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

Consistent with the Parliamentary Budget Officer's legislated mandate, this report provides PBO's economic and fiscal outlook.

This report was written by:
Chris Matier, Senior Director
Trevor Shaw, Economic Analyst-Advisor

With contributions to the analysis from:
Nasreddine Ammar, Research Assistant
Carleigh Busby, Financial Analyst
Negash Haile, Research Assistant
Jason Jacques, Senior Director
Tim Scholz, Economic Analyst-Advisor

And with comments from:
Mostafa Askari, Deputy Parliamentary Budget Officer.

Nancy Beauchamp and Jocelyne Scrim assisted with the preparation of the report for publication.

Please contact pbo-dpb@parl.gc.ca for further information.

Jean-Denis Fréchette
Parliamentary Budget Officer

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Executive Summary

The Canadian economy advanced at a robust pace in the first half of 2017.[1] However, beginning in the second half, we project that growth in consumer spending will moderate and residential investment will continue to decline as borrowing rates rise and disposable income gains diminish.

We project real GDP growth to slow from 3.1 per cent in 2017 to 1.9 per cent in 2018 and then to 1.8 per cent in 2019 before averaging 1.7 per cent annually over 2020 to 2022. Real GDP growth over 2017 to 2022 is slightly higher (0.1 percentage points, on average) compared to our April outlook.

GDP inflation (a measure of economy-wide price increases) is projected to slow from 2.4 per cent in 2017 to 1.8 per cent in 2018 and then average 2.0 per cent annually. Nominal GDP—the broadest single measure of the tax base—is projected to grow at 4.1 per cent annually, on average, over 2017 to 2022, which is unchanged from our April outlook.

Summary Figure 1 Economic outlook

%	2017	2018	2019	2020-2022
Real GDP growth	3.1	1.9	1.8	1.7
GDP inflation	2.4	1.8	2.0	2.1
Nominal GDP ($ billions)	2,140	2,221	2,306	2,487

Source: Parliamentary Budget Officer.

Compared to our April outlook, the projected level of nominal GDP is, on average, only $2 billion (0.1 per cent) lower per year over 2017 to 2022, with downward revisions to GDP price levels offsetting upward revisions to real GDP.

We assume that the Bank of Canada will maintain its policy interest rate at 1.0 per cent until January 2018. As core inflation continues to firm through 2018, we project that the Bank of Canada will gradually increase its policy rate by 25 basis points each quarter until the policy rate is returned to its (nominal) neutral level of 3.0 per cent by the end of 2019.

PBO’s economic outlook reflects the view that possible upside and downside outcomes are, broadly speaking, equally likely. In terms of downside risks, we maintain that the most important risk is weaker business investment. In terms of upside risks, we maintain that the most important risk is stronger household spending.

To illustrate the uncertainty surrounding our nominal GDP outlook, we have constructed confidence intervals around our projection. Relative to our baseline nominal GDP growth projection, 30, 50 and 70 per cent confidence intervals are consistent with average nominal GDP growth of ±0.4, ±0.7 and ±1.1 percentage points respectively.

The budgetary deficit in 2016-17 was $17.8 billion (0.9 per cent of GDP). This is $3.0 billion lower than we projected in April, reflecting lower-than-expected direct program expenses due, in part, to an estimated $1.8 billion in unspent infrastructure funding.

Summary Figure 2 Fiscal outlook

		Projection					
$ billions	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Budgetary revenues	293.5	308.2	323.2	335.1	349.1	363.2	377.8
Program expenses	287.2	304.4	311.1	318.1	328.6	339.3	349.2
Public debt charges	24.1	24.0	27.5	31.2	34.0	36.5	38.5
Total expenses	311.3	328.4	338.6	349.3	362.6	375.8	387.7
Budgetary balance	-17.8	-20.2	-15.5	-14.2	-13.6	-12.5	-9.9
Federal debt	631.9	652.1	667.5	681.7	695.3	707.8	717.7
% of GDP							
Budgetary revenues	14.5	14.4	14.6	14.5	14.6	14.6	14.6
Program expenses	14.2	14.2	14.0	13.8	13.7	13.6	13.5
Public debt charges	1.2	1.1	1.2	1.4	1.4	1.5	1.5
Total expenses	15.4	15.3	15.2	15.2	15.1	15.1	15.0
Budgetary balance	-0.9	-0.9	-0.7	-0.6	-0.6	-0.5	-0.4
Federal debt	31.2	30.5	30.1	29.6	29.0	28.5	27.8

Sources: Finance Canada and Parliamentary Budget Officer.

For the current fiscal year, 2017-18, we expect that the budgetary balance will show a deficit of $20.2 billion (0.9 per cent of GDP). We project that budgetary deficits will decline gradually, falling to $9.9 billion (0.4 per cent of GDP) in 2022-23. Lower direct program spending accounts for most of the reduction in the deficit over the projection horizon.

We are projecting budgetary deficits that are $2.2 billion lower, on average, over 2017-18 to 2021-22 compared to our April outlook.

Our revenue outlook is marginally higher. Corporate income tax (CIT) revenues have remained strong through an extended period of weak corporate profitability, so we have adjusted upward our medium-term projection for CIT.

Our spending projection is marginally lower compared to April. This reflects the Government's medium-term plan for lower direct program spending. We also project fewer beneficiaries and lower average payments for elderly benefits and Employment Insurance payments over the medium-term horizon compared to April.

In Budget 2016, the Government committed to returning to balanced budgets and to reducing the federal debt-to-GDP ratio to 31.0 per cent in 2020-21. Under current tax and spending plans, we project that the federal debt-to-GDP ratio will be 29.0 per cent in 2020-21, 2.0 percentage points of GDP below the target. As such, the Government has flexibility within its current fiscal plan to reach its medium-term debt-to-GDP target.

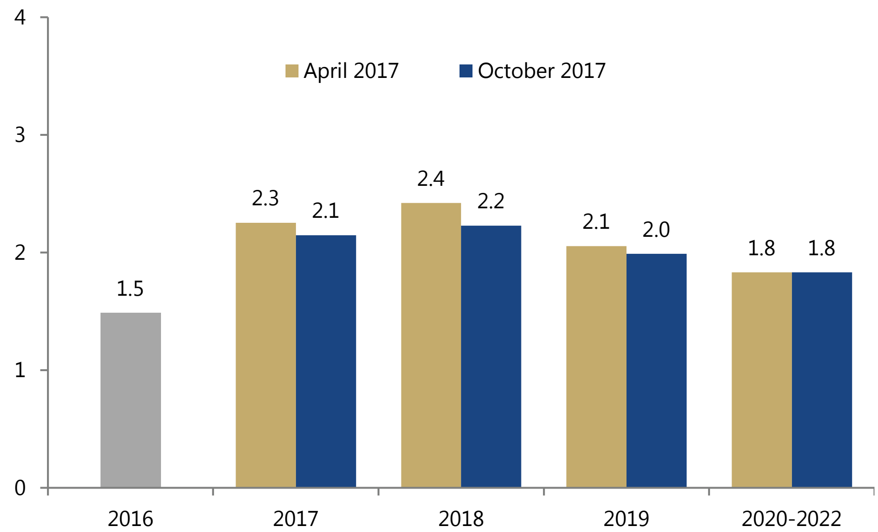
Given the possible scenarios surrounding our economic outlook, and on a status quo basis, it is unlikely that the budget will be balanced, or in a surplus position, over the medium term. We estimate that in 2019-20 there is, approximately, a 10 per cent chance that the budget will be balanced or in a surplus position. The probability of budgetary balance/surplus rises to 15 per cent in 2020-21 and to 30 per cent in 2022-23.

However, it is likely that the federal debt-to-GDP ratio will fall below its target level of 31.0 per cent over the period 2017-18 to 2022-23. We estimate that in 2020-21 there is, approximately, a 75 per cent chance that the federal debt-to-GDP ratio will be below its target.

Economic Outlook

Figure 1 **External economic outlook**

U.S. real GDP growth, %



Sources: Bureau of Economic Analysis and Parliamentary Budget Officer.

