OFFICE OF THE PARLIAMENTARY BUDGET OFFICER

BUREAU DU DIRECTEUR PARLEMENTAIRE DU BUDGET

Economic and Fiscal Outlook

April 2017

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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 21 April 2017. Unless otherwise specified, all rates are reported at annual rates.

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Parliamentary Budget Officer

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Executive Summary

This report responds to the 4 February 2016 Standing Committee on Finance motion. It incorporates data available up to and including 21 April 2017.[1]

We expect real GDP growth to rebound from 1.4 per cent in 2016 to 2.5 per cent in 2017 and 2.1 per cent in 2018. We assume that delayed federal fiscal measures will boost economic activity in 2017 and 2018 while growth in exports and business investment picks up.

Overall, real GDP is expected to grow, on average, at 2.0 per cent annually over 2017 to 2021, essentially the same as projected in October. We continue to anticipate a recovery in non-residential business investment and non-energy exports as well as a significant decline in residential construction activity.

GDP inflation (a measure of economy-wide price increases) is projected to rise from 0.6 per cent in 2016 to 2.7 per cent in 2017 and then average 2.0 per cent annually over the remainder of the projection horizon. 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 2021.

Summary Table 1 Economic outlook

%	2016	2017	2018	2019-2021
Real GDP growth	1.4	2.5	2.1	1.7
GDP inflation	0.6	2.7	1.9	2.0
Nominal GDP ($ billions)	2,027	2,135	2,222	2,395

Sources: Statistics Canada and Parliamentary Budget Officer.

Average annual nominal GDP growth of 4.1 per cent over 2017 to 2021 is the same as we projected in October. Adjusted for historical revisions, the level of nominal GDP is, on average, $10 billion (0.4 per cent) higher per year over 2017 to 2021 compared to October. This is due to stronger-than-anticipated nominal GDP growth in the second half of 2016. We have also revised upward our outlook for Canadian long-term interest rates, reflecting higher-than-anticipated U.S. long-term rates.

PBO's economic outlook reflects the view that possible upside and downside outcomes are, broadly speaking, equally likely. In terms of downside risks, we believe that the most important risk is weaker business investment. In terms of upside risks, we believe that the most important risk is stronger household spending. To illustrate the uncertainty surrounding PBO's nominal GDP projection, 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 ±0.5, ±0.8 and ±1.3 percentage points respectively.

Summary Table 2 Fiscal outlook

$ billions	2015-2016	Forecast 2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
Budgetary revenues	295.5	297.1	304.6	319.1	334.0	348.8	364.5
Program expenses	270.8	294.0	304.5	312.4	318.7	328.3	339.2
Public debt charges	25.6	23.9	24.7	27.6	31.5	34.5	36.5
Total expenses	296.4	317.9	329.2	340.0	350.2	362.8	375.7
Budgetary balance	**-1.0**	**-20.7**	**-24.6**	**-20.9**	**-16.2**	**-14.1**	**-11.2**
Budgetary balance (% GDP)	*0.0*	*-1.0*	*-1.2*	*-0.9*	*-0.7*	*-0.6*	*-0.4*
Federal debt (% of GDP)	**31.1**	**31.3**	**30.9**	**30.6**	**30.1**	**29.6**	**29.0**

Sources: Finance Canada and Parliamentary Budget Officer.

We expect that the budgetary deficit will be $20.7 billion (1.0 per cent of GDP) in 2016-17. This is $1.6 billion lower than we projected in October. The smaller deficit is mainly attributable to higher estimated income tax revenues, especially from corporations.

However, we are projecting budgetary deficits that are $2.2 billion larger, on average, over 2017-18 to 2021-22 compared to October. This is primarily due to higher program spending. More than half of the projected spending increase reflects new policy decisions, such as the indexation of children's benefits as well as higher transfers to subnational governments for infrastructure and health care. In addition, higher interest rates contribute to increased public debt interest costs over the medium term.

In Budget 2016, the Government committed to returning to balanced budgets and to reducing the federal debt-to-GDP ratio to a lower level over a five-year period ending in 2020-21. The debt target translates into a federal debt-to-GDP ratio of 31.0 per cent (or lower) in 2020-21.[2] Under current tax and spending plans, we project that the federal debt-to-GDP ratio will be 29.6 per cent in 2020-21, 1.4 percentage points of GDP lower than the Government's targeted level. As such, the Government has flexibility within its current fiscal plan to reach its medium-term debt-to-GDP target.

To illustrate the fiscal implications of the uncertainty surrounding our economic outlook, we mapped the distributions of alternative economic scenarios into budgetary components. 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 15 per cent chance that the budget will be balanced or in a surplus position. The probability of budgetary balance/surplus rises to 20 per cent in 2020-21 and to 30 per cent in 2021-22.

However, it is likely that the federal debt-to-GDP ratio will fall below its 2015-16 level of 31.0 per cent over the period 2017-18 to 2021-22. We estimate that in 2020-21 there is, approximately, a two-thirds chance that the federal debt-to-GDP ratio will be below its 2015-16 level.

Budget 2017: Key Issues for Parliamentarians

The presentation of the fiscal plan
The Government continues to improve the transparency and accessibility of its fiscal plan. However, there remain further opportunities for improvement. For instance, the budget continues to lack detail regarding the sources of reallocated funding and the consequential impacts on programs. In addition, there continues to be a misalignment between the budget and departmental plans for 2017-18.

Budget 2017 economic outlook
Notwithstanding the uncertainty and downside risks that continue to weigh on the domestic and global economy, PBO judges that there is upside risk to the private sector outlook for nominal GDP in Budget 2017. This risk stems from using an outdated survey from December 2016 that did not incorporate the stronger-than-expected economic releases prior to Budget 2017.

Budget 2017 fiscal outlook
PBO projects budgetary deficits that are $5.9 billion lower, on average, than Budget 2017 over 2016-17 to 2021-22. This difference reflects the Government's $3 billion annual risk adjustment and PBO's stronger economic outlook.

Given the Government's judgement that risks to the private sector economic outlook are broadly balanced, this risk adjustment suggests that the Government is taking a "prudent" approach to fiscal planning. That is, it is understating its fiscal outlook with the expectation that fiscal outcomes will exceed its projections. This approach contrasts with adjusting the private sector economic outlook to account for the balance of risks either to the upside or downside.

PBO believes that the Government's outlook for the budgetary balance over 2017-18 to 2021-22 is overly prudent. This results from using an outdated economic outlook and from incorporating a risk adjustment despite judging that risks to the economic outlook are broadly balanced.

Federal infrastructure spending

Data from the Government's accounting system, provincial spending and Statistics Canada all indicate that federal spending on infrastructure has lagged the timing originally set out in Budget 2016. As a result, we expect that roughly half of the proposed infrastructure money will be spent as planned in 2016-17.

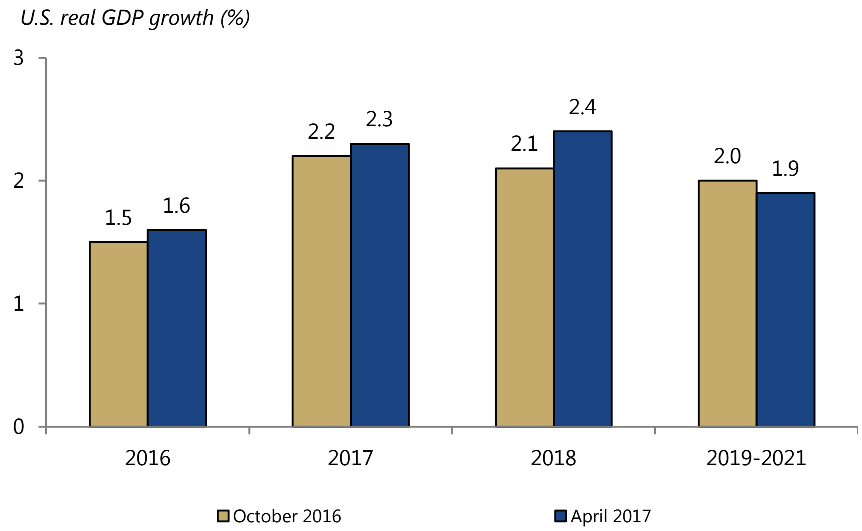
PBO expects that spending will pick up in 2017-18 to above the level originally projected in Budget 2016 (112 per cent). This would result in overall infrastructure spending being close to 90 per cent of originally projected levels. Remaining money would be spent in subsequent fiscal years.

Operating expenses

Budget 2017 provisions for 1 per cent annual growth over the medium term, implying steady declines in operating spending relative to GDP. Collective agreements promise annual wage growth in excess of 1 per cent, so other sources of savings must underpin the projection. Parliamentarians may wish to seek further detail on the Government's strategy to manage operating expenses.

