September 29, 2020

ECONOMIC AND FISCAL OUTLOOK – SEPTEMBER 2020

OFFICE OF THE PARLIAMENTARY BUDGET OFFICER
BUREAU DU DIRECTEUR PARLEMENTAIRE DU BUDGET

The Parliamentary Budget Officer (PBO) supports Parliament by providing economic and financial analysis for the purposes of raising the quality of parliamentary debate and promoting greater budget transparency and accountability.

This report provides a baseline projection to help parliamentarians gauge potential economic and fiscal outcomes under current policy settings. **PBO's outlook is not a prediction of future economic and budgetary outcomes**.

This report incorporates announced federal budgetary measures up to and including 1 September 2020. Financial results for fiscal year 2019-20 shown in this report are PBO estimates and not final Public Accounts results.

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Summary

Despite the uncertainty surrounding the course of the COVID-19 pandemic, this report provides a baseline projection to help parliamentarians gauge potential economic and fiscal outcomes under current policy settings.

PBO's outlook is not a prediction of future economic and budgetary outcomes.

Our baseline projection also serves as a benchmark for costing policy proposals, as well as for assessing the impacts of alternative policy settings.

Key assumptions

- We assume that the course of the pandemic will follow a slow-burn scenario and that public health measures will be maintained over the next 12 to 18 months, as a vaccine or effective treatment is developed and then made widely available.
- COVID-19 response measures put in place by the federal and provincial governments are assumed to be withdrawn as currently scheduled. Once these measures are withdrawn, we assume that fiscal policy reverts to its pre-crisis setting—new programs or extensions are not introduced.
- We assume that monetary policy will remain highly accommodative through the medium term, with the Bank of Canada maintaining its interest rate target at the effective lower bound of 0.25 per cent through 2023 and continuing its program of quantitative easing.

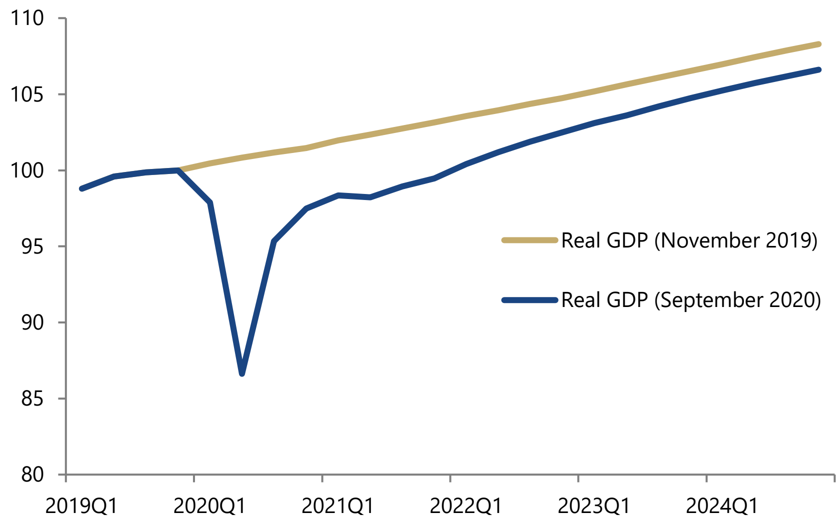
Economic outlook

Following consecutive declines in the first half of 2020, real GDP in the second quarter stood 13.4 per cent below its pre-crisis level. The sharp contraction in the Canadian economy was due to the imposition of public health restrictions, as well as the record collapse in oil prices, resulting in adverse shocks to both supply and demand.

In May, provinces and territories started to reopen selected sectors of their economies and relax public health restrictions, resulting in record monthly gains in economic activity and employment. As of the third quarter, we estimate that the rebound in real GDP will have recouped about two-thirds of the decline in economic activity.

Real GDP baseline projection

Index, 2019Q4 = 100



Sources: Statistics Canada and Parliamentary Budget Officer.

Note: Real GDP from the November 2019 projection has been adjusted for historical data in 2019. The projection period covers 2020Q3 to 2024Q4.

We project that growth in real GDP will slow considerably from its recent pace. As the labour market recovers and household and business confidence improve, the economy will recuperate more of the initial loss in output. We project that the level of real GDP will reach its pre-crisis level by early-2022.

However, we expect that the COVID-19 pandemic and oil price shocks will have a permanent impact on the Canadian economy. Compared to our November 2019 outlook, real GDP is projected to be 3.6 per cent lower in the fourth quarter of 2021 and 1.6 per cent lower by the end of 2024.

Fiscal outlook

For the current fiscal year, 2020-21, we project a budgetary deficit of $328.5 billion. This reflects measures announced as of September 1, including an estimated $225.9 billion in COVID-19 response measures. Relative to the size of the economy, the deficit amounts to 15.0 per cent of GDP—the largest budgetary deficit since the beginning of the series in 1966-67.

Based on current policy, the record increase in spending in 2020-21 should be temporary. We project the budgetary deficit to decrease to $73.8 billion (3.2 per cent of GDP) in 2021-22 and continue to decline thereafter.

Nevertheless, beyond 2020-21, we are projecting budgetary deficits that are roughly $40 billion larger each year, on average, compared to our November 2019 outlook.

Summary of the fiscal outlook

$ billions	2019-2020	Projection 2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026
Budgetary revenues	339.2	288.3	340.2	352.6	368.3	384.6	402.7
Program expenses	352.0	594.9	393.0	387.5	395.1	401.5	411.6
Public debt charges	23.8	22.0	21.0	20.4	21.3	23.2	25.9
Total expenses	375.7	616.9	414.0	407.9	416.4	424.7	437.6
Budgetary balance	-36.5	-328.5	-73.8	-55.3	-48.0	-40.1	-34.8
Federal debt	721.2	1,049.8	1,123.5	1,178.8	1,226.9	1,267.0	1,301.8
% of GDP							
Budgetary balance	-1.6	-15.0	-3.2	-2.3	-1.9	-1.5	-1.3
Federal debt	31.3	47.9	48.1	48.3	48.2	47.8	47.3

Sources: Statistics Canada and Parliamentary Budget Officer.

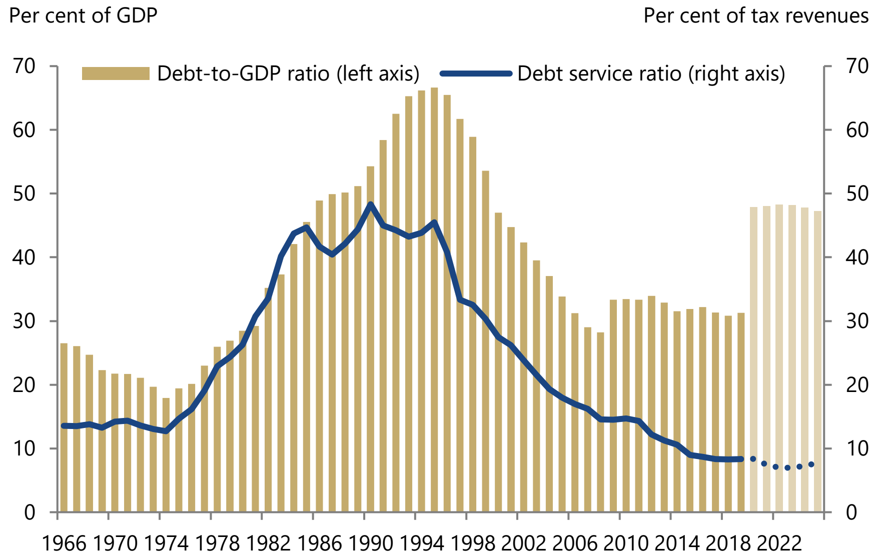
Note: Totals may not add due to rounding.

Larger budgetary deficits and sharply lower nominal GDP levels raise the trajectory of the federal debt-to-GDP ratio. Based on current policy, we project the federal debt ratio to peak at 48.3 per cent of GDP in 2022-23. This is 18.3 percentage points higher compared to our November 2019 outlook.

Fiscal sustainability

Despite the record deficit in 2020-21 and persistent budgetary deficits thereafter, and absent new policy measures, we project the Government's debt-to-GDP ratio to rise initially but then gradually decline over the medium term. This is primarily due to the expiry of COVID-19 response measures and a return to pre-crisis fiscal policy settings. The Government's debt-servicing capacity is projected to remain close to historical lows over the medium term.

Federal debt and debt service ratios



Sources: Finance Canada and Parliamentary Budget Officer.

Note: Data are in fiscal years (2020 corresponds to fiscal year 2020-21). The debt service ratio is calculated as public debt charges divided by tax revenues. The projection period covers 2020-21 to 2025-26.

Conditional on the expiry of temporary COVID-19 response measures and returning to pre-crisis fiscal policy settings, as well as our economic outlook, federal fiscal policy over the medium term would be sustainable.

In the coming weeks, PBO will be providing an update of its 2020 Fiscal Sustainability Report (published in February) based on the economic and fiscal outlook presented in this report. The forthcoming report will provide PBO's assessment of the long-term sustainability of current fiscal policy for federal and provincial-territorial governments.

Risks to the outlook

PBO judges that the balance of risks to its economic and fiscal outlook is tilted to the downside. While upside risks exist, such as a more rapid development and availability of a vaccine or treatment, and/or the economy recuperates faster than projected, the downside risks to our outlook dominate.

COVID-19 pandemic:

- Given the recent uptick in new cases both within Canada and globally, it is possible that a severe second wave of infections could result in another round of stringent containment measures and lockdowns.
    - In addition, there could be delays in the development and availability of a vaccine or treatment, slowing the pace of relaxing current public health restrictions.

Extending temporary fiscal measures:

- Should parliamentarians support extending temporary measures, or introduce new response measures, program spending could rise significantly above PBO's baseline projection.

New government programs:

- PBO's outlook does not reflect any of the commitments made in the recent Speech from the Throne. Should these commitments translate into new programs that are deficit financed, there is a risk that the sustainable debt-to-GDP trajectory over the medium term is reversed.

Interest rates on government borrowing:

- A deterioration in financial conditions, either domestically or externally induced, could result in higher risk premia on government debt, pushing up debt-servicing costs and federal debt.
    - Household and business sectors would also face higher borrowing rates, resulting in weaker demand and more defaults/bankruptcies—particularly given current elevated levels of household and corporate indebtedness.

1. Key assumptions

On March 11, the World Health Organization (WHO) declared that COVID-19 was a pandemic. Although more than six months have passed since the WHO declaration, the economic and fiscal outlook continues to be highly uncertain.