In its October 2017 *World Economic Outlook*, the International Monetary Fund (IMF) noted that the global recovery is continuing at a faster pace. The IMF upgraded its global growth projections and projected economic activity to pick up speed in all country groups except for the Middle East.[2]

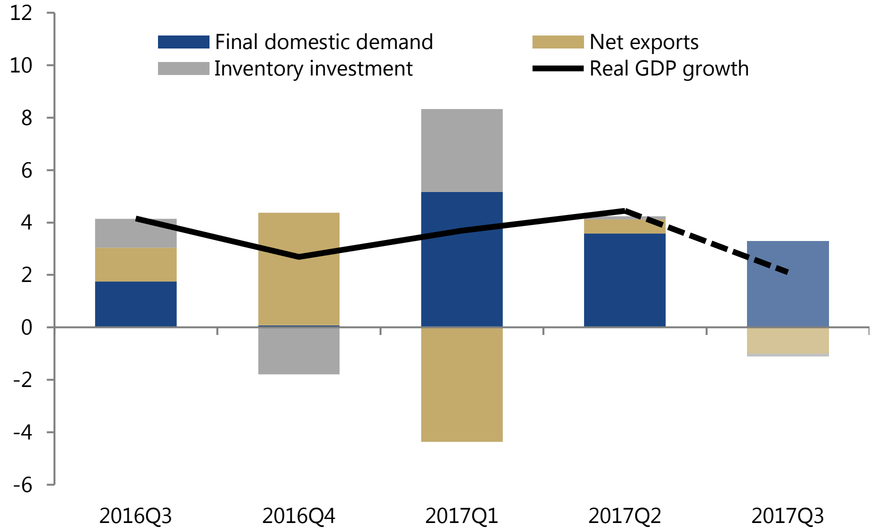
We project that U.S. real GDP growth will rebound to 2.1 per cent in 2017 and 2.2 per cent in 2018.[3] U.S. growth is then expected to moderate over the medium term, ultimately growing in line with external estimates of its potential growth.[4] We anticipate that increased government spending and residential investment will lead the rebound. We have lowered our growth outlook over 2017 to 2019, reflecting historical revisions as well as diminished expectations for fiscal policy stimulus.

We continue to assume that the Federal Reserve will gradually but steadily increase the federal funds rate. We expect the Federal Reserve to raise its policy rate by 25 basis points in December and through to mid-2020, maintaining it at 3.0 per cent thereafter.

Based on recent futures prices, we project WTI oil prices to increase to around US$52 per barrel by the end of 2022. This is US$3 per barrel lower than our April outlook. We have, however, revised up our outlook for non-energy commodity prices, resulting in a higher profile for the Bank of Canada's commodity price index over the medium term.

Figure 2 Recent economic developments in Canada

Contributions to real GDP growth, percentage points



Sources: Statistics Canada and Parliamentary Budget Officer.

Led by strong consumer spending and a rebound in business investment, the Canadian economy advanced at a robust pace in the first half of 2017. While real GDP growth in the first quarter was in line with our April outlook, second quarter growth exceeded expectations, with stronger-than-expected growth in consumer spending, exports and inventory investment.

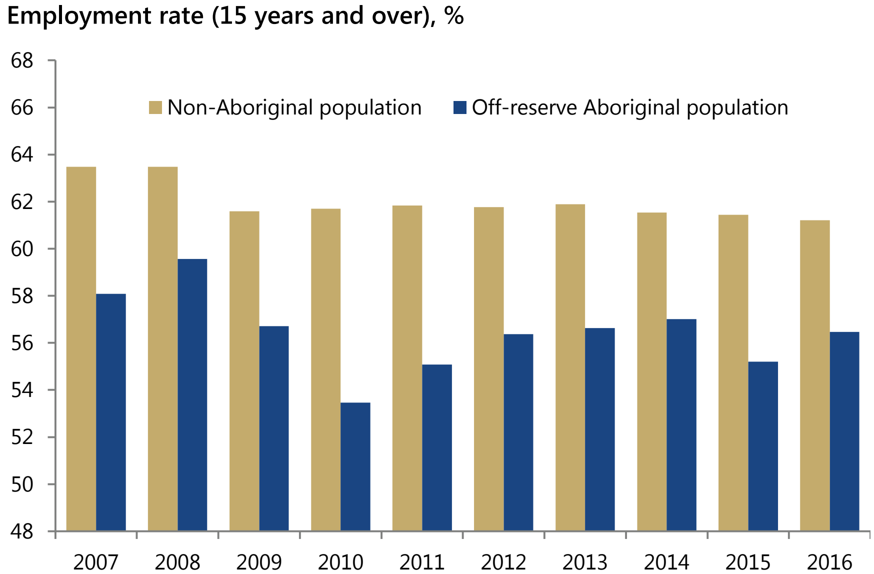
Based on recent monthly data, we expect real GDP growth to slow to 2.1 per cent in the third quarter as net exports decline and growth in consumer spending moderates.

Citing the economy's robust performance and looking through the current weakness in inflation, the Bank of Canada increased its policy interest rate by 25 basis points in July and again in September.[5] Since November 2016, all of the Bank of Canada's preferred measures of core inflation have remained below the 2 per cent inflation target.

Unit labour cost (that is, employee compensation per hour worked relative to output per hour worked) was essentially unchanged in the first quarter of 2017 and declined in the second quarter. As increases in employee compensation have lagged productivity gains over the past four quarters, unit labour costs have fallen 0.6 per cent below their prior-year level.

Monthly employment gains have averaged 24,300 over April to September, with increases in self-employment and public sector hiring accounting for almost all of the gains. The unemployment rate has trended lower from 6.7 per cent in March to 6.2 per cent in September. This decrease, however, largely reflects a decline in labour force participation.

Figure 3 Employment rates by Aboriginal status



Source: Statistics Canada.

Note: According to Statistics Canada, the (off-reserve) Aboriginal population includes "persons who reported being an Aboriginal person, that is, First Nations (North American Indian), Métis or Inuk (Inuit), or those who reported more than one identity. Excluded from the [Labour force] survey's coverage are persons living on reserves and other Aboriginal settlements in the provinces as well as those living in the territories".[6]

PBO estimates that the employment rate in Canada was at its trend in 2016. Nonetheless, there remain segments of the population where labour is underutilized. Recent Statistics Canada analysis indicates that "in general, [off-reserve] Aboriginal people in Canada have lower participation and employment rates, and a higher unemployment rate, than non-Aboriginal people".[7]

In 2016, the employment rate of off-reserve Aboriginal people was 4.7 percentage points below that of non-Aboriginal people (56.5 versus 61.2 per cent). Moreover, the extent of labour underutilization is understated by these aggregate employment rates given the relatively younger demographic structure of the off-reserve Aboriginal population.

The largest single contributor to this gap (60 per cent of the total) stems from the disparity in prime-age (25-54 years) males. In 2016, the employment rate of off-reserve Aboriginal prime-age males was 71.8 per cent, well below the 85.4 per cent rate of their non-Aboriginal counterparts. That said, employment rates for older (55 years and over) males and females were similar across off-reserve Aboriginal and non-Aboriginal populations.[8]

Had employment rates across the off-reserve Aboriginal population matched their non-Aboriginal counterparts, the off-reserve Aboriginal employment rate in 2016 would have been 8.2 percentage points (75,000 jobs) higher.

Table 1 Outlook for Canadian real GDP growth

Contributions to real GDP growth, percentage points

		Projection			
	2016	**2017**	**2018**	**2019**	**2020-2022**
Consumption	1.4	2.1	1.3	0.8	0.9
Housing	0.2	0.2	-0.2	-0.1	0.0
Business investment	-1.0	0.2	0.9	0.9	0.5
Government	0.5	0.4	0.4	0.0	0.2
Exports	0.4	0.8	1.1	1.1	0.8
Imports	0.2	-1.2	-0.9	-0.8	-0.8
Inventory investment	-0.3	0.5	-0.7	0.0	0.1
Real GDP growth	**1.5**	**3.1**	**1.9**	**1.8**	**1.7**
Additional indicators,%					
Potential GDP growth	1.4	1.2	1.5	1.8	1.9
Output gap	-1.2	0.6	1.0	1.0	0.6

Sources: Statistics Canada and Parliamentary Budget Officer.

The Canadian economy's strong performance in the first half of 2017 provides a significant boost to growth for the year as a whole. However, beginning in the second half of 2017, we project that growth in consumer spending will moderate and residential investment will continue to decline as borrowing rates rise and disposable income gains diminish.