Economic Outlook

Figure 1 External economic outlook



Sources: Bureau of Economic Analysis and Parliamentary Budget Officer.

Global economic activity has strengthened. In its April 2017 World Economic Outlook, the International Monetary Fund (IMF) modestly revised up its forecast for global growth from its October 2016 outlook, citing a stronger than expected pickup in growth in advanced economies.

We project that the U.S. economy will expand by 2.3 per cent in 2017 and by 2.4 per cent in 2018 which is 0.1 percentage points and 0.3 percentage points higher respectively than we projected in October. An anticipated shift in fiscal policy of the new administration as well as rising consumer and business confidence are expected to boost growth.

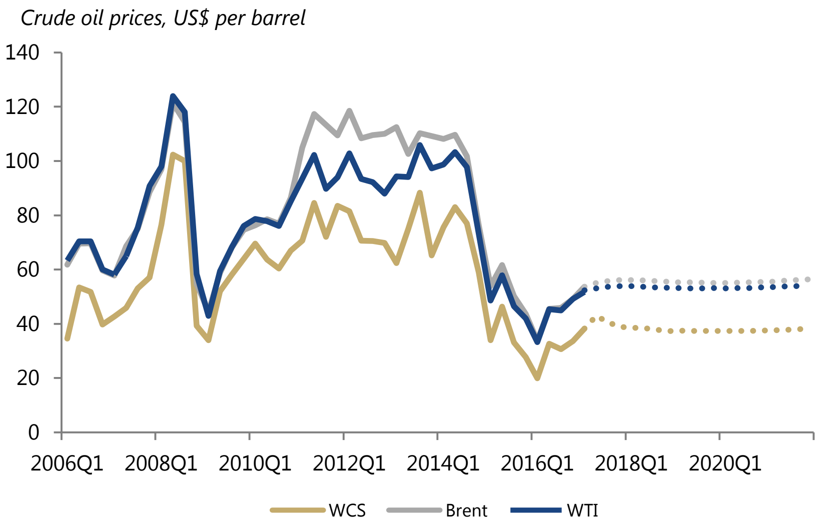
In anticipation of stronger economic activity, the Federal Reserve has signaled a faster pace of monetary policy normalization. Following its 25-basis point increase in March, we assume that the Federal Reserve will raise its policy rate again in July and in December. We have also revised up our outlook for long-term U.S. bond yields. This reflects the observed rise in yields since October, due in part to expectations of higher inflation and policy rates arising from the anticipated fiscal expansion.

In PBO's view, there is, at present, insufficient information to determine a precise impact of the new U.S. administration's policies on the Canadian economy. Therefore, we assume that the anticipated change in U.S. fiscal and monetary policy since October—resulting in higher output and interest rates[3]—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.

Over 2019 to 2021, we project U.S. growth to average 1.9 per cent annually, which is roughly in line with external estimates of U.S. potential GDP growth.[4]

We continue to expect consumer spending and residential construction, which have lower import content than business investment, to drive U.S. growth over the medium term.

Figure 2 Oil price projection



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

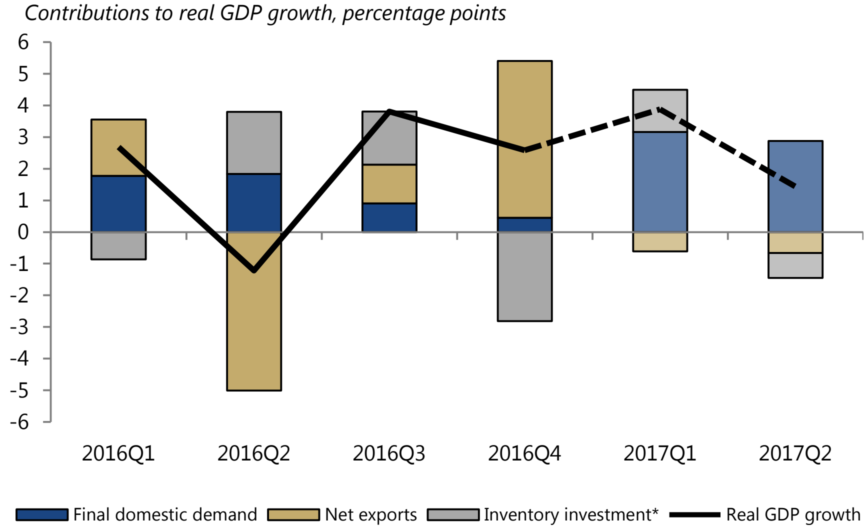
Note: WTI refers to West Texas Intermediate; WCS refers to Western Canadian Select. The projection period covers 2017Q2 to 2021Q4. Projected oil prices are based on average futures prices from 7 to 20 April 2017.

After falling below US$30 per barrel in the first quarter of 2016, oil prices recovered, lifted in part by a 28 September agreement by the Organization of the Petroleum Exporting Countries (OPEC) to limit production. Since that announcement, West Texas Intermediate (WTI) prices have averaged US$51 per barrel.

Based on recent futures prices, we project WTI oil prices to remain relatively flat at around US$53 per barrel until the end of 2021. This is about US$2 per barrel lower, on average, than our October outlook for WTI crude.

PBO's projection of the Bank of Canada's commodity price index is 1.1 per cent higher, on average, over 2017 to 2021 compared to our October outlook. A decline in the price of energy commodities, notably oil, is more than offset by higher prices of non-energy commodities.

Figure 3 Recent developments and near-term outlook in Canada



Sources: Statistics Canada and Parliamentary Budget Officer.

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

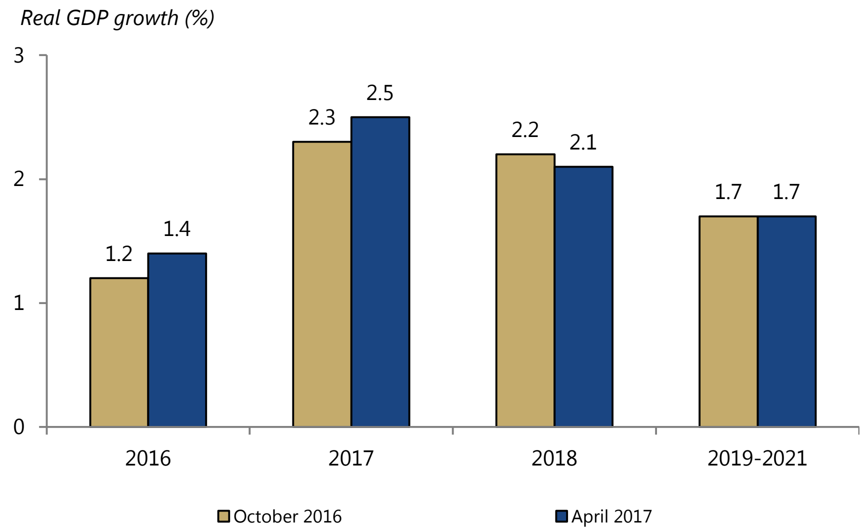
The Canadian economy expanded at a faster pace in the second half of 2016 than we anticipated in October. Quarterly real GDP growth averaged 3.2 per cent in the second half of 2016 compared to our October projection of 2.7 per cent and following growth of 0.7 per cent in the first half.

Although some of this rebound was due to the recovery from the wildfires in Fort McMurray, steady household spending and net exports also lifted growth in the second half. Household expenditures remained strong despite a steep decline in imports, suggesting that households switched their spending towards domestically-produced goods and services.

PBO expects that quarterly real GDP growth will average 2.7 per cent in the first half of 2017 as government spending on infrastructure increases and growth in consumer spending remains strong. We expect business investment to edge lower in the first quarter, but then rebound sharply through the remainder of the year.

Monthly job gains have averaged a robust 29,000 per month from October to March, outpacing monthly gains of roughly 22,000 in the working-age population. These employment gains have been concentrated entirely in full-time work. However, average weekly hours per worker has fallen almost 1.1 per cent during this period, limiting the contribution of additional labour input to economic growth.

Figure 4 Outlook for Canadian real GDP growth



Sources: Statistics Canada and Parliamentary Budget Officer.

On balance, our outlook for real GDP growth in Canada over 2017 to 2021 is essentially unchanged from October. Real GDP growth in 2016 was higher than we anticipated in our October outlook, due to stronger-than-expected growth in the second half of the year and upward historical revisions in the first half of the year.

