



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

Economic and Fiscal Outlook

April 2016

Ottawa, Canada
19 April 2016
www.pbo-dpb.gc.ca

The mandate of the Parliamentary Budget Officer (PBO) is to provide independent analysis to Parliament on the state of the nation's finances, the Government's estimates and trends in the Canadian economy; and, upon request from a committee or parliamentarian, to estimate the financial cost of any proposal for matters over which Parliament has jurisdiction.

This report responds to the 4 February 2016 Standing Committee on Finance motion that "consistent with the Parliamentary Budget Office (PBO) mandate to provide independent analysis about the state of Canada's finances and trends in the national economy (as outlined in section 79.2 of the *Parliament of Canada Act*), the PBO provide an economic and fiscal outlook to the Committee the fourth week of October and April of every calendar year, and be available to appear before the Committee to discuss its findings shortly thereafter."

This report incorporates data available up to and including 12 April 2016.

This report was prepared by the staff of the Parliamentary Budget Officer. Please contact pbo-dpb@parl.gc.ca for further information.

Jean-Denis Fréchette
Parliamentary Budget Officer

Table of Contents

Executive Summary	1
Economic Outlook	3
Canada's recent economic performance	4
External economic outlook	5
Oil price projection	6
Canadian economic outlook	7
The output gap	8
Nominal GDP comparison with Budget 2016	9
Fiscal Outlook	10
Summary of the fiscal outlook	11
Outlook for revenues	12
Outlook for expenses	13
Outlook for Employment Insurance premiums and Employment Insurance Account	14
Outlook for the budgetary balance compared to Budget 2016	15
Long-term federal debt-to-GDP projection	16
Appendices	17
A: Detailed economic outlook	18
B: PBO and Budget 2016 economic outlook comparison	19
C: Detailed fiscal outlook	20
D: Detailed fiscal outlook (per cent of GDP)	21
E: Comparison to PBO's November fiscal outlook	22
F: PBO and Budget 2016 fiscal outlook comparison	23
Notes	24

Executive Summary

This report responds to the 4 February 2016 Standing Committee on Finance motion. It incorporates data available up to and including 12 April 2016.

Since the Parliamentary Budget Officer's November 2015 report, the outlook for the global economy has deteriorated further. Expectations of the future path of prices for key commodities have also been revised lower.

Despite this weaker external outlook, PBO anticipates that the combination of fiscal measures in Budget 2016 and accommodative monetary policy will help bolster the Canadian economy.

PBO projects that growth in real gross domestic product (GDP) will rebound to 1.8 per cent in 2016 and then rise to 2.5 per cent in 2017. Economic growth is then expected to moderate over 2018 to 2020, reflecting the tapering of fiscal measures and the normalization of monetary policy.

The level of nominal GDP—the broadest single measure of the tax base—is projected to be almost \$20 billion lower each year, on average, between 2016 and 2020 compared to our November report.

However, relative to the Government's planning assumption for nominal GDP in Budget 2016 our projection is, on average, \$40 billion higher per year over 2016 to 2020. The difference is most pronounced in 2016 and 2017, reaching close to \$50 billion in those years.

Summary Table 1

Economic outlook

%	2015	2016	2017	2018-2020
Real GDP growth	1.2	1.8	2.5	1.6
GDP inflation	-0.5	1.0	2.1	2.2
Nominal GDP (\$ billions)	1,986	2,043	2,138	2,308

Sources: Statistics Canada and Parliamentary Budget Officer.

Note: Figures for 2015 are actual values.

PBO's November 2015 fiscal outlook provided an independent status quo planning assumption for the start of the 42nd Parliament. We have updated our fiscal outlook to include measures announced in Budget 2016 as well as measures announced prior to the budget.

PBO estimates there was a small surplus in 2015-16. We expect a budgetary deficit of \$20.5 billion in 2016-17, which is mostly attributable to \$13.2 billion of new measures since the Fall Update. The deficit is then projected to rise to \$24.2 billion in 2017-18 as the result of moving to the 7-year breakeven mechanism for Employment Insurance premium rates (a 15 per cent reduction in contributions) and a \$7.5 billion increase in direct program expenses.

We project the deficit to decline to \$12.4 billion over 2018-19 to 2020-21 based on the Government's forecast that direct program expenses (DPE)—in particular the operating costs of departments—will remain flat over the period 2017-18 to 2019-20.

PBO's forecast of the budgetary deficit is \$4.5 billion lower, on average, than Budget 2016 over the projection horizon. The average difference is roughly in line with the Budget 2016 forecast adjustment, which removed \$40 billion from GDP (equivalent to \$6 billion in revenues) in each year of the Government's planning horizon.

Summary Table 2 **Fiscal outlook**

\$ billions	Forecast						
	2014- 2015	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021
Budgetary revenues	282.3	294.8	295.8	306.5	318.7	332.4	346.3
Program expenses	253.8	268.7	291.6	304.8	308.7	314.2	322.8
Public debt charges	26.6	25.4	24.7	25.9	28.9	33.0	35.9
Total expenses	280.4	294.2	316.3	330.7	337.6	347.2	358.7
Budgetary balance	1.9	0.7	-20.5	-24.2	-18.9	-14.8	-12.4
Structural budgetary balance	4.1	8.3	-15.1	-24.6	-21.6	-16.8	-13.4
Federal debt (% of GDP)	31.0	30.9	31.0	30.8	30.4	30.0	29.4

Sources: Finance Canada and Parliamentary Budget Officer.

