What Happens to the Federal Deficit if a Recession Occurs in 2019?

by Milagros Palacios, Jake Fuss, and Jason Clemens

SUMMARY

- In its latest fiscal update, the Trudeau government revealed that it intends to continue running sizeable budget deficits for the foreseeable future. There are several risks inherent in the federal government’s current approach to fiscal policy and criticism has frequently revolved around the potential for federal finances to deteriorate rapidly if a recession were to occur.

- In the event of a recession, aside from any policy changes the federal government might make, government revenues will decline and program spending will increase, resulting in larger deficits (or reduced surpluses).

- To assess how a potential recession would affect Canada’s federal finances, this bulletin uses the latest fiscal sensitivity tables from the Parliamentary Budget Officer (PBO) and historical economic data from the 1991/92 (mild), 2000/01 (moderate), and 2008/09 (severe) recessions or slowdowns. The analysis excludes the effect of any potential discretionary spending.

- The bulletin finds that the 2019/20 deficit could increase from its current expected level of $19.6 billion to anywhere between $28.2 billion to $34.4 billion depending on the severity of the next recession. In addition, the five-year accumulated deficit from 2019/20 to 2023/24 could increase from its current budgeted level of $76.8 billion to between $114.6 billion and $142.3 billion (an increase of between $37.8 billion and $65.5 billion).

- This bulletin’s estimates for what the deficit might look like when a recession occurs are conservative. The deficit will likely be much higher than these estimates once the federal government enacts policy changes to stimulate the economy. Regardless of the severity of the recession, the risks posed to federal finances are considerable. The federal government needs to alter Canada’s current trajectory by emphasizing deficit reduction in future budgets.
Introduction

In its latest fiscal update, the federal government revealed that it intends to continue running sizeable nominal budget deficits for the foreseeable future. However, various economists and analysts have repeatedly expressed concerns related to purposefully keeping the budget in the red when economic growth in Canada is positive.¹ There are several risks inherent in the federal government’s current approach to fiscal policy; criticism has frequently revolved around the potential for federal finances to deteriorate rapidly if a recession were to occur.

It seems that Canadians are also becoming increasingly worried about the federal government’s current fiscal trajectory. A recent poll found that the majority (58 percent) of Canadians believe that the federal government should balance the budget instead of continually running deficits to finance ever increasing government spending.² Clearly, this is an issue at the top of the minds of many Canadians.

This bulletin measures the potential impact that a recession in 2019/20 would have on federal finances. The analysis focuses exclusively on what the budget deficit could look like due to cyclical effects and excludes any discretionary spending measures. The first part provides an overview of the state of federal finances, the current trajectory of those finances, and potential risks to the current plan. The second section explains the methodology used to calculate the fiscal effects that a recession in 2019/20 could have on federal deficits from now until 2023/24. Finally, the analysis section demonstrates what happens to the federal deficit under various recession scenarios and how those results compare to the current fiscal situation.

Overview on the state of Canada’s federal finances

To fully understand the alarming nature of Canada’s current fiscal situation, it is necessary to first wind back the clock a few years. In the last budget tabled by the previous Harper government (Budget 2015), Canada was projected to achieve a surplus of $1.4 billion in 2015/16 and program spending was expected to total $263.2 billion (Department of Finance, 2015). However, the current Liberal government immediately increased spending upon winning the election in late 2015. Program spending was increased by $13.3 billion in 2015/16 over and above the previous government’s estimate in 2015/16 (Department of Finance, 2015). Then in 2016/17, program spending was increased again to reach $291.2 billion, an increase of $28.0 billion from the Harper government’s estimate in 2015/16 (Department of Finance, 2016).

As of the government’s most recent financial statements, specifically the 2018 Fall Economic Statement, program expenses are now projected to reach $320.2 billion in 2018/19, an increase of $57 billion or 21.7 percent from what the Harper government had planned to spend in 2015/16 (Department of Finance, 2018b).

To get a sense of the current government’s appetite and preference for spending rather than balancing its budget, consider that between the spring 2018 budget (delivered in March) and its economic update in November, program expenses were increased by $13.1 billion in 2018/19.

¹ See, for instance, Clemens (2015); Gordon (2015); Clemens, Fuss, and Palacios (2018); Speer (2018); Coyne (2018, November 21).
² The poll was conducted by Nanos Research for the Globe and Mail in a hybrid telephone and online random survey of 1,000 Canadians between September 29th and October 4th, 2018.
spending increased by $8.0 billion (Department of Finance, 2018c).

