it is achievable with increases in nominal spending (though real per-capita spending would have to fall somewhat).

Figure 4: Alberta's revenue and expense ($ billions), 2016/17–2023/24, base and alternative spending scenarios




Sources: Government of Alberta, 2017; Alberta Finance, 2017a, 2017c; authors' projections.

# Why is balancing the budget by 2023/24 not enough?

We have shown that the government's current revenue and spending trajectories will not produce a balanced budget by 2023/24. Some level of restraint, beyond what the government has so far exhibited, will be necessary to achieve this target: we project the government could do so by holding the growth of program spending to 0.8% between now and the target date. There would be, however, significant costs and risks associated with implementing this spending trajectory. First, it would extend Alberta's string of deficits well into the future, resulting in a substantial run-up in public debt and debt service costs. Second, it would leave the province reliant on an elevated tax burden to achieve a balanced budget. Third, the spending trajectory relies on a strong rebound in resource royalties and calls for spending the entirety of those resource royalties as they are collected. The plan, therefore, leaves the province reliant on volatile and non-renewable resource revenues to maintain a balanced operating budget, which poses both budgetary risks and important questions about inter-generational fairness. This section discusses each issue in turn.

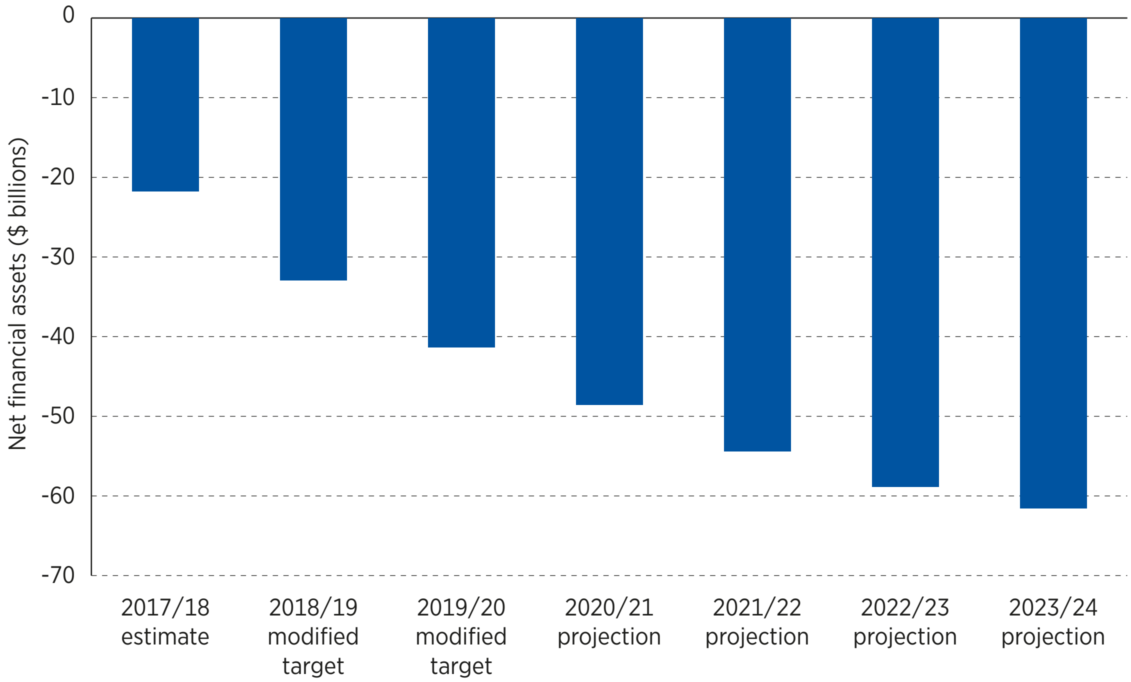
## Accumulated debt

As we have seen, Alberta's large, sustained budget deficits have led to a rapid deterioration in the province's net asset position over the past decade. As a result, the province has gone from having $35 billion in net financial assets in 2007/08 to an estimated $22 billion of net debt by the end of the 2017/18 fiscal year. One of the most important consequences of the government's current plan to run budget deficits until 2023/24 is the continuing growth in provincial debt that will occur as a result. This increase of debt will also mean a rapid increase in annual debt-service payments, eroding an important fiscal advantage from which Alberta has long benefitted.

Our projections show that if Alberta's provincial government increases program spending at a growth rate of 0.8% annually to achieve a balance budget by 2023/24, the province's debt burden will continue to expand quickly, and will reach $62 billion in 2023/24 (**figure 5**). [4] For context, this represents, $13,146 per Albertan, and will bring Alberta's debt-to-GDP ratio to 14.0%. Under this scenario, Alberta will go from

[4] We use interest rates implied by capital borrowing costs relative to capital liabilities in Alberta (as presented in the budget and quarterly report) for 2018/19 and 2019/20 and our own projection for subsequent years. Our projection of interest rates uses forecasts of the Bank of Canada's overnight target rate coupled with a constant premium for Alberta bonds. We have interest rates on new borrowing increasing from 3.0% in 2018/19 to 4.5% in 2023/24. Our projections of debt-servicing costs for any given year are based on the cost for the prior year plus new borrowing at the prevailing interest rate. To keep the projection relatively simple, we do not make any allowance for Alberta needing to roll over existing bonds at (presumably) higher rates.

Figure 5: Alberta's projected debt accumulation ($ billions) under the 2023/24 timeline, 2017/18–2023/24



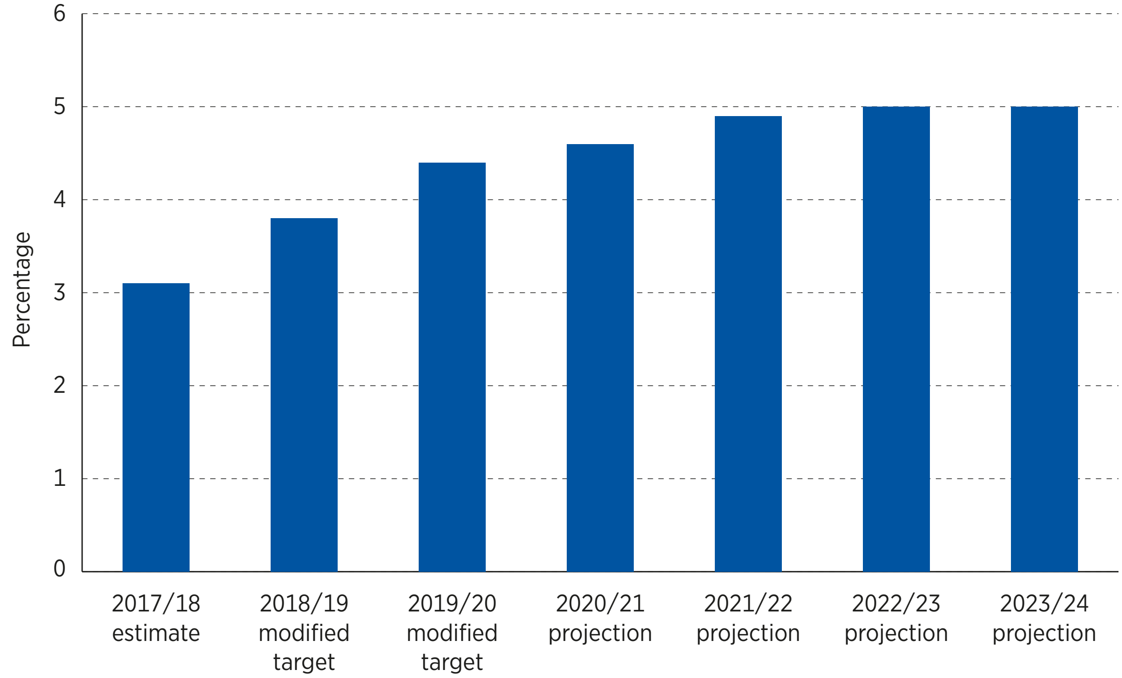

Sources: Government of Alberta, 2017; Alberta Finance, 2017a, 2017c; authors' projections.