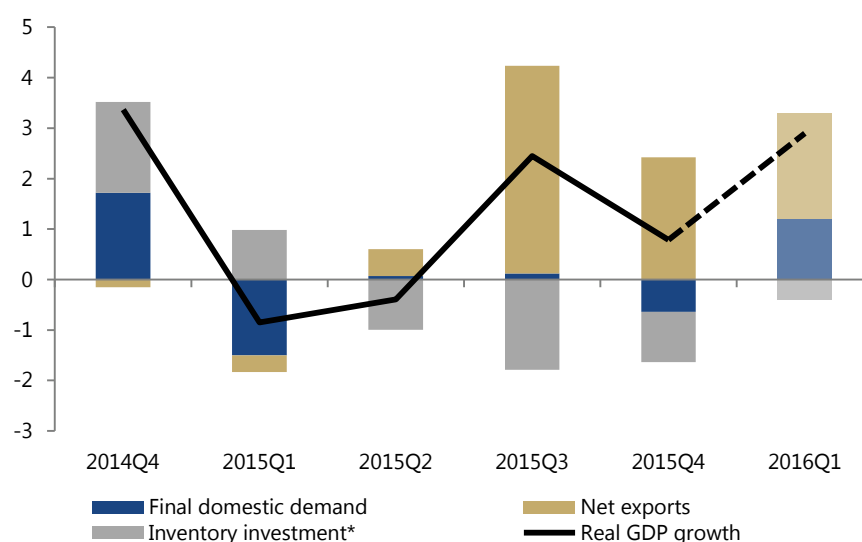
Budget 2016 highlights the Government's commitment to returning to balanced budgets and to reducing the federal debt-to-GDP ratio to a lower level by 2020-21. To provide a broader perspective on the sustainability of the Government's finances, we have extended our projection beyond 2020-21 to show the long-term trajectory of federal debt relative to GDP.

Our projection shows the federal debt-to-GDP ratio declining continuously over the long term with federal debt eliminated within the next 50 years. This indicates that the federal fiscal structure underlying Budget 2016 is sustainable over the long term.

Economic Outlook

Figure 1 Canada's recent economic performance

Contributions to real GDP growth, percentage points



Sources: Statistics Canada and Parliamentary Budget Officer.

Note: Inventory investment also includes the contribution from the statistical discrepancy.

Real gross domestic product (GDP) growth in Canada slowed to 0.8 per cent in the fourth quarter of 2015 due to slower growth in exports and a decline in final domestic demand. The weakness in final domestic demand through 2015 largely reflects decreases in non-residential business investment in structures driven by lower oil prices.

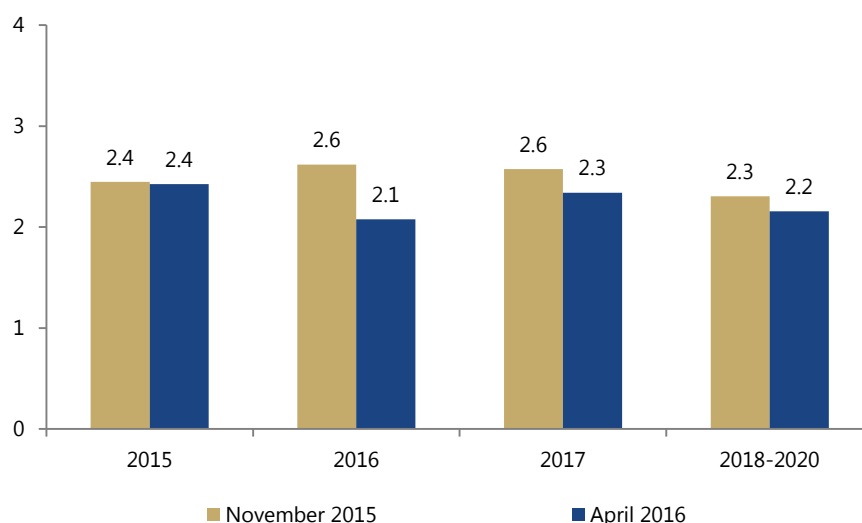
However, recent monthly indicators suggest that real GDP growth will rebound in the first quarter of 2016 to 2.9 per cent as consumer spending and government expenditure boost final domestic demand.

Based on PBO's estimates of potential GDP, the Canadian economy continues to operate below its productive capacity. For the first quarter of 2016, we estimate that the Canadian economy was 0.8 per cent below potential GDP (that is, there was an output gap of -0.8 per cent).

With the exception of the strong monthly gain in March (an increase of 41,000 net jobs), employment growth has been sluggish. Over the 6 months prior, employment gains averaged 5,000 per month. The unemployment rate has remained above 7 per cent since October 2015, despite a dip in the labour force participation rate over the same period.

Figure 2 External economic outlook

U.S. real GDP growth, %



Sources: Bureau of Economic Analysis and Parliamentary Budget Officer.

Note: For the April 2016 projection the 2015 value is the actual historical value.

Global economic activity has underperformed since the November projection. This reflects in part a more subdued U.S. recovery than was anticipated in November.

In its April 2016 World Economic Outlook, the International Monetary Fund (IMF) warned that difficult macroeconomic adjustments were causing subdued and uncertain growth prospects for different regions and contributing to higher global risks. Relative to its outlook in October 2015, the IMF has revised down its forecast for global GDP growth in 2016 by 0.4 percentage points and in 2017 by 0.3 percentage points.

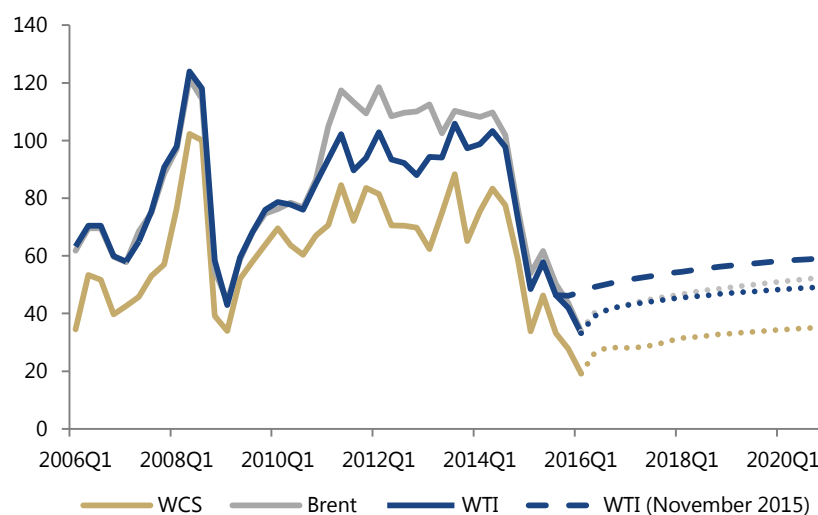
A weaker external sector will lower demand for Canadian exports. We expect U.S. real GDP to expand by 2.1 per cent in 2016 and 2.3 per cent in 2017, which is 0.5 percentage points and 0.3 percentage points lower than projected in November.

