PBO Economic and Fiscal Outlook

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www.parl.gc.ca/pbo-dpb

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 September 29, 2011 Standing Committee of Finance motion that "[c]onsistent with the Parliamentary Budget Officer (PBO) mandate ... the PBO provide a 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." The following presents PBO's economic and fiscal outlook based on data received up to April 17, 2012.

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* The authors thank Mostafa Askari, Patricia Brown, Scott Cameron, Jason Jacques and Jocelyne Scrim for helpful comments. Any errors or omissions are the responsibility of the authors.
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Contents

Summary

The PBO is committed to providing independent analysis for parliamentarians to enhance their understanding of the state of the nation's finances and trends in the national economy. This report provides PBO's current medium-term outlook for the Canadian economy and the Government of Canada's finances.[1] The report includes updated estimates of the Government's structural balance as well as fan charts that illustrate the uncertainty surrounding PBO's projections and the risk to the private sector economic outlook. In addition, the report presents impact estimates of measures proposed in Budget 2012 and comparisons to Budget 2012 projections. Lastly, the report highlights some other important trends that will shape Canada's economy and public finances over the longer term.

Important Changes to PBO's Fiscal Policy Assumptions

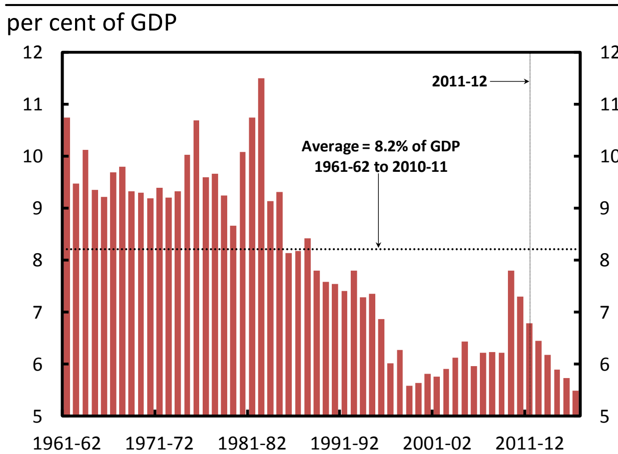
PBO's current outlook incorporates fully the Government's forecasts of direct program expenses presented in Budget 2012. Previously, given the lack of detail related to the operating freeze announced in Budget 2010, PBO's fiscal projections did not incorporate the Government's forecast of 'operating expenses subject to freeze', which account for almost half of direct program expenses. Instead, PBO assumed that these expenses would grow at the rate of inflation plus population growth, resulting in a discrepancy between PBO and the Government's projections. However, based on experience to date, PBO believes that the Government will likely realize the savings from its freeze on operating expenses in 2011-12 and 2012-13 and therefore has incorporated the Government's forecast.

In addition, PBO has incorporated fully the Government's planned reductions to departmental spending presented in Budget 2012. Although sufficient detail is not provided to adequately assess these planned reductions, PBO has assumed that the Government will implement them. This assumption reflects the Government's commitment and ability to eliminate, or reduce, programs given that it has complete discretion over these expenses – subject to parliamentary approval – and that the governing party holds a majority of seats in Parliament. By incorporating fully the Government's forecast, the discrepancy in projections of direct program expenses that existed in previous reports has been eliminated.

The Government's forecast in Budget 2012 indicates that planned restraint and reductions in direct program expenses will reduce its share of the economy from 7.3 per cent of gross domestic product (GDP) in 2010-11 to a historical low of 5.5 per cent of GDP in 2016-17 (Summary Figure 1).

Summary Figure 1

Direct Program Expenses, 1961-62 to 2016-17



Sources: Office of the Parliamentary Budget Officer; Finance Canada.
Note: Finance Canada notes that due to a break in the series following the introduction of full accrual accounting, data from 1983-84 onward are not directly comparable with earlier years.

[1] In this report 'the Government' refers to the Government of Canada. All rates are reported at annual rates unless otherwise noted.

Economic Impacts of Government Spending Reductions and Restraint

PBO's current outlook reflects the economic impacts of the Government's Budget 2012 plan to reduce its direct program expenses and its freeze on operating expenses, as well as the announced reduction in the maximum increase in the Employment Insurance (EI) premium rate. In addition, following announced spending reductions by provincial governments in recent budgets, PBO has assumed that provincial governments will reduce spending on programs by a total of $9 billion over the period 2014-15 to 2016-17.

Using Finance Canada's estimated 'multipliers' (i.e., the dollar impact on real GDP of a permanent one-dollar change in spending/taxes) published in Budgets 2009 and 2010, PBO projects that real GDP will be 0.4 per cent lower in 2014 than would be the case without the planned departmental spending reductions in Budget 2012. Further, PBO projects that employment – across the entire economy – in 2014 will be 0.2 per cent lower, which is equivalent to a reduction of approximately 43,000 jobs.

Combined with the assumed reductions in provincial government spending and the Government's operating expenses subject to freeze, PBO estimates that the economic impacts of the spending reductions and restraint by the federal and provincial governments will be pronounced over the medium term – even though changes to interest and exchange rates as well as the reduction in the maximum increase in the EI premium rate will provide some offsetting impacts. Summary Table 1 and Summary Table 2 present PBO's estimates of the economic impacts of restraint and reductions in government spending on programs and other measures.

Summary Table 1

Impacts of Fiscal Measures on the Projected Level of Real GDP

per cent

	2012	2013	2014	2015	2016
Budget 2012 spending reductions	-0.12	-0.31	-0.37	-0.30	-0.21
Budget 2012 EI premium reductions	0.00	0.01	0.03	0.04	0.05
Provincial spending reductions	0.00	0.00	-0.06	-0.14	-0.15
Operating expenses subject to freeze	-0.18	-0.41	-0.48	-0.41	-0.34
Overall impact	-0.30	-0.71	-0.88	-0.81	-0.66

Source: Office of the Parliamentary Budget Officer.
Note: The estimated impacts on real GDP take into account offsetting impacts from changes to interest and exchange rates.

Summary Table 2

Impacts of Fiscal Measures on the Projected Level of Employment

thousands

	2012	2013	2014	2015	2016
Budget 2012 spending reductions	-7	-30	-43	-40	-31
Budget 2012 EI premium reductions	0	1	4	6	7
Provincial spending reductions	0	0	-7	-19	-22
Operating expenses subject to freeze	-11	-40	-56	-55	-48
Overall impact	-18	-69	-102	-108	-94

Source: Office of the Parliamentary Budget Officer.
Note: The estimated impacts on employment take into account offsetting impacts from changes to interest and exchange rates.

PBO Economic Outlook and Risk Assessment

Recent economic indicators suggest that the global economic recovery is gaining some traction following setbacks and strains experienced over the course of 2011. Relative to PBO's projections in the November 2011 Economic and Fiscal Outlook (EFO)[2] the external outlook is slightly more favourable. However, PBO expects that restraint and reductions in government spending on programs in Canada will act as a drag on economic growth and job creation, pushing the economy

[2] http://www.parl.gc.ca/PBO-DPB/documents/EFO_November_2011_EN.pdf.

further away from its potential GDP and delaying the economic recovery.

PBO projects real GDP growth to slow to 1.9 and 1.6 per cent in 2012 and 2013, respectively (Summary Table 3). The weakness in growth pushes the economy further below its potential GDP resulting in an increase in the unemployment rate to 7.9 per cent in 2013. As the recovery eventually takes hold, real GDP growth is projected to average 2.8 per cent over 2014 to 2016 and the unemployment rate is projected to decline gradually to 7.0 per cent in 2016. As a result, PBO expects the Bank of Canada to maintain its policy interest rate at 1 per cent until the fourth quarter of 2014 before gradually raising it over the remainder of the projection horizon.

Summary Table 3

Real GDP Growth and Unemployment Rate

per cent	2011	2012	2013	2014	2015	2016
Real GDP growth	2.5	1.9	1.6	2.2	2.9	3.2
Unemployment rate	7.5	7.7	7.9	7.9	7.5	7.0

Sources: Office of the Parliamentary Budget Officer; Statistics Canada.