Despite the uncertainty surrounding the course of the COVID-19 pandemic, this report provides a baseline projection to help parliamentarians gauge potential economic and fiscal outcomes under current policy settings. **PBO's outlook is not a prediction of future economic and budgetary outcomes**. Our baseline projection also serves as a benchmark for costing policy proposals, as well as for assessing the impacts of alternative policy settings.

The future path of the Canadian economy and government finances will, for the most part, be determined by the course of COVID-19 and the policy responses by governments both within Canada and in other countries.

Consistent with the Public Health Agency of Canada's "Slow Burn" scenario, our baseline projection assumes that there will not be a severe second wave of infections.[1] We assume that public health measures will be maintained over the next 12 to 18 months as a vaccine or effective treatment is developed and then made widely available. Such an epidemiological scenario is admittedly among the best-case outcomes.

Consequently, we assume that COVID-19 response measures put in place by the federal and provincial governments will be withdrawn as currently scheduled. In addition, we do not incorporate future fiscal measures. That is, once temporary response measures are withdrawn, fiscal policy reverts to its pre-crisis setting—new programs or extensions are not introduced.

We also assume that monetary policy will remain highly accommodative through the medium term, with the Bank of Canada maintaining its interest rate target at the effective lower bound of 0.25 per cent through 2023 and continuing its program of quantitative easing. Monetary policy normalization is assumed to occur gradually, with the Bank of Canada increasing its policy rate beginning in 2024, bringing it closer to—but remaining well below—its neutral rate over the remainder of the projection horizon.

Our projection reflects the scarring effects of the COVID-19 pandemic on the economy's productive capacity over the medium term, primarily through lower investment and trend (total factor) productivity. While growth in the working-age population is projected to remain below pre-crisis rates, we assume that trend employment and labour force participation rates will not be negatively affected, or scarred, in the aftermath of the pandemic.

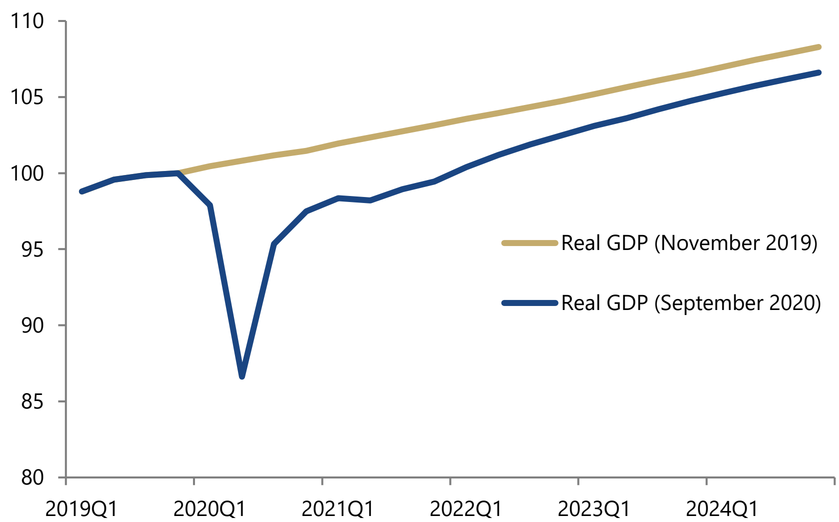
2. Economic outlook

Following consecutive declines in the first half of 2020, real GDP in the second quarter stood 13.4 per cent below its pre-crisis level (Figure 2-1).[2] The sharp contraction in the Canadian economy was due to the imposition of public health restrictions, as well as the record collapse in oil prices, resulting in adverse shocks to both supply and demand.

In May, provinces and territories started to reopen selected sectors of their economies and relax public health restrictions, resulting in record monthly gains in economic activity and employment. As of the third quarter, we estimate that the rebound in real GDP (advancing by 10 per cent) will have recouped about two-thirds of the decline in economic activity.

Figure 2-1 Real GDP baseline projection

Index, 2019Q4 = 100



Sources: Statistics Canada and Parliamentary Budget Officer.

Note: Real GDP from the November 2019 projection has been adjusted for historical data in 2019. The projection period covers 2020Q3 to 2024Q4.

We project that growth in real GDP will slow considerably from its recent pace. As the labour market recovers and household and business confidence improve, the economy will recuperate more of the initial loss in output. We project that the level of real GDP will reach its pre-crisis (2019Q4) level in early-2022.

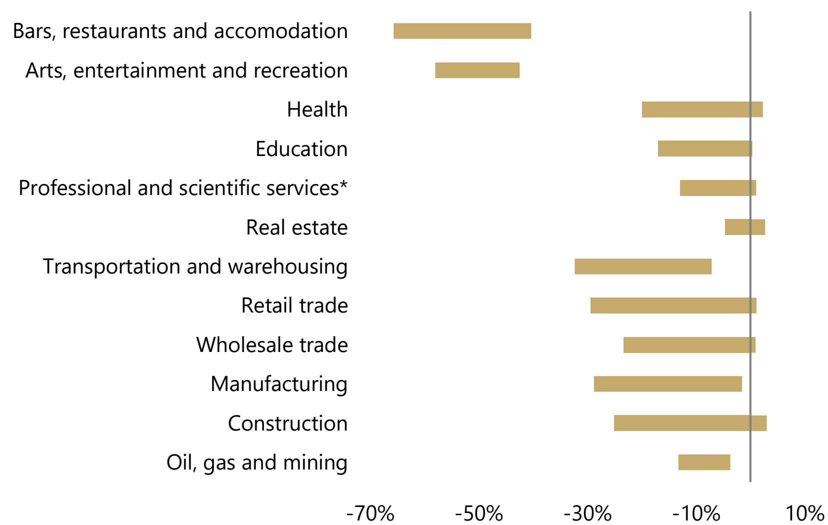
However, we expect that the COVID-19 pandemic and oil price shocks will have a permanent impact on the Canadian economy. Compared to our November 2019 outlook, real GDP is projected to be 3.6 per cent lower in the fourth quarter of 2021 and 1.6 per cent lower by the end of 2024.[3]

The permanently lower level of real GDP in the medium term reflects reduced productive capacity, or potential GDP. That is, the supply side of the economy. The reduction in productive capacity occurs primarily through both lower investment and trend (total factor) productivity.

2.1. GDP by industry

Restrictions on economic and social activities in March and April caused a widespread contraction in most industries, except for those providing essential goods and services. By June, many industries, such as construction and retail, were experiencing a "V-shaped" recovery. Under our baseline projection, these industries return to their pre-pandemic production levels by the end of 2021 (Figure 2-2).

Figure 2-2 **GDP by industry, selected industries**



Sources: Statistics Canada and Parliamentary Budget Officer.

Note: For each bar, the left edge represents the percentage difference in industry GDP in April and February 2020. The right edge represents the percentage difference in projected industry GDP in December 2021 and February 2020.
* Includes technical services.

In contrast, industries such as accommodation and food services, performing arts and transportation are projected to remain well below their pre-pandemic levels and experience an "L-shaped" recovery.[4] Indeed, by the end of 2021, we project that the GDP of these industries will be 18 per cent below its pre-pandemic level.

2.2. Composition of economic growth

Following the imposition of public health restrictions, combined with sharp declines in crude oil and other commodity prices, real GDP fell by 11.5 per cent in the second quarter of 2020, the largest decline recorded since the beginning of the series in 1961. Household consumption, business investment and international trade all experienced record declines.

Given the easing in public health restrictions and re-opening of business and workplaces across provinces and territories, high-frequency data suggest that real GDP will rebound by 10 per cent in the third quarter. We then project growth to slow as uncertainty and labour market slack weigh on demand.

Following a decline of 5.2 per cent in 2020, we project real GDP to grow by 4.7 per cent in 2021 and 2.8 per cent in 2022 (Table 2-1).[5] Under our baseline projection, household consumption and exports will provide a more immediate lift to GDP but ongoing pandemic-related uncertainty will result in a slower recovery for business investment.

Moreover, as pandemic-related direct spending by federal and provincial-territorial governments is effectively removed in 2021, this reduces the government sector's (direct) contribution to real GDP growth in 2021 and 2022.

Table 2-1 Contributions to real GDP growth

Percentage points		Projection			
	2019	2020	2021	2022	2023-2025
Consumption	1.0	-4.1	3.6	1.4	1.1
Housing	0.0	-0.6	0.0	0.1	0.1
Business investment	0.0	-1.4	0.5	0.5	0.8
Government	0.4	1.1	0.2	-0.5	-0.1
Exports	0.4	-3.4	3.1	1.7	0.8
Imports	-0.2	4.7	-3.6	-1.0	-0.8
Inventory investment	0.1	-1.7	0.7	0.6	0.1
Real GDP growth	1.7	-5.2	4.7	2.8	2.1
Additional indicators, %					
Potential GDP growth	1.8	1.4	0.8	1.0	1.6
Output gap	-0.2	-6.7	-3.2	-1.5	-0.2

Sources: Statistics Canada and Parliamentary Budget Officer.

Note: Totals may not add due to rounding.

We project that the economy will remain below its level of potential GDP until 2024. Growth in potential GDP is projected to slow to 0.8 per cent in 2021 primarily due to the collapse in business investment. Over the medium term, as business investment recovers, growth in potential GDP is projected to rise gradually to 1.8 per cent in 2025, returning to its pre-crisis growth rate. Appendix A presents our detailed economic outlook.

2.3. Nominal GDP

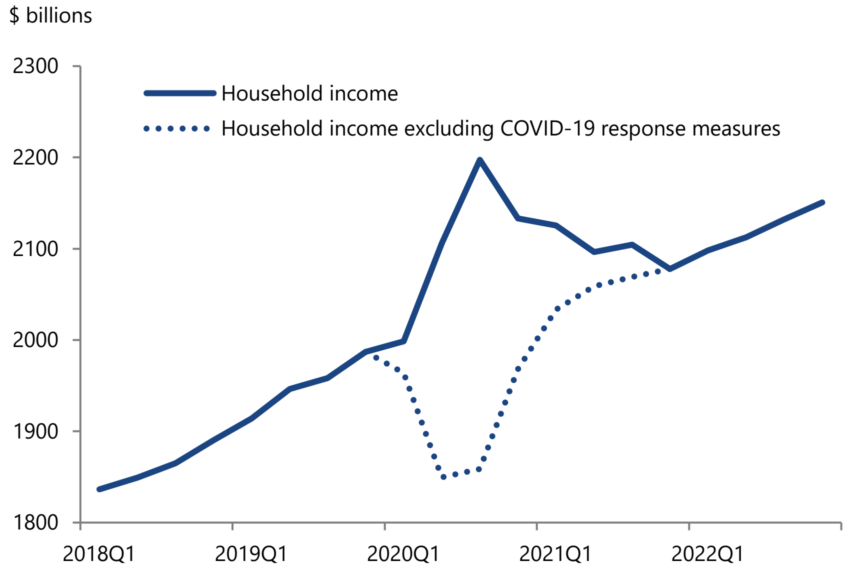
Nominal GDP is the broadest measure of the Government's tax base. In the second quarter of 2020, nominal GDP fell by 12.5 per cent ($286 billion)—the sharpest decline since the series started in 1961 and almost 3 times larger than the decline in 2008Q4 during the global financial crisis. The collapse in oil prices in the second quarter contributed to a decline in the economy-wide (GDP) price index of 1.2 per cent, compounding the sharp drop in real GDP.