having no net debt to having a debt to GDP ratio similar to the current levels in British Columbia and Saskatchewan. This increase in debt will erode a key fiscal advantage that has benefitted Alberta throughout recent history: the fact that the province has not had to spend significant amounts of money each year on debt-service payments. Consider that in 2016/17, debt-servicing costs in Alberta represented just 2.4% of provincial government revenue. This was the lowest figure of any province, and much lower than highly indebted provinces like Ontario (8.6%), and Quebec (9.8%) (Lammam, MacIntyre, Ren, and Hasan, 2017).

Low debt services payments have freed up substantial resources in Alberta that are as a result available for other budgetary priorities. Unfortunately, delaying budget balance until 2023/24 erodes this advantage significantly in future years. **Figure 6** shows how debt service payments as a share of government revenue are projected to evolve in this scenario between now and 2023/24. By 2023/24, debt-servicing costs will account for 5.0% of total government revenue—a doubling of debt-service costs as a share of government revenue from 2016/17. These increased debt-service payments will mean fewer resources available for other priorities.

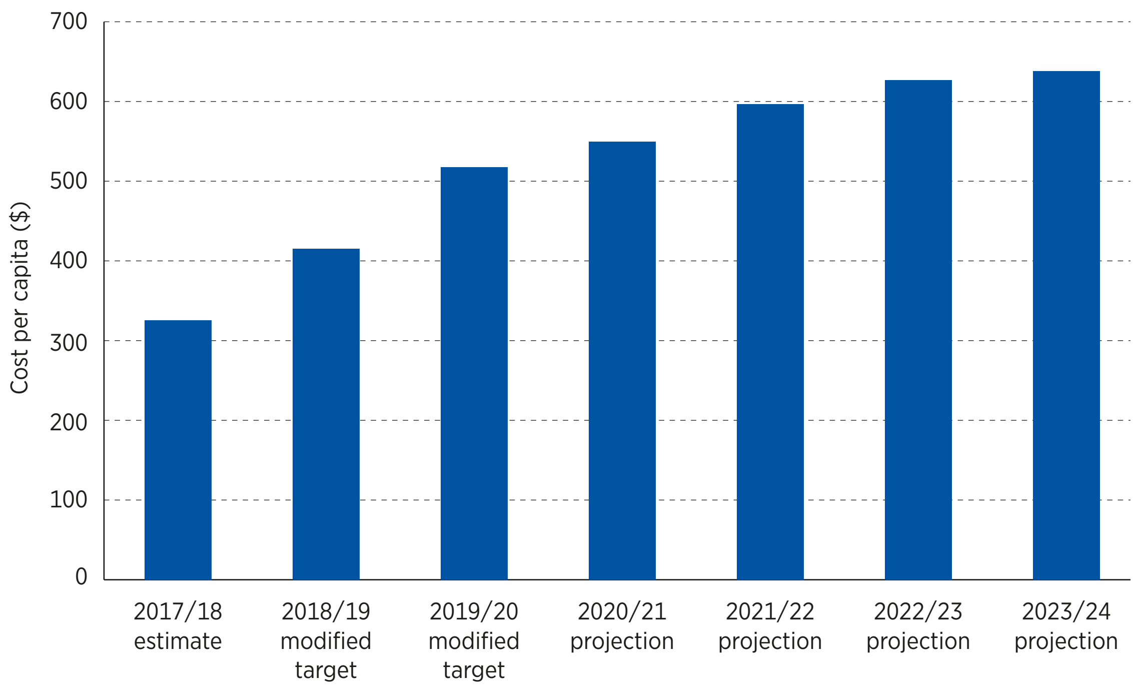
To put the change in context, **figure 7** shows debt-service payments per Albertan from 2008/09 through to their projected levels in 2023/24 under the government's implied spending trajectory. In 2008/09, per-person debt-servicing payments were negligible, since the province had no net debt. Between 2017/18 and 2023/24, the annual per-person cost of servicing Alberta's debt will climb from $325 to $638. The total debt servicing cost

Figure 6: Alberta's debt-servicing costs as a percentage of total revenue, 2017/18–2023/24




Sources: Government of Alberta, 2017; Alberta Finance, 2017a, 2017c; authors' projections.

Figure 7: Alberta's debt-servicing costs per capita ($), 2017/18–2023/24




Sources: Government of Alberta, 2017; Alberta Finance, 2017a, 2017c; authors' projections.

in 2017/18 is estimated at $1.4 billion. By 2023/24, we project that, under the government's balanced-budget timeline, annual debt-service payments will climb to nearly $3.0 billion per year—the equivalent of more than half of the provincial government's current annual spending on social services—with a continuing strong upward trajectory.

In the past, and still today, Alberta enjoys a fiscal benefit resulting from its low debt burden. Specifically, it is required to spend very little money each year servicing debt. The government's current plan to run several more large budget deficits and not attempt to achieve a balanced budget until 2023/24 will substantially erode this advantage. A more ambitious timeline for faster reduction of the deficit would limit the amount of debt added to Alberta's books in the years ahead, and help preserve this fiscal advantage.

## Elevated tax burden

A second problem with the government's proposed spending trajectory is that, even to meet its modest deficit elimination date of 2023/24, it implies continued reliance on the revenues resulting from a tax burden on Albertans that has been substantially increased since the beginning of the recession. In short, the government's spending plan and a balanced budget date of 2023/24 precludes the restoration of Alberta's once famous "tax advantage", the result of its low rates of personal income tax (PIT) and corporate income tax (CIT).

There are two ways in which one could define this tax advantage. The first is that Alberta has historically had lower top statutory rates on corporate and personal income taxes, combined with no provincial sales tax. This is the traditional definition. However, another, more important, way in which Alberta has historically had a tax advantage is that it has had a lower marginal effective tax rate (METR) on investments. In many ways, this is a more important indicator, particularly when Alberta is compared with American jurisdictions. By both definitions, Alberta's standing relative to competing jurisdictions has fallen. Using the first definition, Alberta's tax advantage has eroded compared to other provinces and disappeared entirely compared to US jurisdictions. By the latter definition Alberta still has a tax advantage compared to many provinces but the advantage against US jurisdictions has disappeared, particularly in light of the recent tax changes in the United States.