The headwinds of a strong dollar and energy-related pullback in business investment are expected to persist and restrain growth in the U.S. economy. Private consumption and residential construction are expected to drive growth over the medium term but these have a relatively lower import content than business investment.

Owing to weaker growth prospects and a fragile external environment, we now assume that the Federal Reserve will adopt a more gradual pace of interest rate increases than was anticipated in November.

Figure 3 Oil price projection

Crude oil prices, \$US per barrel



Sources: Baytex Energy Corp.; Bloomberg L.P.; U.S. Energy Information Administration; and Parliamentary Budget Officer.

Note: WTI refers to West Texas Intermediate; WCS refers to Western Canadian Select. The projection period covers 2016Q2 to 2020Q4. Projected oil prices are based on average futures prices from 18 March to 7 April 2016.

After falling below US\$30 per barrel in January and February, West Texas Intermediate (WTI) crude prices have recently firmed to around US\$40 per barrel. This increase follows a March announcement that OPEC and non-OPEC producers will meet on April 17 to discuss a proposal to freeze oil output, addressing the issue of oversupply.

Based on recent futures prices, we project WTI oil prices to tick up to US\$42 per barrel by the end of 2016 and then gradually increase to US\$49 per barrel by the end of 2020. This is about US\$10 per barrel lower, on average, than our November outlook for WTI crude.

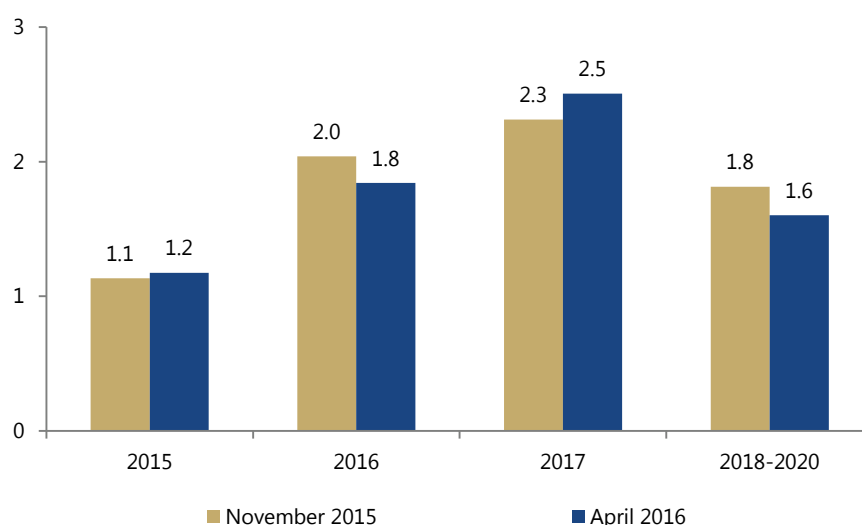
Non-energy commodity prices have also moved higher in recent months with gains observed across all major commodity categories. That said, the Bank of Canada commodity price index still remains well below its average level over 2015.

Non-energy prices are projected to move in line with futures contract prices in the near term and then are assumed to increase in step with the U.S. GDP price index.

Overall, PBO's projection of real commodity prices (that is, the Bank of Canada commodity price index deflated by the U.S. GDP price index) is 11 per cent lower, on average, compared to November.

Figure 4 Canadian economic outlook

Real GDP growth, %



Sources: Statistics Canada and Parliamentary Budget Officer.

Note: For the April 2016 projection the 2015 value is the actual historical value.

PBO projects that real GDP growth will rebound to 1.8 per cent in 2016 and then rise to 2.5 per cent in 2017 as federal fiscal measures boost domestic demand while monetary policy remains accommodative. We assume that the Bank of Canada will maintain its policy rate at $\frac{1}{2}$ per cent until the fourth quarter of 2017. Economic growth is then expected to moderate over 2018 to 2020, reflecting the tapering of fiscal measures and the normalization of monetary policy.

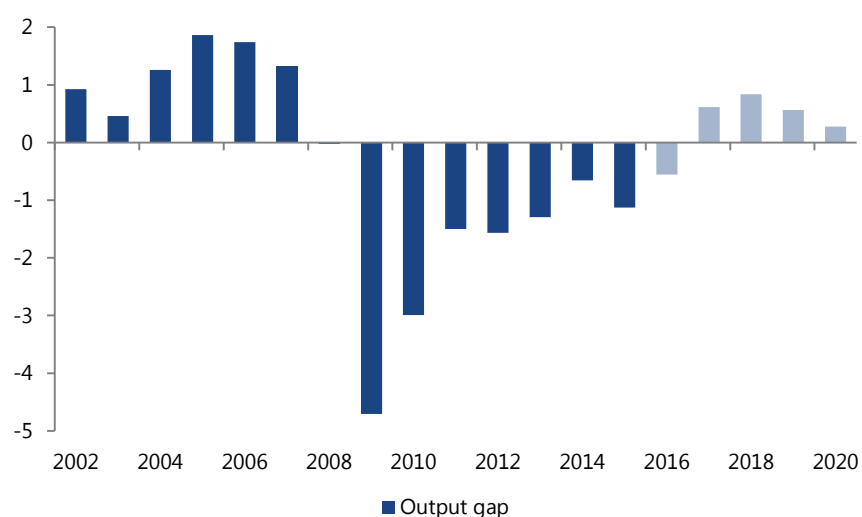
We continue to anticipate a rebalancing in the Canadian economy. The composition of real GDP is expected to shift away from consumer spending and housing toward exports and business investment.

Compared to our November outlook, real GDP growth in 2016 is lower due mainly to weaker-than-expected growth in final domestic demand in the fourth quarter of 2015. The impact of the weaker external outlook in 2016 and 2017 is offset by Budget 2016 measures (including others announced since the November 2015 Fall Update), as well as additional monetary policy accommodation over this period.¹ We assume that federal fiscal measures are fully implemented as announced in Budget 2016.