Compared to the average private sector forecasts in Budget 2012, PBO projects slower real GDP growth and lower GDP inflation over the period 2012 to 2014. Consequently, PBO judges that the balance of risks to the private sector forecast of the level of nominal GDP – the broadest measure of the Government's tax base – is tilted to the downside. In addition to the downside risks identified in the November 2011 EFO (i.e., a more sluggish U.S. recovery, larger impacts of commodity price weakness and high levels of household indebtedness), PBO believes that the restraint and reductions in government spending on programs will likely be a larger drag on real GDP growth than appears to be factored in by private sector forecasters. Further, PBO believes that the recent weakness in commodity prices along with downward pressure from a more sluggish economic recovery will result in lower GDP inflation than anticipated by private sector forecasters.

PBO Fiscal Outlook

Despite the weaker economic outlook, assuming that the Government achieves its planned levels of direct program expenses in Budget 2012, PBO projects that the budgetary balance will improve from a deficit of $24.2 billion (1.4 per cent of GDP) in 2011-12 to a surplus of $10.8 billion (0.5 per cent of GDP) in 2016-17 (Summary Table 4). PBO's projected budgetary balance is only $0.6 billion lower, on average, than the balance projected in Budget 2012. This stems from lower revenues and higher spending on EI benefits projected over 2013-14 to 2015-16, resulting from PBO's weaker economic outlook.

Summary Table 4

Budgetary Balance

billions of dollars	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
PBO April 2012	-24.2	-20.4	-13.4	-4.8	2.4	10.8
Budget 2012	-24.9	-21.1	-10.2	-1.3	3.4	7.8

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

Although PBO judges that the balance of risks to the private sector economic outlook for nominal GDP presented in Budget 2012 is tilted to the downside, assuming that the Government does not increase its spending above planned levels in Budget 2012, PBO estimates that the likelihood of realizing budgetary balance or better is approximately 35 per cent, 55 per cent and 70 per cent in 2014-15, 2015-16 and 2016-17, respectively.

The projected improvement in the Government's budgetary balance over the medium term primarily reflects its policy actions to reduce and restrain direct program expenses and is therefore structural in nature. As a consequence, PBO estimates that the Government's structural deficit will be eliminated by 2013-14, ultimately giving rise to a structural surplus of $14.3 billion (0.7 per cent of potential income) in 2016-17 (Summary Table 5). In the absence of these policy actions, PBO estimates that the structural balance would remain in deficit through the medium term.

Summary Table 5

Structural and Cyclical Balance Estimates

billions of dollars

	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Structural balance	-15.8	-8.5	1.3	9.6	12.1	14.3
Cyclical balance	-8.4	-11.9	-14.7	-14.4	-9.6	-3.5
Budgetary balance	-24.2	-20.4	-13.4	-4.8	2.4	10.8

Source: Office of the Parliamentary Budget Officer.

Although the Government does not publish its own estimates of the structural balance over the planning horizon, PBO calculations – based on data from Finance Canada – suggest that its estimate of the structural surplus in 2016-17 likely exceeds PBO's: amounting to approximately $16.6 billion. PBO believes that estimates and projections of the structural budget balance provide useful information about a government's underlying financial position and can be used to help guide policy actions. Finance Canada could improve budget transparency by publishing its National and Public Accounts estimates of the Government's structural balance both over history and over the planning horizon, as well as its methodology and assumptions used.

Fiscal Sustainability

Assessing whether a government's fiscal structure is sustainable requires looking beyond projections of budgetary deficits and surpluses over a medium-term horizon to take into account the economic and fiscal implications of population ageing. Fiscal sustainability requires that government debt cannot ultimately grow faster than the economy.

Following the Government's December 2011 announcement to renew the Canada Health Transfer (CHT), PBO updated the long-term projections in its 2011 Fiscal Sustainability Report[3] to reflect this change to the structure of federal transfers.[4] Based on these updated projections, PBO assessed the Government's fiscal structure to be sustainable over the long term given projected demographic and economic trends. However, the mirror image of this change to the CHT structure is reflected at the provincial-territorial level. PBO's analysis indicated that the provincial-territorial fiscal situation continued to be unsustainable and deteriorated further as a result of the reduction in the growth of the CHT transfer.

PBO also published a note that compared long-term projections of federal elderly benefits and assessed their sustainability in a broader analytical framework.[5] PBO's analysis reiterated that given the change in the CHT transfer over the long term, the federal fiscal structure is sustainable even though elderly benefits are projected to rise relative to the size of the economy from 2.2 per cent of GDP ($36 billion) in 2010-11 to 3.0 per cent of GDP ($110 billion) in 2031-32. Moreover, PBO's projections at that time did not incorporate the restraint and reductions in the Government's direct program expenses. Incorporating these measures would further improve the Government's fiscal room to reduce revenue, increase program spending or some combination of both while maintaining fiscal sustainability.

In contrast, Budget 2012 suggests that projected increases in the dollar amounts of spending on elderly benefits through 2030 demonstrate that the program is not sustainable and therefore proposes to increase the age of eligibility for elderly benefits from 65 to 67 years of age starting in 2023, with full implementation by January 2029. However, Budget 2012 does not provide long-term projections or estimates of the impact of this proposed policy change. Based on long-term projections from its 2011 Fiscal Sustainability Report, PBO has examined the impact of this

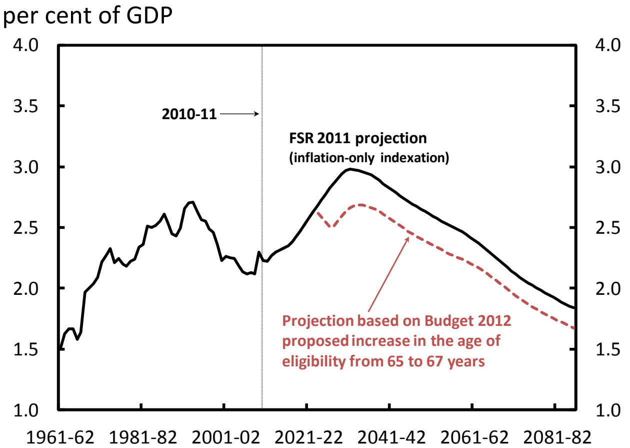
[3] http://www.parl.gc.ca/PBO-DPB/documents/FSR_2011.pdf.
[4] http://www.parl.gc.ca/PBO-DPB/documents/Renewing_CHT.pdf.
[5] http://www.parl.gc.ca/PBO-DPB/documents/Sustainability_OAS.pdf.

proposed policy change on the Government's spending on elderly benefits.

PBO projects that the increase in the age of eligibility for elderly benefits would reduce spending on elderly benefits by approximately 12 per cent ($12 billion) in 2029-30 (Summary Figure 2). Under this proposed policy, PBO projects that, relative to the size of the economy, elderly benefits would rise from 2.2 per cent of GDP to a peak of 2.7 per cent of GDP in 2033-34, which is 0.3 percentage points lower than would be the case without this policy change. PBO projects that spending on elderly benefits would then ultimately fall to 1.7 per cent of GDP, which is 0.2 percentage points lower than would be the case without this policy change.

Summary Figure 2

Elderly Benefits, 1961-62 to 2085-86



Sources: Office of the Parliamentary Budget Officer; Statistics Canada.

PBO believes that long-term economic and fiscal projections are an essential element of budget transparency and sustainability analysis. The Government could further improve budget transparency by providing its analysis and long-term projections of the impacts of its proposed policy change to increase the age of eligibility for elderly benefits, in addition to fulfilling the commitment it made in Budget 2007 to publish a "comprehensive fiscal sustainability and intergenerational report".

While PBO has focused its longer-term analysis on the economic and fiscal implications of population ageing, this report also highlights some other important trends that will shape Canada's economy and public finances over the longer term including: slowing productivity growth; industrial change; and, rising income inequality across households and provinces.