We expect that previously announced federal fiscal measures will help boost economic activity in the second half of 2017 and 2018, while growth in exports and business investment picks up. Further, business investment and exports are expected to provide key support as the household and housing sectors adjust over the medium term. We project real GDP growth to slow from 3.1 per cent in 2017 to 1.7 per cent over 2020 to 2022 (Appendix A).[9]

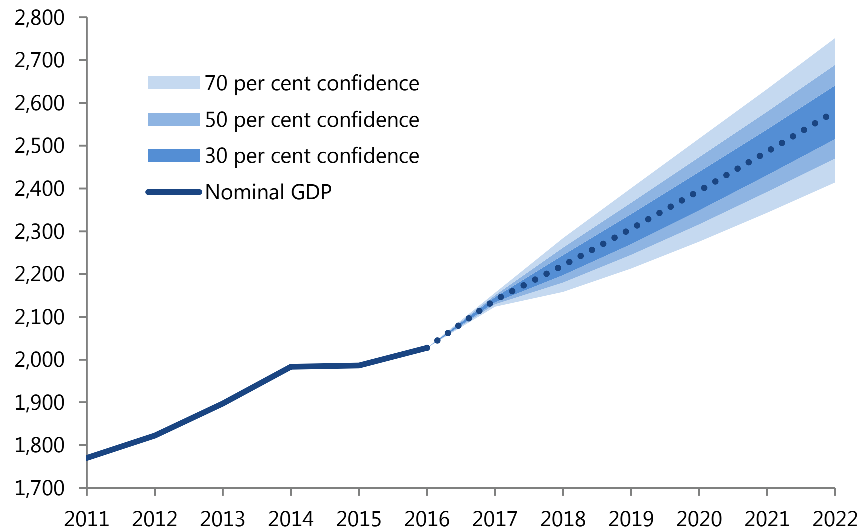
After remaining below PBO's estimate of potential GDP since late 2008, the Canadian economy rose above its potential in the second quarter of 2017 and is projected to remain above its potential through 2022. However, this overshoot reflects a temporary slowdown in potential GDP growth in 2016 and 2017 mainly due to sharp declines in business investment over 2015 and 2016. We project potential GDP growth to rise from 1.2 per cent in 2017 to 1.9 per cent in 2022. This pickup is due to rising growth in trend labour productivity, resulting from the expected recovery in business investment.[10]

We assume that the Bank of Canada will maintain its policy interest rate at 1.0 per cent until January 2018. As core inflation continues to firm through 2018, we project that the Bank of Canada will gradually increase its policy rate by 25 basis points each quarter until the policy rate is returned to its (nominal) neutral level of 3.0 per cent by the end of 2019.

Figure 4

Uncertainty around PBO's nominal GDP projection

Nominal GDP, $ billions



Sources: Statistics Canada and Parliamentary Budget Officer.

Note: Projection period covers 2017 to 2022.

While real GDP growth in the second quarter of 2017 was much stronger than we anticipated in our April outlook, GDP inflation surprised on the downside. Consequently, the outturn level of nominal GDP in the second quarter was in line with our April projection (adjusted for historical revisions).

Over the period 2017 to 2022, we project nominal GDP growth to average 4.1 per cent annually, with real GDP growth averaging 2.0 per cent and GDP inflation averaging 2.1 per cent. Adjusted for historical revisions, the level of nominal GDP is, on average, only $2 billion (0.1 per cent) lower per year over 2017 to 2022 compared to our April projection.

PBO's economic outlook reflects the view that possible upside and downside outcomes are, broadly speaking, equally likely. Further, to illustrate the uncertainty around our nominal GDP projection, we construct a fan chart that provides confidence intervals[11] based on historical forecasting errors.[12]

In terms of downside risks, we maintain that the most important risk is weaker business investment. Although conditions should remain favourable for a rebound in business investment, increased uncertainty and/or weaker confidence could restrain firms from expanding capacity.

In terms of upside risks, we maintain that the most important risk is stronger household spending. While we expect growth in household spending to moderate over the medium term, households could become less prudent and spending could remain strong despite elevated levels of household indebtedness.

Table 2 PBO economic outlook compared to the Fall Economic Statement

Nominal GDP, $ billions	2017	2018	2019	2020	2021	2022
PBO October 2017	2,140	2,221	2,306	2,395	2,486	2,580
Fall Economic Statement	2,140	2,226	2,302	2,388	2,473	2,568
Difference	0	-5	4	7	13	12
Real GDP growth (%)	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
PBO October 2017	3.1	1.9	1.8	1.8	1.7	1.7
Fall Economic Statement	3.1	2.1	1.6	1.7	1.7	1.8
Difference	0.0	-0.2	0.2	0.1	0.0	-0.1
GDP inflation (%)	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
PBO October 2017	2.4	1.8	2.0	2.0	2.1	2.1
Fall Economic Statement	2.4	1.8	1.8	2.0	1.9	1.9
Difference	0.0	0.0	0.2	0.0	0.2	0.2

Sources: Finance Canada and Parliamentary Budget Officer.

In its assessment of the economic outlook in Budget 2017, PBO indicated to parliamentarians that there was upside risk to the private sector outlook for nominal GDP. Indeed, we noted that PBO's projected levels of nominal GDP were, on average, $34 billion higher per year over 2017 to 2021 compared to the Budget 2017 private sector outlook.

The Fall Economic Statement shows that the private sector outlook for nominal GDP was revised up from Budget 2017 by $30 billion per year, on average, over 2017 to 2021, supporting PBO's earlier risk assessment. This upward revision brings the private sector outlook for nominal GDP closer in line with PBO's projection.

Compared to the Fall Economic Statement, PBO's projected levels of nominal GDP are, on average, $5 billion (0.2 per cent) higher per year over 2017 to 2022, reflecting higher projected GDP inflation (2.1 per cent versus 2.0 per cent annually, on average, over 2017 to 2022).

On balance, PBO's outlook for real GDP growth is in line with the Fall Economic Statement, with growth averaging 2.0 per cent over 2017 to 2022.

Appendix B provides a comparison of PBO's current economic outlook and the Fall Economic Statement.

Fiscal Outlook

Table 3 Financial results for 2016-17

$ billions	Actual	PBO April 2017	Difference
Revenues			
Personal income taxes	143.7	142.0	1.7
Corporate income taxes	42.2	44.6	-2.4
Non-resident income taxes	7.1	7.0	0.1
Excise taxes/duties	51.3	51.6	-0.3
EI premium revenue	22.1	23.1	-1.0
Other revenue	27.1	28.7	-1.7
Total revenue	293.5	297.1	-3.6
Program expenses			
Major transfers to persons	90.9	91.1	-0.2
Major transfers to other levels of government	68.7	68.6	0.1
Direct program expenses	127.6	134.3	-6.7
Total program expenses	287.2	294.0	-6.8
Public debt charges	24.1	23.9	0.2
Total expenses	311.3	317.9	-6.6
Budgetary balance	-17.8	-20.7	3.0

Sources: Finance Canada and Parliamentary Budget Officer.

In our April 2017 outlook, we projected a budgetary deficit of $20.7 billion in 2016-17. The final budgetary outcome for 2016-17 was a deficit of $17.8 billion—$3.0 billion lower than our estimate. Both revenues and program expenses were lower than we expected, by $3.6 billion (1.2 per cent) and $6.8 billion (2.1 per cent), respectively.

Revenues were lower mainly because corporate income tax receipts were below what we anticipated at the end of 2016-17, as were revenues for the Employment Insurance program. Other revenues were about $1.7 billion lower than we estimated in April.

Program expenses were $6.8 billion lower than expected, mainly because of lower direct program expenses, reflecting, in part, longer delays implementing federal infrastructure spending. There were also smaller-than-anticipated year-end accounting adjustments to the operating and capital components of direct program expenses in 2016-17.

In Budget 2017, the Government estimated a deficit of $23.0 billion for 2016-17. While PBO's estimate of the budgetary balance in 2016-17 was closer to the final outcome, Budget 2017 estimates of revenues and program expenses were closer than PBO's projections.

Table 4 Summary of the fiscal outlook

$ billions	2016-2017	Projection 2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Budgetary revenues	293.5	308.2	323.2	335.1	349.1	363.2	377.8
Program expenses	287.2	304.4	311.1	318.1	328.6	339.3	349.2
Public debt charges	24.1	24.0	27.5	31.2	34.0	36.5	38.5
Total expenses	311.3	328.4	338.6	349.3	362.6	375.8	387.7
Budgetary balance	-17.8	-20.2	-15.5	-14.2	-13.6	-12.5	-9.9
Federal debt	631.9	652.1	667.5	681.7	695.3	707.8	717.7
% of GDP							
Budgetary revenues	14.5	14.4	14.6	14.5	14.6	14.6	14.6
Program expenses	14.2	14.2	14.0	13.8	13.7	13.6	13.5
Public debt charges	1.2	1.1	1.2	1.4	1.4	1.5	1.5
Total expenses	15.4	15.3	15.2	15.2	15.1	15.1	15.0
Budgetary balance	-0.9	-0.9	-0.7	-0.6	-0.6	-0.5	-0.4
Federal debt	31.2	30.5	30.1	29.6	29.0	28.5	27.8

Sources: Finance Canada and Parliamentary Budget Officer.