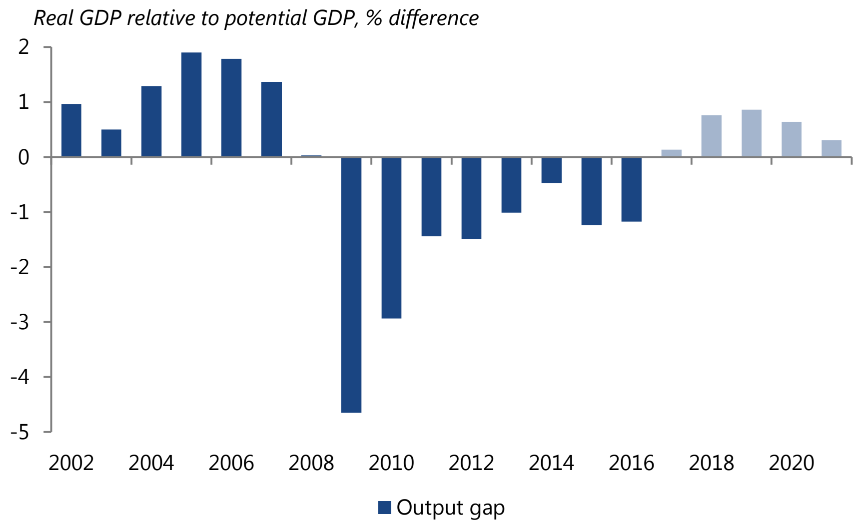
We expect real GDP growth to rebound from 1.4 per cent in 2016 to 2.5 per cent in 2017 and 2.1 per cent in 2018. We assume that delayed federal fiscal measures will boost economic activity in 2017 and 2018 while growth in exports and business investment picks up.

We continue to assume that the Bank of Canada will maintain its policy rate at 0.5 per cent until the second quarter of 2018.[5] However, we expect higher long-term U.S. bond yields to lift long-term yields in Canada and have revised up our outlook for 10-year bond rates by 30 basis points on average over 2017 to 2021.

Overall, real GDP is expected to grow, on average, at 2.0 per cent annually over 2017 to 2021, essentially the same as projected in October. We continue to anticipate a recovery in non-residential business investment and non-energy exports as well as a significant decline in residential construction activity, bringing it closer to its historical share of the economy.[6]

Household spending is expected to contribute slightly less to growth over 2019 to 2021 than in October due in part to higher long-term interest rates. This is partially offset by a stronger contribution from exports owing to a weaker Canadian dollar. See Appendix A for a detailed summary of the economic outlook.

Figure 5 The output gap



Sources: Statistics Canada and Parliamentary Budget Officer.

Note: The projection period covers 2017 to 2021.

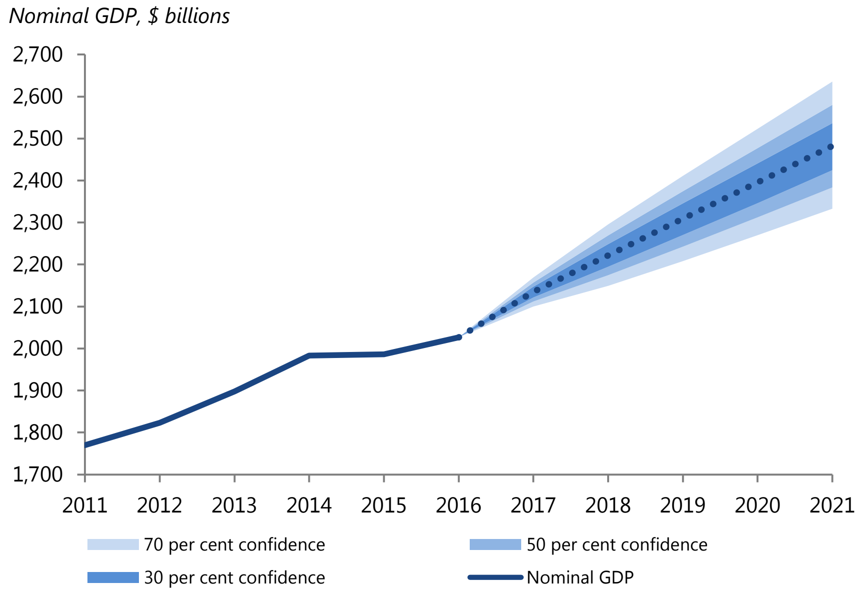
After remaining below PBO's estimate of potential GDP since late 2008, we project the Canadian economy will rise above its potential in the second half of 2017. However, this overshoot reflects a temporary slowdown in potential GDP growth in 2016 and 2017 mainly due to sharp declines in business investment over 2015 and 2016.

Potential GDP growth is projected to rise from 1.2 per cent in 2017 to 1.9 per cent in 2020. This pickup is due to rising growth in trend labour productivity, resulting from the expected recovery in business investment.

Over the period 2017 to 2021, potential GDP growth is projected to average 1.6 per cent annually, which is essentially unchanged from our October outlook. That said, the level of potential GDP is 0.4 per cent higher in 2021 than we projected in October. This revision reflects increased population levels and a higher trend employment rate.

Although we project real GDP to rise above potential GDP over the medium term, inflationary pressures remain well contained. Consumer price inflation is projected to average 2.0 per cent over 2017 to 2021.

Figure 6 Uncertainty around PBO's nominal GDP projection



Sources: Statistics Canada and Parliamentary Budget Officer.

Note: Projection period covers 2017 to 2021.

Over the period 2017 to 2021, 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, $10 billion (0.4 per cent) higher per year over 2017 to 2021 compared to our October projection. This reflects stronger-than-anticipated nominal GDP growth in the second half of 2016.

PBO's economic outlook reflects the view that possible upside and downside outcomes are, broadly speaking, equally likely. Further, to illustrate the uncertainty surrounding PBO's nominal GDP projection, we have constructed a fan chart that provides confidence intervals[7] based on historical forecasting errors.[8]

In terms of downside risks, we believe that the most important risk is weaker business investment. Although economic and financial 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 believe 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.

Fiscal Outlook

Table 1 Expected financial results for 2016-17

$ billions	PBO October 2016	PBO April 2017	Difference	2015-16 Actuals
Revenues				
Income taxes	190.2	193.6	*3.4*	192.8
Excise taxes/duties	50.3	51.6	*1.3*	49.8
EI premium revenue	23.7	23.1	*-0.5*	23.1
Other revenue	28.7	28.7	*0.1*	29.7
Total revenue	292.8	297.1	*4.3*	295.5
Program expenses				
Major transfers to persons	90.4	91.1	*0.7*	82.9
Major transfers to other levels of government	68.7	68.6	*-0.2*	65.9
Direct program expenses	132.1	134.3	*2.1*	122.1
Total program expenses	291.3	294.0	*2.7*	270.8
Public debt charges	24.0	23.9	*-0.1*	25.6
Total expenses	315.2	317.9	*2.6*	296.5
Budgetary balance	-22.4	-20.7	*1.6*	-1.0
Federal debt (% of GDP)	31.7	31.3	*-0.4*	31.1

Sources: Finance Canada and Parliamentary Budget Officer.

PBO expects a budgetary deficit of $20.7 billion (1.0 per cent of GDP) in 2016-17, which is $1.6 billion lower than projected in our October outlook. Government financial data through the first 10 months of 2016-17 indicates stronger-than-anticipated revenues. Infrastructure spending has been lower than expected, but based on current monitoring, we anticipate an increase in reported spending on infrastructure in the last two months of the fiscal year.

Personal income tax (PIT) yields have surprised to downside. We are projecting a nominal decline in PIT revenue for 2016-17, owing partly to the introduction of the 33 per cent tax bracket on high income earners. Taxpayers were able to shift forward investment income and dividends from the 2016 tax year to take advantage of the lower 2015 tax rate. The reduced rate on the second bracket, along with a smaller tax base owing to new tax exemptions on children's benefits also contributed to lower yields than we previously expected this fiscal year.

Conversely, corporate income tax (CIT) yields have been surprisingly strong. Following the collapse in oil prices, we expected corporate income tax revenues to weaken given falling corporate profits. Yet despite large declines in corporate profits observed through the second quarter of 2016, CIT revenues (on a Public Accounts basis) have continued to grow. We again are expecting CIT revenues to increase in 2016-17.

Table 2 Summary of the fiscal outlook

$ billions	2015-2016	Forecast 2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
Budgetary revenues	295.5	297.1	304.6	319.1	334.0	348.8	364.5
Program expenses	270.8	294.0	304.5	312.4	318.7	328.3	339.2
Public debt charges	25.6	23.9	24.7	27.6	31.5	34.5	36.5
Total expenses	296.4	317.9	329.2	340.0	350.2	362.8	375.7
Budgetary balance	**-1.0**	**-20.7**	**-24.6**	**-20.9**	**-16.2**	**-14.1**	**-11.2**
Budgetary balance (% GDP)	*0.0*	*-1.0*	*-1.2*	*-0.9*	*-0.7*	*-0.6*	*-0.4*
Federal debt (% of GDP)	**31.1**	**31.3**	**30.9**	**30.6**	**30.1**	**29.6**	**29.0**

Sources: Finance Canada and Parliamentary Budget Officer.