On a per-person basis, adjusting for the effects of inflation, the federal government is projected to raise spending levels in 2018/19 to the third highest in Canadian history, and the second highest level attained outside of a recession. Program spending will reach $8,639 per capita in 2018/19, only $72 per-person short of spending during the 2009 recession (Fuss et al., 2019).

As the federal government continues to spend at near unprecedented levels outside of recessions or war, program spending is being financed almost exclusively by deficits. In fact, the federal government ran successive $19 billion deficits in 2016/17 and 2017/18 and is on track for an $18.1 billion deficit in 2018/19.³ In essence, the $56.1 billion in cumulative deficits over the last three fiscal years matches the increase in program spending since the original 2015/16 plan.

The deficit is projected to climb even more this year and reach $19.6 billion (see Department of Finance, 2018b). Moreover, projections from the Department of Finance state the federal government won’t balance the budget until 2040.⁴

It is important to specify the main risk of running deficits during periods of positive economic growth. Exclusive of any policy changes the federal government might make, recessions automatically cause government revenues to decline and program spending to increase, resulting in larger deficits (or reduced surpluses).

The risk to current finances is that the federal government would enter a recession already in a deficit position and with mounting debt. Indeed, the current government has run repeated deficits because its spending has exceeded available revenues even though the economy is growing (which has created a structural imbalance). In such a situation it will be significantly more difficult for the federal government to balance the budget in the years after the recession, regardless of the state of the Canadian economy. In other words, the risk is that the federal government will perpetually run deficits, as it permanently spends more than it is able—or perhaps willing—to raise in revenues.

Canada previously faced this fiscal situation in the 1970s, 1980s, and early 1990s prior to the important reforms made by the Chrétien Liberal government to restore balanced budgets.⁵ For example, between 1981/82 and 1982/83, the deficit nearly doubled from $15.7 billion to $29.0 billion. Regardless of economic conditions, the deficit did not return to the $15.7 billion level until 1996/97.

The state of Canada’s federal finances currently indicates that a similar fiscal situation could arise if a recession were to occur in 2019/20. A recession would cause the federal government to run large deficits that could not be balanced regardless of the state of the economy.

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³ In table 1 of the 2018 Fiscal Reference Tables, the deficit was recorded as $18.96 billion in both 2016/17 and 2017/18. The $18.1 billion figure is projected in the 2018 Fall Economic Statement.

⁴ The Department of Finance (2018d) provides a detailed long-term fiscal projection for budgetary balance based on the demographic and economic projections defined by current government policies.

⁵ For more information on the reforms enacted by the Chrétien government, see Clemens, Lau, Palacios, and Veldhuis (2017).
Measuring the fiscal impacts of potential recessions

Before presenting the estimates for the potential deficits from a recession in 2019/20, it is important to specify the assumptions and methodology we used in calculating the values. To assess how a potential recession would affect Canada’s federal finances, this analysis uses the latest fiscal sensitivity tables from the Parliamentary Budget Officer (PBO) and historical economic data from three previous recessions.

In the PBO’s October 2018 Economic and Fiscal Outlook, the budget watchdog provided a detailed explanation for what happens to each category of federal government revenue and spending, as well as the change in budgetary balance, due to a permanent 1 percent decrease in real GDP levels.6 The 1 percent permanent drop roughly translates to a 1 percentage point drop in real GDP growth for a single fiscal year.

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6 See Appendix G of the October 2018 Economic and Fiscal Outlook from the PBO.
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This fiscal sensitivity table was used to infer what would happen to federal finances if the year-over-year drop in real GDP growth from 2018/19 to 2019/20 matched the results from several prior recessions.\(^7\)

For instance, if real GDP growth dropped by 3 percentage points in a previous recession, then real GDP growth in 2019/20 was calculated to drop by 3 percentage points from 2018/19 (also known as a permanent 3 percent decline in real GDP levels). The permanent 3 percent figure would then be multiplied by the numbers provided in the PBO fiscal sensitivity tables (i.e., a 3 percent drop means that the PBO numbers are multiplied by a magnitude of 3). Table 1 displays the fiscal sensitivity values from the PBO for a 1 percent drop in real GDP.

With this method we calculated new figures for federal revenues, program spending, and deficits under each recession scenario from 2019/20 to 2023/24. Note that the analysis excludes discretionary effects (i.e., stimulus spending or revenue reductions), which means that the figures reflect changes in government revenues, spending, fiscal balance (surplus or deficits) outside of any discretionary measures the government were to implement.\(^8\)

In other words, the analysis estimates only the cyclical impact on federal deficits due to a recession.