Alberta's tax competitiveness relative to other jurisdictions in North America has changed markedly in recent years. In 2014, prior to recent changes in tax rates at the federal and provincial levels, Alberta had the lowest combined top statutory personal and corporate income-tax rates of any Canadian or American jurisdiction. Recent tax changes have substantially eroded Alberta's tax advantage. [5] Thanks to an increase in the top federal rate as well as a five-percentage point increase to the top provincial tax rate, Alberta's top PIT rate is now in the highest third of all North American Jurisdictions (Eisen, Lafleur, and Palacios, 2017).

[5] It should be noted that Alberta retains the lowest overall tax burden in Canada, thanks primarily to the absence of a sales tax, widely recognized to be a more efficient form of taxation than either the PIT or the CIT. In saying that Alberta has lost its "tax advantage" we do not mean to imply Albertans face a tax burden larger than residents of any other province but rather that the province has lost its advantage on key rates that affect economic performance and competitiveness.

Similarly, Alberta has lost the tax advantage given by its low statutory corporate income-tax rate. Whereas, in 2015 Alberta benefitted from the lowest statutory corporate income-tax rate in Canada, following a two-percentage point increase by the newly elected NDP government in that year, Alberta now finds itself in the middle of the pack in Canada. To the extent that Alberta's low statutory rate gave it an advantage in attracting business investment to the province, that advantage too has been eroded by recent tax policy changes. [6] More worrisome is the fact that the US federal government has reduced its statutory corporate tax rate from 35% to 21%. This means that several key American competitors to Alberta, states such as Texas and Wyoming, now have lower statutory corporate income-tax rates than Alberta, rather than significantly higher as in 2014.

Of course, it is true that many US corporations historically paid less than the 35% rate due to complexities in the American corporate-tax system. But looking at the METR on new capital investments gives us an apples-to-apples comparison. Philip Bazel and Jack Mintz at the University of Calgary estimate that the average METR for US corporations has dropped from 34.6% to 18.8%, below their 19.3% estimate for Alberta in 2016 (Mintz, 2017; Bazel and Mintz, 2016). Had Alberta's METR remained at its 2014 levels (17%), Alberta would still enjoy a tax advantage against the average US state according to this important metric (Chen and Mintz, 2015).

The decision to increase Alberta's PIT and CIT rates in 2015 was taken partly in an effort to address the province's large budget deficits, and the government's estimates suggest that they have raised revenue for the province. [7] Indeed, the spending trajectory described above would rely on this additional revenue to meet its balanced budget target of 2023/24. In other words, it precludes until at least 2023/24 the possibility of restoring Alberta's tax advantage if the government is to achieve a balanced budget. In short, a second problem with a spending trajectory that would delay budget balance until 2023/24 is that it consumes fiscal room that could otherwise be used to restore Alberta's tax advantage and thereby help encourage economic growth. Its continued reliance on an elevated and economically harmful tax on Albertans is a second weakness of the government's timeline and its implied spending trajectory.

## Still riding the natural resource roller coaster, still borrowing from the future

Not only does the government's implied spending trajectory rely on receipts from an elevated tax burden on Albertans to achieve its 2023/24 deadline for a balanced budget, it also relies on a strong rebound in resource revenues—and a willingness to spend all resource revenues on current consumption as they come in. One of the major shortcomings of Alberta's budgeting process throughout its history has been its reliance on

[6] Statutory tax rates are one of many ways to measure tax competitiveness among jurisdictions. Another important measure is the Marginal Effective Tax Rate (METR). We use statutory rates here for the sake of simplicity but note that the METR is at least as important a metric. Bazel and Mintz (2016) have shown elsewhere that Alberta's METR is higher than several other Canadian jurisdictions.
[7] Authors' calculation based on Alberta Finance, 2015.

a volatile and cyclical source of revenue—resource royalties—to fund program costs that are not nearly as volatile (Kneebone, 2006). Furthermore, the reliance on natural-resource revenues to fund current programs raises important questions about inter-generational fairness, as it spends revenues from non-renewable resources, in which future generations arguably have a legitimate interest, on the consumption needs of the current generation.

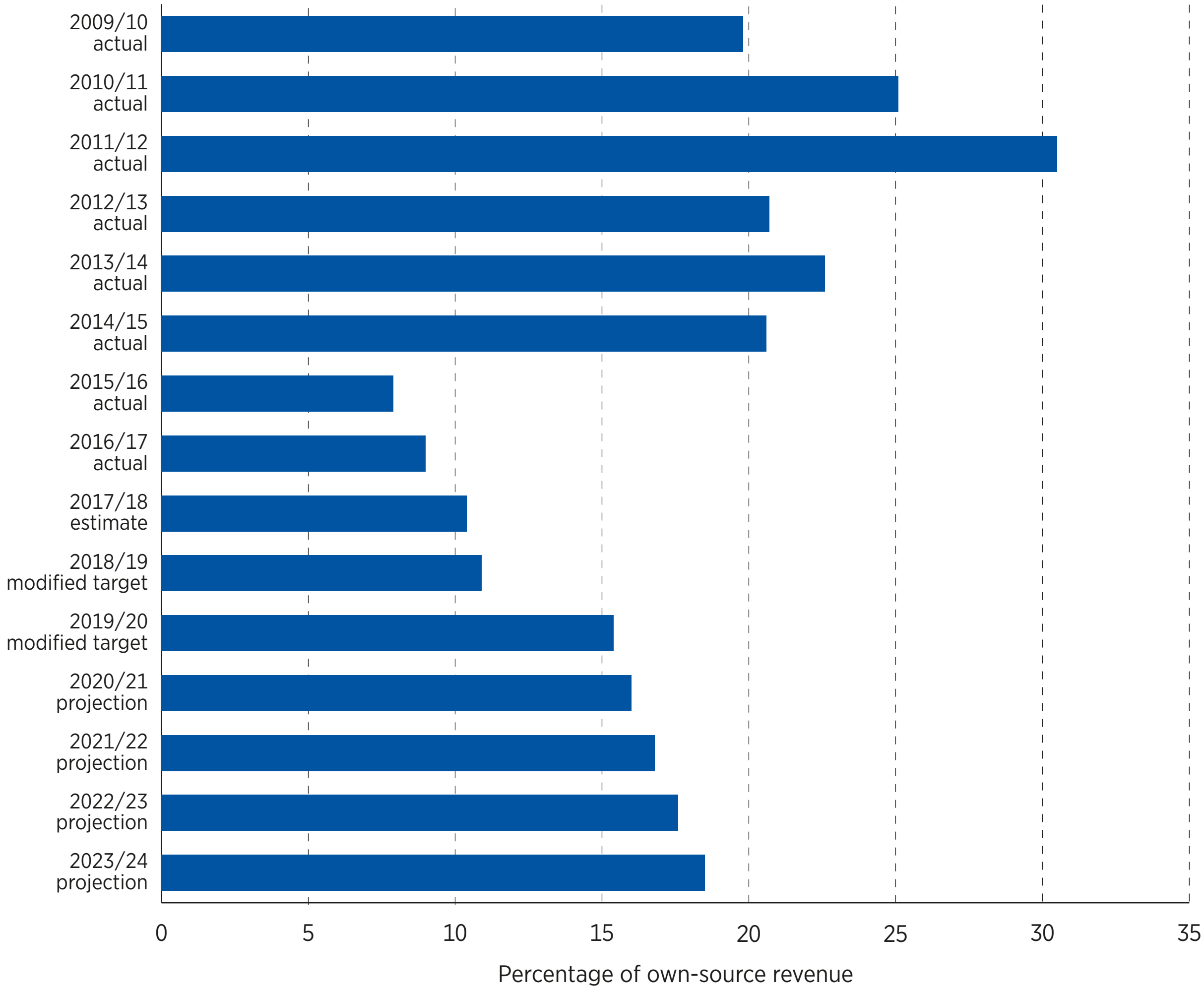
The government's timeline and implied spending trajectory represents nothing less than buying a ticket for yet another ride on the revenue roller coaster. It relies on a strong rebound in energy prices and makes no provision to resume saving assets from resource royalties in the Heritage Trust Fund or a similar vehicle for at least another seven years. In short, the government's plan puts the province at risk of falling back into the same problems we are facing today when another downturn in energy prices occurs.