From 2017-18 to 2021-22, we continue to forecast a sequence of shrinking deficits. However, projected budgetary deficits are $2.2 billion higher, on average, compared to our October projection. This is primarily due to higher projected spending on new policy decisions, such as the indexation of children's benefits and higher transfers to subnational governments for infrastructure and health care.

Our higher spending forecast also reflects increased public debt interest costs. The increase stems from upward revisions to our outlook for long-term interest rates, as well as a new projection methodology. With respect to our new approach for projecting public debt interest expenses, we have made adjustments to better reflect the varied discount rates on federal liabilities, as well as the turnover rates on market debt.[9]

Appendices C and D provide a detailed summary of the fiscal outlook and Appendix E provides a comparison to our October 2016 fiscal outlook.

Table 3 Outlook for revenues

$ billions	2015-2016	Forecast 2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
Income taxes							
Personal income tax	144.9	142.0	151.8	161.1	169.2	176.9	185.5
Corporate income tax	41.4	44.6	41.1	41.7	44.3	47.2	49.8
Non-resident income tax	6.5	7.0	7.4	7.5	7.8	8.0	8.3
Total income tax	192.8	193.6	200.3	210.4	221.3	232.2	243.6
Excise taxes/duties							
Goods and Services Tax	33.0	34.8	35.0	36.6	37.9	39.3	40.9
Custom import duties	5.4	5.4	5.4	5.4	5.7	5.9	6.1
Other excise taxes/duties	11.5	11.4	11.8	11.8	11.9	12.1	12.1
Total excise taxes/duties	49.8	51.6	52.2	53.8	55.5	57.2	59.1
EI premium revenues	23.1	23.1	21.9	22.9	23.8	24.6	25.5
Other revenues	29.7	28.7	30.3	32.0	33.5	34.7	36.3
Total budgetary revenues	295.5	297.1	304.6	319.1	334.0	348.8	364.5

Sources: Finance Canada and Parliamentary Budget Officer.

Compared to our October projection, the overall revenue outlook is $1.8 billion higher per year, on average, over 2017-18 to 2021-22. As highlighted in PBO's January 2017 Economic and Fiscal Monitor, our view has changed with respect to the composition of revenue, reflecting recent trends in personal and corporate income tax yields.

Personal income tax revenues have recently surprised to downside. Yields altogether have declined relative to household income and we are expecting some of this trend to persist through the medium term. Consequently, we have lowered our PIT revenue forecast by $0.6 billion per year, on average.

Conversely, corporate income tax yields have remained surprisingly strong. The corporate tax system is designed to smooth taxable income across years through loss carry forwards, exemptions, capitalization and other adjustments. Even still, corporate income tax revenues have persisted stronger than we expected through an extended period of weak profitability. As such, we have adjusted upward our medium-term projection for CIT revenues by $0.9 billion per year, on average.

Employment Insurance (EI) premium revenues are projected to increase in 2018. Budget 2017 increased EI benefits through changes to EI eligibility and federal-provincial Labour Market Development Agreements. As a consequence, compared to October, we have revised upward our projected break-even premium rate to $1.65 (per $100 of earnings) beginning in 2018.

Table 4 Outlook for expenses

$ billions	2015-2016	Forecast 2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
Major transfers to persons							
Elderly benefits	45.5	48.2	51.0	54.1	57.2	60.6	64.0
Employment Insurance	19.4	20.9	22.1	22.1	22.6	23.4	24.3
Children's benefits	18.0	22.1	23.3	23.1	22.9	23.2	24.1
Total transfers to persons	82.9	91.1	96.4	99.3	102.8	107.1	112.4
Major transfers to other levels of government	65.9	68.6	70.1	72.0	74.5	77.5	80.3
Direct program expenses	122.1	134.3	138.0	141.2	141.5	143.7	146.5
Public debt charges	25.6	23.9	24.7	27.6	31.5	34.5	36.5
Total expenses	296.4	317.9	329.2	340.0	350.2	362.8	375.7

Sources: Finance Canada and Parliamentary Budget Officer.

Compared to our October projection, total expenses are higher over 2017-18 to 2021-22 by $4.0 billion per year, on average. This increase largely reflects policy changes to children's benefits, Employment Insurance and direct program expenses since our October 2016 outlook.

The Government's decision to index the Canada Child Benefit to inflation, beginning in 2020, results in $1.4 billion in additional spending on children's benefits by 2021-22.

Employment Insurance program eligibility changes and expanded Labour Market Development Agreements result in higher EI program expenses of roughly $400 million per year.

Finally, our projection for direct program expenses has been revised up due to the Government's revised outlook for direct program expense transfers. These include new infrastructure spending, particularly large reprofiles to 2018-19 and newly agreed transfers to provinces for home care and mental health initiatives.

As noted earlier, we project higher public debt charges compared to our October outlook, owing to higher interest rates and refinements to our modelling approach. Taken together, this will result in $1.5 billion in additional public debt charges by 2021-22. The remainder of our spending forecast is, on balance, essentially unchanged from October.

Table 5 Outlook for EI premiums and the EI Operating Account

$ billions	2015-2016	2016-2017 (Forecast)	2017-2018 (Forecast)	2018-2019 (Forecast)	2019-2020 (Forecast)	2020-2021 (Forecast)	2021-2022 (Forecast)
Revenues							
Premium revenues	23.1	23.1	21.9	22.9	23.8	24.6	25.5
Contributions for federal employees	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Total	23.5	23.6	22.3	23.4	24.2	25.0	26.0
Expenses							
Benefits	19.4	20.9	22.1	22.1	22.6	23.4	24.3
Administration expenses	1.8	1.9	1.8	1.7	1.7	1.7	1.7
Total	21.2	22.7	23.9	23.8	24.3	25.1	26.1
	2015	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Annual balance	**2.6**	**1.2**	**-1.4**	**-0.8**	**-0.4**	**-0.4**	**-0.5**
Cumulative balance	2.5	3.7	2.3	1.6	1.1	0.7	0.3
	Legislated			**Forecast**			
(per $100 of insurable earnings)	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Premium rate (PBO)	1.88	1.88	1.63	1.65	1.65	1.65	1.65
Premium rate (Chief Actuary)	1.88	1.88	1.63	1.68	1.68	1.68	1.68

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

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

Starting in 2017, EI premium rates will be set using a new mechanism. The EI premium rate will be chosen each year to generate just enough premium revenue to balance the EI Operating Account over a seven-year period. We estimate that the EI Operating Account had a cumulative surplus of $3.7 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 2023. Our forecast accounts for Budget 2017 changes to the EI program that are financed through higher premium rates. The Budget provides roughly $400 million in additional yearly EI benefits, corresponding to a $0.03 premium rate increase.

Table 6 Sensitivity of the budget balance to economic shocks

$ billions	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
1 per cent decrease in real GDP	-4.0	-3.5	-3.6	-3.7	-3.9
1 per cent decrease in GDP price level	-2.4	-2.3	-2.4	-2.4	-2.5
100-basis point increase in interest rates	-0.3	-0.6	-1.0	-1.1	-1.2

Source: Parliamentary Budget Officer.

PBO's fiscal outlook is a fully integrated series of projections for each major component of federal expenses and revenues. While each aspect of the outlook relies on its own set of variables (for instance, the population over the age of 65 for elderly benefits, or under the age of 18 for children's benefits), the PBO's economic projection underpins it all.

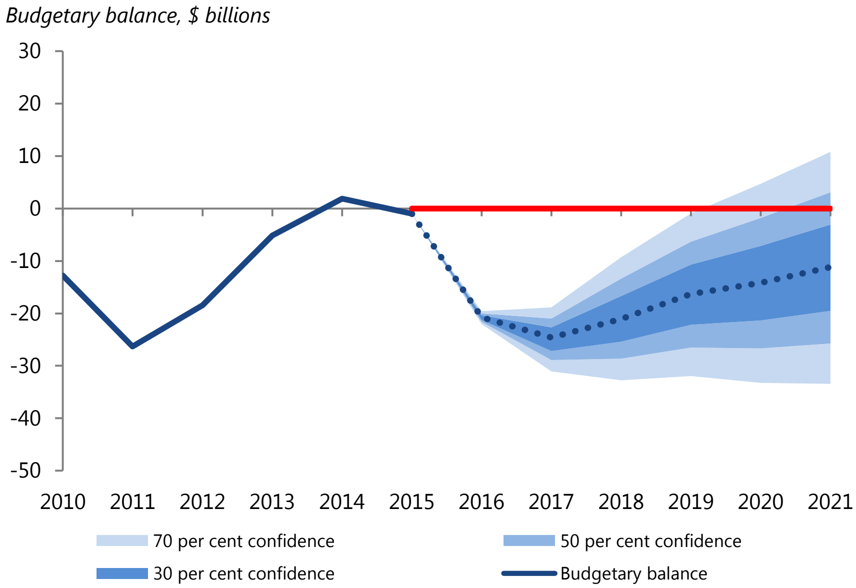
Three key economic indicators drive overall federal fiscal results: real GDP growth, GDP inflation and interest rates. Following Finance Canada's approach to assessing fiscal sensitivity, PBO estimated the impacts of three key economic shocks on its fiscal outlook:

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

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

Table 6 provides a summary of the impacts of these economic shocks on the budgetary balance. See Appendices F to H for the impacts on revenue and spending categories. PBO will publish a more detailed discussion of these results in a forthcoming report.