The three periods of recession or economic slowdown used in this analysis are classified as mild, moderate, and severe, based on the extent of the drop in real GDP growth.\(^9\) In other words, the classification is based on how severe the contraction in economic activity was during the year-over-year period. Based on that classification, the experiences of the 1991/92 recession (mild), the 2000/01 slowdown (moderate), and the 2008/09 recession (severe) were used to estimate the potential fiscal effects in 2019/20 if similar percentage point drops in real GDP growth were to occur.

Table 2 exhibits the economic effects of these three recessions (or slowdowns) and the potential impact of mild, moderate, and severe recessions on real GDP projections for 2019/20 to 2023/24. Notably, the analysis restricted the drop in real GDP growth from current expectations to the 2019/20 fiscal year and maintained the same real GDP growth projections for 2020/21 to 2023/24. In other words, the recession has been restricted to a one-year time period. However, overall real GDP levels are affected by the recession in each fiscal year, as levels decline significantly from the baseline scenario.

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\(^7\) Although the sensitivity tables specify a 1 percent decrease in real GDP, it is possible to do a linear extrapolation as an approximation for decreases in real GDP beyond 1 percent.

\(^8\) The previous analysis done by Clemens et al. (2018) considered the decline in revenues and increases in spending from the two recessions (1991–92 and 2008–09) and the economic slowdown in 2000–01 to estimate the likely deficits from recessions. The Clemens et al. (2018) paper represents a different approach because the effects on federal finances included policy changes (discretionary changes) as well as cyclical factors.

\(^9\) These are the same three periods used in Clemens, Palacios, and Veldhuis’ 2018 study, *Federal Deficits and Recession: What Could Happen.*
Starting point for the analysis: 2018 Fall Economic Statement

The baseline for the deficit analysis in this report is the 2018 Fall Economic Statement (figure 1). Total revenues are projected to equal $328.9 billion in 2018/19 and $339.2 billion in 2019/20. Over the period from 2019/20 to 2023/24, total revenues are $1,838.0 billion (cumulative). Program spending over the same period is expected to total $1,743.6 billion ($328.3 billion in 2019/20). Debt charges are budgeted to total $156.2 billion (cumulative). From 2019/20 to 2023/24, federal deficits are projected to total $76.8 billion (including the annual $3 billion risk adjustments). The annual

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See table A1.4 of the 2018 Fall Economic Statement.
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The deficit in 2019/20 is budgeted for $19.6 billion and it is expected to decline to $11.4 billion by 2023/24.

Fiscal effects from a mild recession (1991/92)

The mild fiscal effects from a recession are based on the experience of 1991/92. As table 2 indicates, mild effects from a recession entail a year-over-year 2.3 percentage point drop in real GDP growth. Table 3a depicts the change in federal revenues if real GDP levels permanently decline by roughly 2.3 percent (real GDP growth declines from 2.0 percent in 2018/19 to -0.3 percent in 2019/20), while table 3b illustrates the marginal increase in program spending.\[11\]

Revenues in 2019/20 decline 2.1 percent, from the budgeted level of $339.2 billion to $332.0 billion. In each subsequent year, revenues are at least $5 billion less annually than the federal

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\[11\] Note that total revenues and program spending remain the same in 2018/19, as the projected recession does not occur until 2019/20.
government’s current projections. From 2019/20 to 2023/24, cumulative federal revenues equal $1,806.5 billion—$31.5 billion less than current expectations. More specifically, personal income tax revenues decline by 2.9 percent from budgeted projections, while corporate income tax revenues and GST revenues both decline by an average of 2.1 percent annually.

Program spending in 2019/20 increases slightly from $328.3 billion to $329.7 billion, largely due to increased spending on employment insurance benefits. In fact, employment insurance benefits increase by 9.5 percent from current projections. However, growth in program spending from 2019/20 to 2023/24 is relatively small, as program expenses are only 0.3 percent higher than current projections on an annual average basis. In total, program spending amounts to $1,747.9 billion, which represents an increase of only $4.3 billion over the five-year time period.

Figure 2 shows the net result of the decrease in revenues and increase in program spending; it illustrates the new projected deficits from 2018/19 to 2023/24. Note that the deficit in 2018/19 remains the same since the projected recession does not occur until 2019/20. The deficit in 2019/20 increases from the currently planned level of $19.6 billion to $28.2 billion, an increase of $8.6 billion or 43.6 percent. The cumulative five-year deficit total for 2019/20 to 2023/24 increases from $76.8 billion to $114.6 billion, an increase of 49.2 percent. In other words, the five-year cumulative deficit will grow by $37.8 billion if a mild recession were to occur in 2019/20.