Real GDP growth over 2018 to 2020 has been revised down, on average, by 0.2 percentage points per year. This downward revision reflects lower growth in consumer spending and residential investment. See Appendix A for the detailed summary of the economic outlook.

Figure 5 The output gap

Real GDP relative to potential GDP, % difference



Sources: Statistics Canada and Parliamentary Budget Officer.

Note: The projection period covers 2016 to 2020.

Based on PBO estimates, the Canadian economy has remained below its level of potential GDP since 2008. With the expected rebound and pickup in growth, we project that real GDP will rise above potential in early 2017.

However, this overshoot reflects a temporary slowdown in potential GDP growth mainly due to the sharp declines in business investment over 2015 and the first half of 2016. Potential GDP growth is projected to slow temporarily from 1.7 per cent in early 2015 to 1.3 per cent, on average, through 2017. Had potential GDP growth remained at 1.7 per cent over this period, the economy (all else equal) would have remained below its potential through 2017 instead of overshooting.

Although we project the economy to rise above potential GDP, inflationary pressures remain well contained. Core inflation edges only marginally higher (to 2.1 per cent) than the 2 per cent inflation target in 2018 and 2019.

Over the period 2018 to 2020, potential GDP growth is projected to average 1.7 per cent annually, which is in line with our November projection.

Table 1 **Nominal GDP comparison with Budget 2016**

Nominal GDP levels, \$ billions

	2015	2016	2017	2018	2019	2020
PBO April 2016	1,986	2,043	2,138	2,226	2,307	2,391
Budget 2016 planning assumption	1,988	1,996	2,089	2,181	2,273	2,368
difference	-2	47	49	45	34	23

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

In keeping with past practice, our projection reflects the view that possible upside and downside outcomes are, broadly speaking, equally likely. PBO's projection therefore provides a natural basis for fiscal planning because it takes into account the balance of risks.

Growth in nominal GDP is the product of real GDP growth and GDP inflation. Over the period 2016 to 2020, we project nominal GDP growth to average 3.8 per cent annually, with real GDP growth averaging 1.8 per cent and GDP inflation averaging 1.9 per cent.

Average nominal GDP growth of 3.8 per cent annually over 2016 to 2020 is lower than the 4.0 per cent we projected in November due to both lower real GDP growth and GDP inflation. Adjusted for historical revisions, the level of nominal GDP is, on average, almost \$20 billion lower per year over 2016 to 2020 than we projected in November.

Relative to the Budget 2016 nominal GDP planning assumption for nominal GDP, PBO's projection is, on average, \$40 billion higher per year over 2016 to 2020. The difference is most pronounced in 2016 and 2017, reaching close to \$50 billion in those years.

In contrast, PBO's projection over 2016 to 2020 is in line with the average private sector forecast of nominal GDP from Finance Canada's February 2016 survey. Indeed, the average difference between our projection of nominal GDP and the February private sector forecast is less than \$0.5 billion per year over this period.

Although there is some uncertainty surrounding the precise timing of federal fiscal measures, we believe that ultimately these measures will have a sizeable impact on the Canadian economy.

Further, based on our current projection and the past performance of private sector forecasts, we continue to believe that the Budget 2016 planning assumption for nominal GDP in 2016 and 2017 is excessive.² In PBO's judgement, there is upside risk to the Budget 2016 planning assumption for nominal GDP over the entire 2016-2020 projection horizon. See Appendix B for a comparison of PBO and Budget 2016 economic outlooks.

Fiscal Outlook

Table 2 Summary of the fiscal outlook

\$ billions	Forecast						
	2014- 2015	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021
Budgetary revenues	282.3	294.8	295.8	306.5	318.7	332.4	346.3
Program expenses	253.8	268.7	291.6	304.8	308.7	314.2	322.8
Public debt charges	26.6	25.4	24.7	25.9	28.9	33.0	35.9
Total expenses	280.4	294.2	316.3	330.7	337.6	347.2	358.7
Budgetary balance	1.9	0.7	-20.5	-24.2	-18.9	-14.8	-12.4
Structural budgetary balance	4.1	8.3	-15.1	-24.6	-21.6	-16.8	-13.4
Federal debt (% of GDP)	31.0	30.9	31.0	30.8	30.4	30.0	29.4

Sources: Finance Canada and Parliamentary Budget Officer.

PBO estimates that there was a small surplus in 2015-16. This is roughly unchanged since our November 2015 outlook, with higher monthly receipts offsetting additional Budget 2016 spending measures such as the accrual recognition of enhancements to the New Veterans Charter.

We expect a budgetary deficit of \$20.5 billion in 2016-17, mostly attributable to \$13.2 billion of new measures since the Fall Update. The deficit rises to \$24.2 billion in 2017-18 as the result of moving to the 7-year breakeven mechanism for EI premium rates (a 15 per cent reduction in contributions) and a \$7.5 billion increase in direct program expenses. The increase in direct program expenses is attributable to both the baseline spending plan and additional measures since the Fall Update.

The deficit declines to \$12.4 billion over 2018-19 to 2020-21. The reduction is driven by the Government's projection that direct program expenses will remain flat over the period 2017-18 to 2019-20.

The structural budgetary balance provides an estimate of a government's underlying financial position if the economy and government policy were operating under normal conditions.

If economic growth had not slowed over 2015-16 and commodity prices had not declined, we estimate the budgetary balance would have been \$8.3 billion instead of \$0.7 billion. Likewise the budgetary deficit would have been lower in 2016-17 (\$15.1 billion compared to \$20.5 billion). PBO estimates that the structural budgetary balance will roughly follow the trajectory of the budgetary balance after 2016-17, as the output gap closes and commodity prices converge toward their trend.

See Appendices C and D for the detailed summary of the fiscal outlook and Appendix E for the comparison to our November 2015 fiscal outlook.