Figure 7 Budgetary balance outcomes under alternative economic scenarios



Sources: Finance Canada and Parliamentary Budget Officer.

Note: The series are presented on a fiscal-year basis where 2010 refers to 2010-11. Projection period covers fiscal years 2016-17 to 2021-22. The red line corresponds to a balanced budget.

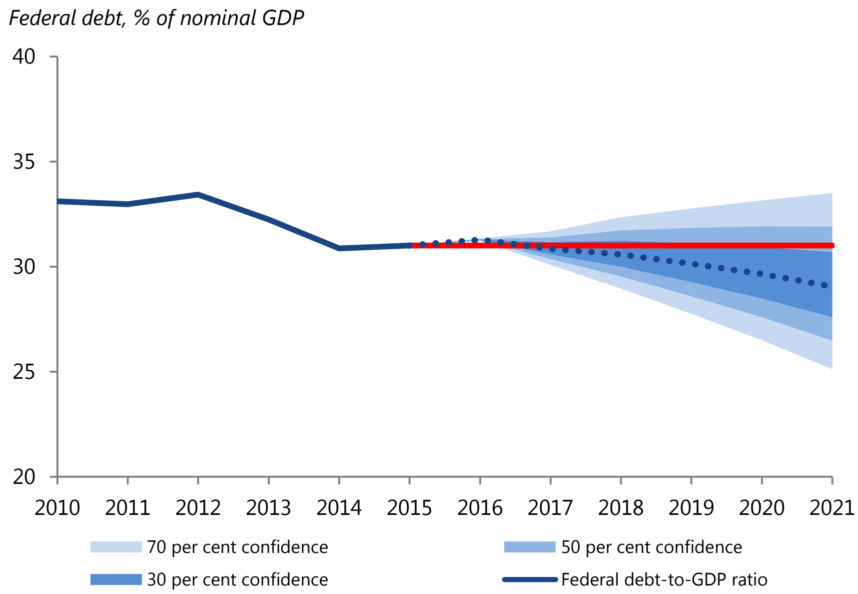
To illustrate the fiscal implications of the uncertainty surrounding our economic outlook, we mapped the distributions of economic scenarios into budgetary components and constructed fan charts with confidence intervals around our baseline fiscal projection.[10] The resulting distributions can be used 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.[11] We estimate that the probability the budget will be in balance or in a surplus position over the period 2016-17 to 2018-19 is effectively nil.

However, we estimate that in 2019-20 there is, approximately, a 15 per cent chance that the budget will be balanced or in a surplus position. The probability of budgetary balance/surplus rises to 20 per cent in 2020-21 and to 30 per cent in 2021-22.

Figure 8 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 2010 refers to 2010-11. Projection period covers fiscal years 2016-17 to 2021-22. The red line corresponds to the level of the federal debt-to-GDP ratio in 2015-16.

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 2021-22 is about 8 percentage points. This is approximately ±4 percentage points relative to our baseline federal debt-to-GDP projection in 2021-22.

As noted earlier, 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.

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 2015-16 level of 31.0 per cent over the period 2017-18 to 2021-22.

We estimate that in 2017-18 there is approximately a 55 per cent chance that the federal debt-to-GDP ratio will be below its 2015-16 level. This probability rises to 60 per cent and 65 per cent, respectively, in 2018-19 and 2019-20. By 2020-21, we estimate that there is a two-thirds chance that the federal debt-to-GDP ratio will be below its 2015-16 level.

Budget 2017: Key Issues for Parliamentarians

Presentation of the fiscal plan in Budget 2017

The Government continues to improve the transparency and accessibility of its fiscal plan.

Since Budget 2016, the Government has re-introduced full 5-year fiscal projections along with unadjusted forecasts of the budgetary balance. As well, it has also improved fiscal transparency by publishing, for the first time, a complete list of new off-cycle spending announcements in the Fall Economic Statement and detailed infrastructure spending plans reconciled to the aggregate fiscal plans in Budget 2017.

The Government's approach toward provisioning for economic and fiscal risks has been inconsistent in recent fiscal plans. PBO noted that the $6 billion risk adjustment adopted in Budget 2016 for 2016-17 and 2017-18 was excessive. The Government did not include a risk adjustment in the 2016 Fall Economic Statement. However, Budget 2017 introduces a $3 billion annual adjustment for risk beginning in 2017-18. That being said, the unadjusted budgetary balance is clearly stated and the way in which the risk adjustment is applied is straightforward. That is, the adjustment is applied directly to the budgetary balance instead of the level of nominal GDP as in Budget 2016.

There remain further opportunities for improvement. For instance, the budget continues to lack detail regarding the sources of reallocated funding and the consequential impacts on programs. Such information is necessary for informed parliamentary consent of the Government's fiscal plan. Further, there continues to be a mis-alignment between the budget and departmental plans for 2017-18. The latter provide a detailed decomposition of planned operations for departments and agencies for the next three years, but were tabled several weeks before the budget and do not reflect new policy announcements.

Table 7 Economic outlook comparison

Nominal GDP levels, $ billions	2016	2017	2018	2019	2020	2021
PBO April 2017	2,027	2,135	2,222	2,309	2,395	2,482
Budget 2017*	2,024	2,108	2,193	2,270	2,356	2,446
Difference	3	27	29	39	39	36

Real GDP growth (%)	2016	2017	2018	2019	2020	2021
PBO April 2017	1.4	2.5	2.1	1.9	1.7	1.6
Budget 2017	1.3	1.9	2.0	1.7	1.7	1.8
Difference	0.1	0.6	0.1	0.2	0.0	-0.2

GDP inflation (%)	2016	2017	2018	2019	2020	2021
PBO April 2017	0.6	2.7	1.9	2.0	2.0	2.0
Budget 2017	0.6	2.1	2.0	1.8	2.1	2.0
Difference	0.0	0.6	-0.1	0.2	-0.1	0.0

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

Note: * Budget 2017 nominal GDP levels have been adjusted for historical revisions over 2016Q1 to 2016Q3.

In PBO's view, there is upside risk to the Budget 2017 outlook for nominal GDP, which was based on Finance Canada's December 2016 survey of private sector forecasters. Budget 2017 projected levels of nominal GDP are, on average, $34 billion lower per year over 2017 to 2021 compared to PBO's projection.

However, much of this difference is due to the vintage of data underpinning the two projections rather than underlying assumptions. Finance Canada's December survey did not reflect the stronger-than-expected fourth quarter release of the National Accounts, nor the stronger-than-anticipated monthly data released prior to Budget 2017.

All else equal, we estimate that the stronger data observed since December, and prior to Budget 2017, accounts for about two thirds of the difference in projected nominal GDP levels over 2017 to 2021. The remaining difference in projected nominal GDP levels primarily reflects PBO's stronger outlook for real GDP growth in 2017.

On balance, PBO's real GDP growth and GDP inflation projections over 2018 to 2021 are in line with the private sector outlook presented in Budget 2017.

See Appendix B for a comparison of PBO and Budget 2017 economic outlooks.

Table 8 Outlook for the budgetary balance compared to Budget 2017

$ billions	Forecast 2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
Budgetary balance						
PBO (April 2017)	-20.7	-24.6	-20.9	-16.2	-14.1	-11.2
Budget 2017	-23.0	-28.5	-27.4	-23.4	-21.7	-18.8
Difference	2.3	3.9	6.5	7.2	7.6	7.6

Sources: Finance Canada and Parliamentary Budget Officer.

PBO projects budgetary deficits that are $5.9 billion lower, on average, than Budget 2017 over 2016-17 to 2021-22. This difference reflects the Government's $3 billion annual risk adjustment and PBO's stronger economic outlook.

In the Budget 2017 risk assessment, the Government judged that “the risks to the December 2016 economic outlook remain broadly balanced, and the outlook is an appropriate basis for fiscal planning”. Nevertheless, the Government included an adjustment for risk “to account for risks and uncertainty in the economic and fiscal forecast”.