1 External Economic Outlook

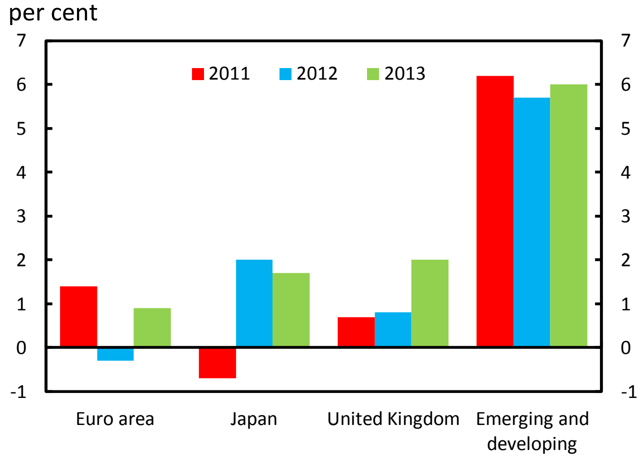
Recent economic indicators suggest that the global recovery is gaining some traction following setbacks and strains experienced over the course of 2011. Although the global recovery is expected to be sustained, the current outlook suggests that overall economic growth will be modest and that economic performance will be geographically uneven. Moreover, downside risks to the global outlook remain elevated.

As noted in the April 2012 International Monetary Fund (IMF) World Economic Outlook, global prospects suffered a major setback during 2011 as the euro area and Japanese economies contracted and economic activity in emerging and developing economies softened. The sovereign debt crisis in the euro area caused sharp increases in government bond rates, casting uncertainty around the future of the Economic and Monetary Union. As a result of a crippling earthquake and tsunami, the Japanese economy contracted in the first half of 2011, causing disruptions in global supply chains. The Japanese economy contracted again in the fourth quarter owing to supply disruptions (from flooding in Thailand) and weakness in global demand. The IMF also noted that the euro crisis, in addition to cyclical factors and policy tightening, contributed to a slowing in trade and production in emerging Asia and Latin America.

Based on the IMF's current economic outlook, the euro area economy is expected to contract in 2012 as a result of the sovereign debt crisis and loss of confidence, combined with the impacts of bank deleveraging and fiscal consolidation (Figure 1-1). The Japanese economy is expected to rebound in 2012 as the effects of the supply disruptions dissipate and reconstruction efforts continue. Although the U.K. economy is expected to avoid a 'technical' recession in 2012, fiscal retrenchment and the struggling euro area are expected to continue to weigh on growth over the coming year and into 2013. The IMF projects growth in emerging and developing economies in 2012 to slow moderately from its recent pace, as the (modest) negative spillovers from the euro area are largely offset by easing in monetary and fiscal policy.

Figure 1-1

IMF Real GDP Growth Projections



Source: IMF April 2012 *World Economic Outlook*.

According to the IMF, while recent policy actions have helped to reduce risks, the global economy remains "unusually vulnerable" and faces immediate risks from a renewed escalation of the euro area crisis and heightened geopolitical uncertainty that could affect the oil market, resulting in a sharp increase in oil prices. Over the medium term, the IMF identifies downside risks from a debt-deflation spiral, particularly in the euro area, and from disruptions in global bond markets. On the other hand, the IMF acknowledges upside risks, for instance, related to a stronger policy response to the euro crisis and a more rapid recovery in the U.S economy.

U.S. Outlook

After a weak start, growth in the U.S. picked up in the second half 2011 to end the year at a solid pace, fuelled by growth in personal consumption expenditures and fixed investment. For 2011 overall, U.S. real GDP advanced by 1.7 per cent, 0.2 percentage points higher than projected by PBO in its November 2011 EFO.

More recent data have also pointed to continued improving activity since the release of fourth quarter U.S. real GDP. In particular, US employment continued to expand through March 2012, increasing by 120,000, while the unemployment rate declined to 8.2 per cent, down from its recent high of 9.1 per cent in August 2011. Other recent data, such as the Conference Board Index of Consumer Confidence and Institute of Supply Management Purchasing Managers Index, have also suggested improving economic activity.

The stronger-than-expected growth in the second half of 2011, combined with the continued positive indicators in the first quarter of 2012, has led to an upward revision to PBO's projection of U.S. real GDP growth in 2012 relative to its November 2011 EFO (Table 1-1). Over the medium term, the upward revision in real GDP growth reflects PBO's assumption that the Federal Reserve will maintain its policy interest rate at historic lows until the end of 2014. This assumption is consistent with the U.S. Federal Open Markets Committee statement at its March 13, 2012 meeting that current and anticipated economic and inflationary conditions "are likely to warrant exceptionally low levels for the federal funds rate at least through late 2014."

Table 1-1

U.S. Real GDP Growth Projection

per cent

	2012	2013	2014	2015	2016
November 2011 EFO	1.6	2.3	2.6	3.1	3.5
April 2012 EFO	2.1	2.2	2.7	3.3	3.6

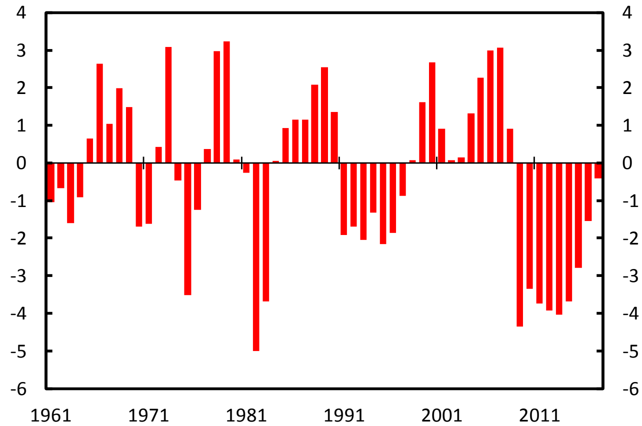
Source: Office of the Parliamentary Budget Officer.

Based on its updated growth projection, PBO projects that the U.S. economy will remain below its potential GDP (i.e., a negative output gap) over the medium term (Figure 1-2). The persistent and large output gap reflects the nature of the U.S. recovery, which has been characterized by continued balance sheet repair, persistently high unemployment, and fiscal consolidation (albeit somewhat limited).

Figure 1-2

U.S. Output Gap, 1961 to 2017

per cent of potential GDP



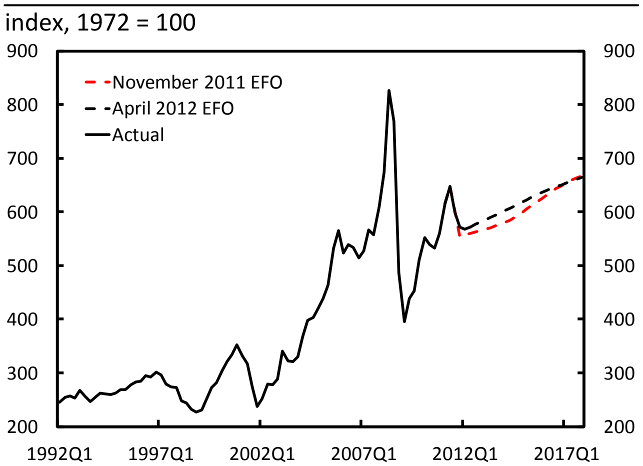
Sources: Office of the Parliamentary Budget Officer; U.S. Bureau of Economic Analysis.

Commodity Price Outlook

Based on the Bank of Canada's commodity price index, prices for both energy and non-energy commodities declined sharply in the second half of 2011, reversing most of the price gains observed in the first half of the year. The energy price declines at the end of 2011 were, however, smaller than expected by PBO in its November 2011 EFO. This decline in energy prices, combined with a resumption in the global recovery, has prompted PBO to revise up its outlook for commodity prices through 2016 relative to its November 2011 projection (Figure 1-3).

Figure 1-3

Commodity Price Projection, 1992Q1 to 2017Q4



Sources: Office of the Parliamentary Budget Officer; Bank of Canada.