**Fiscal effects from a moderate recession (2000/01)**

The economic slowdown of 2000/01 is used as the basis for estimating the deficits that result from a recession with moderate fiscal effects. As table 2 demonstrated, a moderate recession involves a year-over-year 3.4 percentage point drop in real GDP growth. Tables 4a and 4b illustrate the drop in revenues and increase in program spending that result from a moderate recession. Real GDP growth was calculated to decline from 2.0 percent in 2018/19 to -1.4 per-

\[12\] Debt charges in 2019/20 equal $27.5 billion. When simply examining total expenses and total revenues the deficit figure amounts to $25.2 billion, but after accounting for the $3 billion risk adjustment the deficit becomes $28.2 billion. Regardless of whether or not the risk adjustment is included in calculations, the increase remains $8.6 billion.
cent in 2019/20 when real GDP levels permanently decline by approximately 3.4 percent.

In 2019/20, the year the recession is assumed to occur, revenues decline from the $339.2 billion currently budgeted to $328.6 billion. From 2019/20 to 2023/24, cumulative federal revenues are expected to equal $1,791.8 billion, which is $46.2 billion lower than projected in the 2018 Economic Statement. Compared to current expectations, personal income tax revenues decline by 4.3 percent annually, while corporate income tax and GST revenues decrease by annual averages of 3.0 and 3.1 percent respectively.

Program spending is expected to increase from $328.3 billion to $330.3 billion in 2019/20. Spending on employment insurance benefits in 2019/20 will rise by 13.9 percent from previous expectations. Similar to the mild recession, however, program spending only experiences a marginal aggregate increase from 2019/20 to 2023/24. Cumulatively, program expenses

### Table 4a: Impact of moderate recession (2000-01) on federal revenues ($ billions)

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Baseline revenues</th>
<th>Adjusted revenues</th>
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</thead>
<tbody>
<tr>
<td>2018/19</td>
<td>328.9</td>
<td>328.9</td>
</tr>
<tr>
<td>2019/20</td>
<td>339.2</td>
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<td>2021/22</td>
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<td>359.3</td>
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<td>2022/23</td>
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<tr>
<td>2023/24</td>
<td>396.7</td>
<td>386.8</td>
</tr>
</tbody>
</table>

### Table 4b: Impact of moderate recession (2000-01) on federal program spending ($ billions)

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Baseline program spending</th>
<th>Adjusted program spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018/19</td>
<td>320.2</td>
<td>320.2</td>
</tr>
<tr>
<td>2019/20</td>
<td>328.3</td>
<td>330.3</td>
</tr>
<tr>
<td>2020/21</td>
<td>337.3</td>
<td>339.1</td>
</tr>
<tr>
<td>2021/22</td>
<td>348.2</td>
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<tr>
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</tr>
<tr>
<td>2023/24</td>
<td>370.8</td>
<td>371.4</td>
</tr>
</tbody>
</table>

Sources: Canada, Department of Finance (2018b); Scholz and Shaw (2018); calculations by authors.
equal $1,749.9 billion over the five-year period, which is an increase of $6.3 billion from current projections. Furthermore, program expenses are calculated to only be, on average, 0.4 percent higher than the values provided in the 2018 economic statement.

Figure 3 demonstrates the net impact on budget deficits due to the decrease in revenues and increase in program spending if Canada were to experience a moderate recession. The deficit in 2019/20 increases from the current budgeted amount of $19.6 billion to $32.1 billion, an increase of $12.5 billion or 64.0 percent. Additionally, the deficit in 2023/24 will double, by increasing from $11.4 billion to $23.3 billion (an increase of 104.2 percent). In total, the cumulative five-year deficit from 2019/20 to 2023/24 increases from $76.8 billion to $132.2 billion.

Put differently, the five-year cumulative deficit would increase by $55.4 billion or 72.2 percent were a moderate recession to occur in 2019/20.

**Fiscal effects from a severe recession (2008/09)**

Finally, the estimate for the worst of the three scenarios is based on the experience of the recent 2008/09 recession. In a severe recession such as that, real GDP growth in 2019/20 would decline by 4 percentage points from 2018/19. Table 5a demonstrates the decline in federal revenues, while Table 5b shows the increase in program spending during a severe recession. The tables illustrate the effect of real GDP levels declining permanently by roughly 4.0 percent, as real GDP growth declines from 2.0 percent in 2018/19 to -2.0 percent in 2019/20.