Given the rebound in real GDP growth and GDP inflation, we project nominal GDP to rise by 6.5 per cent in 2021, following a contraction 4.8 per cent in 2020. Growth in nominal GDP is projected to average 4.1 per cent annually over the medium term (2023 to 2025), with real GDP growth and GDP inflation contributing in roughly equal measure.

Compared to our November 2019 outlook, and adjusting for historical data in 2019, the level of nominal GDP in 2020 under our baseline projection is $189 billion (7.9 per cent) lower.[6] Over 2021 to 2025, the level of nominal GDP is $109 billion (4.1 per cent) lower per year, on average. This downward revision reflects the permanent impacts of the COVID-19 pandemic and oil price shocks. Appendix B presents our projections of the expenditure and income composition of nominal GDP.

Despite the steep 12.5-percentage point decline in nominal GDP in the second quarter, (gross) household income *increased* by 5.4 per cent (Figure 2-3). Household market income (that is, income excluding transfers) fell by 7.1 per cent in the second quarter. The drop in market income, however, was more than offset by an 88 per cent increase in transfers to households from governments. These transfers of course included the various income support measures by the federal and provincial-territorial governments.

Figure 2-3 **Household income**



Sources: Statistics Canada and Parliamentary Budget Officer.

Note: Household income (on a gross basis) includes compensation of employees, net mixed income, property income received and transfers received. The projection period covers 2020Q3 to 2022Q4.

In the absence of these income support measures, we estimate that household income would have fallen by (at least) 5.8 per cent in the second quarter of 2020. Following the removal of all the income support measures by the end of 2021, growth in household income then averages 0.9 per cent on a quarterly basis.

2.4. Labour market

The labour market has regained some ground since the onset of the COVID-19 pandemic and oil price shocks but remains far from normal conditions. During March and April, 5.5 million workers were laid off, furloughed or working fewer hours than usual.[7] From February to April total hours worked—the broadest measure of labour's input to the economy—fell by 28 per cent, while employment as a share of the working-age population (the employment rate) dropped from 61.8 per cent to 52.1 per cent, the lowest level since the series started in 1976.

As of mid-August, roughly 3.7 million workers have been rehired or returned to usual working hours as provinces and territories gradually reopened their economies and relaxed public health restrictions. The employment rate has recovered to 58.0 per cent in August but remains 3.8 percentage below its February level.

We project employment gains to slow significantly over the coming quarters reflecting more subdued economic growth during this stage of the pandemic. The unemployment rate is projected to fall gradually from its high of 13.0 per cent in the second quarter, reaching its pre-crisis level of 5.7 per cent in mid-2023. Table 2-2 provides a summary of key labour market indicators in the baseline projection.

Table 2-2 Key labour market indicators

		Projection			
	2019	2020	2021	2022	2023-2025
Participation rate (% of population)	65.7	63.9	64.7	64.6	64.1
Employment rate (% of population)	62.0	57.7	59.4	60.4	60.6
Unemployment rate (% of labour force)	5.7	9.7	8.1	6.5	5.5
Average weekly hours worked	33.5	31.9	33.2	33.4	33.4
Population 15 years of age and older (thousands)	30,739	31,151	31,482	31,842	32,583
Labour force (thousands)	20,195	19,909	20,369	20,572	20,891
Employment (thousands)	19,050	17,981	18,712	19,243	19,737
Unemployed (thousands)	1,144	1,928	1,657	1,328	1,154
Hours worked, all jobs (millions)	32,226	29,859	32,272	33,399	34,247

Sources: Statistics Canada and Parliamentary Budget Officer.

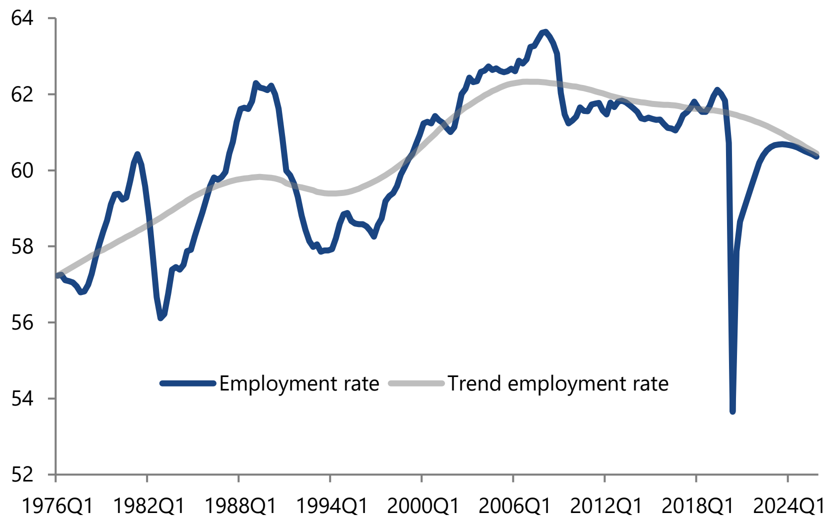
Note: Totals may not add due to rounding.

Over the medium term, we project that the employment rate and total hours worked will gradually return to their (pre-pandemic) trends (Figure 2-4). This is based on our assumption that labour market trends (that is, employment and labour force participation rates, as well as average hours worked) will not be scarred in the aftermath of the pandemic.

Figure 2-4

Employment rate

Per cent of the working-age population



Sources: Statistics Canada and Parliamentary Budget Officer.

Note: The projection period covers 2020Q3 to 2024Q4.

2.5. External outlook

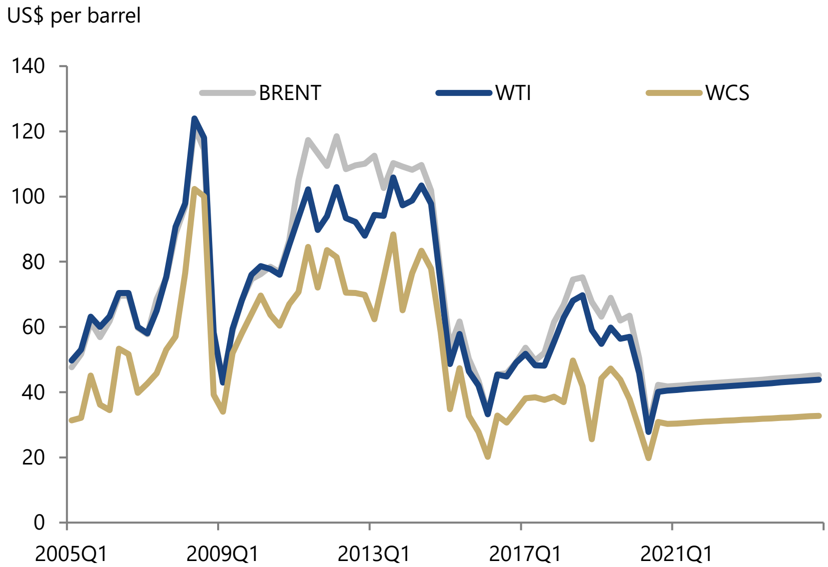
In its June *World Economic Outlook*, the International Monetary Fund (IMF) downgraded its projection of global growth in 2020 to -4.9 per cent from -3.0 per cent in April, citing increasing economic fallout from the global pandemic. The IMF projects global growth of 5.4 per cent in 2021 driven by a rebound in personal consumption expenditures.

In the United States, real GDP fell by 9.1 per cent in the second quarter of 2020—the largest quarterly contraction on record. As its economy reopens, we project U.S. real GDP to rebound, growing by 3.9 per cent in 2021 and 3.4 per cent in 2022.

Global oil prices fell significantly in the first half of 2020 due to a sharp drop in demand from the pandemic and ongoing oversupply issues. The price of West Texas Intermediate (WTI) fell from US$60 per barrel in December 2019 to US$17 in April but has since recovered to US$41 (as of September 18). Western Canada Select (WCS) dropped to US$7 per barrel in April and has recovered to US$31 per barrel.[8]

Based on recent futures prices, we project WTI (WCS) oil prices to reach US$44 (US$33) per barrel by the end of 2024. Over 2021 to 2024, our projection for WTI (WCS) prices is US$15 (US$8) lower, on average, compared to our November 2019 outlook (Figure 2-5).

Figure 2-5 Oil price projection



Sources: Kent Group Limited, CME Group and Parliamentary Budget Officer.

Note: WCS refers to Western Canadian Select; WTI refers to West Texas Intermediate. The projection period covers 2020Q3 to 2024Q4.

2.6. Monetary policy

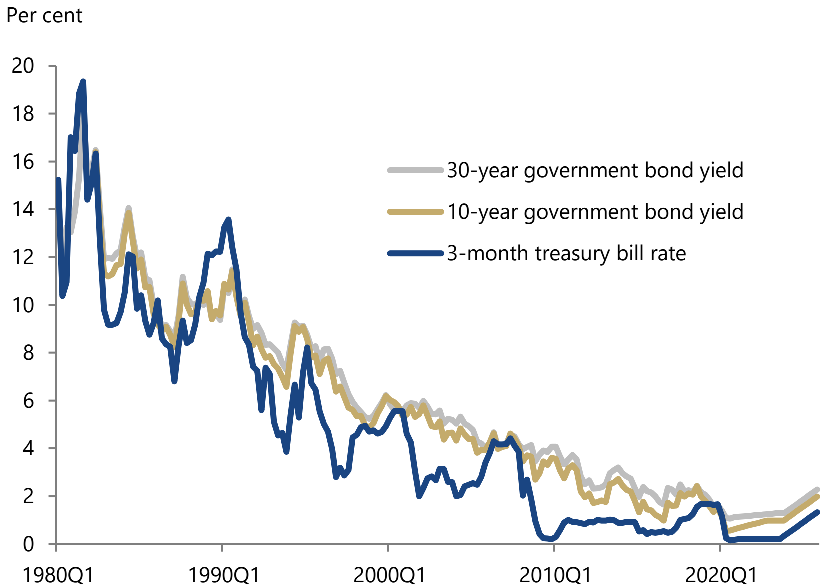
Central banks responded to the COVID-19 pandemic by cutting interest rates, providing liquidity to financial markets and purchasing government debt. G7 central banks have reached their respective effective lower bounds and their balance sheets have increased significantly.[9]

In its September 9 statement, the Bank of Canada indicated that it will maintain its policy rate at the effective lower bound (0.25 per cent), "until economic slack is absorbed so that the 2 percent inflation target is sustainably achieved."[10] Based on our outlook, we expect the Bank of Canada to hold its policy rate at 0.25 per cent for the next 3 years.[11]

As excess supply is absorbed and inflation reaches 2 per cent in 2024, we expect the Bank of Canada to gradually raise its policy rate, bringing it closer to—but remaining well below—its neutral rate of 2.25 per cent.[12] Monetary policy normalization is assumed to occur gradually. Beginning in 2024, we assume that the Bank of Canada will raise its policy rate in 25-basis point increments until it reaches 1.25 per cent at the end of 2025.