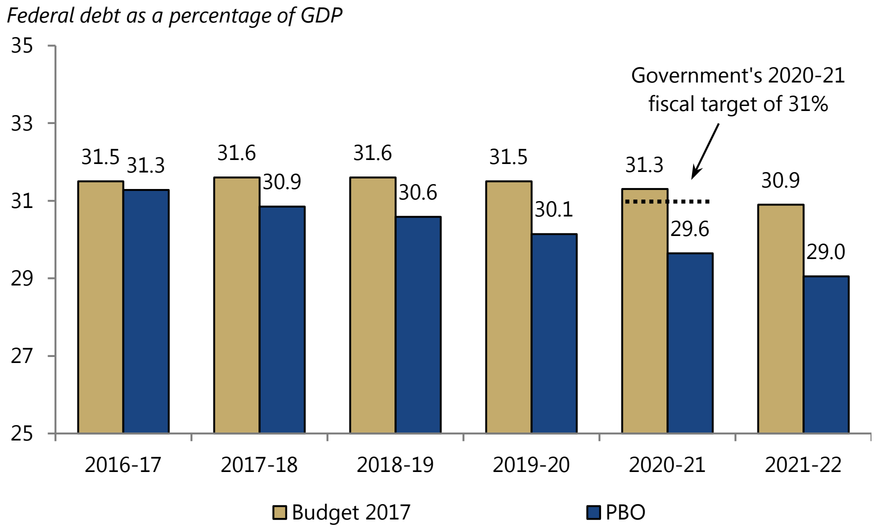
In PBO’s view, given the Government’s judgement that risks to the economic outlook are broadly balanced, this suggests that the Government is taking “prudent” approach to fiscal planning. That is, it is understating its fiscal outlook with the expectation that fiscal outcomes will exceed its projections. This approach contrasts with adjusting the private sector economic outlook to account for the balance of risks (either to the upside or downside).

Moreover, notwithstanding the uncertainty and downside risks that continue to weigh on the domestic and global economy, PBO judges that there is upside risk to the private sector outlook for nominal GDP in Budget 2017. This risk stems from using an outdated survey from December 2016 that did not incorporate the stronger-than-expected economic data released prior to Budget 2017.

Consequently, PBO believes that Government’s outlook for the budgetary balance over 2017-18 to 2021-22 is overly prudent.

See Appendix I for a comparison of PBO and Budget 2017 fiscal outlooks.

Figure 9 **Outlook for federal debt-to-GDP compared to Budget 2017**



Sources: Finance Canada and Parliamentary Budget Officer.

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 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 some fiscal flexibility in its current plan.

Under current tax and spending plans, we project that the federal debt-to-GDP ratio will be 29.6 per cent in 2020-21, 1.4 percentage points of GDP lower than the Government's medium-term fiscal target. The last time the federal debt-to-GDP ratio was below 31 per cent was in 2007-08 and 2008-09.

Under the fiscal plan presented in Budget 2017, the Government projects that it would exceed their debt-to-GDP target in 2020-21. However, this includes the cumulative $3 billion annual risk adjustment. Removing this risk adjustment, the Government's fiscal plan meets its 31 per cent debt-to-GDP target in 2020-21.

Table 9 PBO expectations for federal infrastructure spending

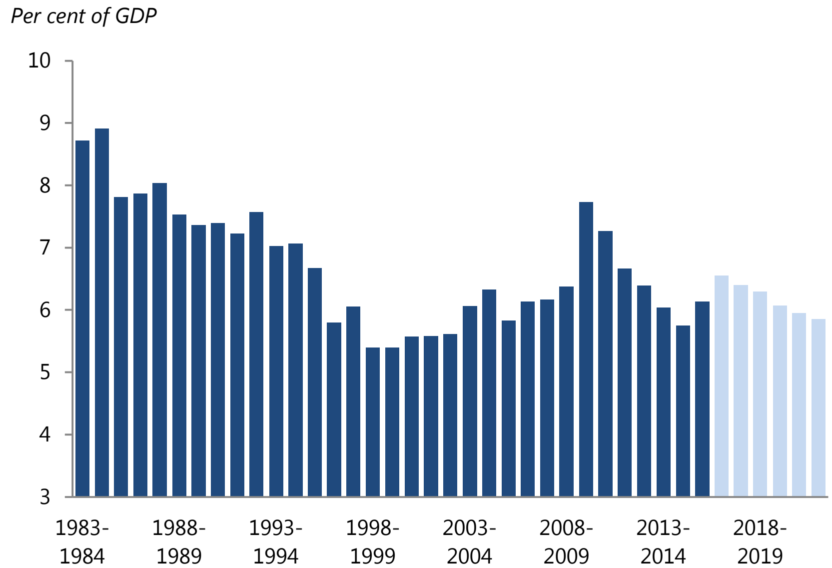
	2016-17	2017-18	Total
Infrastructure spending ($ millions)	1,910	8,176	10,086
Infrastructure spending relative to Budget 2016 (%)	48	112	89
Estimated economic impacts (April 2017)			
Infrastructure multiplier	0.8	1.0	NA
Real GDP impact (%)	+0.06	+0.29	NA
Employment impact (000s)	+1.9	+15.4	NA
Full-time-equivalent impact (000s)	+3.5	+25.2	+28.7

Source: Parliamentary Budget Officer.

Data from the Government's accounting system, provincial spending and Statistics Canada all indicate that federal spending on infrastructure[12] has lagged the timing originally set out in Budget 2016. As a result, we expect that roughly half of the proposed infrastructure money will be spent as planned in 2016-17. This is consistent with the figures presented in Budget 2017, which highlighted the Government's estimate that up to one half of its planned infrastructure spending will be delayed.

PBO expects that spending will pick up in 2017-18 to above the level originally projected in Budget 2016 (112 per cent). This would result in overall infrastructure spending being close to 90 per cent of originally projected levels. Remaining money would be spent in subsequent fiscal years.

Figure 10 Direct program expenses



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

Note: Graphic depicts direct program expenses as a percentage of GDP.

PBO's forecast for operating expenses in 2016-17 is $87.5 billion, much of which pays for personnel. The Government has recently reached a number of tentative collective agreements, and these agreements provide a 5 per cent salary increase, on average, over four years, plus a further economic adjustment of 1 per cent.[13] Looking forward, the collective agreements will increase the Government's personnel costs, which have been fairly stable over the past few years.

PBO's medium-term forecast of operating expenses is based on the Government's outlook presented in Budget 2017. Budget 2017 provisions for 1 per cent annual growth over the medium term, implying steady declines in operating spending relative to GDP. Collective agreements promise annual wage growth in excess of 1 per cent, so other sources of savings must underpin the projection.

Budget 2017 highlights plans for comprehensive reviews of inefficient, wasteful and obsolete government initiatives, but omits further detail. Notably, the operating spending plans within Budget 2017 follow a similar consolidation path as the prior spending review period from 2011-12 to 2014-15. Parliamentarians may wish to seek further detail on the Government's strategy to manage operating expenses.

Appendices

A: Detailed economic outlook

% unless otherwise indicated	2016	2017	2018	2019	2020	2021
Real GDP growth						
April 2017	1.4	2.5	2.1	1.9	1.7	1.6
October 2016	1.2	2.3	2.2	1.7	1.7	1.7
Potential GDP growth						
April 2017	1.4	1.2	1.5	1.8	1.9	1.9
October 2016	1.2	1.2	1.5	1.7	1.9	1.9
GDP inflation						
April 2017	0.6	2.7	1.9	2.0	2.0	2.0
October 2016	0.5	2.5	2.1	2.0	2.0	2.0
Nominal GDP growth						
April 2017	2.0	5.3	4.1	3.9	3.7	3.6
October 2016	1.7	4.9	4.3	3.8	3.8	3.8
Nominal GDP ($ billions)						
April 2017	2,027	2,135	2,222	2,309	2,395	2,482
October 2016*	2,023	2,122	2,214	2,298	2,384	2,474
3-month treasury rate						
April 2017	0.5	0.5	1.1	2.4	2.9	2.9
October 2016	0.5	0.5	1.1	2.3	2.8	3.1
10-year government bond rate						
April 2017	1.3	2.1	2.7	3.3	3.8	3.9
October 2016	1.3	1.7	2.3	3.0	3.5	3.7
Exchange rate (US¢/C$)						
April 2017	75.4	76.0	75.9	75.9	76.2	76.4
October 2016	75.9	77.2	77.2	77.1	77.2	77.3
Unemployment rate						
April 2017	7.0	6.6	6.5	6.3	6.2	6.2
October 2016	7.0	6.8	6.4	6.3	6.2	6.1
CPI inflation						
April 2017	1.4	2.0	2.0	2.1	2.1	2.1
October 2016	1.5	2.0	2.0	2.1	2.1	2.0
U.S. real GDP growth						
April 2017	1.6	2.3	2.4	2.1	1.9	1.8
October 2016	1.5	2.2	2.1	2.0	2.0	1.9
WTI oil price ($US)						
April 2017	43	53	54	53	53	54
October 2016	43	53	55	56	56	57

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

Note: * October nominal GDP levels have been adjusted for historical revisions to the first half of 2016.