This reality is most clearly demonstrated by **figure 8**, which shows natural-resource revenue as a share of all government revenue in Alberta. There was a major decline in oil resource revenues beginning in 2014/15, when natural-resource revenue still accounted for roughly one fifth of provincial own-source revenue and fell to just 7.9% in 2015/16. The province's reliance on natural-resource revenue to provide such a large share of provincial revenue and finance elevated spending levels left the province's finances vulnerable to the downturn in oil prices that occurred in the middle of this decade. This decline in resource revenue has contributed to the emergence of large budget deficits since.

According to the government's targets and our own projections, the government's plan to balance its budget by 2023/24 relies on a strong rebound in resource revenues, with the share of own-source revenue climbing back up to 15.4% in 2019/20 (government target) and continuing to grow in subsequent years to 18.5% by 2023/24. [8] In short, it relies on the share of Alberta's own-source revenue from resource revenues rebounding to be just 2.1 percentage points lower than was the case in 2014/15. If this rebound fails to take place, the government will be unable to balance the budget by 2023/24 with 0.8% annual growth in program spending. And, even if there is a rebound, the government would find itself in 2023/24 with a budget balance that is nearly as reliant on natural-resource revenue, and therefore almost as vulnerable to price shocks, as was the case in the years preceding the current fiscal crisis. In other words, even with a balanced budget restored the province would find itself vulnerable to the same type of cyclical downturn in prices that contributed to the emergence of the large deficits that Alberta is facing today.

[8] Our projection uses government figures up to 2019/20 (which shows a substantial increase) as a starting point and allows for the growth of resource revenue at twice the rate of GDP growth. This growth is based on current predictions of strong price increases in oil and natural gas as well as increased production from the oil sands. We make no specific allowance in our projection for various complications such as royalty rates increasing with the price increase or facilities moving to post-payout phase. Both of these factors will produce high royalty revenues so our growth estimates may prove conservative (for the assumed price growth). A detailed projection of resource revenues is beyond the scope of this publication and is not essential as the point made above holds whether resource revenues make up 10%, 20%, or even 30% of own-source revenues.

Figure 8: Alberta's resource revenue as a percentage of own-source revenue, 2009/10–2023/24




Sources: Government of Alberta, 2017; Alberta Finance, 2017a, 2017c; authors' projections.

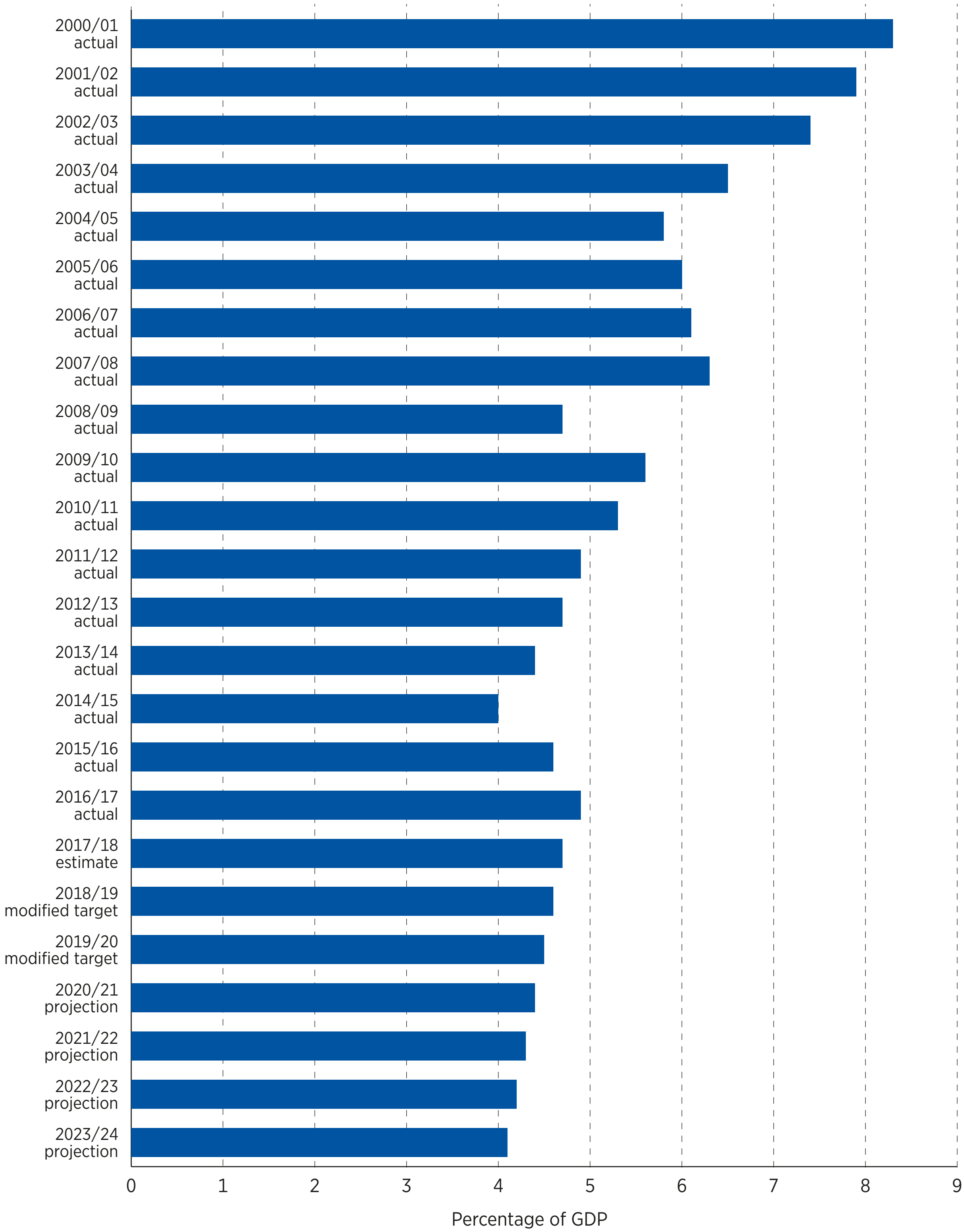
In addition to leaving Alberta on the "resource roller coaster", vulnerable to fiscal shocks when oil prices fluctuate, the government's spending trajectory would require the use of all resource revenues collected in 2023/24 to achieve a balanced budget. This means that saving some of the resource royalty to generate income for the benefit of future generations will be forestalled at least until then. Reviewing the arguments for and against saving at least some share of non-renewable natural-resource revenue for the benefit of future generations is beyond the scope of this publication: for our purposes here it suffices to note that some analysts view conserving revenue from non-renewable resources to produce a future revenue stream as necessary for intergenerational fairness. We also note that many jurisdictions, most notably Norway, have succeeded in saving some share of natural-resource revenue as it has been generated, creating substantial sovereign wealth funds that are now providing a steady and dependable stream of revenue, helping provide public services and easing the tax burden in those jurisdictions.