Our outlook for the budgetary balance has improved relative to our April projection. Compared to our April outlook, we are projecting budgetary deficits that are $2.2 billion lower, on average, over 2017-18 to 2021-22.

For the current fiscal year, we estimate that the budgetary deficit will increase from $17.8 billion in 2016-17 to $20.2 billion in 2017-18. The Government's plan for higher direct program spending accounts for most of the increase in our deficit forecast for 2017-18. We estimate that in 2017-18, direct program spending will rise by 8.2 per cent. Part of this large increase reflects the impact of one-time downward accounting adjustments that suppressed direct program spending totals in 2016-17.

Beyond 2017-18, we project budgetary deficits to diminish through 2022-23. PBO expects that revenues will grow faster than nominal GDP until 2022-23, but that spending will grow more slowly. The Government plans for modest increases to direct program spending, by 1.2 per cent annually, which is below our projected rate of inflation. Lower direct program spending accounts for most of the reduction in the deficit over the projection horizon.

Appendices C and D provide a detailed summary of the fiscal outlook and Appendix E provides a comparison to our April 2017 fiscal outlook.

Table 5 Outlook for revenues

$ billions	2016-2017	Projection 2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Income taxes							
Personal income tax	143.7	150.8	161.1	169.3	176.6	184.3	192.4
Corporate income tax	42.2	44.0	43.8	44.4	46.4	48.6	50.7
Non-resident income tax	7.1	7.8	7.7	7.9	8.2	8.5	8.8
Total income tax	193.0	202.7	212.6	221.7	231.1	241.4	251.9
Excise taxes/duties							
Goods and Services Tax	34.4	35.6	37.1	38.4	39.7	41.3	42.8
Custom import duties	5.5	5.9	5.7	5.9	6.1	6.4	6.6
Other excise taxes/duties	11.5	11.8	12.0	12.1	12.4	12.5	12.5
Total excise taxes/duties	51.3	53.3	54.8	56.3	58.2	60.2	61.9
EI premium revenues	22.1	21.4	23.2	24.0	24.8	25.6	26.6
Other revenues	27.1	30.8	32.5	33.1	34.9	36.0	37.4
Total budgetary revenues	293.5	308.2	323.2	335.1	349.1	363.2	377.8

Sources: Finance Canada and Parliamentary Budget Officer.

Revenues were $293.5 billion in 2016-17, or 14.5 per cent of GDP. To date, economic and financial data for 2017-18 suggest that personal income tax revenues may not keep pace with household income growth this year, leading to relatively slow growth in our total revenue estimate for 2017-18 (14.4 per cent of GDP). Over the medium term, we project that revenues will outpace nominal GDP, reaching $377.8 billion in 2022-23 (14.6 per cent of GDP).

Compared to our April 2017 projection, our overall revenue outlook is marginally higher in 2017-18 to 2020-21 and somewhat lower in 2021-22, mostly due to new forecast information for corporate income taxes and other revenues.

We are projecting higher corporate income tax (CIT) yields over the medium term compared to our April outlook.[13] CIT revenues have remained strong through an extended period of weak corporate profitability. As such, we have adjusted upward our medium-term projection for CIT revenues by an average of $0.6 billion per year as corporate profits rebound over our medium-term outlook. These figures account for the Government's recent proposal to reduce taxation on small businesses.

Compared to April, our projection of other revenues is lower. This revision mainly reflects lower revenue forecasts for the Canadian Commercial Corporation beginning in 2019-20, partially offset by higher federal interest income.

Table 6 Outlook for expenses

$ billions	2016-2017	2017-2018 (Projection)	2018-2019 (Projection)	2019-2020 (Projection)	2020-2021 (Projection)	2021-2022 (Projection)	2022-2023 (Projection)
Major transfers to persons							
Elderly benefits	48.2	50.4	53.4	56.5	59.9	63.3	66.9
Employment Insurance	20.7	21.6	21.7	22.6	23.4	24.2	24.9
Children's benefits	22.1	24.0	24.3	24.4	24.9	26.1	27.0
Total transfers to persons	90.9	96.0	99.4	103.5	108.1	113.6	118.8
Major transfers to other levels of government	68.7	70.5	72.8	75.6	78.8	81.8	84.4
Direct program expenses	127.6	138.0	138.9	139.0	141.7	143.9	146.1
Public debt charges	24.1	24.0	27.5	31.2	34.0	36.5	38.5
Total expenses	311.3	328.4	338.6	349.3	362.6	375.8	387.7

Sources: Finance Canada and Parliamentary Budget Officer.

Total expenses were $311.3 billion in 2016-17, or 15.4 per cent of GDP.

We project that federal spending will increase by $17.2 billion year-over-year in 2017-18, mostly owing to the Government's plan for higher direct program spending, including infrastructure and the impact of one-time factors in 2016-17. PBO assumes that infrastructure transfers to subnational governments will hit 90 per cent of planned levels for 2017-18, despite much longer delays over the course of 2016-17. Our projection reflects new direct program spending announced in the Fall Economic Statement.

Spending on major transfers to persons generally increases in line with inflation and the number of beneficiaries for each program. Relative to our April outlook, we project that children's benefits will be higher by $1.4 billion per year. Most of the increase is explained by the Government's decision to accelerate benefits indexation to inflation in the Fall Economic Statement. Compared to our April outlook, our projection for elderly benefits and Employment Insurance benefits are lower by $700 million and $200 million per year, respectively. We are projecting lower maximum benefit payments for OAS and GIS (due to a weaker near-term inflation outlook) and fewer Employment Insurance beneficiaries compared to April.

We project that major transfers to other levels of government will roughly increase in line with nominal GDP. Home care and mental health transfers announced in Budget 2017 are now classified as major transfers to other levels of government rather than direct program expenses.

Our outlook for public debt charges has not materially changed.

Table 7 Outlook for EI premiums and the EI Operating Account

$ billions	2016-2017	2017-2018 (Projection)	2018-2019 (Projection)	2019-2020 (Projection)	2020-2021 (Projection)	2021-2022 (Projection)	2022-2023 (Projection)
Revenues							
Premium revenues	22.1	21.4	23.2	24.0	24.8	25.6	26.6
Contributions for federal employees	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Total	22.5	21.9	23.7	24.4	25.2	26.0	27.0
Expenses							
Benefits	20.7	21.7	21.8	22.6	23.4	24.3	24.9
Administration expenses	1.8	1.9	2.0	2.0	2.0	2.1	2.2
Total	22.5	23.5	23.7	24.6	25.4	26.3	27.1
	2016	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Annual balance	0.7	-1.8	-0.1	-0.2	-0.2	-0.2	-0.2
Cumulative balance	2.5	0.7	0.5	0.4	0.2	0.0	-0.2
	Legislated			**Projection**			
(per $100 of insurable earnings)	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Premium rate (PBO)	1.88	1.63	1.66	1.65	1.65	1.65	1.65
Premium rate (Chief Actuary)	1.88	1.63	1.66	1.66	1.66	1.66	1.66

Sources: Office of the Chief Actuary; Finance Canada; and Parliamentary Budget Officer.

Employment Insurance (EI) program revenues and expenses are consolidated and managed within the EI Operating Account.

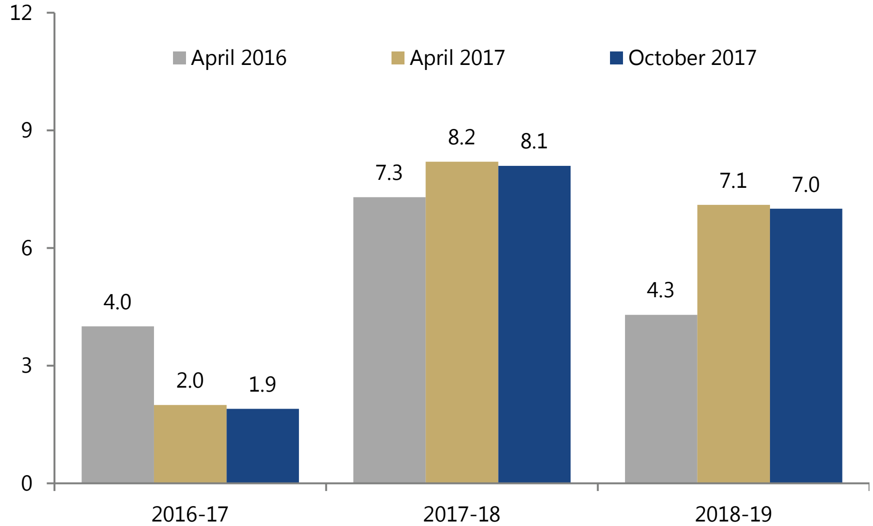
Starting in 2017, EI premium rates are set each year to generate just enough premium revenue to balance the EI Operating Account over a seven-year period. The EI Operating Account had a cumulative surplus of $2.5 billion at the end of 2016. Under law, the break-even rate must be set such that this surplus will be exhausted over the next 7 years.