B: PBO and Budget 2017 economic outlook comparison

% unless otherwise indicated	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Real GDP growth						
Budget 2017	1.3	1.9	2.0	1.7	1.7	1.8
PBO April 2017	1.4	2.5	2.1	1.9	1.7	1.6
GDP inflation						
Budget 2017	0.6	2.1	2.0	1.8	2.1	2.0
PBO April 2017	0.6	2.7	1.9	2.0	2.0	2.0
Nominal GDP growth						
Budget 2017	2.0	4.1	4.0	3.5	3.8	3.8
PBO April 2017	2.0	5.3	4.1	3.9	3.7	3.6
Nominal GDP ($ billions)						
Budget 2017*	2,024	2,108	2,193	2,270	2,356	2,446
PBO April 2017	2,027	2,135	2,222	2,309	2,395	2,482
3-month treasury rate						
Budget 2017	0.5	0.6	0.9	1.4	1.8	2.3
PBO April 2017	0.5	0.5	1.1	2.4	2.9	2.9
10-year government bond rate						
Budget 2017	1.3	1.8	2.3	2.7	3.0	3.3
PBO April 2017	1.3	2.1	2.7	3.3	3.8	3.9
Exchange rate (US¢/C$)						
Budget 2017	75.5	74.5	76.1	77.4	79.3	81.3
PBO April 2017	75.4	76.0	75.9	75.9	76.2	76.4
Unemployment rate						
Budget 2017	7.0	6.9	6.7	6.7	6.6	6.4
PBO April 2017	7.0	6.6	6.5	6.3	6.2	6.2
CPI inflation						
Budget 2017	1.5	2.0	2.0	1.9	1.9	2.0
PBO April 2017	1.4	2.0	2.0	2.1	2.1	2.1
U.S. real GDP growth						
Budget 2017	1.6	2.3	2.3	1.8	1.9	2.0
PBO April 2017	1.6	2.3	2.4	2.1	1.9	1.8
WTI oil price ($US)						
Budget 2017	43	54	59	56	59	64
PBO April 2017	43	53	54	53	53	54

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

Note: * Budget 2017 nominal GDP levels have been adjusted for historical revisions over 2016Q1 to 2016Q3.

C: Detailed fiscal outlook

$ billions	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
Income taxes							
Personal income tax	144.9	142.0	151.8	161.1	169.2	176.9	185.5
Corporate income tax	41.4	44.6	41.1	41.7	44.3	47.2	49.8
Non-resident income tax	6.5	7.0	7.4	7.5	7.8	8.0	8.3
Total income tax	192.8	193.6	200.3	210.4	221.3	232.2	243.6
Excise taxes/duties							
Goods and Services Tax	33.0	34.8	35.0	36.6	37.9	39.3	40.9
Custom import duties	5.4	5.4	5.4	5.4	5.7	5.9	6.1
Other excise taxes/duties	11.5	11.4	11.8	11.8	11.9	12.1	12.1
Total excise taxes/duties	49.8	51.6	52.2	53.8	55.5	57.2	59.1
EI premium revenues	23.1	23.1	21.9	22.9	23.8	24.6	25.5
Other revenues	29.7	28.7	30.3	32.0	33.5	34.7	36.3
Total budgetary revenues	295.5	297.1	304.6	319.1	334.0	348.8	364.5
Major transfers to persons							
Elderly benefits	45.5	48.2	51.0	54.1	57.2	60.6	64.0
Employment Insurance benefits	19.4	20.9	22.1	22.1	22.6	23.4	24.3
Children's benefits	18.0	22.1	23.3	23.1	22.9	23.2	24.1
Total	82.9	91.1	96.4	99.3	102.8	107.1	112.4
Major transfers to other levels of government							
Canada Health Transfer	34.0	36.1	37.2	38.3	39.7	41.5	43.1
Canada Social Transfer	13.0	13.3	13.7	14.2	14.6	15.0	15.5
Equalization	17.3	17.9	18.3	18.7	19.4	20.3	21.1
Territorial Formula Financing	3.6	3.6	3.7	3.8	3.9	4.1	4.3
Gas Tax Fund	2.0	2.1	2.1	2.2	2.2	2.3	2.3
Other fiscal arrangements	-4.0	-4.4	-4.8	-5.1	-5.4	-5.7	-6.0
Total	65.9	68.6	70.1	72.0	74.5	77.5	80.3
Direct program expenses	122.1	134.3	138.0	141.2	141.5	143.7	146.5
Public debt charges	25.6	23.9	24.7	27.6	31.5	34.5	36.5
Total expenses	296.4	317.9	329.2	340.0	350.2	362.8	375.7
Budgetary balance	-1.0	-20.7	-24.6	-20.9	-16.2	-14.1	-11.2
Federal debt	616.0	634.0	658.6	679.5	695.7	709.7	720.9

Sources: Finance Canada and Parliamentary Budget Officer.

Note: The projected level of federal debt for 2016-17 includes an estimate of other comprehensive income of $2.7 billion.

D: Detailed fiscal outlook (per cent of GDP)

% of GDP	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
Income taxes							
Personal income tax	7.3	7.0	7.1	7.3	7.3	7.4	7.5
Corporate income tax	2.1	2.2	1.9	1.9	1.9	2.0	2.0
Non-resident income tax	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Total income tax	9.7	9.6	9.4	9.5	9.6	9.7	9.8
Excise taxes/duties							
Goods and Services Tax	1.7	1.7	1.6	1.6	1.6	1.6	1.6
Custom import duties	0.3	0.3	0.3	0.2	0.2	0.2	0.2
Other excise taxes/duties	0.6	0.6	0.6	0.5	0.5	0.5	0.5
Total excise taxes/duties	2.5	2.5	2.4	2.4	2.4	2.4	2.4
EI premium revenues	1.2	1.1	1.0	1.0	1.0	1.0	1.0
Other revenues	1.5	1.4	1.4	1.4	1.4	1.5	1.5
Total budgetary revenues	14.9	14.7	14.3	14.4	14.5	14.6	14.7
Major transfers to persons							
Elderly benefits	2.3	2.4	2.4	2.4	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	0.9	1.1	1.1	1.0	1.0	1.0	1.0
Total	4.2	4.5	4.5	4.4	4.4	4.4	4.4
Major transfers to other levels of government							
Canada Health Transfer	1.7	1.8	1.7	1.7	1.7	1.7	1.7
Canada Social Transfer	0.7	0.7	0.6	0.6	0.6	0.6	0.6
Equalization	0.9	0.9	0.9	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
Other fiscal arrangements	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
Total	3.3	3.4	3.3	3.2	3.2	3.2	3.2
Direct program expenses	6.2	6.6	6.5	6.4	6.1	6.0	5.9
Public debt charges	1.3	1.2	1.2	1.2	1.4	1.4	1.5
Total expenses	14.9	15.7	15.4	15.3	15.2	15.1	15.1
Budgetary balance	0.0	-1.0	-1.2	-0.9	-0.7	-0.6	-0.4
Federal debt	31.1	31.3	30.9	30.6	30.1	29.6	29.0

Sources: Finance Canada and Parliamentary Budget Officer.

Note: The projected level of federal debt for 2016-17 includes an estimate of other comprehensive income of $2.7 billion.

E: Comparison to PBO's October fiscal outlook

$ billions (April 2017 – October 2016)	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
Income taxes						
Personal income tax	-4.0	-1.8	0.3	0.0	-0.9	-0.7
Corporate income tax	6.7	0.7	-0.2	0.6	1.6	2.1
Non-resident income tax	0.7	0.8	0.7	0.6	0.5	0.4
Total income tax	3.4	-0.3	0.7	1.2	1.2	1.8
Excise taxes/duties						
Goods and Services Tax	0.8	-0.4	0.1	-0.2	-0.3	-0.4
Custom import duties	0.2	0.1	0.2	0.3	0.2	0.2
Other excise taxes/duties	0.3	0.5	0.6	0.7	0.9	0.7
Total excise taxes/duties	1.3	0.3	0.8	0.7	0.8	0.5
EI premium revenues	-0.5	0.1	1.0	1.1	1.1	1.2
Other revenues	0.1	-0.3	-0.5	-0.6	-0.8	-1.1
Total budgetary revenues	4.3	-0.1	2.0	2.4	2.3	2.5
Major transfers to persons						
Elderly benefits	0.4	0.2	0.3	0.4	0.4	0.4
Employment Insurance benefits	-0.2	0.4	0.8	1.1	1.0	1.1
Children's benefits	0.5	0.7	0.9	1.0	1.5	2.8
Total	0.7	1.3	2.1	2.5	3.0	4.3
Major transfers to other levels of government	-0.2	-0.4	-0.7	-0.5	-0.4	-0.4
Direct program expenses	2.1	-1.6	2.1	2.1	1.5	-1.1
Public debt charges	-0.1	0.2	1.2	1.6	1.7	1.5
Total expenses	2.6	-0.5	4.7	5.6	5.8	4.3
Budgetary balance	1.6	0.4	-2.7	-3.2	-3.5	-1.8

Source: Parliamentary Budget Officer.