Revenues in 2019/20 fall from the budgeted level of $339.2 billion to $326.7 billion, a decrease of 3.7 percent. On a cumulative basis, revenues are $54.6 billion lower than currently budgeted from 2019/20 to 2023/24. In fact, the five-year cumulative total is expected to decline from $1,838.0 billion to $1,783.4 billion, a 3.0 percent drop. Personal income tax revenues decline by approximately 5.1 percent each year, while corporate income tax and GST revenues both decline by 3.6 percent from budgeted levels on an annual average basis.

Once again, program spending in 2019/20 grows only marginally compared to current ex-

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### Scenario: Severe Recession (2008-09)

**Table 5a: Impact of severe recession (2008-09) on federal revenues ($ billions)**

<table>
<thead>
<tr>
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<tr>
<td>2022/23</td>
<td>382.1</td>
<td>371.2</td>
</tr>
<tr>
<td>2023/24</td>
<td>396.7</td>
<td>385.0</td>
</tr>
</tbody>
</table>

**Table 5b: Impact of severe recession (2008-09) on federal program spending ($ billions)**

<table>
<thead>
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<th>Fiscal Year</th>
<th>Baseline program spending</th>
<th>Adjusted program spending</th>
</tr>
</thead>
<tbody>
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<td>2018/19</td>
<td>320.2</td>
<td>320.2</td>
</tr>
<tr>
<td>2019/20</td>
<td>328.3</td>
<td>330.6</td>
</tr>
<tr>
<td>2020/21</td>
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<td>2021/22</td>
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<td>371.5</td>
</tr>
</tbody>
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Sources: Canada, Department of Finance (2018b); Scholz and Shaw (2018); calculations by authors.
the deficit in 2019/20 increases from the currently budgeted level of $19.6 billion to $34.4 billion, an increase of $14.8 billion or 75.6 percent. Figure 4 demonstrates that the deficits in 2022/23 and 2023/24 would more than double if there were to be a severe recession. Indeed, the deficit in 2022/23 would increase from $12.6 billion to $25.5 billion (an increase of $12.9 billion or 102.1 percent) and the deficit in 2023/24 would increase from $11.4 billion to $25.4 billion (an increase of $14 billion or 123.2 percent). The cumulative five-year deficit over the period from 2019/20 to 2023/24 would be $142.3 billion, which is $65.5 billion higher than the currently planned five-year deficit of $76.8 billion. Put differently, the five-year deficit would increase from current expectations by 85.3 percent if a severe recession occurred.

**Conclusion**

Running sizable deficits during a period of positive economic growth poses a severe risk of much larger deficits when a recession occurs. Aside from any policy changes the federal government might make, a recession would automatically cause the federal government to experience large revenue decreases and marginal increases to program spending. Consequently, a recession in 2019/20 could initiate a fiscal situation in which the federal government cannot balance its budget in the years after the recession, regardless of the economic conditions in Canada. Perpetual deficits would not be out of the question, as the government would continue to permanently spend more than the revenues it brings in.

Figure 5a illustrates that the 2019/20 deficit could increase from its current expected level of $19.6 billion to anywhere between $28.2 billion and $34.4 billion depending on the severity of the next recession. In addition, the five-

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Figure 4: Federal Deficits ($ billions), Severe Recession, 2018/19 – 2023/24

Sources: Canada, Department of Finance (2018b); Scholz and Shaw (2018); calculations by authors.
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The year accumulated deficit from 2019/20 to 2023/24 could increase from its current budgeted level of $76.8 billion to between $114.6 billion and $142.3 billion (figure 5b). In other words, the five-year cumulative deficit could grow by anywhere between $37.8 billion and $65.5 billion (an increase of between 49.2 percent and 85.3 percent) if a recession were to occur in 2019/20.

This bulletin examined the effects of mild, moderate, and severe recession scenarios on the federal deficit, while excluding any potential discretionary spending the federal government might implement. In other words, the assumptions in this paper offer conservative estimates for what the deficit might look like should a recession occur. The deficit would likely be much larger than these estimates once the federal government enacts policy changes to stimulate the economy. Regardless of the severity of the recession, the risks posed to federal finances are considerable and the federal government needs to alter Canada’s current trajectory by emphasizing deficit reduction in future budgets.

References


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