The EI premium rate is currently $1.63 (per $100 of insurable earnings). PBO estimates that the 7-year break-even rate would be $1.65 in 2018 through 2024.

Our projection accounts for recent changes to the EI program. Budget 2017 provided roughly $400 million per year in additional benefits. In June 2017, the Government announced $260 million in extended EI benefits to the forestry sector over three years. Overall, these changes correspond to a $0.03 premium rate increase in our projection.

Figure 5 Federal infrastructure

$ billions



Sources: Finance Canada and Parliamentary Budget Officer.

In 2016, the Government announced $36 billion in new funding for public transit, green and social infrastructure, which we incorporated into our economic and fiscal projections. Since the Government's announcement, we have been monitoring the implementation of infrastructure funding using project and departmental financial information, subnational budget plans, as well as macroeconomic statistics.

2016-17 was the first year of the Government's infrastructure plan, with $3.7 billion in planned new funding. We estimate that roughly $1.9 billion was actually spent and $1.8 billion lapsed.

At the macro level, total (that is, consolidated federal, provincial and local) government investment for 2016-17 was $4.1 billion lower than we had projected in April 2016. Roughly half of this shortfall is because of lapsed federal infrastructure funding.

We assume that lapsed funds will be spent as increments over and above the existing budgeted amounts in 2017-18 to 2019-20. If the Government fully implements its infrastructure spending plan by 2019-20, we project that total government investment would grow by 4.9 per cent per year, on average, until the end 2019-20.

Table 8 Sensitivity of the budgetary balance to economic shocks

$ billions	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
1 per cent decrease in real GDP	-3.9	-3.1	-3.1	-3.1	-3.2
1 per cent decrease in GDP price level	-1.2	-2.4	-2.5	-2.5	-2.6
100-basis point increase in interest rates	-0.1	-0.9	-1.2	-1.3	-1.4

Source: Parliamentary Budget Officer.

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:

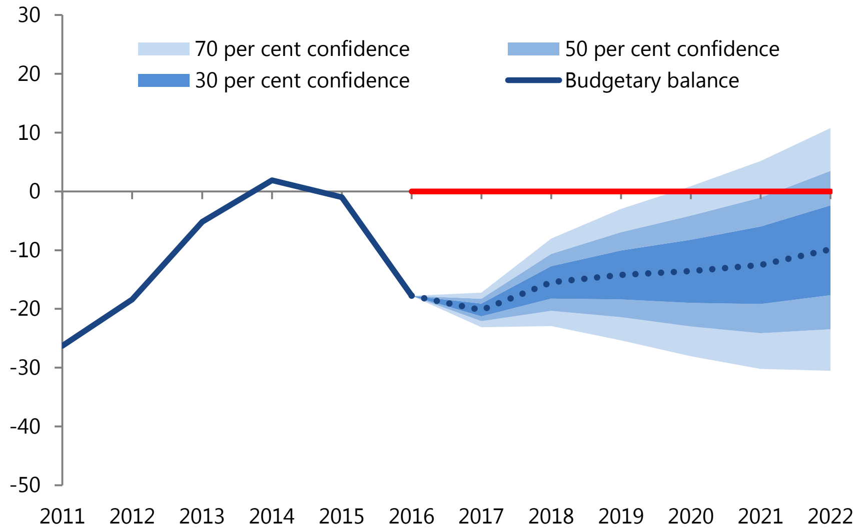
i. A permanent 1 per cent decrease in real GDP driven equally by lower productivity and employment.
ii. A permanent 1 per cent decrease in the GDP price level, assuming the Consumer Price Index moves in line with the decrease in the GDP price level.
iii. A permanent 1-percentage point (100-basis points) 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.

See Appendices F to H for the impacts on revenue and spending categories.

Figure 6 Budgetary balance outcomes under alternative economic scenarios

Budgetary balance, $ billions



Sources: Finance Canada and Parliamentary Budget Officer.

Note: The series are presented on a fiscal-year basis where 2011 refers to 2011-12. Projection period covers fiscal years 2017-18 to 2022-23. The red line corresponds to a balanced budget.

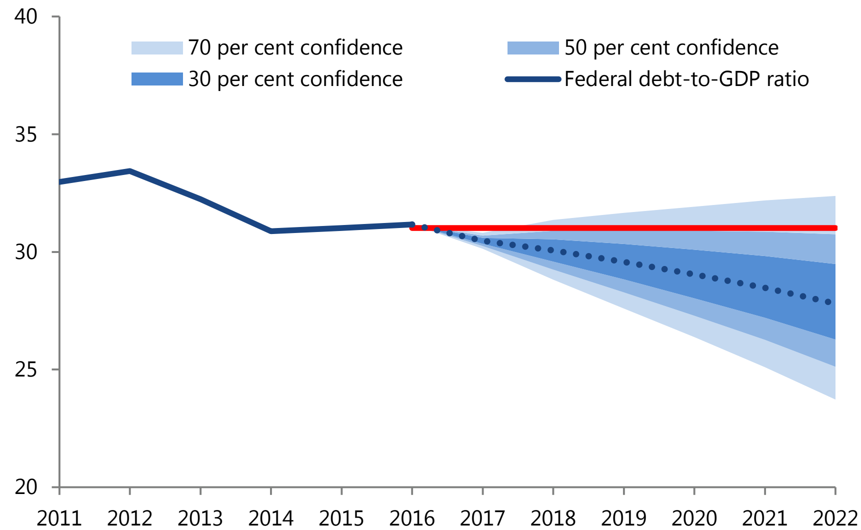
To illustrate the fiscal implications of the uncertainty surrounding our economic outlook, using our fiscal sensitivities, we mapped the distributions of economic scenarios into budgetary components and constructed fan charts with confidence intervals around our baseline fiscal projection.[14] The resulting distributions can be used to estimate the likelihood of various fiscal outcomes.

A key limitation of these charts and distributions is that they reflect only the uncertainty related to our economic outlook. They do not reflect uncertainty related to the translation of economic projections into fiscal projections; discretionary fiscal policy responses to different economic outcomes; or, non-economic risks (for example, expenses related to legal liabilities).

Given the possible scenarios surrounding our economic outlook, and on a status quo basis, it is unlikely that the budget will be balanced, or in a surplus position, over the medium term.[15] We estimate that the probability the budget will be in balance or in a surplus position in 2017-18 to 2018-19 is effectively nil.

However, we estimate that in 2019-20 there is, approximately, a 10 per cent chance that the budget will be balanced or in a surplus position. The probability of budgetary balance/surplus rises to 15 per cent in 2020-21 and to 30 per cent in 2022-23.

Figure 7 Federal debt-to-GDP outcomes under alternative economic scenarios



Sources: Finance Canada and Parliamentary Budget Officer.

Note: The series are presented on a fiscal-year basis where 2011 refers to 2011-12. Projection period covers fiscal years 2017-18 to 2022-23. The red line corresponds to the level of the federal debt-to-GDP target for 2020-21.

Given the possible scenarios surrounding our economic outlook and status quo fiscal policy assumption, we estimate that a 70 per cent confidence interval for the federal debt-to-GDP ratio in 2022-23 is about 9 percentage points. This is approximately ±4.5 percentage points relative to our baseline federal debt-to-GDP projection in 2022-23.

As noted earlier, in Budget 2016 the Government committed to reducing the federal debt-to-GDP ratio to a lower level (31.0 per cent) over a five-year period, ending in 2020-21.

Given the possible scenarios surrounding our economic outlook, and on a status quo basis, it is likely that the federal debt-to-GDP ratio will fall below its target level of 31.0 per cent over the period 2017-18 to 2022-23.

We estimate that in 2017-18 there is approximately a 95 per cent chance that the federal debt-to-GDP ratio will be below its target level. This probability falls to 75 per cent in 2018-19 and 2019-20. By 2020-21, we estimate that there is a 75 per cent chance that the federal debt-to-GDP ratio will be below its target level.