Alberta's provincial government has at various points voiced a commitment to this principle, most notably through the creation of the Heritage Trust Fund in 1976. The trust fund was created by the government of Peter Lougheed and was intended to be a destination for revenue from non-renewable resources to create a stream of revenue to benefit future generations (Alberta Finance, 2017b). Alberta's governments discontinued regular contributions to the Heritage Trust Fund after 1986/87 and since then have only contributed an additional $4 billion. Indeed, all of this additional contribution occurred between 2005/06 and 2007/08 (Government of Alberta, 2017b). As a result, the Heritage Fund has shrunk relative to the size of the provincial economy. The fund's equity stood at 8.3% of GDP in 2000/01, and has fallen to 4.7% of GDP today.

The government's balanced-budget target date implies that no future contributions will be made at least until 2023/24. The government's plan requires all expected resource revenue in 2023/24 to achieve a balanced budget in that year, leaving none available for the benefit of future generations. Presumably, the government could once again begin considering contributions at that point; however, the distant balanced budget date of 2023/24 appears to forestall this option for the foreseeable future. The result of this decision will be a continued erosion of the value of the heritage trust fund relative to the size of the provincial economy (**figure 9**), and therefore of its potential to serve as a significant source of revenue to benefit future generations. The heritage fund as a share of GDP is expected to fall to 4.5% of GDP in 2019/20.

As we have seen, one of the major shortcomings of Alberta's approach to budgeting in recent history has been its heavy reliance on a cyclical source of revenue to pay for structural and relatively constant expenses, which has left the province vulnerable to severe fiscal shocks when oil revenues have declined and absorbed all natural-resource revenues, saving nothing for the benefit of future generations. The government's implied spending trajectory and balanced-budget target date of 2023/24 will continue this fiscal policy in Alberta. In essence, the government plans to buy a ticket for another "ride" on the revenue roller coaster and rely on increasing resource revenues to fill in the current budget hole. This will leave the province vulnerable to future shocks and, further, will make it impossible (at least in the short term) for the province to once again begin saving some current resource revenue to produce a steady future revenue stream.

Figure 9: Alberta's Heritage Fund equity (at cost) as a percentage of GDP, 2000/01–2023/24




Sources: Government of Alberta, 2017; Alberta Finance, 2017a, 2017c; authors' projections.

# What would it take to reach a balanced budget faster?

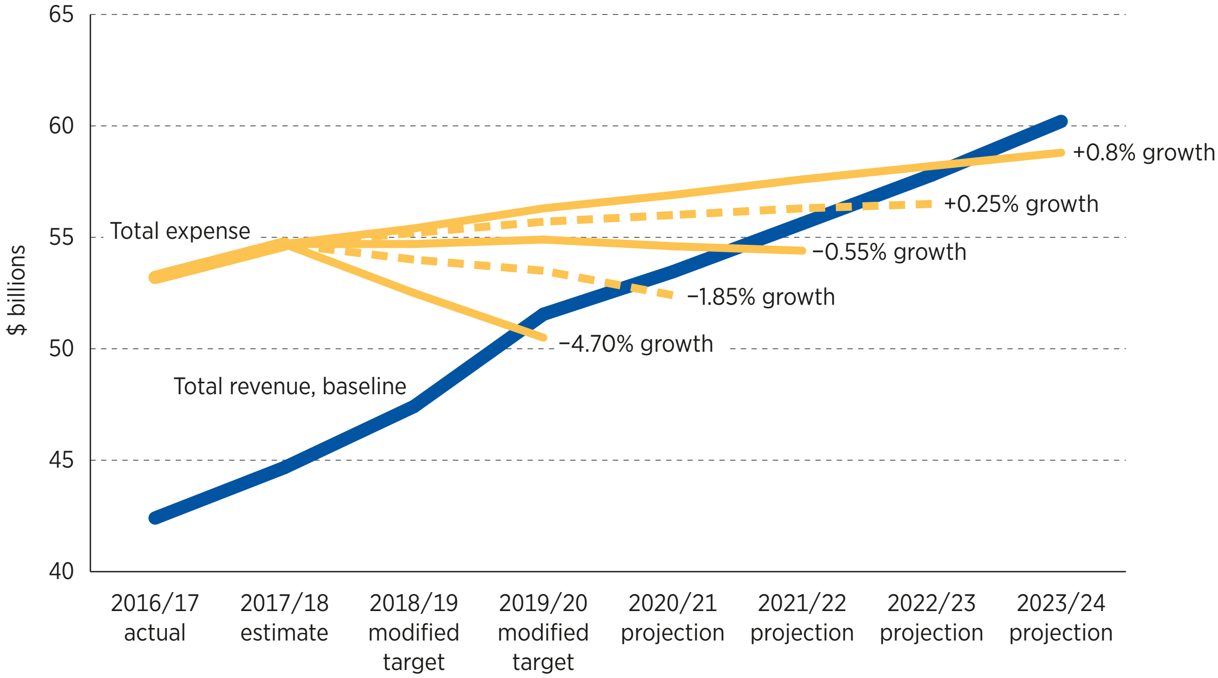
It is clear that the government of Alberta is currently not on track to achieve a balanced budget by 2023/24. However, by exercising modest spending restraint and reducing annual growth of program spending to 0.8% between now and then, this target can likely be met using reasonable revenue assumptions. Increases of 0.8% in annual program spending are therefore "affordable" within the parameters of the government's timeline and may be sufficient to achieve a balanced budget by 2023/24. However, pursuing this spending trajectory would produce a number of problems for Alberta that have been discussed in the preceding section.

The government could mitigate the effect of these problems, or begin creating the fiscal room needed to address them, by pursuing a more ambitious approach to spending consolidation. This section will show what level of spending restraint or spending reductions would in fact be required to achieve a balanced budget on a faster timeline than the government now proposes.