Table 3 Outlook for revenues

\$ billions	2014- 2015	Forecast					
		2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021
Income taxes							
Personal income tax	135.7	141.8	147.0	154.2	161.5	169.6	177.8
Corporate income tax	39.4	41.6	39.3	40.9	41.4	43.1	44.9
Non-resident income tax	6.2	6.5	6.4	6.6	6.9	7.2	7.5
Total income tax	181.4	189.9	192.8	201.7	209.7	219.9	230.2
Excise taxes/duties							
Goods and Services Tax	31.3	34.0	34.0	35.4	36.7	38.3	39.9
Custom import duties	4.6	5.3	5.0	4.6	4.8	5.0	5.3
Other excise taxes/duties	11.3	11.7	11.2	11.3	11.3	11.3	11.2
Total excise taxes/duties	47.2	51.0	50.3	51.4	52.8	54.7	56.3
EI premium revenues	22.6	23.3	23.5	21.5	22.2	22.3	22.9
Other revenues	31.2	30.6	29.2	31.9	34.0	35.5	36.8
Total budgetary revenues	282.3	294.8	295.8	306.5	318.7	332.4	346.3

Sources: Finance Canada and Parliamentary Budget Officer.

Compared to PBO's November outlook, personal income tax revenues are lower by an average of \$0.5 billion over the projection horizon. This is attributable to the revised outlook for nominal GDP, which is offset partially by higher revenues as a result of measures introduced in Finance Canada's February 2016 Canadian Economic Outlook and in Budget 2016.

Corporate income tax revenues are \$3.3 billion higher on average as the result of a higher revenue yields, as well as the cancellation of remaining small business tax rate reductions and increased tax compliance measures.

Goods and Services Tax revenues and customs and excise duties are roughly unchanged.

Employment Insurance (EI) premiums are higher as a result of the premium rate change required to fund the Budget 2016 enrichment to benefits.

Other revenues have been revised down significantly as a result of information that was previously unavailable to PBO. This information included additional details on Crown corporations provided in Budget 2016 and corporate plans tabled before Parliament, which showed recent profits have been the result of large one-off windfalls and contracts that were not expected to continue. PBO's outlook remains higher than the Budget 2016 forecast by \$1.2 billion on average.

Table 4 Outlook for expenses

\$ billions	2014- 2015	Forecast					
		2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021
Major transfers to persons							
Elderly benefits	44.1	45.7	48.4	51.3	54.3	57.4	60.7
Employment Insurance	18.1	19.1	21.6	21.8	21.5	21.5	21.6
Children's benefits	14.3	18.1	21.5	22.3	22.1	21.7	21.3
Major transfers to other levels of government	63.1	65.8	68.7	70.5	72.6	75.2	77.9
Direct program expenses	114.3	119.9	131.4	138.8	138.3	138.4	141.2
Public debt charges	26.6	25.4	24.7	25.9	28.9	33.0	35.9
Total expenses	280.4	294.2	316.3	330.7	337.6	347.2	358.7

Sources: Finance Canada and Parliamentary Budget Officer.

Compared to our November outlook, elderly benefits have been revised upward as the result of the Budget 2016 enrichment of the Guaranteed Income Supplement.

EI expenses are higher as a result of Budget 2016 measures to enrich accessibility and benefits.

Children's benefits have been revised higher by \$3.8 billion in 2017-18, the first full year of the Canada Child Benefit (CCB). However, spending on the new benefit is stable over time as the CCB will not be indexed, and the difference compared to previous spending on children's benefits falls to \$1.9 billion by 2020-21.

PBO includes the Budget 2016 plan for direct program expenses (that is, departmental operating expenses, grants and subsidies, and capital amortization). There are both downside and upside risks of the direct program expenses (DPE) forecast to the fiscal outlook.

On the upside, the Government has historically lapsed greater amounts of spending than assumed in the budget. As PBO has noted previously, lapses tend to grow with increases in DPE.³ Over the next two years, this could result in lower spending than anticipated.

On the downside, the largest component of DPE, the operating costs of departments and agencies, are projected to be flat over the last four years of the outlook. This effective freeze may be challenging to implement given that virtually all collective agreements are up for renegotiation and any increase in wages or benefits will raise operating costs.

Table 5 Outlook for EI premiums and the EI Operating Account

\$ billions	Forecast						
	2014- 2015	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021
Revenues	22.6	23.3	23.5	21.5	22.2	22.3	22.9
Expenses	18.1	19.1	21.6	21.8	21.5	21.5	21.6
Administration expenses	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Annual balance	3.3	2.9	0.6	-1.7	-0.6	-0.5	-0.1
Cumulative balance	0.5	3.4	4.0	2.3	1.7	1.2	1.1
			2016	2017	2018	2019	2020
Premium rate (PBO)	1.88	1.88	1.88	1.59	1.59	1.59	1.59
Premium rate (Budget 2016)	1.88	1.88	1.88	1.61	1.61	1.61	1.61

Sources: Parliamentary Budget Officer and Finance Canada.

Note: For determining the account balances, an additional adjustment is made for contributions for federal employees. This adjustment raises revenues by an average of \$0.4 billion per year (not shown).

The EI Operating Account is a consolidated specified purpose account used to track revenue and expenses to determine EI premium rates. The account is expected to accumulate a surplus of \$3.4 billion in 2015-16 and a surplus of \$4.0 billion by the end of 2016-17 due to the 2016 rate freeze.

The enhancements of EI benefits in 2016 and beyond have reduced the cumulative surplus that was forecast in the operating account (previously as high as \$6.3 billion in 2016-17 in PBO's November EFO).

As required by the seven-year breakeven framework, the account will need to run an annual deficit averaging \$0.7 billion from 2017-18 to 2020-21 to eliminate the surplus and offset future expected surpluses as revenues exceed expenses beyond the outlook.

Table 6 Outlook for the budgetary balance compared to Budget 2016

\$ billions	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021
Budgetary balance (PBO)	0.7	-20.5	-24.2	-18.9	-14.8	-12.4
Budgetary balance (Budget 2016)	-5.4	-29.4	-29.0	-22.8	-17.7	-14.3
Difference	6.1	8.9	4.8	3.9	2.9	1.9

Sources: Finance Canada and Parliamentary Budget Officer.