Table 9 PBO fiscal outlook compared to the Fall Economic Statement

		Projection					
	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Budgetary balance ($ billions)							
PBO (October 2017)	-17.8	-20.2	-15.5	-14.2	-13.6	-12.5	-9.9
Fall Economic Statement	-17.8	-19.9	-18.6	-17.3	-16.8	-13.9	-12.5
Difference	-	-0.3	3.1	3.1	3.2	1.4	2.6
Federal debt (% of GDP)							
PBO (October 2017)	31.2	30.5	30.1	29.6	29.0	28.5	27.8
Fall Economic Statement	31.2	30.5	30.2	29.9	29.5	29.1	28.5
Difference	-	0.0	-0.1	-0.3	-0.5	-0.6	-0.7

Sources: Finance Canada and Parliamentary Budget Officer.

PBO is projecting budgetary deficits over 2017-18 to 2022-23 that are $2.2 billion lower, on average, compared to the Fall Economic Statement.

In Budget 2016, the Government committed to reducing the federal debt-to-GDP ratio to a lower level over a five-year period ending in 2020-21. This translates into a debt-to-GDP ratio of 31.0 per cent (or lower) in 2020-21.

Based on PBO's economic and fiscal outlook, the Government is on track to reach its target and has fiscal flexibility in its current plan. Under current tax and spending plans, we project that the federal debt-to-GDP ratio will be 29.0 per cent in 2020-21, 2.0 percentage points of GDP lower than the Government's medium-term fiscal target.

Beyond 2020-21, PBO projects that the Government has fiscal room to manoeuvre while maintaining fiscal sustainability. In our recent Fiscal Sustainability Report[16] we projected that the federal government could permanently increase spending or reduce taxes by 1.2 per cent of GDP (equivalent to $24.5 billion), while maintaining fiscal sustainability over 75 years.[17]

Appendices

A: Detailed PBO economic outlook

% unless otherwise indicated	2017	2018	2019	2020	2021	2022
Real GDP growth						
October 2017	3.1	1.9	1.8	1.8	1.7	1.7
April 2017	2.5	2.1	1.9	1.7	1.6	1.6
Potential GDP growth						
October 2017	1.2	1.5	1.8	1.9	2.0	1.9
April 2017	1.2	1.5	1.8	1.9	1.9	1.8
GDP inflation						
October 2017	2.4	1.8	2.0	2.0	2.1	2.1
April 2017	2.7	1.9	2.0	2.0	2.0	2.0
Nominal GDP growth						
October 2017	5.5	3.8	3.8	3.9	3.8	3.8
April 2017	5.3	4.1	3.9	3.7	3.6	3.6
Nominal GDP ($ billions)						
October 2017	2,140	2,221	2,306	2,395	2,486	2,580
April 2017*	2,138	2,226	2,313	2,399	2,487	2,577
3-month treasury rate						
October 2017	0.7	1.6	2.6	3.0	3.0	3.0
April 2017	0.5	1.1	2.4	2.9	2.9	3.0
10-year government bond rate						
October 2017	1.8	2.7	3.3	3.8	3.9	4.0
April 2017	2.1	2.7	3.3	3.8	3.9	4.0
Exchange rate (US¢/C$)						
October 2017	77.4	80.2	80.0	79.8	79.7	79.6
April 2017	76.0	75.9	75.9	76.2	76.4	76.7
Unemployment rate						
October 2017	6.4	6.3	6.2	6.1	6.1	6.1
April 2017	6.6	6.5	6.3	6.2	6.2	6.2
CPI inflation						
October 2017	1.5	1.7	2.0	2.1	2.1	2.1
April 2017	1.6	2.0	2.1	2.1	2.0	2.0
U.S. real GDP growth						
October 2017	2.1	2.2	2.0	1.9	1.8	1.8
April 2017	2.3	2.4	2.1	1.9	1.8	1.8
WTI oil price ($US)						
October 2017	50	52	51	50	51	52
April 2017	53	54	53	53	54	55

Source: Parliamentary Budget Officer.

Note: * April 2017 nominal GDP levels have been adjusted for historical revisions.

B: PBO and Fall Economic Statement economic outlook comparison

% unless otherwise indicated	2017	2018	2019	2020	2021	2022
Real GDP growth						
PBO October 2017	3.1	1.9	1.8	1.8	1.7	1.7
Fall Economic Statement	3.1	2.1	1.6	1.7	1.7	1.8
GDP inflation						
PBO October 2017	2.4	1.8	2.0	2.0	2.1	2.1
Fall Economic Statement	2.4	1.8	1.8	2.0	1.9	1.9
Nominal GDP growth						
PBO October 2017	5.5	3.8	3.8	3.9	3.8	3.8
Fall Economic Statement	5.5	4.0	3.4	3.7	3.6	3.8
Nominal GDP ($ billions)						
PBO October 2017	2,140	2,221	2,306	2,395	2,486	2,580
Fall Economic Statement	2,140	2,226	2,302	2,388	2,473	2,568
3-month treasury rate						
PBO October 2017	0.7	1.6	2.6	3.0	3.0	3.0
Fall Economic Statement	0.8	1.5	2.0	2.3	2.5	2.7
10-year government bond rate						
PBO October 2017	1.8	2.7	3.3	3.8	3.9	4.0
Fall Economic Statement	1.8	2.5	2.9	3.1	3.3	3.5
Exchange rate (US¢/C$)						
PBO October 2017	77.4	80.2	80.0	79.8	79.7	79.6
Fall Economic Statement	77.8	81.3	81.2	81.4	81.2	82.4
Unemployment rate						
PBO October 2017	6.4	6.3	6.2	6.1	6.1	6.1
Fall Economic Statement	6.5	6.3	6.3	6.4	6.3	6.1
CPI inflation						
PBO October 2017	1.5	1.7	2.0	2.1	2.1	2.1
Fall Economic Statement	1.6	1.9	1.9	1.9	1.9	2.0
U.S. real GDP growth						
PBO October 2017	2.1	2.2	2.0	1.9	1.8	1.8
Fall Economic Statement	2.2	2.3	1.9	1.9	1.9	1.9
WTI oil price ($US)						
PBO October 2017	50	52	51	50	51	52
Fall Economic Statement	50	53	54	56	59	62

Sources: Finance Canada and Parliamentary Budget Officer.

C: Detailed fiscal outlook

$ billions	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Income taxes							
Personal income tax	143.7	150.8	161.1	169.3	176.6	184.3	192.4
Corporate income tax	42.2	44.0	43.8	44.4	46.4	48.6	50.7
Non-resident income tax	7.1	7.8	7.7	7.9	8.2	8.5	8.8
Total income tax	193.0	202.7	212.6	221.7	231.1	241.4	251.9
Excise taxes/duties							
Goods and Services Tax	34.4	35.6	37.1	38.4	39.7	41.3	42.8
Custom import duties	5.5	5.9	5.7	5.9	6.1	6.4	6.6
Other excise taxes/duties	11.5	11.8	12.0	12.1	12.4	12.5	12.5
Total excise taxes/duties	51.3	53.3	54.8	56.3	58.2	60.2	61.9
EI premium revenues	22.1	21.4	23.2	24.0	24.8	25.6	26.6
Other revenues	27.1	30.8	32.5	33.1	34.9	36.0	37.4
Total budgetary revenues	293.5	308.2	323.2	335.1	349.1	363.2	377.8
Major transfers to persons							
Elderly benefits	48.2	50.4	53.4	56.5	59.9	63.3	66.9
Employment Insurance benefits	20.7	21.6	21.7	22.6	23.4	24.2	24.9
Children's benefits	22.1	24.0	24.3	24.4	24.9	26.1	27.0
Total	90.9	96.0	99.4	103.5	108.1	113.6	118.8
Major transfers to other levels of government							
Canada Health Transfer	36.1	37.2	38.3	39.7	41.5	43.0	44.7
Canada Social Transfer	13.3	13.7	14.2	14.6	15.0	15.5	15.9
Equalization	18.0	18.3	18.7	19.4	20.3	21.1	21.9
Territorial Formula Financing	3.6	3.7	3.8	3.9	4.1	4.2	4.4
Gas Tax Fund	2.1	2.1	2.2	2.2	2.3	2.3	2.4
Home care and mental health	0.0	0.3	0.9	1.1	1.3	1.5	1.2
Other fiscal arrangements	-4.5	-4.8	-5.1	-5.4	-5.6	-5.9	-6.1
Total	68.7	70.5	72.8	75.6	78.8	81.8	84.4
Direct program expenses	127.6	138.0	138.9	139.0	141.7	143.9	146.1
Public debt charges	24.1	24.0	27.5	31.2	34.0	36.5	38.5
Total expenses	311.3	328.4	338.6	349.3	362.6	375.8	387.7
Budgetary balance	-17.8	-20.2	-15.5	-14.2	-13.6	-12.5	-9.9
Federal debt	631.9	652.1	667.5	681.7	695.3	707.8	717.7

Sources: Finance Canada and Parliamentary Budget Officer.