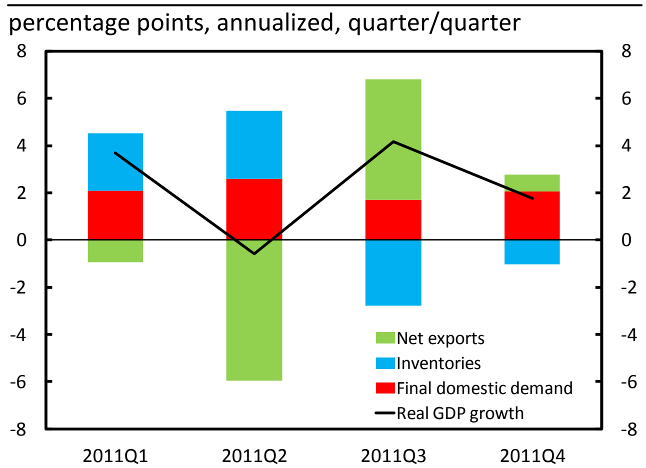
Note: PBO's November 2011 EFO projection has been adjusted to reflect the changes to the weights in the Bank of Canada commodity price index.

2 Canadian Economic Outlook

After contracting in the second quarter of 2011 due to supply chain disruptions related to the earthquake and tsunami in Japan and interruptions in energy exports, the Canadian economy rebounded in the second half of the year. Real GDP growth averaged 3.0 per cent in the second half, with solid contributions from growth in final domestic demand and the trade sector (Figure 2-1).

Figure 2-1

Contributions to Real GDP Growth



Sources: Office of the Parliamentary Budget Officer; Statistics Canada.

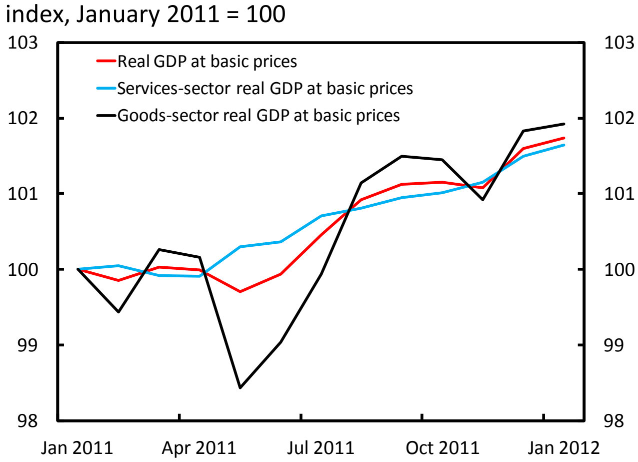
Real GDP growth in the second half of 2011 was stronger than expected by PBO at the time of the November 2011 EFO. As a consequence, annual real GDP growth for 2011 (2.5 per cent) was 0.3 percentage points higher than projected. GDP inflation was 3.3 per cent in 2011, significantly higher than the 2.6 per cent projected in the November 2011 EFO. The upside surprise to GDP inflation was largely due to higher-than-expected prices for energy exports in the fourth quarter. As a result of higher-than-expected real GDP growth and GDP inflation in the second half of the year, nominal GDP growth in 2011 (5.8 per cent) was 1.0 percentage point higher than projected. Consequently, the 2011 annual level of nominal GDP is $15.3 billion higher than projected in November 2011.

Recent Economic Indicators

Despite the rebound in real GDP growth in the second half of 2011, recent indicators suggest that the economic recovery remains sluggish. For instance, with the exception of the spike in December production (0.5 per cent increase, monthly rate), monthly advances in real GDP at basic prices have largely stalled in recent months, leaving the level of production in January 2012 only 1.7 per cent above its level from one year ago (Figure 2-2). This is the result of the recent moderation in growth in both goods-sector production (most notably in mining and oil and gas extraction) and in the services sector (particularly in public administration).

Figure 2-2

Monthly Real GDP at Basic Prices by Sector, January 2011 to January 2012

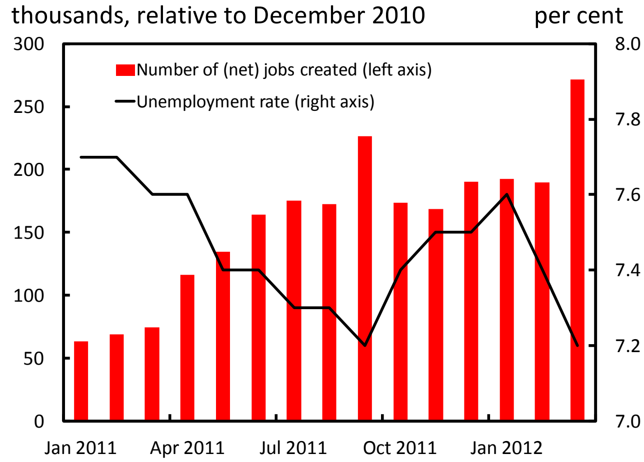


Sources: Office of the Parliamentary Budget Officer; Statistics Canada.

The Canadian labour market has also shown signs of stagnation. For instance, since July 2011, despite increasing by 82,000 in March 2012, monthly employment gains have averaged only 12,000, which is slower than the growth in the population 15 years of age and over (Figure 2-3). This weakness is visible in both full- and part-time employment, and has been borne largely by the private sector. Although the unemployment rate has retreated from its January 2012 level of 7.6 per cent, falling back to 7.2 per cent in March, this largely reflects a decline in the labour force participation rate (i.e., people leaving the labour market). Had the participation rate remained unchanged from September 2011 (i.e., the last month in which the unemployment rate was 7.2 per cent) the unemployment rate in March would be closer to 7.5 per cent.

Figure 2-3

Employment Gains and the Unemployment Rate, January 2011 to March 2012

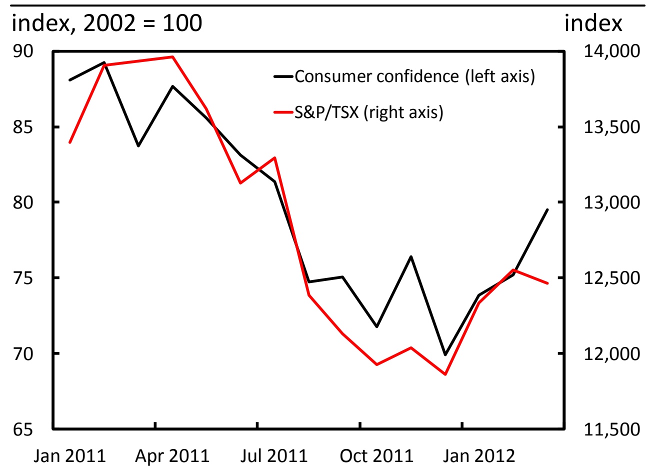


Sources: Office of the Parliamentary Budget Officer; Statistics Canada.

In addition, while consumer confidence and financial market sentiment have improved since the beginning of 2012, The Conference Board of Canada's Index of Consumer Confidence and the TSX Composite Index remain below their year-ago levels (Figure 2-4).

Figure 2-4

Equity Prices and Consumer Confidence, January 2011 to March 2012

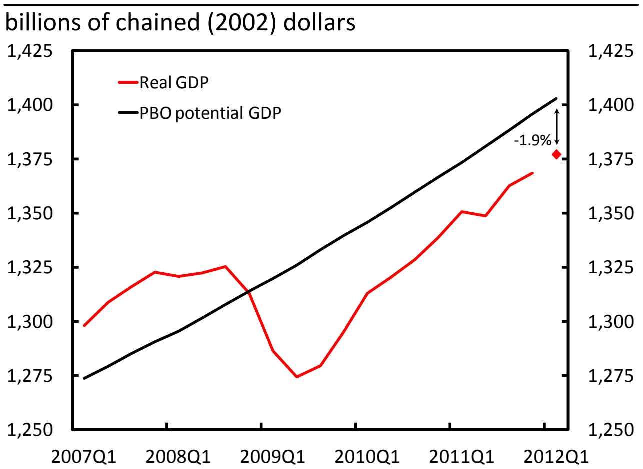


Sources: TMX Group; The Conference Board of Canada.

Based on recent monthly indicators, PBO expects real GDP growth to improve from 1.8 per cent (fourth quarter of 2011) to 2.5 per cent in the first quarter of the year. This improvement largely reflects the strong momentum from export growth at the end of 2011. Despite the generally solid economic growth performance since mid-2011, PBO estimates that the Canadian economy is currently 1.9 per cent below its level of potential GDP (Figure 2-5). Further, since the onset of the recovery in late 2009, economic growth has only modestly outpaced its potential growth rate and as a result, the output gap (real GDP relative to its potential) has gradually narrowed, with approximately half of the gap being eliminated over the course of two and a half years.