Assuming no changes to revenue, the government would need to hold growth in program spending to 0.25% annually to achieve a balanced budget one year ahead of the current schedule—by 2022/23. To balance the budget one year earlier still, by 2021/22, the government would have to shrink average annual program spending by −0.55%. To achieve a balanced budget by 2020/21, the government would be required to reduce nominal program spending at an average annual rate of −1.85%. Finally, to achieve a balanced budget in 2019/20, nominal program spending cuts over the next two years would need to average 4.7%. **Figure 10** shows our current revenue forecast along with the various spending trajectories that would be needed to achieve a balanced budget in each of these fiscal years.

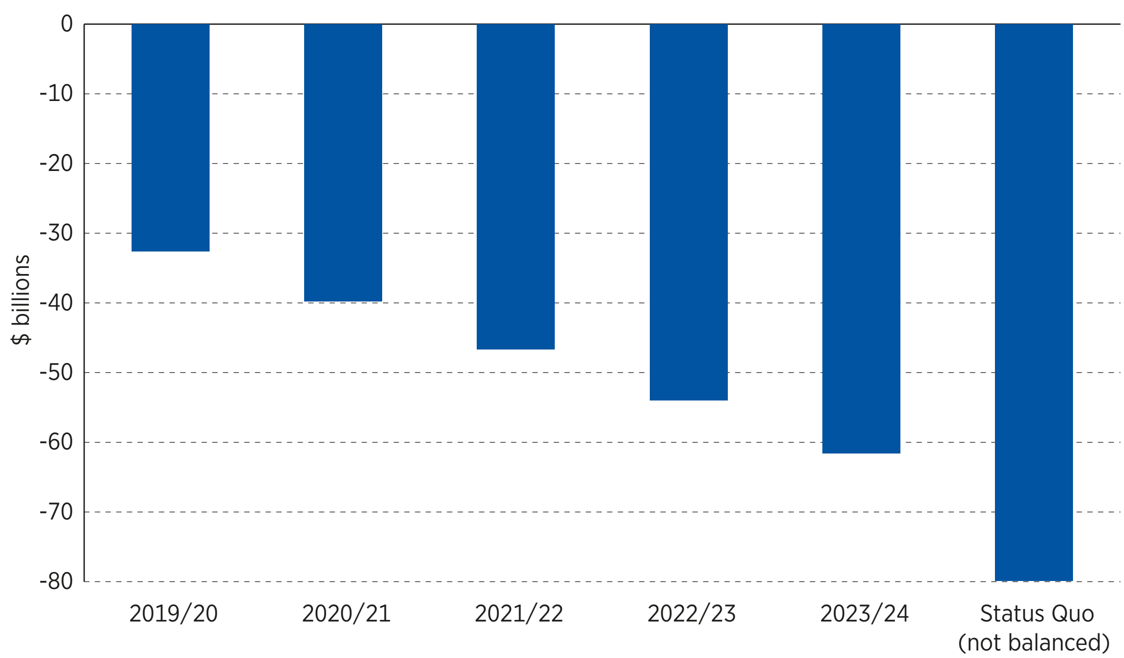
Each of these alternative spending trajectories would achieve a balanced budget more quickly than the government's current plan, and therefore would result in less accumulated debt in the years ahead. **Figure 11** shows how high Alberta's net debt could be expected to climb in the years ahead under each of these various spending trajectories. As figure 11 makes clear, the provincial government will have accrued substantial net debt by the time it manages to balance the budget under any of these scenarios: even under the most aggressive that would balance the budget by 2019/20 and require 4.7% reductions in program spending over each of the next two fiscal years, the government will have amassed almost $33 billion in net debt by the time the budget is balanced. Should the government choose to meet its own balanced budget timeline by increasing program spending annually by 0.8%, we project that it will have $62 billion in net debt by the time it balances the budget in 2023/24. Our projection based on the government's current trajectory is that the government would amass $80 billion in net debt by 2023/24

Figure 10: Alternative paths ($ billions) for Alberta to reach a balanced budget, 2016/17–2023/24




Sources: Government of Alberta, 2017; Alberta Finance, 2017a, 2017c; authors' projections.

Figure 11: Alberta's projected net debt ($ billions) by year of return to a balanced budget




Sources: Government of Alberta, 2017; Alberta Finance, 2017a, 2017c; authors' projections.

and still have a $5.3 billion deficit [9] that fiscal year. Of course, simply balancing the budget does not necessarily stop the accumulation of debt. Capital spending is financed through borrowing, so the capital account could continue to add to the province's net debt even after the budget is balanced, depending on other spending choices. But showing the amount of accumulated debt by the date that the budget is balanced highlights the consequences of delaying a return to a balanced budget.

Clearly, alternative spending trajectories aiming at balancing the budget at earlier dates could significantly slow down the pace at which debt accumulates in Alberta. Achieving the balanced-budget target dates in these years using these spending trajectories would still rely on an elevated tax burden and the use of all natural-resource revenues in the year they come in, so further restraint or reductions beyond the spending trajectories shown here would be required to meet the associated balanced budget target date while also reducing the tax burden, saving some revenue from natural resources, or both. However, it is clear that the spending trajectories that eliminate the deficit more quickly and reduce the amount of debt the province accumulates in the years ahead will make it easier for the government to consider meaningful tax reductions and begin to make provisions for saving some share of natural resource revenues for the benefit of future generations, with the additional benefit of reducing the province's reliance on a cyclical revenue source to fund current activities.

Of course, the different levels of spending restraint or spending reductions required to meet each of these target dates would require different levels of fiscal responsibility with respect to program reforms, public-sector wage restraint, and other strategies for fiscal consolidation. It is beyond the scope of this paper to evaluate the advantages and disadvantages of the trade-offs that would be required to achieve the various budget elimination target dates shown here. Instead, it will suffice to say that, if the provincial government wishes to avoid the rapid accumulation of debt in the years ahead for which it is now on course and create the fiscal room to restore Alberta's tax advantage and end the province's reliance on natural resource revenue, it will need to implement meaningful spending restraint.

[9] Including the $1 billion risk adjustment to be consistent with the reported surplus/deficit.

# Conclusion

Alberta's provincial government faces significant fiscal and economic challenges. The government has run nearly uninterrupted deficits since 2008/09 and has seen a decline of approximately $57 billion in its net assets between 2008/09 and 2017/18. Further, the province has eroded the competitive tax advantage it once held over other North American jurisdictions. The Alberta government has released no detailed plan for balancing its budget but has repeatedly claimed it will do so by 2023/24. Achieving this modest goal will require more spending restraint than the government has been willing or able to implement thus far, and will likely only be possible if annual program spending growth can be held to 0.8% between now and then.

This spending trajectory and deficit timeline, however, would create or exacerbate important problems now facing Alberta. It would result in a rapid increase in debt, it would rely on an elevated tax burden to achieve budget balance, and it would keep Alberta on the "natural resource roller coaster", with the possibility of more fiscal problems or even crises in the future. These negative outcomes are not inevitable: adopting an expedited timeline for eliminating the deficit that includes meaningful spending restraint could allow the government to address these three challenges that would arise from continuing to run deficits until 2023/24.

# References

Alberta Energy (2017). *Resource Revenue Collected*. About Us. Government of Alberta. <http://www.energy.alberta.ca/About_Us/2564.asp>, as of November 21, 2017.