F: Sensitivity: 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	-2.3	-2.5	-2.6	-2.7	-2.8
Corporate income tax	-0.2	-0.4	-0.4	-0.5	-0.5
Non-resident income tax	-0.1	-0.1	-0.1	-0.1	-0.1
Total income tax	-2.6	-2.9	-3.1	-3.3	-3.4
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	-0.4	-0.4	-0.5
EI premium revenues	0.1	1.0	1.1	1.1	1.2
Other revenues	-0.2	-0.2	-0.2	-0.2	-0.2
Total budgetary revenues	-3.1	-2.5	-2.7	-2.8	-3.0
Major transfers to persons					
Elderly benefits	0.0	0.0	0.0	0.0	0.0
Employment Insurance benefits	0.9	0.9	0.9	1.0	1.0
Children's benefits	0.0	0.1	0.1	0.1	0.1
Total	0.9	1.0	1.0	1.1	1.1
Major transfers to other levels of government					
Canada Health Transfer	0.0	0.0	-0.1	-0.3	-0.3
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
Other fiscal arrangements	0.0	0.0	0.0	0.0	0.0
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	0.1	0.1	0.2	0.3
Total expenses	0.9	1.1	1.0	0.9	1.0
Budgetary balance	**-4.0**	**-3.5**	**-3.6**	**-3.7**	**-3.9**

Source: Parliamentary Budget Officer.

G: Sensitivity: 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	-1.9	-1.5	-1.6	-1.7	-1.8
Corporate income tax	-0.2	-0.4	-0.4	-0.5	-0.5
Non-resident income tax	-0.1	-0.1	-0.1	-0.1	-0.1
Total income tax	-2.2	-2.0	-2.1	-2.3	-2.4
Excise taxes/duties					
Goods and Services Tax	-0.3	-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	-0.4	-0.4	-0.5
EI premium revenues	-0.1	-0.1	-0.1	-0.1	-0.1
Other revenues	-0.2	-0.2	-0.2	-0.2	-0.2
Total budgetary revenues	-2.9	-2.7	-2.9	-3.1	-3.2
Major transfers to persons					
Elderly benefits	-0.4	-0.5	-0.6	-0.6	-0.6
Employment Insurance benefits	-0.1	-0.1	-0.1	-0.1	-0.1
Children's benefits	0.0	0.2	0.2	0.2	0.2
Total	-0.5	-0.4	-0.4	-0.5	-0.5
Major transfers to other levels of government					
Canada Health Transfer	0.0	0.0	-0.1	-0.3	-0.3
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
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	0.2	0.3
Total expenses	-0.4	-0.3	-0.5	-0.7	-0.7
Budgetary balance	**-2.4**	**-2.3**	**-2.4**	**-2.4**	**-2.5**

Source: Parliamentary Budget Officer.

H: Sensitivity: 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	1.5	1.9	2.2	2.5	2.7
Total budgetary revenues	1.5	1.9	2.2	2.5	2.7
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	-1.7	-1.7	-1.7	-1.7	-1.7
Public debt charges	3.5	4.3	5.0	5.4	5.7
Total expenses	1.8	2.5	3.2	3.6	3.9
Budgetary balance	**-0.3**	**-0.6**	**-1.0**	**-1.1**	**-1.2**

Source: Parliamentary Budget Officer.

I: PBO and Budget 2017 fiscal outlook comparison

$ billions (PBO – Budget 2017)	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
Income taxes						
Personal income tax	-1.2	-0.3	3.3	4.8	5.9	6.9
Corporate income tax	2.1	-2.5	-2.7	-1.4	-0.4	-0.3
Non-resident income tax	0.4	0.5	0.4	0.3	0.2	0.3
Total income tax	1.2	-2.3	1.1	3.8	5.9	6.8
Excise taxes/duties						
Goods and Services Tax	1.1	-0.1	0.2	0.1	0.0	-0.1
Custom import duties	0.0	0.5	0.4	0.5	0.4	0.4
Other excise taxes/duties	-0.2	0.1	0.1	0.1	0.1	0.1
Total excise taxes/duties	1.0	0.5	0.6	0.7	0.5	0.4
EI premium revenues	0.8	0.7	0.5	0.6	0.5	0.5
Other revenues	2.0	1.2	1.4	1.3	1.6	0.8
Total budgetary revenues	5.0	-0.1	3.5	6.3	8.5	8.5
Major transfers to persons						
Elderly benefits	-0.1	-0.1	0.2	0.2	0.4	0.3
Employment Insurance benefits	-0.1	0.1	0.1	0.0	0.2	0.6
Children's benefits	0.2	0.3	0.3	0.4	0.4	0.9
Total	-0.1	0.3	0.5	0.7	0.9	1.8
Major transfers to other levels of government						
Canada Health Transfer	0.0	0.0	-0.1	-0.2	0.1	0.2
Canada Social Transfer	0.0	0.0	0.0	0.0	0.0	0.0
Equalization	0.0	0.0	-0.2	-0.2	0.0	0.0
Territorial Formula Financing	0.0	0.0	0.0	0.1	0.3	0.4
Gas Tax Fund	0.0	0.0	0.0	0.0	0.1	0.0
Other fiscal arrangements	-0.1	-0.1	-0.3	-0.3	-0.4	-0.4
Total	-0.1	-0.1	-0.5	-0.4	0.0	0.2
Direct program expenses	3.4	-1.1	-1.2	-1.2	-1.2	-1.3
Public debt charges	-0.4	0.0	1.3	3.2	4.1	3.2
Total expenses	2.8	-1.0	0.0	2.1	3.8	3.9
Budgetary balance*	2.3	3.9	6.5	7.2	7.6	7.6
Federal debt	-3.0	-6.9	-13.4	-20.6	-28.4	-36.0

Sources: Finance Canada and Parliamentary Budget Officer.

Note: * Includes risk adjustment.

Notes

1. Unless otherwise specified, all rates are reported at annual rates.
2. See pages 26 and 50 of Budget 2016. Available at: http://www.budget.gc.ca/2016/docs/plan/budget2016-en.pdf.
3. PBO assumes that U.S. real GDP will be 0.5 per cent higher at the end of 2018 consistent with analysis of the impact of anticipated new fiscal policy measures by the Bank of Canada and International Monetary Fund. We estimate that this would raise Canadian real GDP by 0.2 per cent.
4. For example, see estimates of potential or longer-run U.S. GDP growth by the Congressional Budget Office, Federal Reserve and International Monetary Fund.
5. PBO has revised down its long-term assumption for the neutral policy rate in Canada and the United States to 3.0 per cent. This assumption is consistent with recently published estimates by the Bank of Canada and the U.S. Federal Reserve.
6. See PBO's December 2016 report, Household Formation and the Housing Stock (available at: http://www.pbo-dpb.gc.ca/en/blog/news/Household_Formation) for a more detailed discussion of the outlook for residential investment and the housing sector.
7. Relative to our baseline nominal GDP growth projection (4.1 per cent annually, on average, over 2017 to 2021), the 30, 50 and 70 per cent confidence intervals shown in Figure 6 are consistent with average nominal GDP growth of ±0.5, ±0.8 and ±1.3 percentage points respectively.
8. 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 (i.e., from Finance Canada's survey of private sector forecasters) over the past twenty years to benchmark the uncertainty surrounding our economic projections for key indicators.
9. Increases in projected interest rates will also affect the estimated actuarial liability for public sector pensions and benefits. This change and the estimated annual amortization of the net increased liability are reflected in our projection of operating expenses.
10. Using PBO's fiscal sensitivities for real GDP growth, GDP inflation and interest rates, we have developed a stochastic simulation model of the Government's budget that maps the distributions of the possible economic outcomes into distributions for budgetary revenues, program expenditure, public debt charges and the corresponding budgetary balance and federal debt.

    This model 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.

11. 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.
12. Infrastructure spending includes all spending designated by the Government of Canada in Budget 2016 as "Infrastructure" in Table A2.4, namely transfers to other levels of government, First Nations, as well as investments in federal assets. Figures above are presented on a cash accounting basis. The accrual fiscal impact is roughly $1 billion less spending in 2016-17.
13. The agreements also include retroactive salary increases dating to mid-2014.