Figure 2-5

Real GDP, 2007Q1 to 2012Q1

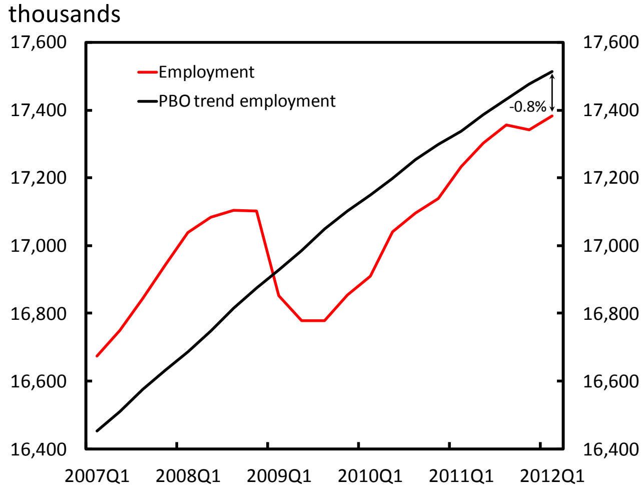


Sources: Office of the Parliamentary Budget Officer; Statistics Canada.
Note: The estimate for real GDP in the first quarter of 2012 is based on growth of 2.5 per cent.

The underperformance of real GDP – compared to its potential – largely reflects relatively weak labour market performance. Even after taking account of the 82,000 employment gain in March, PBO estimates that employment in Canada is 0.8 per cent, or 132,000 jobs, below its potential, or trend, level in the first quarter of 2012 (Figure 2-6).

Figure 2-6

Employment, 2007Q1 to 2012Q1

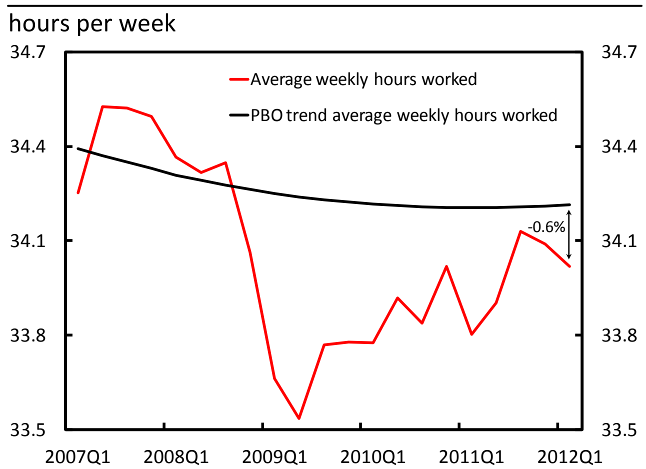


Sources: Office of the Parliamentary Budget Officer; Statistics Canada.

It is also informative to examine average working hours (per employee) since it, combined with employment, determines the total labour input into the production process. PBO estimates that average weekly hours worked continue to be below trend by about 0.6 per cent (Figure 2-7). As a consequence of employment and average weekly hours remaining below trend, total labour input is about 1.3 per cent below its trend level.

Figure 2-7

Average Weekly Hours Worked, 2007Q1 to 2012Q1



Sources: Office of the Parliamentary Budget Officer; Statistics Canada.

Medium-Term Outlook for the Canadian Economy

Relative to PBO's projections in the November 2011 EFO, the external outlook is slightly more favourable. U.S. real GDP was stronger than expected in the second half of 2011 and has been revised up modestly over the medium term. Commodity prices, particularly for energy, have also been revised up through 2016.

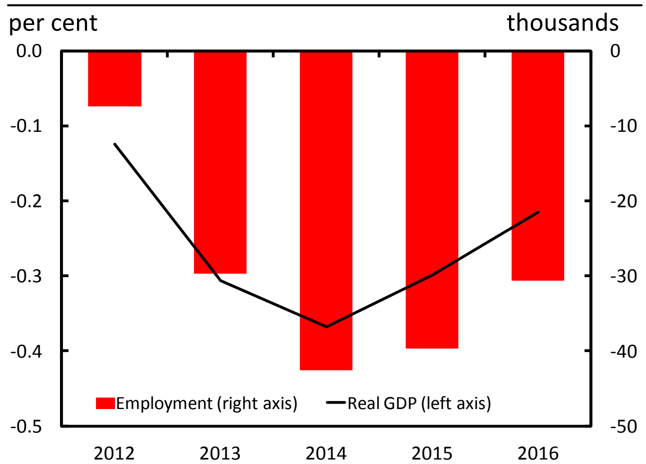
Key Developments – Budget 2012 Measures

Although the external outlook is somewhat more favourable, PBO expects that fiscal policy developments in Canada will act as a drag on economic growth and job creation, pushing the economy further away from its potential capacity and delaying the economic recovery. PBO's current economic outlook reflects the impact of the Government's Budget 2012 plan to reduce its direct program expenses.[6] Relative to the Government's November 2011 *Update of Economic and Fiscal Projections*, federal direct program expenses are projected to be $21.1 billion lower over the 5-year period 2012-13 to 2016-17.[7]

Using Finance Canada's estimated expenditure multiplier (i.e., the dollar impact on real GDP of a permanent one-dollar reduction in government spending) published in Budgets 2009 and 2010, PBO projects that real GDP will be 0.4 per cent lower in 2014 than would be the case without the planned spending reductions in Budget 2012, after adjusting for measures to increase spending (Figure 2-8). Further, PBO estimates that employment – across the entire economy – in 2014 will be 0.2 per cent lower, which is equivalent to a reduction of approximately 43,000 jobs. Annex A provides additional detail regarding PBO's estimates and assumptions of the economic impacts of the Government's reduction in spending on programs. These estimates are presented on a 'net' basis, that is, after accounting for the influence of changes to interest and exchange rates, which help to dampen the impact of the restraint and reductions in government spending on the economy.

Figure 2-8

Economic Impacts of Budget 2012 Reductions in Direct Program Expenses



Source: Office of the Parliamentary Budget Officer.
Note: The estimated impacts on real GDP and employment take into account offsetting impacts from changes to interest and exchange rates.

While the Government's 2012 budget plan announced measures to reduce its direct program expenses over the medium term, it also contained measures that would provide some stimulus to the Canadian economy thereby offsetting some of the drag from the planned spending reductions. For instance, the Government announced that it will reduce the maximum increase in Employment Insurance (EI) premium rate from 10 cents to 5 cents per $100 of insurable earnings each year until the EI Operating Account is balanced. PBO estimates that real GDP and employment will be only marginally higher (e.g., 0.03 per cent and 4,000 jobs higher in 2014, respectively) than would be the case without the reduction in the maximum increase in the EI premium rate. The impact of this budget measure would, therefore, only partially offset the impacts of the reductions in spending on government programs.

[6] Budget 2012 states that direct program expenses include "operating expenses of National Defence and other departments, expenses of Crown Corporations, transfers administered by departments for farm income support, natural resource royalties paid to provinces, and student financial assistance."
[7] This value refers to the net reduction in government spending contained in Budget 2012.

Other Measures

PBO's current economic outlook for the Canadian economy also reflects the impact of planned spending reductions by provincial governments announced in recent budgets. PBO has assumed that provincial governments will reduce spending on programs by a total of $9 billion over the period 2014-15 to 2016-17 (equivalent to 0.5 per cent of nominal GDP in 2014).

In addition, despite not having complete details regarding the Government's freeze on certain operating expenses, PBO has incorporated the Government's projection of these operating expenses presented in Budget 2012 into its fiscal projection framework.[8] This results in a reduction of $30.8 billion in PBO's projection of operating expenses subject to freeze over the period 2012-13 to 2016-17 relative to the November 2011 EFO.[9] PBO estimates that real GDP will be 0.5 per cent lower and employment will be lower by 56,000 jobs in 2014 than would be the case without the freeze on operating expenses in 2012-13 and modest projected spending growth thereafter.