The Bank of Canada's policy rate effectively determines the interest rate on short-term government borrowing, resulting in historically "low-for-long" rates at short maturities (Figure 2-6).

Figure 2-6 Interest rate outlook



Sources: Statistics Canada and Parliamentary Budget Officer.

Note: The projection period covers 2020Q3 to 2025Q4.

However, yields on longer-term government debt are projected to gradually increase from current levels as inflation picks up and financial market expectations of future policy rate increases take hold. That said, the yield on 10-year Government of Canada bond rates is projected to remain well below its historical average.

3. Fiscal outlook

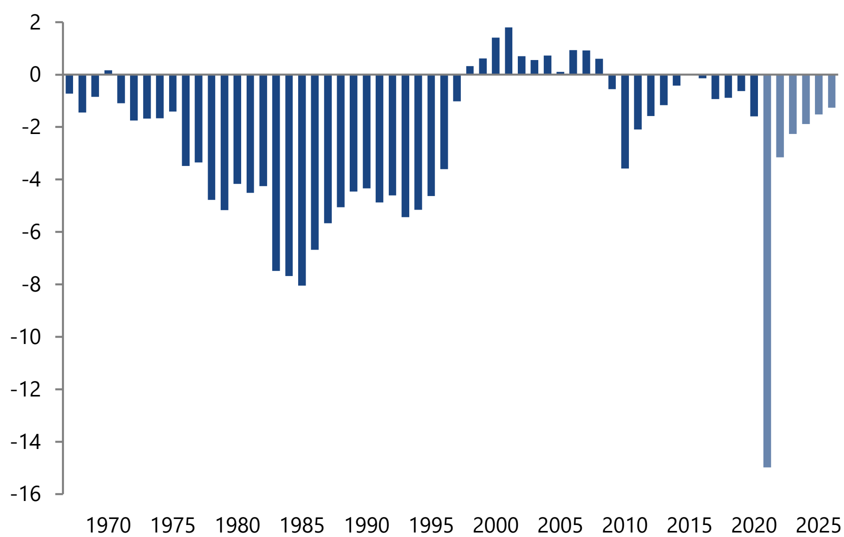
For the current fiscal year, 2020-21, we project a budgetary deficit of $328.5 billion. This reflects an estimated $225.9 billion in COVID-19 response measures announced as of September 1. Relative to the size of the economy, the deficit amounts to 15.0 per cent of GDP—the largest budgetary deficit since the beginning of the series in 1966-67 (Figure 3-1).

Based on current policy, the record increase in spending in 2020-21 should be temporary and we project the budgetary deficit to decrease to $73.8 billion (3.2 per cent of GDP) in 2021-22 and continue to decline thereafter. This outlook does not account for initiatives announced in the recent Speech from the Throne.

Nevertheless, beyond 2020-21, we are projecting budgetary deficits that are roughly $40 billion larger each year, on average, (over 2021-22 to 2024-25) compared to our November 2019 outlook.

Figure 3-1 **The Government's budgetary balance**

Per cent of GDP



Sources: Finance Canada and Parliamentary Budget Officer.

Note: Data are in fiscal years (2020 corresponds to fiscal year 2020-21). The projection period covers 2020-21 to 2025-26.

3.1. Developments since November 2019 outlook

There are two principal reasons our outlook for the budgetary balance has deteriorated since our last medium-term projection: fiscal measures (COVID-19 response measures, as well as other measures) and a weaker economic outlook.

PBO estimates that COVID-19 response measures amount to $225.9 billion in 2020-21 (see Appendix C for itemized costs).

Other fiscal policy measures add $7.9 billion annually, on average, to budgetary deficits over 2021-22 to 2024-25 (Table 3-1). This includes measures accounted for in the Government's Economic and Fiscal Update 2019 ($5.0 billion) and Economic and Fiscal Snapshot 2020 ($3.0 billion).

The weaker outlook for the Canadian economy, along with changes in other fiscal assumptions, account for $67.8 billion of the increase in the deficit in 2020-21 relative to our November outlook.[13] The impact of these revisions is smaller over the medium term, as the budgetary implications of a weaker tax base are muted by lower interest rates on public debt charges.

Table 3-1 Economic and fiscal developments

$ billions	2019-2020	Projection 2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
Budgetary balance – November 2019	**-21.1**	**-23.3**	**-19.0**	**-14.6**	**-12.5**	**-11.1**
COVID-19 measures	-11.8	-225.9	-9.6	0.2	-0.1	-0.0
Additional fiscal measures	-2.9	-11.5	-7.0	-7.7	-8.5	-8.5
Other economic and fiscal developments	-0.8	-67.8	-38.0	-33.2	-27.0	-20.4
Budgetary balance – September 2020	**-36.5**	**-328.5**	**-73.8**	**-55.3**	**-48.0**	**-40.1**

Source: Parliamentary Budget Officer.

Note: Additional fiscal measures include policy measures from the Economic and Fiscal Update 2019 and the Economic and Fiscal Snapshot 2020. Totals may not add due to rounding.

Our fiscal outlook accounts for measures announced up to and including September 1. Many COVID-19 response measures, such as the Canada Emergency Response Benefit (CERB) and Canada Emergency Wage Subsidy (CEWS) are set to expire in 2020-21. Other measures (the Canada Recovery Benefit (CRB) and modifications to EI eligibility) end in September 2021.[14]

In its July Economic and Fiscal Snapshot 2020, the Government projected a budgetary deficit of $343.2 billion for fiscal year 2020-21. Since July, the Government has announced $28.2 billion in additional measures.[15] All else equal, this would suggest a significant discrepancy between our projected deficit of $328.5 billion and an update of the Government's estimate.

While our current economic outlook likely accounts for a portion of this discrepancy, most of the difference likely stems from a lower sensitivity of tax revenues to the economic downturn and a lower estimate of the overall costs of COVID-19 response measures.

We will provide a detailed comparison and reconciliation of our fiscal projection and the Government's following publication of its fiscal outlook.

3.2. Summary of the fiscal outlook

For the current fiscal year, 2020-21, we project a budgetary deficit of $328.5 billion (15.0 per cent of GDP). The budgetary deficit combined with sharply lower nominal GDP boost the federal debt-to-GDP ratio to 47.9 per cent in 2020-21 (Table 3-2).[16] Appendices D and E present our detailed fiscal outlook.

Based on current policy, we project the Government's debt-to-GDP ratio to rise initially but then gradually decline over the medium term. This reflects growing tax revenues with the rebound in economic activity and program spending growing slower than nominal GDP, once the temporary COVID-19 response measures expire.

Table 3-2 Summary of the fiscal outlook

$ billions	2019-2020	Projection 2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026
Budgetary revenues	339.2	288.3	340.2	352.6	368.3	384.6	402.7
Program expenses	352.0	594.9	393.0	387.5	395.1	401.5	411.6
Public debt charges	23.8	22.0	21.0	20.4	21.3	23.2	25.9
Total expenses	375.7	616.9	414.0	407.9	416.4	424.7	437.6
Budgetary balance	-36.5	-328.5	-73.8	-55.3	-48.0	-40.1	-34.8
Federal debt	721.2	1,049.8	1,123.5	1,178.8	1,226.9	1,267.0	1,301.8
% of GDP							
Budgetary balance	-1.6	-15.0	-3.2	-2.3	-1.9	-1.5	-1.3
Federal debt	31.3	47.9	48.1	48.3	48.2	47.8	47.3

Sources: Statistics Canada and Parliamentary Budget Officer.

Note: Totals may not add due to rounding.

The budget balance in 2020-21 and 2021-22 is impacted by extraordinary cyclical and transitory factors—a record decline in economic activity and large-scale income support measures.

By the end of our projection horizon when the economy is operating at its potential and cyclical/transitory factors have dissipated, the budgetary balance at this point is "structural" in nature. However, structural does not necessarily mean permanent. Extending the projection horizon and maintaining current policy could result in further changes—in either direction—to the structural budgetary balance.

In 2025-26, when the economy is operating at its potential, and absent cyclical/transitory factors, we project the budgetary deficit will reach 1.3 per cent of GDP, which would be equivalent to our estimate of the structural budgetary balance in that year.

3.3. Revenue outlook

Under our baseline projection, nominal GDP contracts by 4.8 per cent in 2020, resulting in a smaller federal tax base for 2020-21. We project that revenues will be $288.3 billion in 2020-21, which represents a $51 billion (15 per cent) year-over-year decrease from 2019-20 (Table 3-3).

Table 3-3 Revenue outlook

$ billions	2019-2020	Projection 2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026
Income taxes							
Personal income tax	171.1	165.0	176.9	180.2	186.3	194.3	203.0
Corporate income tax	48.9	44.0	41.0	44.5	49.0	53.3	58.1
Non-resident income tax	9.3	8.5	8.3	8.6	8.9	9.3	9.7
Total income tax	229.4	217.6	226.3	233.3	244.2	256.9	270.8
Excise taxes/duties							
Goods and Services Tax	38.3	31.2	39.6	41.1	42.7	44.2	45.9
Custom import duties	5.0	3.4	4.7	4.9	5.1	5.4	5.6
Other excise taxes/duties	11.9	11.0	12.2	12.7	13.0	13.2	13.4
Total excise taxes/duties	55.2	45.5	56.5	58.7	60.8	62.8	64.8
Fuel charge proceeds	2.5	4.4	6.1	7.6	7.6	7.6	7.6
EI premium revenues	22.7	22.4	22.9	23.7	24.7	26.0	26.9
Other revenues							
Enterprise Crown corporations	6.9	-19.5	8.0	8.4	9.7	9.0	8.9
Other programs	20.7	16.6	19.1	19.5	20.0	20.8	21.7
Net foreign exchange	1.8	1.2	1.2	1.3	1.3	1.6	1.9
Total other revenues	29.4	-1.6	28.3	29.1	31.1	31.4	32.6
Total budgetary revenues	339.2	288.3	340.2	352.6	368.3	384.6	402.7

Source: Parliamentary Budget Officer.