Alberta Finance (2015). *Budget 2015: Supporting Jobs. Supporting Families. The Alberta Way, Fiscal Plan volume*. Government of Alberta. <https://open.alberta.ca/dataset/bb4b0922-f7c6-4099-953e-8913472a47ef/resource/57c66e37-e136-4eac-9d31-c19d136652ac/download/fiscal-plan-complete.pdf>, as of December 12, 2017.

Alberta Finance (2017a). *Budget 2017: Working to Make Life Better, Fiscal Plan*. Government of Alberta. <http://finance.alberta.ca/publications/budget/budget2017/fiscal-plan-complete.pdf>, as of October 17, 2017.

Alberta Finance (2017b). *A History of the Heritage Fund*. Heritage Fund. Government of Alberta. <http://www.finance.alberta.ca/business/ahstf/history.html>, as of December 7, 2017.

Alberta Finance (2017c). *2017-18 Second Quarter Fiscal Update and Economic Statement*. Government of Alberta. <https://open.alberta.ca/dataset/9c81a5a7-cdf1-49ad-a923-d1ecb42944e4/resource/bf002a64-5169-4fbc-aa3e-b384e51259b2/download/2017-18-2nd-Quarter-Report-Fiscal-Update.pdf>, as of January 22, 2018.

Alberta Treasury Board and Finance (2017). *2016–2017 Annual Report: Alberta Heritage Savings Trust Fund*. <https://open.alberta.ca/dataset/3675e470-646e-4f8a-86a7-c36c6f45471a/resource/1d3b7a47-c1d7-4f07-9642-0ce9a44132e3/download/2016-17-Heritage-Fund-Annual-Report.pdf>, as of November 21, 2017.

Bazel, Philip, and Jack Mintz (2016). *2015 Tax Competitiveness Report: Canada is Losing its Attractiveness*. SPP Research Papers 9, 37 (November). University of Calgary School of Public Policy. <https://www.policyschool.ca/wp-content/uploads/2016/12/Tax-Competitiveness-Bazel-Mintz.pdf> as of December 7, 2017.

Chen, Duanjie, and Jack Mintz (2015). *The 2014 Global Tax Competitiveness Report: A Proposed Business Tax Reform Agenda*. SPP Research Papers 8, 4 (February). University of Calgary School of Public Policy. <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2560399> as of January 23, 2018.

Conference Board of Canada (2017). *Provincial Outlook Long-Term Economic Forecast: Alberta—2017*. <http://www.conferenceboard.ca/e-library/abstract.aspx?did=8727> as of January 22, 2018.

Deloitte (2017). *Price Forecast: September 30, 2017*. Resource Evaluation and Advisory. <https://www2.deloitte.com/content/dam/Deloitte/ca/Documents/REA/ca-en-rea-price-forecast-oct-2017-AODA.PDF> as of January 22, 2018.

French, Janet (2017). Credit-Rating Agency Downgrades Alberta's Long-Term Outlook. *Edmonton Journal* (July 7). <http://edmontonjournal.com/news/local-news/credit-rating-agency-dbrs-downgrades-albertas-long-term-outlook-to-negative>, as of November 21, 2017.

Eisen, Ben, Steve Lafleur, and Milagros Palacios (2017). *The End of the Alberta Tax Advantage*. Fraser Institute. <https://www.fraserinstitute.org/sites/default/files/end-of-the-alberta-tax-advantage.pdf> as of October 17, 2017.

Government of Alberta (2016). *2015-16 Annual Report*. <https://open.alberta.ca/dataset/7714457c-7527-443a-a7db-dd8c1c8ead86/resource/b7d016f8-1c5a-4724-85d4-b834c343f062/download/goa-2015-16-annual-report-complete.pdf>, as of January 22, 2018.

Government of Alberta (2017). *2016-17 Annual Report*. <https://open.alberta.ca/dataset/7714457c-7527-443a-a7db-dd8c1c8ead86/resource/e6e99166-2958-47ac-a2db-5b27df2619a3/download/GoA-2016-17-Annual-Report.pdf>, as of January 22, 2018.

Joffe, Marc (2012). *Provincial Solvency and Federal Obligations*. MacDonald-Laurier Institute. <https://www.macdonaldlaurier.ca/files/pdf/Provincial-Solvency-October-2012.pdf>, as of January 21, 2018.

Kneebone, Ronald (2006). From Feast to Famine: The Evolution of Budgeting Rules in Alberta. *Canadian Tax Journal* 54, 3: 657–673. <https://www.ctf.ca/ctfweb/Documents/PDF/2006ctj/2006ctj3-kneebone.pdf>, as of December 7, 2017.

Lafleur, Steve, Milagros Palacios, Ben Eisen, and Charles Lammam (2015). *Alberta's Budget Deficit: Why Spending Is to Blame*. Fraser Institute. <https://www.fraserinstitute.org/sites/default/files/albertas-budget-deficit-why-spending-is-to-blame.pdf>, as of October 17, 2017.

Lafleur, Steve, Ben Eisen, Milagros Palacios, and Charles Lammam (2017). *Alberta's Budget Deficit: Why Spending Is to Blame, 2017*. Fraser Institute. <https://www.fraserinstitute.org/sites/default/files/albertas-budget-deficit-why-spending-is-to-blame-2017.pdf>, as of October 17, 2017.

Lammam, Charles, Milagros Palacios, and Feixue Ren (2017). *Comparing Government and Private Sector Compensation in Alberta, 2017*. Fraser Institute. <https://www.fraserinstitute.org/sites/default/files/comparing-government-and-private-sector-compensation-in-alberta-2017.pdf>, as of November 22, 2017.

Lammam, Charles, Hugh MacIntyre, Feixue Ren, and Sazid Hasan (2017). *The Cost of Government Debt in Canada, 2017*. Fraser Institute. <https://www.fraserinstitute.org/sites/default/files/cost-of-government-debt-in-canada-2017_1.pdf>, as of December 7, 2017.

Mintz, Jack (2017). Trump's Tax Tsunami Is About to Wallop Canadian Jobs and Investment. *National Post* (December 19). <http://business.financialpost.com/opinion/jack-mintz-trumps-tax-tsunami-is-about-to-wallop-canadian-jobs-and-investment>, as of January 23, 2018.

National Energy Board (2017). *Canada's Energy Future 2017: Energy Supply and Demand Projections to 2040*. <https://www.neb-one.gc.ca/nrg/ntgrtd/ftr/2017/2017nrgftr-eng.pdf>, as of January 22, 2018.

Office of the Parliamentary Budget Officer (2017). *Fiscal Sustainability Report 2017*. Government of Canada. <http://www.pbo-dpb.gc.ca/web/default/files/Documents/Reports/2017/FSR%20Oct%202017/FSR_2017_FINAL_EN.pdf>, as of January 21, 2018.

RBC Economics (2017). *Canadian Federal and Provincial Fiscal Tables* (September 26). <http://www.rbc.com/economics/economic-reports/pdf/provincial-forecasts/prov_fiscal.pdf>, as of November 22, 2017.