Summary of the Economic Impacts of Budget 2012 and Other Measures

PBO estimates that the economic impacts of the spending reductions and restraint by the federal and provincial governments will be pronounced over the medium term – even though changes to interest and exchange rates as well as the reduction in the maximum increase in the EI premium rate will provide some offsetting impact. Table 2-1 and Table 2-2 present PBO's estimates of the overall impact of these measures on both real GDP and employment, respectively.

Table 2-1

Impacts of Fiscal Measures on the Projected Level of Real GDP

per cent

	2012	2013	2014	2015	2016
Budget 2012 spending reductions	-0.12	-0.31	-0.37	-0.30	-0.21
Budget 2012 EI premium reductions	0.00	0.01	0.03	0.04	0.05
Provincial spending reductions	0.00	0.00	-0.06	-0.14	-0.15
Operating expenses subject to freeze	-0.18	-0.41	-0.48	-0.41	-0.34
Overall impact	-0.30	-0.71	-0.88	-0.81	-0.66

Source: Office of the Parliamentary Budget Officer.
Note: The estimated impacts on real GDP take into account offsetting impacts from changes to interest and exchange rates.

Table 2-2

Impacts of Fiscal Measures on the Projected Level of Employment

thousands

	2012	2013	2014	2015	2016
Budget 2012 spending reductions	-7	-30	-43	-40	-31
Budget 2012 EI premium reductions	0	1	4	6	7
Provincial spending reductions	0	0	-7	-19	-22
Operating expenses subject to freeze	-11	-40	-56	-55	-48
Overall impact	-18	-69	-102	-108	-94

Source: Office of the Parliamentary Budget Officer.
Note: The estimated impacts on employment take into account offsetting impacts from changes to interest and exchange rates.

Economic Outlook

PBO projects that the Canadian economy will grow by 1.9 per cent in 2012 (Table 2-3). The upward revision (relative to the November 2011 EFO) primarily reflects the stronger-than-expected growth in the second half of 2011, partially offset by the federal spending reductions and restraint. However, as a result of the drag on growth from planned spending reductions and restraint (at both the federal and provincial level), PBO is projecting real GDP growth to be lower in 2013 and 2014 than projected in November 2011. PBO projects real

[8] Given the lack of detail related to the operating freeze announced in Budget 2010, previous PBO projections assumed that these operating expenses would grow at the rate of population growth plus inflation from their 2009-10 level. However, based on experience to date, PBO believes that the Government will likely realize the savings from its freeze on operating expenses in 2011-12 and 2012-13.

[9] The $30.8 billion cumulative reduction also incorporates assumed lower growth over 2013-14 to 2016-17, the period after which the freeze is no longer in effect. In its November 2011 EFO, PBO projected growth in operating expenses subject to freeze to average 3.1 per cent annually over 2013-14 to 2016-17, higher than the 2.0 per cent average growth projected in the Government's November 2011 *Update of Economic and Fiscal Projections*.

GDP growth to improve through 2015 and 2016 as a result of stronger U.S. growth and monetary policy stimulus provided by the Bank of Canada. Annex B provides a summary table of PBO's current economic projections.

Table 2-3

Real GDP Growth Projection

per cent	2012	2013	2014	2015	2016
November 2011 EFO	1.5	2.1	2.5	2.8	3.0
April 2012 EFO	1.9	1.6	2.2	2.9	3.2

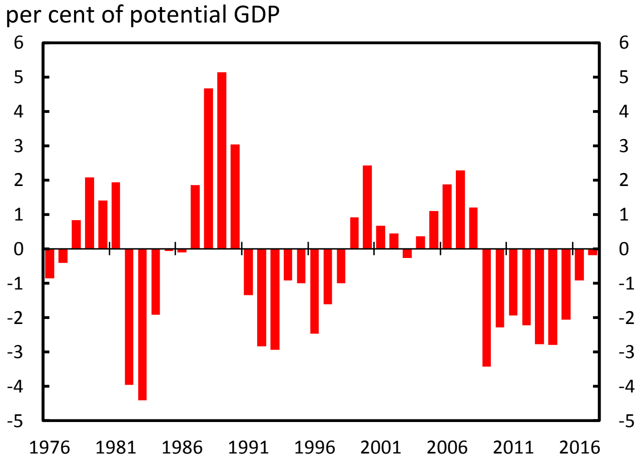
Source: Office of the Parliamentary Budget Officer.

The planned spending restraint and reductions in government programs pushes the economy further away from its potential GDP and delays the economic recovery (Figure 2-9). PBO projects the economy to fully recover (i.e., return to its potential GDP) by the end of 2017. Over the period 2012 to 2017, this represents a cumulative loss of about $160 billion in unrealized production (adjusted for inflation).

Figure 2-9

Output Gap, 1976 to 2017

per cent of potential GDP



Source: Office of the Parliamentary Budget Officer.

Despite the downward revision to *real* GDP growth in 2013 and 2014 due to the impact of government restraint and reductions in spending on programs, the upward revision to growth in 2012, combined with higher-than-projected commodity prices at the end of 2011 and through the near term, results in higher projected levels of nominal GDP through 2016 (Table 2-4).

Table 2-4

Nominal GDP Projection

billions of dollars	2012	2013	2014	2015	2016
November 2011 EFO	1,747	1,817	1,899	1,995	2,100
April 2012 EFO	1,780	1,841	1,917	2,011	2,116

Source: Office of the Parliamentary Budget Officer.

Reflecting the upward revision to real GDP growth in 2012, PBO has revised down its projection for the unemployment rate in 2012 to 7.7 per cent (Table 2-5). However, as the drag from reductions and restraint on government spending takes hold, the unemployment rate is projected to average 7.9 per cent in 2013 and 2014. As a result of the sluggish recovery, the unemployment rate is projected to decline gradually to 7.0 per cent in 2016.

Table 2-5

Unemployment Rate Projection

per cent	2012	2013	2014	2015	2016
November 2011 EFO	8.0	8.0	7.8	7.5	7.0
April 2012 EFO	7.7	7.9	7.9	7.5	7.0

Source: Office of the Parliamentary Budget Officer.

Owing to the tepid pace of the economic recovery, and given the firm anchoring of inflation expectations, PBO expects the Bank of Canada to maintain its policy interest rate at 1 per cent until the fourth quarter of 2014 before gradually, but steadily, raising its policy rate over the remainder of the projection. Consequently, short-term interest rates are projected to be 100 basis points lower in 2015 and 2016 compared to November (Table 2-6).

Table 2-6

3-Month Treasury Bill Rate Projection

per cent	2012	2013	2014	2015	2016
November 2011 EFO	1.0	1.0	1.8	2.8	3.8
April 2012 EFO	0.9	1.0	1.0	1.8	2.8

Source: Office of the Parliamentary Budget Officer.

Risks to the Private Sector Economic Outlook

PBO's economic outlook incorporates its judgment of the balance of risks. As a result, it can be viewed as a 'balanced' projection, which means that higher or lower outcomes are equally likely. Further, PBO uses its outlook to highlight what it believes are the key risks to the private sector economic outlook on which the Government's fiscal projections are based.

PBO projects slower real GDP growth over the period 2012 to 2014 than currently anticipated by private sector forecasters based on Finance Canada's March 2012 survey presented in Budget 2012 (Table 2-7).

Table 2-7

Real GDP Growth Projections

per cent	2012	2013	2014	2015	2016
Budget 2012	2.1	2.4	2.4	2.4	2.2
April 2012 EFO	1.9	1.6	2.2	2.9	3.2

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

PBO is also projecting a lower level of nominal GDP – the broadest measure of the Government's tax base – relative to private sector forecasters over the projection (Table 2-8). Annex C provides a comparison table of PBO's projections and the average private sector economic forecasts from Budget 2012.

Table 2-8

Nominal GDP Projection

billions of dollars	2012	2013	2014	2015	2016
Budget 2012	1,798	1,877	1,963	2,050	2,136
April 2012 EFO	1,780	1,841	1,917	2,011	2,116

Sources: Office of the Parliamentary Budget Officer; Finance Canada.
Note: The nominal GDP projection from Budget 2012 is the average private sector forecast based on Finance Canada's March 2012 survey.