Note: Totals may not add due to rounding.

Some tax types will be more adversely affected by the economic downturn than others. Taxable federal income supports such as the CERB, CEWS and Canada Emergency Student Benefit (CESB) more than offset lost employment income (see Figure 2-3 above), resulting in a relatively modest decrease in personal income tax revenue in 2020-21. Conversely, we project that excise tax revenues will be down by $9.7 billion (18 per cent) in 2020-21 owing, in part, to a sharp contraction in consumption in 2020.[17]

We project that revenue from enterprise Crown corporations also takes a temporary hit in 2020-21 because of expensing premiums paid on Bank of Canada purchases of Government of Canada securities (estimated as a $19.6 billion one-time expense).[18]

Moving into the medium term, we project revenues to recover to $340.2 billion in 2021-22, when excise tax revenue rebounds with economic activity and other revenues return to near-normal levels.[19] Overall, the revenue outlook is $24.8 billion lower per year, on average, over 2021-22 to 2024-25 compared to our November 2019 projection.

3.4. Program expense outlook

Owing to extraordinarily large COVID-19 response measures, program expenses are projected to reach $594.9 billion in 2020-21, which amounts to a 69 per cent increase from 2019-20 (Table 3-4).[20]

Table 3-4 Program expense outlook

$ billions	2019-2020	Projection 2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026
Major transfers to persons							
Elderly benefits	56.1	59.9	63.4	66.9	70.7	74.6	78.8
Employment Insurance	20.3	35.2	33.6	25.6	24.6	25.4	26.1
Emergency and recovery benefits	11.1	81.7	4.7	0.0	0.0	0.0	0.0
Children's benefits	24.3	26.7	26.0	26.6	27.2	27.6	28.1
Total	111.8	203.5	127.6	119.1	122.5	127.7	133.0
Major transfers to other levels of government	78.8	96.4	81.2	82.9	85.1	88.8	92.1
Direct program expenses							
Fuel charge rebates	3.4	4.8	6.5	7.6	7.6	7.6	7.6
Canada Emergency Wage Subsidy	0.0	65.9	0.0	0.0	0.0	0.0	0.0
Other transfer payments	52.5	99.0	60.1	60.7	62.1	63.3	64.6
Operating and capital expenses	94.8	110.2	100.1	100.9	102.3	104.1	107.1
Losses from employee future benefit plans	10.7	15.0	17.5	16.3	15.5	10.0	7.3
Total direct program expenses	161.4	294.9	184.1	185.4	187.6	185.0	186.5
Total program expenses	352.0	594.9	393.0	387.5	395.1	401.5	411.6

Source: Parliamentary Budget Officer.

Note: Emergency and recovery benefits include the sum of the CERB, Canada Recovery Benefits, Canada Recovery Sickness Benefits and the Canada Recovery Caregiving Benefit. Totals may not add due to rounding.

The largest COVID-19 support measures, such as the Canada Emergency Response Benefit and Canada Emergency Wage Subsidy are legislated to expire in 2020-21. Other temporary measures (the Canada Recovery Benefit and modifications to Employment Insurance eligibility) are due to end in 2021-22.[21]

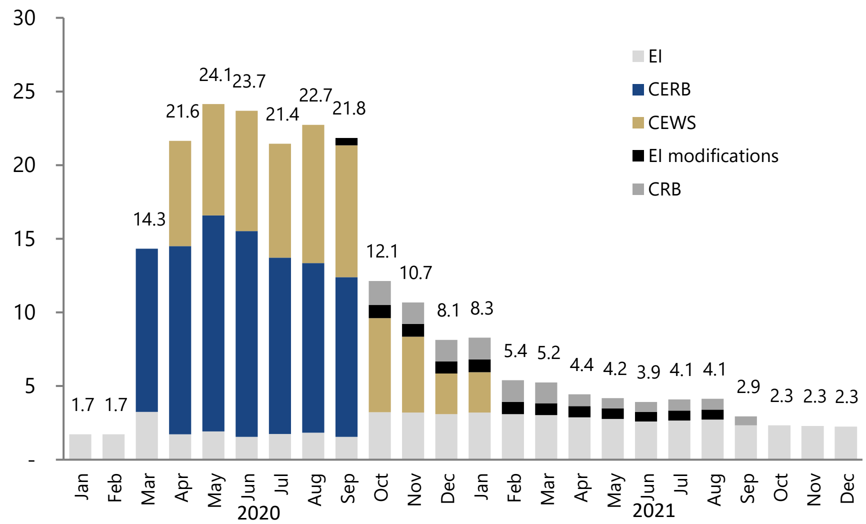
Consequently, we project a $202 billion contraction in program expenses in 2021-22, almost as dramatic as the increase in 2020-21.[22] Our outlook for program expenses in 2021-22 is $393.0 billion, 10 per cent higher compared to our November 2019 projection. Appendix F presents our detailed outlook for direct program expenses.

We project that payments under the largest federal income support programs will decline from $21.8 billion in September to $8.2 billion by December 2020, a 63 per cent decrease (Figure 3-2).

Figure 3-2

Monthly federal income support payments

$ billions



Sources: Finance Canada and Parliamentary Budget Officer.

Note: This figure depicts payments under Employment Insurance (EI), Canada Emergency Response Benefit (CERB), Canada Recovery Benefit (CRB) and Canada Emergency Wage Subsidy (CEWS). Other federal income support programs such as Old Age Security and the Guaranteed Income Supplement are not shown. Payments are presented on a gross basis.

3.5. Federal debt outlook

Based on current policy, we project the Government's debt-to-GDP ratio to rise initially but then gradually decline over the medium term (Table 3-5).

Compared to our November 2019 outlook, larger budgetary deficits and sharply lower nominal GDP levels raise the trajectory of the federal debt-to-GDP ratio. Under current policy, we project the federal debt ratio to peak at 48.3 per cent of GDP in 2022-23, which is 18.3 percentage points higher compared to November.

Table 3-5 Outlook for federal debt

$ billions	2019-2020	Projection 2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026
Accounts payable & accrued liabilities	148.4	157.3	158.2	165.7	173.2	182.6	192.6
*Market debt**	*759.5*	*1,129.3*	*1,201.9*	*1,254.6*	*1,300.2*	*1,332.1*	*1,335.1*
Pensions and other future benefits	*299.0*	*307.7*	*301.8*	*292.4*	*284.0*	*277.4*	*272.6*
Other liabilities	*15.8*	*15.8*	*15.8*	*15.8*	*15.8*	*15.8*	*15.8*
Total interest-bearing debt	1,074.4	1,452.8	1,519.4	1,562.8	1,600.1	1,625.3	1,623.5
Total liabilities	**1,222.7**	**1,610.0**	**1,677.6**	**1,728.5**	**1,773.3**	**1,807.9**	**1,816.1**
Financial assets	411.3	466.8	457.3	449.5	442.6	433.5	403.1
Non-financial assets	90.3	93.5	96.8	100.2	103.7	107.4	111.2
Total assets	**501.5**	**560.3**	**554.1**	**549.7**	**546.4**	**540.9**	**514.3**
Federal debt (liabilities less assets)	**721.2**	**1,049.8**	**1,123.5**	**1,178.8**	**1,226.9**	**1,267.0**	**1,301.8**
Federal debt (% of GDP)	31.3	47.9	48.1	48.3	48.2	47.8	47.3
Market debt: agent Crown corporations*	312.5	318.5	316.8	320.3	324.0	324.0	324.0
Borrowing requirements, as per the Borrowing Authority Act	1,072.0	1,447.8	1,518.6	1,574.9	1,624.2	1,656.2	1,659.1

Sources: Finance Canada, Statistics Canada and Parliamentary Budget Officer.

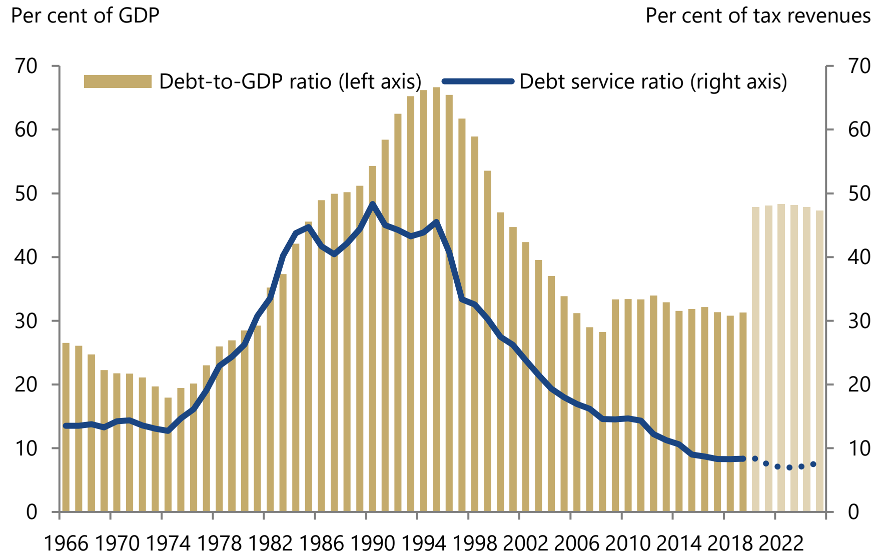
Note: * Borrowing requirements under the BAA pertain to the sum of Government of Canada and agent Crown corporation market debt. Totals may not add due to rounding.

The last time the federal debt-to-GDP ratio was above 48.3 per cent was in 1999-00 (Figure 3-3). This level, however, still remains well below the peak (since the beginning of the series in 1966-67) of 66.6 per cent of GDP reached in 1995-96.

Because of low interest rates, the cost to service the federal debt remains at historically low levels. Despite the record increase in federal debt, we project that the Government's debt service ratio will reach its lowest recorded level in 2023-24.

Figure 3-3

Federal debt and debt service ratios



Sources: Finance Canada and Parliamentary Budget Officer.