Scotiabank (2017). *Canada and US Long-Run Economic Outlook: 2017–22*. Global Economics Long-Term Outlook (November 20). <http://www.gbm.scotiabank.com/scpt/gbm/scotiaeconomics63/longtermoutlook.pdf>, as of January 22, 2018.

Statistics Canada (2017a). CANSIM Table 051-0001. *Estimates of population, by age group and sex for July 1, Canada, provinces and territories, annual (persons)*. <http://www5.statcan.gc.ca/cansim/a26?id=510001>, as of December 7, 2017.

Statistics Canada (2017b). CANSIM Table 052-0005. *Projected population, by projection scenario, age and sex, as of July 1, Canada, provinces and territories, annual (persons)*. <http://www5.statcan.gc.ca/cansim/a26?lang=eng&id=520005>, as of December 7, 2017.

Statistics Canada (2017c). CANSIM Table 282-0012. *Labour force survey estimates (LFS), employment by class of worker, North American Industry Classification System (NAICS) and sex, annual (persons)*. <http://www5.statcan.gc.ca/cansim/a26?lang=eng&id=2820012>, as of September 1, 2017.

Statistics Canada (2017d). CANSIM Table 282-0078. *Labour force survey estimates (LFS), employees by union coverage, North American Industry Classification System (NAICS), sex and age group, annual (persons)*. <http://www5.statcan.gc.ca/cansim/a26?lang=eng&id=2820078>, as of September 1, 2017.

Statistics Canada (2017e). CANSIM Table 326-0021. *Consumer Price Index (CPI), annual (2002=100)*. <http://www5.statcan.gc.ca/cansim/a26?id=3260021>, as of December 7, 2017.

TD Economics (2017). *Long-Term Forecast* (December 18). <https://economics.td.com/us-long-term-forecast>, as of January 22, 2018.

# About the Authors

## Steve Lafleur

Steve Lafleur is a Senior Policy Analyst at the Fraser Institute. He holds an M.A. in Political Science from Wilfrid Laurier University and a B.A. from Laurentian University, where he studied Political Science and Economics. He was previously a Senior Policy Analyst with the Frontier Centre for Public Policy in Winnipeg, and is a Contributing Editor to *New Geography*. His past work has focused primarily on housing, transportation, local government, and inter-governmental fiscal relations. His current focus is on the economic competitiveness of jurisdictions in the Prairie provinces. His writing has appeared in every major national and regional Canadian newspaper and his work has been cited by many sources including the Partnership for a New American Economy and the Reason Foundation.

## Joel Emes

Joel Emes is President of Abacus Economics and a Fraser Institute Senior Fellow who rejoined the Institute after a stint as a senior advisor to British Columbia's provincial government. He previously served as a senior analyst, then as acting executive director, at the BC Progress Board. Prior to that, Joel was a senior research economist at the Fraser Institute where he initiated and led several flagship projects in the areas of tax freedom and government performance, spending, debt, and unfunded liabilities. Joel holds a B.A. and an M.A. in economics from Simon Fraser University.

# Acknowledgments

The authors wish to thank Ben Eisen and Jason Clemens for their significant contributions to the research and analysis presented in this study. They also wish to thank the anonymous reviewers for their comments, suggestions, and insights. Any remaining errors or oversights are the sole responsibility of the authors. As the researchers have worked independently, the views and conclusions expressed in this study do not necessarily reflect those of the Board of Directors of the Fraser Institute, the staff, or supporters.

# Publishing Information

## Distribution

These publications are available from <http://www.fraserinstitute.org> in Portable Document Format (PDF) and can be read with Adobe Acrobat® or Adobe Reader®, versions 7 or later. Adobe Acrobat Reader® DC, the most recent version, is available free of charge from Adobe Systems Inc. at <get.adobe.com/reader/>. Readers having trouble viewing or printing our PDF files using applications from other manufacturers (e.g., Apple's Preview) should use Reader® or Acrobat®.

## Ordering publications

To order printed publications from the Fraser Institute, please contact us via **e-mail**: sales@fraserinstitute.org; **telephone**: 604.688.0221, ext. 580 or, toll free, 1.800.665.3558, ext. 580; or **fax**: 604.688.8539.

## Media

For media enquiries, please contact our communications department via **e-mail**: communications@fraserinstitute.org; **telephone**: 604.714.4582. In Toronto, contact our media specialist via **telephone** at 416.363.6575, ext. 238.

## Copyright



## ISBN

978-0-88975-484-3.

## Citation

Steve Lafleur and Joel Emes (2018). *Alternative Paths for Alberta's Budget: Balance by 2023/24 Is Not Enough*. Fraser Institute. <http://www.fraserinstitute.org>.

# Supporting the Fraser Institute

To learn how to support the Fraser Institute, please contact us via **post**: Development Department, Fraser Institute, Fourth Floor, 1770 Burrard Street, Vancouver, British Columbia, V6J 3G7, Canada; **telephone**: toll-free to 1.800.665.3558, ext. 548; **e-mail**: development@fraserinstitute.org; or visit our **webpage**: <www.fraserinstitute.org/support-us/overview.aspx>.

# Purpose, Funding, and Independence

The Fraser Institute provides a useful public service. We report objective information about the economic and social effects of current public policies, and we offer evidence-based research and education about policy options that can improve the quality of life.

The Institute is a non-profit organization. Our activities are funded by charitable donations, unrestricted grants, ticket sales, and sponsorships from events, the licensing of products for public distribution, and the sale of publications.

All research is subject to rigorous review by external experts, and is conducted and published separately from the Institute's Board of Directors and its donors.

The opinions expressed by authors are their own, and do not necessarily reflect those of the Institute, its Board of Directors, its donors and supporters, or its staff. This publication in no way implies that the Fraser Institute, its directors, or staff are in favour of, or oppose the passage of, any bill; or that they support or oppose any particular political party or candidate.

As a healthy part of public discussion among fellow citizens who desire to improve the lives of people through better public policy, the Institute welcomes evidence-focused scrutiny of the research we publish, including verification of data sources, replication of analytical methods, and intelligent debate about the practical effects of policy recommendations.

# About the Fraser Institute

Our mission is to improve the quality of life for Canadians, their families and future generations by studying, measuring and broadly communicating the effects of government policies, entrepreneurship and choice on their well-being.

Notre mission consiste à améliorer la qualité de vie des Canadiens et des générations à venir en étudiant, en mesurant et en diffusant les effets des politiques gouvernementales, de l'entrepreneuriat et des choix sur leur bien-être.

# Peer review—validating the accuracy of our research

The Fraser Institute maintains a rigorous peer review process for its research. New research, major research projects, and substantively modified research conducted by the Fraser Institute are reviewed by experts with a recognized expertise in the topic area being addressed. Whenever possible, external review is a blind process. Updates to previously reviewed research or new editions of previously reviewed research are not reviewed unless the update includes substantive or material changes in the methodology.

The review process is overseen by the directors of the Institute's research departments who are responsible for ensuring all research published by the Institute passes through the appropriate peer review. If a dispute about the recommendations of the reviewers should arise during the Institute's peer review process, the Institute has an Editorial Advisory Board, a panel of scholars from Canada, the United States, and Europe to whom it can turn for help in resolving the dispute.

# Editorial Advisory Board