PBO judges that the balance of risks to the average private sector forecast for nominal GDP is tilted to the downside, reflecting both weaker real GDP growth and GDP inflation. In addition to the downside risks identified in the November 2011 EFO (i.e., a more sluggish near-term U.S. recovery and larger impacts from commodity price weakness and the high level of Canadian household indebtedness), PBO believes that the restraint and reductions in government spending on programs will likely impact real GDP growth by a larger amount over the period 2012 to 2014 than appears to be factored in by private sector forecasters.[10]

Furthermore, PBO believes that the weakness in commodity prices at the end of 2011 and early 2012 (based on the Bank of Canada commodity price index) will result in lower GDP inflation in 2012 than anticipated by private sector forecasters. PBO also assesses that there is further downside risk to the private sector outlook for GDP inflation stemming from downward pressure on consumer price inflation as a result of the more sluggish economic recovery.

To illustrate the uncertainty and balance of risks to the average private sector forecast of nominal GDP presented in Budget 2012, PBO constructed a fan chart based on the historical forecast performance

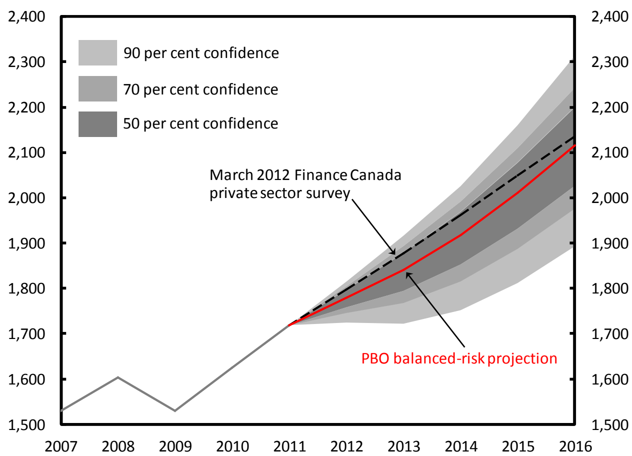
[10] While no explanation has been provided for the downward revision to the real GDP growth forecast in Budget 2012 relative to the November 2011 *Update of Economic and Fiscal Projections*, this may or may not reflect some of the economic impacts of Budget 2012 measures.

of Finance Canada's survey of private sector forecasters since 1994 (Figure 2-10).

Figure 2-10

Nominal GDP Projections

billions of dollars



Sources: Office of the Parliamentary Budget Officer; Statistics Canada; Finance Canada.

Based on its projection of nominal GDP, PBO judges that the downside risk to the private sector outlook for nominal GDP over 2013 to 2015 is larger than the Government's $20 billion annual adjustment for risk. PBO's projection indicates that the downside balance of risk to the average private sector forecast of nominal GDP is, on average, $40 billion annually over this period.

3 Fiscal Outlook

Notwithstanding the impact of the Government's planned restraint and reductions in direct program expenses, PBO's outlook for nominal GDP – the broadest measure of the Government's tax base – is between $15 billion and $35 billion higher in each year over 2012 to 2016 compared to PBO's November 2011 EFO. Further, short- and long-term interest rates, which affect the Government's public debt charges, are projected to be lower based on PBO's assumption that the Bank of Canada will maintain its policy interest rate for an extended period of time until the economic recovery firmly takes hold. However, the projected weakness in the real economy, as a result of the planned reductions in government spending on programs, translates into a higher rate of unemployment and therefore higher spending on Employment Insurance benefits over the medium term.

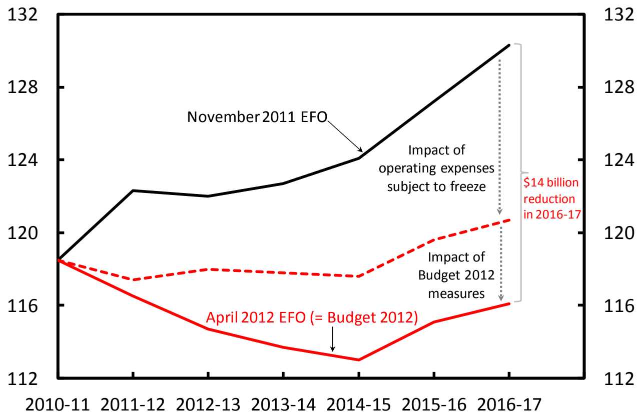
Important Changes to Fiscal Policy Assumptions

PBO's current fiscal projection incorporates the planned departmental spending reductions contained in Budget 2012, as well as the Government's forecast of operating expenses subject to freeze that was initially announced in Budget 2010. These changes represent significant reductions to PBO's projection of federal direct program expenses, amounting to approximately $60 billion over 2011-12 to 2016-17 (Figure 3-1). As a consequence, by fully incorporating the Government's projection of direct program expenses into its fiscal outlook, the discrepancy between PBO and the Government's projections of these expenses, which existed in previous reports, has been eliminated. PBO has also incorporated the Government's Budget 2012 announcement to reduce the maximum increase in the EI premium rate from 10 cents to 5 cents per $100 of insurable earnings until the EI Operating Account is balanced. PBO estimates that this will reduce EI premium revenues by $7.1 billion (cumulatively) over the period 2012-13 to 2016-17, partially offsetting the savings from spending reductions.

Figure 3-1

Revisions to PBO's Projection of Direct Program Expenses

billions of dollars



Sources: Office of the Parliamentary Budget Officer; Finance Canada.
Note: The 'Impact of operating expenses subject to freeze' shown in the figure also includes revisions to other categories of direct program expenses (transfer payments, other operating expenses and capital amortization), which amount to $1.7 billion in 2016-17.

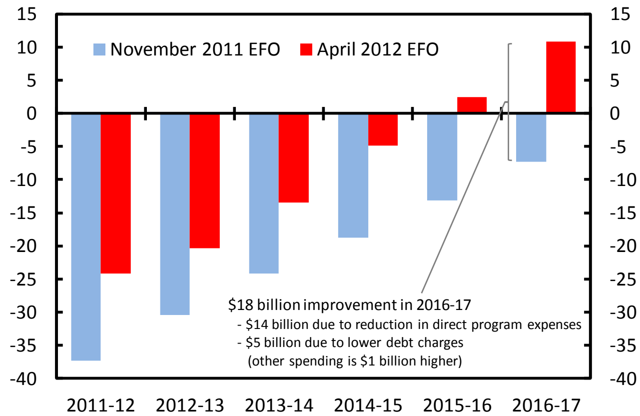
Fiscal Projections, 2011-12 to 2016-17

Based on PBO's current economic outlook, Budget 2012 measures and changes to the outlook for operating expenses subject to freeze, PBO projects a significant improvement in the Government's budgetary balance over the medium term (Annex D provides a detailed summary of PBO's fiscal outlook). PBO projects a budgetary deficit of $24.2 billion in 2011-12 which steadily improves over the projection horizon, resulting in a budgetary surplus of $10.8 billion in 2016-17 (Figure 3-2). The projected improvement in the budgetary balance relative to the November EFO is almost entirely attributable to the inclusion of the Government's projection of direct program expenses from Budget 2012 and the corresponding reduction in public debt charges. A more detailed comparison of PBO's November 2011 EFO fiscal projection and its current fiscal projection is provided in Annex E.

Figure 3-2

Budgetary Balance Projections

billions of dollars



Source: Office of the Parliamentary Budget Officer.

Relative to the size of the economy, PBO projects the budgetary balance to improve from a deficit of 1.4 per cent of GDP in 2011-12 to a surplus of 0.5 per cent of GDP in 2016-17 (Table 3-1). Combined with growth in nominal GDP, this improvement reduces the federal debt-to-GDP ratio from 33.8 per cent in 2011-12 to 28.6 per cent in 2016-17. The projected federal debt ratio of 28.6 per cent of GDP in 2016-17 would be the lowest federal debt ratio since 1980-81 (and just below 28.9 per cent in 2008-09).