Note: Data are in fiscal years (2020 corresponds to fiscal year 2020-21). The debt service ratio is calculated as public debt charges divided by tax revenues. The projection period covers 2020-21 to 2025-26.

The *Borrowing Authority Act* (BAA) provides the Minister of Finance with the authority to borrow in debt markets and sets the maximum amount that may be borrowed. Parliament approved a limit of $1,168 billion in 2017, which PBO projects will be breached by $279.8 billion in 2020-21.

4. Fiscal sustainability

Based on PBO's analytical framework, fiscal sustainability means that government debt does not increase continuously as a share of the economy.[23]

Conditional on current policy settings, expiring temporary COVID-19 response measures and our economic outlook, federal fiscal policy over the medium term would be sustainable.[24] Despite the record deficit in 2020-21 and persistent budgetary deficits thereafter, the Government's debt-to-GDP ratio rises initially but then gradually declines over the medium term. Moreover, we project debt-servicing capacity to remain close to historical lows (see Figure 3-3 above).

PBO's long-term fiscal sustainability framework highlights the key drivers of debt-to-GDP dynamics—policy and structural factors.[25] The primary balance (that is, revenues less program spending) reflects the policy driver in debt dynamics. The interest-growth rate differential (that is, the government's effective borrowing rate less the growth rate of nominal GDP) is a more structural driver of debt dynamics.[26]

- *Policy factors*: Under our baseline, we project the primary balance to increase from -14.0 per cent of GDP in 2020-21 to -0.3 per cent of GDP in 2025-26, which is more than sufficient to stabilize the federal debt-to-GDP ratio.

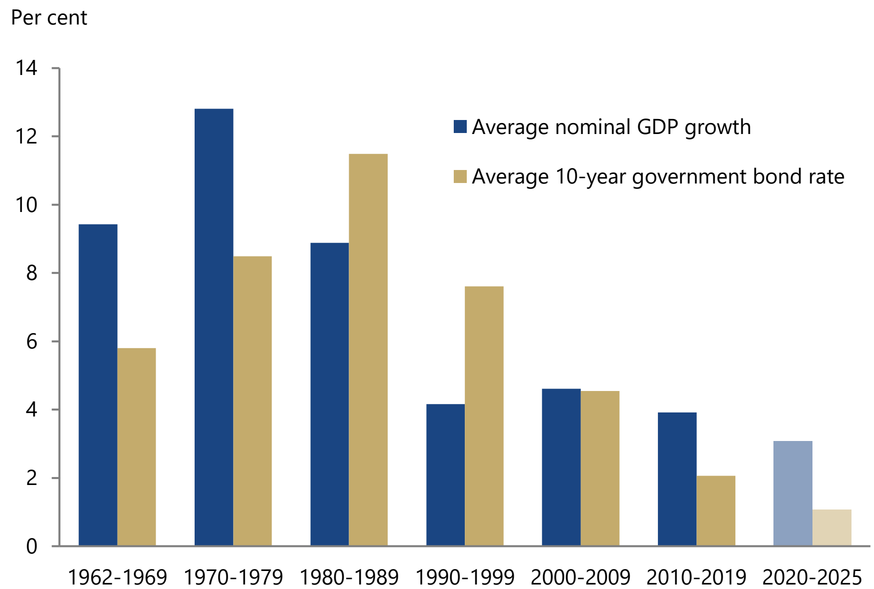
- *Structural factors*: When interest rates exceed the rate of GDP growth, interest charges on government debt outpace growth in the overall economy. This can lead to excessive debt accumulation unless government runs primary surpluses. However, we currently project a favourable interest-rate growth differential, that is, GDP growth exceeding the effective interest rate (Figure 4-1).

Consequently, higher debt levels generated by temporary COVID-19 response measures do not create a negative feedback loop on interest charges and will not lead to excessive accumulation of federal debt relative to the size of the economy without maintaining large primary deficits.[27]

In the coming weeks, PBO will be providing an update of its 2020 Fiscal Sustainability Report (published in February) based on the economic and fiscal outlook presented in this report. The forthcoming report will provide PBO's assessment of the long-term sustainability of current fiscal policy for federal and provincial-territorial governments.

Figure 4-1

Interest rate – GDP growth rate differential



Sources: Statistics Canada and Parliamentary Budget Officer.

5. Risks to the outlook

The outlook presented in this report provides a baseline projection to help parliamentarians gauge potential economic and fiscal outcomes under current policy settings. **PBO's outlook is not a prediction of future economic and budgetary outcomes**.

PBO judges that the balance of risks to its economic and fiscal outlook is tilted to the downside. While upside risks exist, such as the more rapid development and availability of a vaccine or treatment, and/or the economy recuperates faster than projected, the downside risks to our outlook dominate. Key downside risks are identified below.

COVID-19 pandemic

PBO's economic and fiscal outlook is conditional on the future course of the COVID-19 pandemic, which itself is inherently uncertain. We have assumed that course of the coronavirus will follow a path consistent with the Public Health Agency of Canada's "Slow Burn" scenario.

Such an epidemiological scenario is admittedly among the best-case outcomes. Given the recent uptick in new cases both within Canada and globally, it is possible that a severe second wave of infections could result in another round of stringent containment measures and lockdowns.

In addition, there could be delays in the development and availability of a vaccine or treatment, slowing the pace of relaxing current public health restrictions. In either case, the economy would be weaker than projected in our baseline and, combined with additional policy measures, would result in larger budgetary deficits and higher debt levels.

Extending temporary fiscal measures

Our baseline projection assumes that COVID-19 response measures put in place by the federal and provincial governments will be withdrawn as scheduled. These measures are currently providing substantial income support to households and businesses, but the largest support measures are legislated to expire in 2020-21.

Policymakers will need to assess exactly when the economy has sufficiently recovered to absorb the withdrawal of government income supports. Should parliamentarians support extending temporary measures, or introduce new response measures, program spending could rise significantly above PBO's baseline projection, resulting in larger budgetary deficits and higher debt levels.

New government programs

As the economy recuperates in our baseline projection, we assume that fiscal policy returns to its pre-crisis setting once the temporary COVID-19 response measures expire.

PBO's outlook does not reflect any of the commitments made in the recent Speech from the Throne.[28] Should these commitments translate into new programs that are deficit financed, there is a risk that the sustainable debt-to-GDP trajectory projected over the medium term in our baseline is reversed.

However, it could be the case these new programs help to accelerate the economy's recuperation without putting at risk long-term fiscal sustainability. Once the Government provides program design and policy details, PBO will estimate the financial impacts and update its economic and fiscal outlook.

Interest rates on government borrowing

Consistent with the recent policy direction given by the Bank of Canada, in our baseline projection we assume that short-term interest rates on government borrowing will remain low for long, and that longer-term borrowing rates will rise only slightly from current levels.

However, a deterioration in financial conditions, either domestically or externally induced, could result in higher risk premia on government debt, pushing up debt-servicing costs and federal debt. Household and business sectors would also face higher borrowing rates, resulting in weaker demand and more defaults/bankruptcies—particularly given current elevated levels of household and corporate indebtedness.

In addition, the timing (and pace) of monetary policy normalization that we have assumed in our baseline could be advanced, resulting in higher interest rates over the medium term. This is less of a risk if it is warranted by better-than-expected economic performance than if the appropriate timing of policy normalization is misjudged.

Sensitivity of the budgetary balance to economic shocks

Three key economic indicators drive our overall federal fiscal projection: real GDP growth, GDP inflation and interest rates. Following Finance Canada's approach to assessing fiscal sensitivity, we have estimated the impacts of three key economic shocks on our fiscal outlook:

i. A permanent 1 per cent decrease in real GDP driven equally by lower productivity and employment.
ii. A permanent 1 per cent decrease in the GDP price level, assuming the Consumer Price Index moves in line with the decrease in the GDP price level.

iii. A permanent 1-percentage point (100-basis points) increase in all interest rates.

In constructing our sensitivity estimates, we assume that changes in nominal GDP are proportional across income and expenditure components. Further, it is important to note that these economic shocks are illustrative and simplifications of a complex and endogenous system. As such, these estimates should be considered stylized rules of thumb.

Table 5-1 Sensitivity of the budgetary balance to economic shocks

$ billions	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026
1 per cent decrease in real GDP	-6.6	-6.0	-5.8	-5.8	-6.1
1 per cent decrease in GDP price level	-2.4	-2.5	-2.5	-2.4	-2.5
100-basis point increase in interest rates	4.2	1.2	-1.6	-3.2	-4.7

Source: Parliamentary Budget Officer.

See Appendices G to I for the impacts on revenue and spending categories.

Appendix A: Detailed economic outlook

% unless otherwise indicated		Projection					
	2019	2020	2021	2022	2023	2024	2025
Real GDP growth							
September 2020	1.7	-5.2	4.7	2.8	2.4	2.0	1.9
November 2019	1.5	1.7	1.6	1.6	1.6	1.7	1.7
Potential GDP growth							
September 2020	1.8	1.4	0.8	1.0	1.3	1.7	1.8
November 2019	1.6	1.5	1.6	1.6	1.7	1.7	1.6
GDP inflation							
September 2020	1.9	0.5	1.8	1.6	1.9	2.0	2.0
November 2019	2.0	1.8	2.0	2.0	2.0	2.0	2.0
Nominal GDP growth							
September 2020	3.6	-4.8	6.5	4.5	4.3	4.0	3.9
November 2019	3.6	3.3	3.5	3.6	3.7	3.7	3.7
Nominal GDP ($ billions)							
September 2020	2,304	2,194	2,337	2,441	2,547	2,648	2,753
November 2019*	2,304	2,383	2,467	2,556	2,650	2,749	2,851
3-month treasury rate							
September 2020	1.7	0.4	0.2	0.2	0.2	0.6	1.1
November 2019	1.7	1.9	2.5	2.5	2.5	2.5	2.5
10-year government bond rate							
September 2020	1.6	0.7	0.7	0.9	1.0	1.3	1.8
November 2019	1.7	2.0	3.1	3.3	3.3	3.3	3.3
Exchange rate (US¢/C$)							
September 2020	75.4	74.5	76.2	76.1	75.9	75.8	75.8
November 2019	75.4	75.7	75.8	76.0	76.0	76.0	76.0
Unemployment rate							
September 2020	5.7	9.7	8.1	6.5	5.7	5.5	5.4
November 2019	5.7	5.7	5.6	5.5	5.4	5.3	5.3
CPI inflation							
September 2020	2.0	0.6	1.1	1.6	1.9	2.0	2.0
November 2019	1.9	2.0	2.0	2.0	2.0	2.0	2.0
U.S. real GDP growth							
September 2020	2.2	-5.0	3.9	3.4	2.8	2.3	1.9
November 2019	2.3	1.7	1.7	1.8	1.8	1.8	1.8
WTI oil price ($US)							
September 2020	57	39	41	42	43	44	44
November 2019	57	55	56	57	58	59	60

Sources: Statistics Canada and Parliamentary Budget Officer.