D: Detailed fiscal outlook (per cent of GDP)

% of GDP	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Income taxes							
Personal income tax	7.1	7.0	7.3	7.3	7.4	7.4	7.5
Corporate income tax	2.1	2.1	2.0	1.9	1.9	2.0	2.0
Non-resident income tax	0.3	0.4	0.3	0.3	0.3	0.3	0.3
Total income tax	9.5	9.5	9.6	9.6	9.7	9.7	9.8
Excise taxes/duties							
Goods and Services Tax	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Custom import duties	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Other excise taxes/duties	0.6	0.6	0.5	0.5	0.5	0.5	0.5
Total excise taxes/duties	2.5	2.5	2.5	2.4	2.4	2.4	2.4
EI premium revenues	1.1	1.0	1.0	1.0	1.0	1.0	1.0
Other revenues	1.3	1.4	1.5	1.4	1.5	1.4	1.5
Total budgetary revenues	14.5	14.4	14.6	14.5	14.6	14.6	14.6
Major transfers to persons							
Elderly benefits	2.4	2.4	2.4	2.5	2.5	2.5	2.6
Employment Insurance benefits	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Children’s benefits	1.1	1.1	1.1	1.1	1.0	1.1	1.0
Total	4.5	4.5	4.5	4.5	4.5	4.6	4.6
Major transfers to other levels of government							
Canada Health Transfer	1.8	1.7	1.7	1.7	1.7	1.7	1.7
Canada Social Transfer	0.7	0.6	0.6	0.6	0.6	0.6	0.6
Equalization	0.9	0.9	0.8	0.8	0.8	0.8	0.8
Territorial Formula Financing	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Gas Tax Fund	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Home care and mental health	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Other fiscal arrangements	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
Total	3.4	3.3	3.3	3.3	3.3	3.3	3.3
Direct program expenses	6.3	6.4	6.3	6.0	5.9	5.8	5.7
Public debt charges	1.2	1.1	1.2	1.4	1.4	1.5	1.5
Total expenses	15.4	15.3	15.2	15.2	15.1	15.1	15.0
Budgetary balance	-0.9	-0.9	-0.7	-0.6	-0.6	-0.5	-0.4
Federal debt	31.2	30.5	30.1	29.6	29.0	28.5	27.8

Sources: Finance Canada and Parliamentary Budget Officer.

E: Comparison to PBO's April 2017 fiscal outlook

$ billions **(October 2017 – April 2017)**	**2016-2017**	**2017-2018**	**2018-2019**	**2019-2020**	**2020-2021**	**2021-2022**
Income taxes						
Personal income tax	1.7	-1.0	-0.1	0.1	-0.4	-1.2
Corporate income tax	-2.4	2.9	2.1	0.1	-0.8	-1.2
Non-resident income tax	0.1	0.5	0.2	0.1	0.1	0.1
Total income tax	-0.6	2.4	2.2	0.4	-1.0	-2.3
Excise taxes/duties						
Goods and Services Tax	-0.4	0.5	0.5	0.4	0.5	0.5
Custom import duties	0.0	0.6	0.3	0.2	0.2	0.3
Other excise taxes/duties	0.1	0.0	0.2	0.2	0.3	0.4
Total excise taxes/duties	-0.3	1.1	1.0	0.8	1.0	1.1
EI premium revenues	-1.0	-0.5	0.3	0.2	0.2	0.1
Other revenues	-1.7	0.6	0.5	-0.3	0.2	-0.2
Total budgetary revenues	-3.6	3.6	4.0	1.1	0.3	-1.3
Major transfers to persons						
Elderly benefits	-0.1	-0.6	-0.7	-0.7	-0.7	-0.7
Employment Insurance benefits	-0.2	-0.5	-0.3	0.0	0.0	-0.2
Children's benefits	0.0	0.7	1.1	1.4	1.7	2.1
Total	-0.2	-0.4	0.1	0.8	1.0	1.2
Major transfers to other levels of government	0.1	0.3	0.9	1.1	1.3	1.5
Direct program expenses	-6.7	0.0	-2.3	-2.5	-2.0	-2.6
Public debt charges	0.2	-0.7	-0.1	-0.3	-0.5	0.0
Total expenses	-6.6	-0.8	-1.4	-0.9	-0.2	0.1
Budgetary balance	3.0	4.4	5.4	2.0	0.5	-1.3

Source: Parliamentary Budget Officer.

F: Fiscal impact of 1 per cent decrease in real GDP

$ billions	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
Income taxes					
Personal income tax	-2.1	-2.3	-2.4	-2.5	-2.6
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	-2.4	-2.7	-2.9	-3.1	-3.2
Excise taxes/duties					
Goods and Services Tax	-0.4	-0.4	-0.4	-0.4	-0.4
Custom import duties	-0.1	-0.1	-0.1	-0.1	-0.1
Other excise taxes/duties	0.0	0.0	0.0	0.0	0.0
Total excise taxes/duties	-0.4	-0.4	-0.5	-0.5	-0.5
EI premium revenues	0.1	1.2	1.2	1.2	1.3
Other revenues	-0.2	-0.2	-0.2	-0.3	-0.3
Total budgetary revenues	-3.0	-2.2	-2.4	-2.6	-3.2
Major transfers to persons					
Elderly benefits	0.0	0.0	0.0	0.0	0.0
Employment Insurance benefits	0.9	0.9	1.0	1.0	1.0
Children’s benefits	0.0	0.1	0.1	0.1	0.1
Total	0.9	1.0	1.1	1.1	1.1
Major transfers to other levels of government					
Canada Health Transfer	0.0	-0.1	-0.2	-0.4	-0.4
Canada Social Transfer	0.0	0.0	0.0	0.0	0.0
Equalization	0.0	-0.1	-0.2	-0.2	-0.2
Territorial Formula Financing	0.0	0.0	0.0	0.0	0.0
Gas Tax Fund	0.0	0.0	0.0	0.0	0.0
Home care and mental health	0.0	0.0	0.0	0.0	0.0
Other fiscal arrangements	0.0	0.1	0.1	0.1	0.1
Total	0.0	-0.2	-0.4	-0.6	-0.6
Direct program expenses	0.0	0.0	0.0	0.0	0.0
Public debt charges	0.0	0.0	0.0	0.0	0.0
Total expenses	0.9	0.9	0.7	0.5	0.5
Budgetary balance	**-3.9**	**-3.1**	**-3.1**	**-3.1**	**-3.2**

Source: Parliamentary Budget Officer.

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

$ billions	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
Income taxes					
Personal income tax	-0.8	-1.7	-1.8	-1.9	-2.0
Corporate income tax	-0.1	-0.3	-0.4	-0.5	-0.5
Non-resident income tax	-0.0	-0.1	-0.1	-0.1	-0.1
Total income tax	-0.9	-2.0	-2.3	-2.4	-2.6
Excise taxes/duties					
Goods and Services Tax	-0.2	-0.4	-0.4	-0.4	-0.4
Custom import duties	-0.0	-0.1	-0.1	-0.1	-0.1
Other excise taxes/duties	0.0	0.0	0.0	0.0	0.0
Total excise taxes/duties	-0.2	-0.4	-0.4	-0.5	-0.5
EI premium revenues	-0.1	-0.2	-0.3	-0.3	-0.3
Other revenues	-0.1	-0.2	-0.2	-0.2	-0.3
Total budgetary revenues	-1.4	-2.9	-3.2	-3.4	-3.6
Major transfers to persons					
Elderly benefits	-0.1	-0.5	-0.6	-0.6	-0.6
Employment Insurance benefits	-0.1	-0.2	-0.2	-0.2	-0.2
Children's benefits	0.0	0.2	0.2	0.2	0.2
Total	-0.2	-0.5	-0.6	-0.6	-0.6
Major transfers to other levels of government					
Canada Health Transfer	0.0	0.0	-0.1	-0.3	-0.4
Canada Social Transfer	0.0	0.0	0.0	0.0	0.0
Equalization	0.0	0.0	-0.1	-0.2	-0.2
Territorial Formula Financing	0.0	0.0	0.0	0.0	0.0
Gas Tax Fund	0.0	0.0	0.0	0.0	0.0
Home care and mental health	0.0	0.0	0.0	0.0	0.0
Other fiscal arrangements	0.0	0.0	0.1	0.1	0.1
Total	0.0	0.0	-0.2	-0.4	-0.5
Direct program expenses	0.0	0.0	0.0	0.0	0.0
Public debt charges	0.0	0.0	0.1	0.1	0.2
Total expenses	-0.4	-0.3	-0.5	-0.7	-0.7
Budgetary balance	**-1.2**	**-2.4**	**-2.5**	**-2.5**	**-2.6**

Source: Parliamentary Budget Officer.