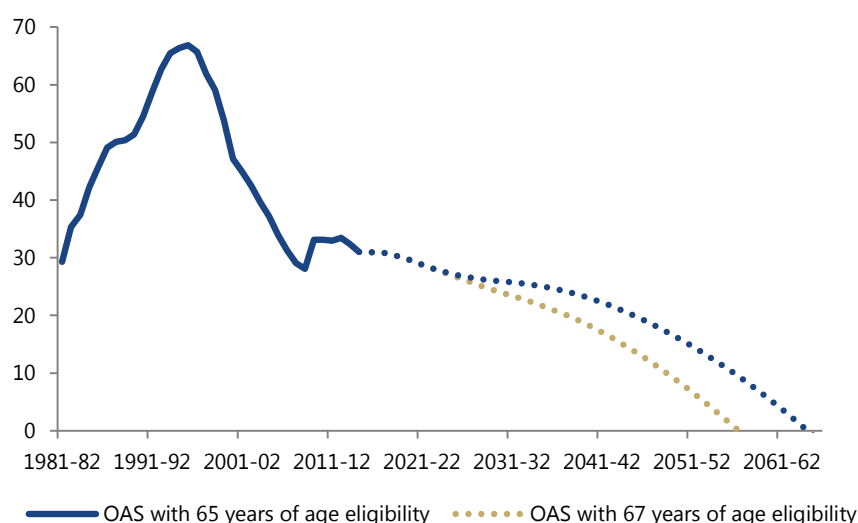
PBO estimates that there was a small surplus in 2015-16, while Budget 2016 shows a deficit of \$5.4 billion. This difference is not inconsistent with uncertainty surrounding end-of-year adjustments, different economic and fiscal assumptions, and different financial information.

The difference between PBO and Budget 2016 outlooks for the budgetary balance is most noticeable in 2016-17. Our forecast of the deficit is \$8.9 billion lower than the Budget 2016 forecast. This exceeds the difference attributable to the Government's adjustment for risk, which removed \$40 billion from GDP (equivalent to \$6 billion in revenues) over 2016-17 to 2020-21. Other factors include economic data that has exceeded expectations in the February survey of private sector economists and higher expected revenues from Crown corporations.

PBO's forecast of the budgetary balance is \$4.5 billion higher than Budget 2016 on average over the outlook. The average difference is roughly in line with the Budget 2016 planning adjustment.

See Appendix F for a comparison of PBO and Budget 2016 fiscal outlooks.

Figure 6 Long-term federal debt-to-GDP projection



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

Note: The projection period covers 2015-16 to 2065-66.

Budget 2016 highlights the Government's commitment to returning to balanced budgets and to reducing the federal debt-to-GDP ratio to a lower level by 2020-21. To provide a broader perspective on the sustainability of the Government's finances, we have extended our projection beyond 2020-21 to show the long-term trajectory of federal debt, on a public accounts basis, relative to GDP (Figure 6).

To do so, we use demographic projections provided by Statistics Canada and assume the continuation of current fiscal policy, including measures announced in Budget 2016. Beyond the five-year outlook, the economy is assumed to operate at its productive capacity over the long term.

The debt-to-GDP ratio declines over time and federal debt is eliminated entirely by 2064-65.

Parliamentarians can also use this framework to assess the Budget 2016 measure to cancel the increase in the Old Age Security (OAS) age of eligibility in 2023. Figure 6 also shows the path of federal debt under the former plan to increase the age of eligibility to 67. Had the age of eligibility change not been reversed, federal debt would be eliminated by 2057-58—seven years earlier than under current policy. The cost in 2029-30—the first full year the phase-in was to have occurred—is \$11.2 billion (0.35 per cent of GDP) higher after the change in Budget 2016.

PBO will provide its assessment of the sustainability of government finances—including subnational sectors—in our forthcoming annual Fiscal Sustainability Report.

Appendices

A: Detailed economic outlook

% unless otherwise indicated	2015	2016	2017	2018	2019	2020
Real GDP growth						
November 2015	1.1	2.0	2.3	1.8	1.8	1.8
April 2016	1.2	1.8	2.5	1.8	1.5	1.5
Potential GDP growth						
November 2015	1.8	1.6	1.7	1.8	1.8	1.7
April 2016	1.7	1.3	1.3	1.6	1.7	1.8
GDP inflation						
November 2015	-0.4	1.6	2.2	2.1	2.1	2.2
April 2016	-0.5	1.0	2.1	2.2	2.2	2.1
Nominal GDP growth						
November 2015	0.7	3.7	4.5	4.0	3.9	4.0
April 2016	0.6	2.9	4.6	4.1	3.7	3.6
Nominal GDP (\$ billions)						
November 2015	1,986	2,059	2,153	2,238	2,327	2,420
April 2016	1,986	2,043	2,138	2,226	2,307	2,391
3-month treasury rate						
November 2015	0.5	0.5	1.6	2.3	2.7	3.4
April 2016	0.5	0.5	0.6	2.0	3.0	3.3
10-year government bond rate						
November 2015	1.6	2.2	3.0	3.8	4.3	4.5
April 2016	1.5	1.6	2.2	3.1	3.8	4.1
Exchange rate (US\$/C\$)						
November 2015	78.4	75.4	75.0	74.9	74.7	74.7
April 2016	78.2	75.3	75.1	75.1	75.6	76.0
Unemployment rate						
November 2015	6.9	6.9	6.6	6.4	6.3	6.2
April 2016	6.9	7.1	6.6	6.3	6.2	6.2
CPI inflation						
November 2015	1.2	2.2	2.1	2.0	2.0	2.0
April 2016	1.1	1.8	2.2	2.2	2.1	2.1
U.S. real GDP growth						
November 2015	2.4	2.6	2.6	2.4	2.3	2.2
April 2016	2.4	2.1	2.3	2.2	2.1	2.1
WTI oil price (\$US)						
November 2015	50	49	53	55	57	59
April 2016	49	39	44	46	48	49

Sources: Statistics Canada; Bureau of Economic Analysis; Department of Energy; and Parliamentary Budget Officer.

Note: November nominal GDP levels have been adjusted for historical revisions.