Note: Nominal GDP levels from the November 2019 projection have been adjusted for historical data in 2019.

Appendix B: Composition of nominal GDP

% of GDP	2019	Projection 2020	2021	2022	2023	2024	2025
Expenditure share							
Final household consumption	56.3	55.5	56.2	56.0	55.9	55.7	55.6
Nonprofit serving households expenditures	1.6	1.5	1.4	1.4	1.4	1.4	1.4
Government consumption expenditure	21.2	23.9	22.6	21.5	20.7	20.4	20.1
Government investment	3.9	4.4	4.2	4.0	3.9	3.8	3.7
Residential investment	7.3	7.3	7.0	7.0	7.0	7.1	7.1
Business investment	10.8	10.0	9.8	10.0	10.8	11.5	11.7
Inventory investment	0.6	-1.4	-0.4	0.2	0.3	0.2	0.1
Exports of goods and services	31.6	28.3	30.4	31.3	31.5	31.7	31.8
Imports of goods and services	33.3	29.4	31.1	31.3	31.4	31.7	31.5
Income share							
Compensation of employees	50.8	53.2	52.0	51.7	51.2	51.0	50.9
Net mixed income	9.1	9.7	9.3	9.1	8.9	8.8	8.8
Corporate profits before tax	10.0	10.3	8.9	9.6	10.3	10.6	10.6
Investment income	2.5	2.7	2.6	2.5	2.6	2.6	2.6
Consumption of fixed capital	16.6	17.7	16.5	16.0	15.7	15.7	15.8
Taxes less subsidies on production	4.5	0.6	4.2	4.5	4.5	4.5	4.5
Taxes less subsidies on products and imports	6.5	5.9	6.5	6.7	6.7	6.7	6.7

Sources: Statistics Canada and Parliamentary Budget Officer.

Appendix C: COVID-19 response measures

$ billions	2019-20	2020-21	2021-22
Canada Emergency Response Benefit*	11.1	71.3	-
Canada Emergency Wage Subsidy*	-	65.9	-
Safe Restart Agreement	-	19.4	-
Recovery benefits**	-	10.5	4.7
Employment Insurance modifications*	-	6.3	3.8
Canada Emergency Business Account*	-	9.3	-
Enhanced GST credit*	-	5.7	-
Canada Emergency Student Benefit*	-	3.0	-
Essential workers wage top-up	-	3.0	-
Elderly benefits one-time payment*	-	2.5	-
Enhanced Canada Child Benefit*	-	1.9	-
Other***	0.7	27.2	1.2
Total	11.8	225.9	9.6

Sources: Finance Canada and Parliamentary Budget Officer.

Note: * Indicates a PBO cost estimate.

** Recovery benefits include Canada Recovery Benefits, Canada Recovery Sickness Benefits and Canada Recovery Caregiving Benefits.

*** Estimates of the budgetary impact of all COVID-19 response measures are available at: https://www.pbo-dpb.gc.ca/en/covid-19.

Totals may not add due to rounding.

Appendix D: Detailed fiscal outlook

$ billions	2019-2020	Projection 2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026
Income taxes							
Personal income tax	171.1	165.0	176.9	180.2	186.3	194.3	203.0
Corporate income tax	48.9	44.0	41.0	44.5	49.0	53.3	58.1
Non-resident income tax	9.3	8.5	8.3	8.6	8.9	9.3	9.7
Total income tax	229.4	217.6	226.3	233.3	244.2	256.9	270.8
Excise taxes/duties							
Goods and Services Tax	38.3	31.2	39.6	41.1	42.7	44.2	45.9
Custom import duties	5.0	3.4	4.7	4.9	5.1	5.4	5.6
Other excise taxes/duties	11.9	11.0	12.2	12.7	13.0	13.2	13.4
Total excise taxes/duties	55.2	45.5	56.5	58.7	60.8	62.8	64.8
Fuel charge proceeds	2.5	4.4	6.1	7.6	7.6	7.6	7.6
EI premium revenues	22.7	22.4	22.9	23.7	24.7	26.0	26.9
Other revenues	29.4	-1.6	28.3	29.1	31.1	31.4	32.6
Total budgetary revenues	**339.2**	**288.3**	**340.2**	**352.6**	**368.3**	**384.6**	**402.7**
Major transfers to persons							
Elderly benefits	56.1	59.9	63.4	66.9	70.7	74.6	78.8
Employment Insurance	20.3	35.2	33.6	25.6	24.6	25.4	26.1
Emergency and recovery benefits	11.1	81.7	4.7	0.0	0.0	0.0	0.0
Children's benefits	24.3	26.7	26.0	26.6	27.2	27.6	28.1
Total	111.8	203.5	127.6	119.1	122.5	127.7	133.0
Major transfers to other levels of government							
Canada Health Transfer	40.9	41.9	43.1	44.4	45.8	48.1	50.2
Canada Social Transfer	14.6	15.0	15.5	15.9	16.4	16.9	17.4
Equalization	19.8	20.6	20.7	21.1	21.5	22.6	23.6
Territorial Formula Financing	3.9	4.2	4.2	4.2	4.2	4.2	4.3
Other transfers to government	-0.4	14.7	-2.3	-2.7	-2.8	-3.1	-3.3
Total	78.8	96.4	81.2	82.9	85.1	88.8	92.1
Direct program expenses							
Other transfer payments	55.9	169.7	66.5	68.3	69.7	70.9	72.2
Operating and capital expenses	105.4	125.2	117.6	117.2	117.8	114.1	114.3
Total direct program expenses	161.4	294.9	184.1	185.4	187.6	185.0	186.5
Total program expenses	352.0	594.9	393.0	387.5	395.1	401.5	411.6
Public debt charges	23.8	22.0	21.0	20.4	21.3	23.2	25.9
Total expenses	**375.7**	**616.9**	**414.0**	**407.9**	**416.4**	**424.7**	**437.6**
Budgetary balance	**-36.5**	**-328.5**	**-73.8**	**-55.3**	**-48.0**	**-40.1**	**-34.8**
Federal debt	721.2	1,049.8	1,123.5	1,178.8	1,226.9	1,267.0	1,301.8

Source: Parliamentary Budget Officer.

Note: Totals may not add due to rounding.

Appendix E: Detailed fiscal outlook (per cent of GDP)

Per cent of GDP	2019-2020	Projection 2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026
Income taxes							
Personal income tax	7.4	7.5	7.6	7.4	7.3	7.3	7.4
Corporate income tax	2.1	2.0	1.8	1.8	1.9	2.0	2.1
Non-resident income tax	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Total income tax	10.0	9.9	9.7	9.6	9.6	9.7	9.8
Excise taxes/duties							
Goods and Services Tax	1.7	1.4	1.7	1.7	1.7	1.7	1.7
Custom import duties	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Other excise taxes/duties	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Total excise taxes/duties	2.4	2.1	2.4	2.4	2.4	2.4	2.4
Fuel charge proceeds	0.1	0.2	0.3	0.3	0.3	0.3	0.3
EI premium revenues	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Other revenues	1.3	-0.1	1.2	1.2	1.2	1.2	1.2
Total budgetary revenues	**14.7**	**13.1**	**14.6**	**14.4**	**14.5**	**14.5**	**14.6**
Major transfers to persons							
Elderly benefits	2.4	2.7	2.7	2.7	2.8	2.8	2.9
Employment Insurance	0.9	1.6	1.4	1.0	1.0	1.0	0.9
Emergency and recovery benefits	0.5	3.7	0.2	0.0	0.0	0.0	0.0
Children's benefits	1.1	1.2	1.1	1.1	1.1	1.0	1.0
Total	4.9	9.3	5.5	4.9	4.8	4.8	4.8
Major transfers to other levels of government							
Canada Health Transfer	1.8	1.9	1.8	1.8	1.8	1.8	1.8
Canada Social Transfer	0.6	0.7	0.7	0.7	0.6	0.6	0.6
Equalization	0.9	0.9	0.9	0.9	0.8	0.9	0.9
Territorial Formula Financing	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Other transfers to government	0.0	0.7	-0.1	-0.1	-0.1	-0.1	-0.1
Total	3.4	4.4	3.5	3.4	3.3	3.4	3.3
Direct program expenses							
Other transfer payments	2.4	7.7	2.8	2.8	2.7	2.7	2.6
Operating and capital expenses	4.6	5.7	5.0	4.8	4.6	4.3	4.2
Total direct program expenses	7.0	13.4	7.9	7.6	7.4	7.0	6.8
Total program expenses	15.3	27.1	16.8	15.9	15.5	15.2	15.0
Public debt charges	1.0	1.0	0.9	0.8	0.8	0.9	0.9
Total expenses	**16.3**	**28.1**	**17.7**	**16.7**	**16.3**	**16.0**	**15.9**
Budgetary balance	**-1.6**	**-15.0**	**-3.2**	**-2.3**	**-1.9**	**-1.5**	**-1.3**
Federal debt	31.3	47.9	48.1	48.3	48.2	47.8	47.3

Source: Parliamentary Budget Officer.

Note: Totals may not add due to rounding.

Appendix F: Direct program expenses

$ billions	2019-2020	Projection 2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026
Other transfer payments							
Fuel charge proceeds returned	3.4	4.8	6.5	7.6	7.6	7.6	7.6
Canada Emergency Wage Subsidy	-	65.9	-	-	-	-	-
Other payments	52.5	99.0	60.1	60.7	62.1	63.3	64.6
Total other transfer payments	55.9	169.7	66.5	68.3	69.7	70.9	72.2
Operating expenses							
Salaries, wages and miscellaneous	45.1	44.7	45.2	45.5	46.9	48.3	50.2
Current service costs: future benefit plans	5.9	7.8	8.5	8.2	7.4	6.2	5.8
Consolidated Crown corporations	7.8	7.7	7.7	7.9	8.2	8.5	8.8
Other operating expenses	28.9	29.4	28.9	29.5	30.5	31.4	32.5
Policy actions	1.1	14.4	3.4	3.0	2.3	2.3	2.3
Total operating expenses	88.9	104.0	93.6	94.1	95.3	96.8	99.4
Losses from employee future benefit plans	10.7	15.0	17.5	16.3	15.5	10.0	7.3
Capital amortization expenses	5.9	6.2	6.5	6.8	7.1	7.3	7.6
Operating + capital expenses	105.4	125.2	117.6	117.2	117.8	114.1	114.3
Total direct program expenses	**161.4**	**294.9**	**184.1**	**185.4**	**187.6**	**185.0**	**186.5**

Source: Parliamentary Budget Officer.