H: Fiscal impact of 100-basis point increase in interest rates

$ billions	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
Income taxes	0.0	0.0	0.0	0.0	0.0
Excise taxes/duties	0.0	0.0	0.0	0.0	0.0
EI premium revenues	0.0	0.0	0.0	0.0	0.0
Other revenues	0.8	1.4	1.7	1.9	2.0
Total budgetary revenues	0.8	1.4	1.7	1.9	2.0
Major transfers to persons	0.0	0.0	0.0	0.0	0.0
Major transfers to other levels of government	0.0	0.0	0.0	0.0	0.0
Direct program expenses	-1.2	-1.2	-1.2	-1.2	-1.2
Public debt charges	2.1	3.5	4.1	4.4	4.7
Total expenses	1.0	2.3	2.9	3.2	3.4
Budgetary balance	**-0.1**	**-0.9**	**-1.2**	**-1.3**	**-1.4**

Source: Parliamentary Budget Officer.

I: PBO and Fall Economic Statement fiscal outlook comparison

$ billions (PBO – Fall Economic Statement)	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Income taxes						
Personal income tax	-1.9	-0.2	0.9	1.8	2.0	2.9
Corporate income tax	-3.1	-3.4	-3.0	-2.0	-2.0	-1.3
Non-resident income tax	0.0	-0.1	-0.3	-0.2	-0.1	0.0
Total income tax	-4.9	-3.7	-2.3	-0.5	-0.2	1.6
Excise taxes/duties						
Goods and Services Tax	-1.1	-0.5	-0.2	-0.1	0.1	0.1
Custom import duties	0.8	0.5	0.6	0.7	0.9	0.9
Other excise taxes/duties	0.1	0.1	0.1	0.1	0.1	0.1
Total excise taxes/duties	-0.3	0.2	0.5	0.7	1.1	1.1
EI premium revenues	0.4	1.2	1.5	1.5	1.4	1.5
Other revenues	2.3	2.3	2.1	2.0	1.3	2.4
Total budgetary revenues	-2.5	0.1	1.8	3.8	3.6	6.5
Major transfers to persons						
Elderly benefits	-0.5	-0.3	-0.2	0.0	0.0	0.0
Employment Insurance benefits	0.4	0.4	0.8	0.8	0.8	1.0
Children’s benefits	0.8	0.8	0.6	0.7	1.4	1.8
Total	0.6	0.9	1.2	1.4	2.2	2.8
Major transfers to other levels of government						
Canada Health Transfer	0.0	-0.3	-0.6	-0.3	-0.3	-0.2
Canada Social Transfer	0.0	0.0	0.0	0.0	0.0	0.0
Equalization	0.0	-0.3	-0.4	-0.2	-0.2	-0.1
Territorial Formula Financing	0.0	0.0	0.1	0.2	0.1	0.2
Gas Tax Fund	0.0	0.0	0.0	0.1	0.0	0.1
Home care and mental health	0.0	-0.1	0.0	-0.1	0.0	0.0
Other fiscal arrangements	0.0	-0.2	-0.2	-0.2	-0.2	-0.2
Total	0.1	-0.8	-0.9	-0.4	-0.3	-0.1
Direct program expenses	-1.1	-1.2	-1.2	-1.2	-1.2	-1.2
Public debt charges	-0.2	0.9	2.5	3.8	4.6	5.7
Total expenses	-0.7	-0.2	1.6	3.5	5.3	7.0
Budgetary balance	-0.3	3.1	3.1	3.2	1.4	2.6
Federal debt	-0.7	-4.0	-7.1	-10.3	-11.7	-14.3

Sources: Finance Canada and Parliamentary Budget Officer.

Notes

1. This report incorporates data available up to and including 24 October 2017. Unless otherwise specified, all rates are reported at annual rates.
2. In its October 2017 outlook, the IMF projected growth in world output of 3.6 per cent in 2017 and 3.7 per cent in 2018, 0.1 percentage points higher in each year compared to their April 2017 forecasts.
3. In PBO's view, there is still insufficient information to estimate a precise impact of anticipated changes to U.S. policies on the Canadian economy. We continue to assume that the anticipated, albeit diminished, change in fiscal policy will be neutral in terms of its impact on the Canadian economy as expected U.S. trade policy actions may offset gains from higher U.S. output.

   We assume that U.S. real GDP will be 0.25 per cent higher at the end of 2018, which is half of the impact of anticipated new fiscal policy measures assessed by the Bank of Canada in its January 2017 analysis. Based on our assumption of the impact on U.S. real GDP, we estimate that Canadian real GDP would be 0.1 per cent higher over the same period. In its July 2017 Monetary Policy Report, however, the Bank of Canada removed the impact of the anticipated fiscal measures from its forecast of U.S. real GDP.
4. For example, see estimates of potential or longer-run U.S. real GDP growth by the Congressional Budget Office, the Federal Reserve and the International Monetary Fund.
5. In our April 2017 Economic and Fiscal Outlook, we had assumed that the Bank of Canada would maintain its policy rate at 0.5 per cent until the second quarter of 2018.
6. See footnote 1 to CANSIM Table 282-0226.
7. See the March 2017 Statistics Canada publication by M. Moyser, "Aboriginal People Living Off-Reserve and the Labour Market: Estimates from the Labour Force Survey, 2007-2015" for a detailed analysis of the labour market integration of the off-reserve Aboriginal population. Available at: http://www.statcan.gc.ca/pub/71-588-x/71-588-x2017001-eng.pdf.
8. In 2016, the employment rate for older Aboriginal females was 31.2 per cent, compared to 30.7 per cent for their non-Aboriginal counterparts. The employment rate for older Aboriginal males was 39.8 per cent, compared to 40.6 per cent for their non-Aboriginal counterparts.
9. Over 2017 to 2022, real GDP is expected to grow, on average, at 2.0 per cent annually, slightly higher (0.1 percentage points) compared to our April outlook, owing to upward revisions to growth in consumer spending and business investment.
10. Over 2017 to 2022, potential GDP growth is projected to average 1.7 per cent annually, which is essentially unchanged from our April outlook. That said, the level of potential GDP is 0.3 per cent higher in 2022 than we

projected in April. This revision reflects increased capital accumulation and higher population levels.

11. Relative to our baseline nominal GDP growth projection (4.1 per cent annually, on average, over 2017 to 2022), the 30, 50 and 70 per cent confidence intervals shown in Figure 4 are consistent with average nominal GDP growth of ±0.4, ±0.7 and ±1.1 percentage points respectively.
12. Similar to the Federal Reserve's approach (see D. Reifschneider and P. Tulip (February 2017), available at: https://doi.org/10.17016/FEDS.2017.020), we use average historical forecast errors from external forecasters (from Finance Canada's survey of private sector forecasters) over the past twenty-three years to benchmark the uncertainty surrounding our economic projections for key indicators.
13. Our projection for corporate and personal income tax revenues incorporates the Government's 16 October 2017 announcement to reduce the small business tax rate to 10 per cent on 1 January 2018 and to 9 per cent on 1 January 2019. We estimate that these changes will increase federal revenues by $45 million in 2017-18 and then reduce them by $0.2 billion in 2018-19 and by $0.8 billion annually, on average, over 2019-20 to 2022-23.
14. Our stochastic simulation model integrates PBO's fiscal sensitivities (for real GDP growth, GDP inflation and interest rates) and generates distributions of economic and fiscal outcomes that are centered on PBO's baseline projection. The dispersion of the economic outcomes and their correlations are based on the historical forecast errors (at various horizons) from Finance Canada surveys of private sector forecasters over the period 1994 to 2016.
15. Recall that in Budget 2016, the Government committed to returning to balanced budgets and to "set a timeline for balancing the budget when growth is forecast to remain on a sustainably higher track". Budget 2017 does not mention the balanced-budget commitment, nor does it set a timeline for balancing the budget.
16. Available at: http://www.pbo-dpb.gc.ca/en/blog/news/FSR_October_2017.
17. For the subnational government sector as a whole, we assessed that current fiscal policy was not sustainable over the long term. Further, we estimated that permanent tax increases or spending reductions amounting to 0.9 per cent of GDP ($18.7 billion in current dollars) would be required to achieve fiscal sustainability for the subnational government sector.