B: PBO and Budget 2016 economic outlook comparison

% unless otherwise indicated	2015	2016	2017	2018	2019	2020
Real GDP growth						
Budget 2016	1.2	1.4	2.2	2.2	2.0	1.9
PBO April 2016	1.2	1.8	2.5	1.8	1.5	1.5
GDP inflation						
Budget 2016	-0.4	1.0	2.4	2.1	2.1	2.1
PBO April 2016	-0.5	1.0	2.1	2.2	2.2	2.1
Nominal GDP growth						
Budget 2016	0.7	2.4	4.6	4.3	4.2	4.1
PBO April 2016	0.6	2.9	4.6	4.1	3.7	3.6
Nominal GDP (\$ billions)						
Budget 2016	1,988	2,036	2,129	2,221	2,313	2,408
PBO April 2016	1,986	2,043	2,138	2,226	2,307	2,391
3-month treasury rate						
Budget 2016	0.5	0.5	0.7	1.6	2.4	2.7
PBO April 2016	0.5	0.5	0.6	2.0	3.0	3.3
10-year government bond rate						
Budget 2016	1.5	1.6	2.3	3.0	3.4	3.6
PBO April 2016	1.5	1.6	2.2	3.1	3.8	4.1
Exchange rate (US\$/C\$)						
Budget 2016	78.3	72.1	75.9	79.1	81.5	83.1
PBO April 2016	78.2	75.3	75.1	75.1	75.6	76.0
Unemployment rate						
Budget 2016	6.9	7.1	6.9	6.5	6.4	6.3
PBO April 2016	6.9	7.1	6.6	6.3	6.2	6.2
CPI inflation						
Budget 2016	1.2	1.6	2.0	2.0	2.0	2.0
PBO April 2016	1.1	1.8	2.2	2.2	2.1	2.1
U.S. real GDP growth						
Budget 2016	2.4	2.3	2.4	2.4	2.2	2.1
PBO April 2016	2.4	2.1	2.3	2.2	2.1	2.1
WTI oil price (\$US)						
Budget 2016	49	40	52	59	63	63
PBO April 2016	49	39	44	46	48	49

Sources: Finance Canada; Statistics Canada; Bureau of Economic Analysis; Department of Energy; and Parliamentary Budget Officer.

C: Detailed fiscal outlook

\$ billions	2014- 2015	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021
Income taxes							
Personal income tax	135.7	141.8	147.0	154.2	161.5	169.6	177.8
Corporate income tax	39.4	41.6	39.3	40.9	41.4	43.1	44.9
Non-resident income tax	6.2	6.5	6.4	6.6	6.9	7.2	7.5
Total income tax	181.4	189.9	192.8	201.7	209.7	219.9	230.2
Excise taxes/duties							
Goods and Services Tax	31.3	34.0	34.0	35.4	36.7	38.3	39.9
Custom import duties	4.6	5.3	5.0	4.6	4.8	5.0	5.3
Other excise taxes/duties	11.3	11.7	11.2	11.3	11.3	11.3	11.2
Total excise taxes/duties	47.2	51.0	50.3	51.4	52.8	54.7	56.3
EI premium revenues	22.6	23.3	23.5	21.5	22.2	22.3	22.9
Other revenues	31.2	30.6	29.2	31.9	34.0	35.5	36.8
Total budgetary revenues	282.3	294.8	295.8	306.5	318.7	332.4	346.3
Major transfers to persons							
Elderly benefits	44.1	45.7	48.4	51.3	54.3	57.4	60.7
Employment Insurance benefits	18.1	19.1	21.6	21.8	21.5	21.5	21.6
Children's benefits	14.3	18.1	21.5	22.3	22.1	21.7	21.3
Total	76.5	83.0	91.5	95.4	97.8	100.7	103.7
Major transfers to other levels of government							
Canada Health Transfer	32.1	34.0	36.1	37.2	38.3	39.7	41.4
Canada Social Transfer	12.6	13.0	13.3	13.7	14.2	14.6	15.0
Equalization	16.7	17.3	17.8	18.3	18.9	19.6	20.4
Territorial Formula Financing	3.5	3.6	3.7	3.8	3.9	4.1	4.3
Gas Tax Fund	2.0	2.0	2.1	2.1	2.2	2.2	2.3
Other fiscal arrangements	-3.7	-4.0	-4.3	-4.6	-4.8	-5.1	-5.5
Total	63.1	65.8	68.7	70.5	72.6	75.2	77.9
Direct program expenses	114.3	119.9	131.4	138.8	138.3	138.4	141.2
Public debt charges	26.6	25.4	24.7	25.9	28.9	33.0	35.9
Total expenses	280.4	294.2	316.3	330.7	337.6	347.2	358.7
Budgetary balance	1.9	0.7	-20.5	-24.2	-18.9	-14.8	-12.4
Federal debt	612.3	613.2	633.7	657.9	676.7	691.6	703.0

Sources: Finance Canada and Parliamentary Budget Officer.

D: Detailed fiscal outlook (per cent of GDP)

% of GDP	2014- 2015	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021
Income taxes							
Personal income tax	6.9	7.1	7.2	7.2	7.3	7.3	7.4
Corporate income tax	2.0	2.1	1.9	1.9	1.9	1.9	1.9
Non-resident income tax	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Total income tax	9.2	9.6	9.4	9.4	9.4	9.5	9.6
Excise taxes/duties							
Goods and Services Tax	1.6	1.7	1.7	1.7	1.6	1.7	1.7
Custom import duties	0.2	0.3	0.2	0.2	0.2	0.2	0.2
Other excise taxes/duties	0.6	0.6	0.5	0.5	0.5	0.5	0.5
Total excise taxes/duties	2.4	2.6	2.5	2.4	2.4	2.4	2.4
EI premium revenues	1.1	1.2	1.2	1.0	1.0	1.0	1.0
Other revenues	1.6	1.5	1.4	1.5	1.5	1.5	1.5
Total budgetary revenues	14.3	14.8	14.5	14.3	14.3	14.4	14.5
Major transfers to persons							
Elderly benefits	2.2	2.3	2.4	2.4	2.4	2.5	2.5
Employment Insurance benefits	0.9	1.0	1.1	1.0	1.0	0.9	0.9
Children's benefits	0.7	0.9	1.1	1.0	1.0	0.9	0.9
Total	3.9	4.2	4.5	4.5	4.4	4.4	4.3
Major transfers to other levels of government							
Canada Health Transfer	1.6	1.7	1.8	1.7	1.7	1.7	1.7
Canada Social Transfer	0.6	0.7	0.7	0.6	0.6	0.6	0.6
Equalization	0.8	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
Gas Tax Fund	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other fiscal arrangements	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
Total	3.2	3.3	3.4	3.3	3.3	3.3	3.3
Direct program expenses	5.8	6.0	6.4	6.5	6.2	6.0	5.9
Public debt charges	1.3	1.3	1.2	1.2	1.3	1.4	1.5
Total expenses	14.2	14.8	15.5	15.5	15.2	15.0	15.0
Budgetary balance	0.1	0.0	-1.0	-1.1	-0.8	-0.6	-0.5
Federal debt	31.0	30.9	31.0	30.8	30.4	30.0	29.4

Sources: Finance Canada and Parliamentary Budget Officer.