Note: Totals may not add due to rounding.

Appendix G: Fiscal impact of 1 per cent decrease in real GDP

$ billions	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026
Income taxes					
Personal income tax	-2.5	-2.9	-3.0	-3.0	-3.1
Corporate income tax	-0.3	-0.4	-0.5	-0.5	-0.5
Non-resident income tax	-0.1	-0.1	-0.1	-0.1	-0.1
Total income tax	-2.9	-3.4	-3.5	-3.6	-3.7
Excise taxes/duties	-0.5	-0.5	-0.5	-0.5	-0.5
Fuel charge proceeds	-0.1	-0.1	-0.1	-0.1	-0.1
EI premium revenues	-0.2	-0.2	-0.3	-0.3	-0.3
Other revenues	-0.1	-0.1	-0.1	-0.1	-0.1
Total budgetary revenues	**-3.7**	**-4.2**	**-4.4**	**-4.6**	**-4.7**
Major transfers to persons					
Elderly benefits	0.0	0.0	0.0	0.0	0.0
Employment Insurance	2.7	1.5	1.1	1.1	1.2
Emergency and recovery benefits	0.0	0.0	0.0	0.0	0.0
Children’s benefits	0.0	0.1	0.2	0.2	0.2
Total	2.7	1.6	1.3	1.3	1.3
Major transfers to other levels of government	0.1	0.0	0.0	-0.3	-0.3
Direct program expenses	0.0	0.0	0.0	0.0	0.0
Total program expenses	2.8	1.6	1.2	1.0	1.0
Public debt charges	0.1	0.1	0.2	0.3	0.4
Total expenses	**2.9**	**1.8**	**1.4**	**1.3**	**1.4**
Budgetary balance	**-6.6**	**-6.0**	**-5.8**	**-5.8**	**-6.1**

Source: Parliamentary Budget Officer.

Note: Totals may not add due to rounding.

Appendix H: Fiscal impact of 1 per cent decrease in GDP price level

$ billions	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026
Income taxes					
Personal income tax	-2.5	-2.8	-2.9	-3.0	-3.1
Corporate income tax	-0.3	-0.4	-0.5	-0.5	-0.5
Non-resident income tax	-0.1	-0.1	-0.1	-0.1	-0.1
Total income tax	-2.9	-3.3	-3.5	-3.6	-3.7
Excise taxes/duties	-0.5	-0.5	-0.5	-0.6	-0.6
Fuel charge proceeds	0.0	0.0	0.0	0.0	0.0
EI premium revenues	-0.2	-0.2	-0.3	-0.3	-0.3
Other revenues	-0.1	-0.1	-0.1	-0.1	-0.1
Total budgetary revenues	**-3.7**	**-4.1**	**-4.4**	**-4.5**	**-4.6**
Major transfers to persons					
Elderly benefits	-0.6	-0.7	-0.7	-0.7	-0.8
Employment Insurance	-0.1	-0.2	-0.2	-0.2	-0.2
Emergency and recovery benefits	0.0	0.0	0.0	0.0	0.0
Children's benefits	0.0	-0.2	-0.3	-0.3	-0.3
Total	-0.8	-1.1	-1.2	-1.3	-1.3
Major transfers to other levels of government	0.1	0.0	0.0	-0.3	-0.3
Direct program expenses	-0.6	-0.6	-0.6	-0.7	-0.7
Total program expenses	-1.3	-1.6	-1.9	-2.2	-2.3
Public debt charges	0.0	0.0	0.1	0.1	0.1
Total expenses	**-1.2**	**-1.6**	**-1.8**	**-2.1**	**-2.1**
Budgetary balance	**-2.4**	**-2.5**	**-2.5**	**-2.4**	**-2.5**

Source: Parliamentary Budget Officer.

Note: Totals may not add due to rounding.

Appendix I: Fiscal impact of 100-basis point interest rate increase

$ billions	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026
Budgetary revenues	1.3	1.4	1.4	1.5	1.5
Program expenses	-7.3	-7.9	-7.5	-7.1	-6.6
Public debt charges	4.5	8.0	10.5	11.8	12.8
Budgetary balance	4.2	1.2	-1.6	-3.2	-4.7

Source: Parliamentary Budget Officer.

Note: Totals may not add due to rounding.

Notes

1. See the August 14 Public Health Agency of Canada presentation, Update on COVID-19 in Canada: Epidemiology and Modelling. Available at: https://www.canada.ca/en/public-health/services/diseases/coronavirus-disease-covid-19/epidemiological-economic-research-data/mathematical-modelling.html.
2. The economic projection incorporates data available up to and including September 18.
3. Compared to our June 18 Scenario Analysis Update (available at: https://www.pbo-dpb.gc.ca/web/default/files/Documents/Reports/RP-2021-009-S/RP-2021-009-S_en.pdf), the level of real GDP in 2020 under the baseline projection is 1.6 per cent higher.
4. Specifically, these industries include transportation and warehousing; arts, entertainment and recreation, as well as accommodation and food services. Combined, these industries accounted for approximately 8 per cent of GDP in February 2020.
5. In our June 18 Scenario Analysis Update, we assumed a decline of 6.8 per cent in real GDP in 2020.
6. Compared to our June 18 Scenario Analysis Update, the level of nominal GDP in 2020 under the baseline projection is $28 billion (1.8 per cent) higher.
7. See: https://www150.statcan.gc.ca/n1/daily-quotidien/200904/dq200904a-eng.htm.
8. Compared to our June 18 Scenario Analysis Update, WTI (WCS) oil prices in the fourth quarter of 2020 are US$1 (US$1) per barrel higher.
9. For a summary of countries' policy responses to the COVID-19 pandemic, please consult: https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19.
10. See: https://www.bankofcanada.ca/2020/09/fad-press-release-2020-09-09/.
11. We assume that the Federal Reserve will maintain its policy rate at 0.25 per cent until the first quarter of 2024 and then gradually raise its policy rate by 25-basis point increments until it reaches 1.25 per cent at the end of 2025.
12. We have revised down our neutral policy rate assumptions for both Canada and the United States to 2.25 per cent from 2.50 per cent in our November 2019 Economic and Fiscal Outlook.
13. This includes expenses for premiums paid on Bank of Canada purchases of Government of Canada securities, which add $19.6 billion to the budgetary deficit in 2020-21 only.

    Compared to our June 18 Scenario Analysis Update, the budgetary deficit in 2020-21 in our baseline projection is $72.5 billion higher.

14. PBO's estimates of Employment Insurance and recovery benefits align with program parameters announced on August 20. See: https://www.canada.ca/en/employment-social-development/news/2020/08/supporting-canadians-through-the-next-phase-of-the-economy-re-opening-increased-access-to-ei-and-recovery-benefits.html.

15. Based on information obtained from Finance Canada. Figure reflects Finance Canada cost estimates only.

16. Compared to our June 18 Scenario Analysis Update, the federal debt-to-GDP ratio in our baseline projection is 3.5 percentage points higher in 2020-21.

17. GST revenues also reflect the one-time additional GST/HST credit payment issued on April 9.

18. The temporary drop in income is the result of an accounting phenomenon, and does not reflect real, permanent losses sustained by either the Bank of Canada or the Government of Canada.

19. PBO assumes the EI premium rate is set at $1.58 per $100 of insurable earnings over the entire projection horizon.

20. PBO's fiscal outlook accounts for policies announced up to and including September 1. Policy measures announced after September 1 would be incremental.

21. Throughout this report, emergency and recovery benefits are recorded separate from EI expenses. A portion of these benefits could be charged to the EI Operating Account and reflected in EI benefits, with no resulting change to the budgetary balance. PBO will begin allocating emergency and recovery benefits to the EI expenses in future reports once we can more reliably identify the discrete expense types.

22. Most federal COVID-19 spending in targeted as transfers, which can generally quickly be scaled up or down. A smaller amount of COVID-19 response spending is earmarked as operating expense—typically used to hire staff—that is historically more long lasting in nature.

23. Recall that in PBO's fiscal sustainability framework, long-term projections are not constructed as forecasts or predictions of the most likely outcomes. Rather, they are illustrative scenarios that show the consequences of maintaining a government's current fiscal policy over the long term.

    Scenarios in which there is excessive government debt or asset accumulation would not likely be realized given future fiscal policy actions and responses by households, firms and financial markets. Nonetheless, long-term debt-to-GDP projections serve as a useful signal and gauge of the sustainability of current fiscal policy.

    For a more detailed discussion of PBO's analytical framework, see our 2020 Fiscal Sustainability Report available at: https://www.pbo-dpb.gc.ca/web/default/files/Documents/Reports/RP-1920-029-S/RP-1920-029-S_en.pdf.

24. Other frameworks that assess debt sustainability, typically have a shorter-term perspective and tend to focus on risks related to debt-refinancing (rollover), liquidity (market access) and foreign currency/external borrowing. These risks are outside of the scope of PBO's analytical framework, which places the focus on longer-term solvency. That is, a government's ability to

meet its obligations over the long-term under current policy without undue reliance on debt financing.

25. These components can be used in a shorter-term framework to assess how far the current primary balance is from a level that would stabilize the debt-to-GDP at a given level under steady-state interest and growth rate assumptions. Conversely, these components could also be used to determine the steady-state debt-to-GDP ratio that would be realized if the current primary balance was maintained indefinitely.

26. Whether the interest-growth rate differential is positive (the effective interest rate exceeds GDP growth) or negative (GDP growth exceeds the effective interest rate) plays a crucial role in debt-to-GDP stability. In the case where the differential is positive, a primary surplus would be required to stabilize the debt ratio. However, if the differential is negative, a primary deficit would be required.

    Further, if the differential is negative, the debt-to-GDP ratio will ultimately stabilize at a higher level even in cases of “large” primary deficits (maintained as a constant share of GDP). This contrasts the debt dynamics with a positive interest-growth rate differential, where a primary balance below its stabilizing level results in an explosive debt-to-GDP trajectory.

27. The size of primary deficits that could be sustained while maintaining a stable debt ratio depends on the magnitude of the interest-growth rate differential multiplied by the debt-to-GDP ratio.

28. Available at: https://www.canada.ca/en/privy-council/campaigns/speech-throne/2020/stronger-resilient-canada.html.