E: Comparison to PBO's November fiscal outlook

\$ billions (April 2016 – November 2015)	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021
Income taxes						
Personal income tax	0.1	-0.5	-0.9	-0.9	-0.2	-0.7
Corporate income tax	3.8	2.1	2.9	3.0	3.5	4.3
Non-resident income tax	0.2	-0.3	-0.3	-0.3	-0.3	-0.3
Total income tax	4.1	1.3	1.7	1.8	2.9	3.4
Excise taxes/duties						
Goods and Services Tax	1.1	0.2	0.4	0.3	0.7	0.8
Custom import duties	0.5	0.5	-0.2	-0.2	-0.1	-0.1
Other excise taxes/duties	0.3	-0.1	0.0	0.0	0.0	-0.2
Total excise taxes/duties	2.0	0.5	0.2	0.2	0.6	0.5
EI premium revenues	-0.2	-0.2	1.2	1.2	1.2	1.6
Other revenues	-2.7	-3.8	-4.4	-4.2	-4.2	-4.6
Total budgetary revenues	3.3	-2.2	-1.2	-1.0	0.5	0.9
Major transfers to persons						
Elderly benefits	0.1	0.2	0.4	0.6	0.7	0.5
Employment Insurance benefits	0.3	1.7	1.2	0.4	0.4	0.4
Children's benefits	0.1	3.1	3.8	3.2	2.6	1.9
Total	0.4	5.0	5.4	4.3	3.7	2.7
Major transfers to other levels of government	0.2	0.2	0.2	0.4	0.2	0.1
Direct program expenses	4.1	10.6	15.3	11.1	8.3	7.2
Public debt charges	-0.9	-0.5	-2.6	-2.9	-1.5	-0.9
Total expenses	3.8	15.3	18.3	12.9	10.7	9.1
Budgetary balance	-0.6	-17.5	-19.5	-13.9	-10.2	-8.2
Federal debt	-0.3	17.1	36.6	50.5	60.8	67.9

Source: Parliamentary Budget Officer.

F: PBO and Budget 2016 fiscal outlook comparison

\$ billions (PBO – Budget 2016)	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021
Income taxes						
Personal income tax	-0.9	3.1	0.5	0.6	1.1	0.8
Corporate income tax	2.8	1.4	1.0	1.0	1.0	0.4
Non-resident income tax	0.2	0.1	0.3	0.3	0.3	0.3
Total income tax	2.1	4.8	1.8	1.7	2.4	1.5
Excise taxes/duties						
Goods and Services Tax	0.9	0.9	0.2	0.0	0.0	-0.1
Custom import duties	0.1	0.0	0.1	0.1	0.2	0.4
Other excise taxes/duties	0.2	0.1	0.1	0.1	0.1	0.0
Total excise taxes/duties	1.2	0.7	0.5	0.2	0.4	0.1
EI premium revenues	0.3	1.1	0.5	0.4	-0.4	-0.6
Other revenues	0.0	1.5	1.7	1.1	0.6	0.8
Total budgetary revenues	3.6	8.1	4.5	3.4	3.1	1.9
Major transfers to persons						
Elderly benefits	0.1	0.0	0.2	0.4	0.5	0.6
Employment Insurance benefits	-0.3	0.5	0.2	0.2	0.0	-0.5
Children's benefits	0.0	-0.4	-0.5	-0.3	-0.4	-0.5
Total	-0.1	0.1	-0.1	0.1	0.2	-0.3
Major transfers to other levels of government						
Canada Health Transfer	0.0	0.0	0.1	-0.2	-0.5	-0.5
Canada Social Transfer	0.0	0.0	0.0	0.0	0.0	0.0
Equalization	0.0	-0.1	0.0	-0.1	-0.3	-0.3
Territorial Formula Financing	0.0	0.1	0.1	0.1	0.3	0.4
Gas Tax Fund	0.0	0.0	0.0	0.0	0.0	0.1
Other fiscal arrangements	0.0	0.1	0.1	0.2	0.2	0.1
Total	0.0	0.1	0.2	-0.1	-0.2	-0.2
Direct program expenses	-2.1	0.0	0.0	0.0	0.0	0.0
Public debt charges	-0.3	-1.0	-0.5	-0.5	0.2	0.4
Total expenses	-2.4	-0.8	-0.3	-0.4	0.2	0.1
Budgetary balance	6.1	8.9	4.8	3.9	2.9	1.9
Federal debt	-6.1	-15.0	-19.8	-23.8	-26.6	-29.5

Sources: Finance Canada and Parliamentary Budget Officer.

Notes

1. See PBO's 6 April 2016 report that provided estimates of the economic impacts of Budget 2016 measures. Available at: http://www.pbo-dpb.gc.ca/web/default/files/Documents/Reports/2016/Budget%202016/BUD16_Issues_EN.pdf.
2. See PBO's 6 April 2016 report that provided analysis of private sector forecast errors of nominal GDP (based on Finance Canada's surveys) and an assessment the Government's forecast adjustment made in Budget 2016. Available at: http://www.pbo-dpb.gc.ca/web/default/files/Documents/Reports/2016/Budget%202016/BUD16_Issues_EN.pdf.
3. See PBO's 17 November 2015 report: http://www.pbo-dpb.gc.ca/web/default/files/Documents/Reports/2015/Lapse%202015/Lapse_Analysis_EN.pdf.