Table 3-1

Summary of Fiscal Projections

billions of dollars

	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Budgetary revenues	248.8	257.1	269.7	282.2	299.0	316.3
Program expenses	241.8	246.5	251.1	255.6	263.1	269.7
Public debt charges	31.2	31.0	32.0	31.4	33.4	35.8
Total expenses	273.0	277.5	283.1	287.0	296.5	305.5
Budgetary balance	-24.2	-20.4	-13.4	-4.8	2.4	10.8
Federal debt	580.6	601.0	614.5	619.3	616.9	606.1
Per cent of GDP						
Budgetary revenues	14.5	14.4	14.6	14.7	14.9	14.9
Program expenses	14.1	13.8	13.6	13.3	13.1	12.7
Public debt charges	1.8	1.7	1.7	1.6	1.7	1.7
Budgetary balance	-1.4	-1.1	-0.7	-0.3	0.1	0.5
Federal debt	33.8	33.8	33.4	32.3	30.7	28.6

Source: Office of the Parliamentary Budget Officer.

Outlook for Budgetary Revenues

Overall, PBO's outlook for budgetary revenues is only slightly higher over the projection horizon relative to its November 2011 EFO, averaging $1.1 billion annually over 2012-13 to 2016-17 (Table 3-2). PBO projects revenues to increase by 4.9 per cent annually, on average, over the projection horizon 2011-12 to 2016-17. The pace of the projected improvement in budgetary revenues picks up in 2015-16 as the drag on economic growth from the restraint and reductions in direct program expenses dissipates. In addition, the projected growth in revenues reflects increases in Employment Insurance (EI) premium rates, from $1.78 (per $100 of insurable earnings) in 2011 to $2.03 in 2016, that are required to help balance the EI account over time as well as the measures in Budget 2012 to close tax loopholes and phase out/ eliminate tax preferences.

Table 3-2

Outlook for Budgetary Revenues

billions of dollars

	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Income taxes						
Personal income tax	120.5	128.7	135.8	143.1	151.7	160.4
Corporate income tax	32.1	27.5	29.2	31.3	34.1	37.0
Non-resident income tax	5.6	5.8	6.2	6.5	7.1	7.6
Total income tax	158.2	161.9	171.3	180.9	192.9	205.0
Excise taxes/duties						
Goods and Services Tax	29.1	30.6	31.7	32.9	34.5	36.2
Custom import duties	3.8	4.1	4.2	4.4	4.7	4.9
Other excise taxes/duties	10.9	10.9	10.9	11.0	10.9	10.7
Total excise taxes/duties	43.8	45.6	46.8	48.4	50.1	51.8
EI premium revenues	18.8	20.1	21.7	23.2	25.0	26.9
Other revenues	28.0	29.4	29.9	29.8	31.1	32.6
Total budgetary revenues	248.8	257.1	269.7	282.2	299.0	316.3

Source: Office of the Parliamentary Budget Officer.

In its 2012 budget plan the Government announced that the maximum increase to EI premium rates would be reduced to 5 cents (per $100 of insurable earnings) from 10 cents per year. This proposed change combined with the reduction in the maximum increase in the 2012 premium rate to 5 cents announced in November 2011 (which was made after PBO's EFO) results in significantly lower EI premium rates relative to PBO's November 2011 EFO.

Based on the updated economic outlook and reduction in the maximum increase announced in Budget 2012, PBO projects that the EI premium rate will continue to increase by the 5-cent maximum through 2016. Despite these increases in the premium rate, PBO projects that the cumulative balance in the EI Operating Account will remain in a deficit position over the projection horizon (Table 3-3). At the time of the November 2011 EFO, PBO had projected that the EI Operating Account would be balanced by 2016. The projected deterioration in the EI Operating Account (compared to the November 2011 EFO) reflects the reduction in the maximum increase in the EI premium rate, as well as higher spending on EI benefits payments as a result of increased levels of unemployment.

Table 3-3

Outlook for Employment Insurance Premium Rates

	2011	2012	2013	2014	2015	2016
EI premium rates (dollars per $100 of insurable earnings)						
November 2011 EFO	1.78	1.88	1.98	2.08	2.18	2.28
April 2012 EFO	1.78	1.83	1.88	1.93	1.98	2.03
difference	0.00	-0.05	-0.10	-0.15	-0.20	-0.25
EI Operating Account cumulative balance (billions of dollars)						
November 2011 EFO	-9.2	-10.8	-11.1	-9.7	-6.0	0.5
April 2012 EFO	-8.8	-9.8	-11.3	-11.7	-10.6	-7.4

Source: Office of the Parliamentary Budget Officer.

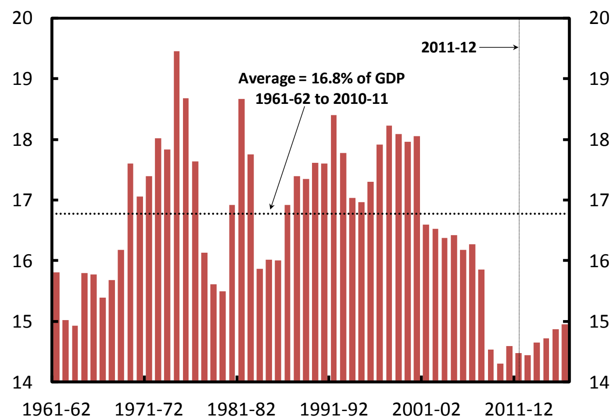
Longer-Term Perspective on Budgetary Revenues

Based on PBO's revenue projection, budgetary revenues relative to the size of the economy will increase over the medium term, rising to 14.9 per cent of GDP in 2016-17. To put this increase into perspective, it is helpful to examine the historical evolution of the revenue-to-GDP ratio. Figure 3-3 shows that although budgetary revenues are projected to increase moderately relative to the size of the economy over the medium term, they will still be almost 2 percentage points lower than the long-term historical average of 16.8 per cent of GDP.

Figure 3-3

Budgetary Revenues, 1961-62 to 2016-17

per cent of GDP



Sources: Office of the Parliamentary Budget Officer; Finance Canada.
Note: Finance Canada notes that due to a break in the series following the introduction of full accrual accounting, data from 1983-84 onward are not directly comparable with earlier years.

Outlook for Expenses

The Government's expenses consist of program expenses (i.e., major transfers to persons, major transfers to other levels of government (OLG) and direct program expenses) and public debt charges. PBO projects the Government's total expenses to grow at 2.1 per cent annually, on average, from 2011-12 to 2016-17 (Table 3-4). However, projected growth across individual program categories varies significantly. For example, PBO projects elderly benefits to increase by 5.8 per cent annually (in line with inflation and growth in the population 65 years of age and over); however, direct program expenses are projected to decrease by 0.3 per cent annually, on average, over the same period as a result of the unwinding of the Economic Action Plan stimulus measures in 2011-12 and the reductions in departmental spending announced in Budget 2012.

Table 3-4

Outlook for Expenses

billions of dollars

	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Major transfers to persons						
Elderly benefits	38.0	40.4	42.6	44.9	47.4	49.9
EI benefits	17.8	20.2	21.5	21.7	21.7	21.5
Children's benefits	12.8	13.2	13.5	13.8	14.0	14.1
Total	68.5	73.9	77.6	80.4	83.1	85.5
Major transfers to OLG	56.8	57.9	59.8	62.2	64.9	68.1
Direct program expenses	116.5	114.7	113.7	113.0	115.1	116.1
Public debt charges	31.2	31.0	32.0	31.4	33.4	35.8
Total expenses	273.0	277.5	283.1	287.0	296.5	305.5

Source: Office of the Parliamentary Budget Officer.

Following a decline in 2011-12, PBO projects spending on EI benefits to increase substantially over 2012-13 to 2014-15 (growing at 7.1 per cent annually, on average) as the unemployment rate rises to 7.9 per cent and remains around this level. PBO projects public debt charges to increase from $31.2 billion in 2011-12 to $35.8 billion in 2016-17 as interest rates rise from current levels and budgetary deficits through 2013-14 add to the stock of interest-bearing debt. However, the unwinding of the Insured Mortgage Purchase Program in 2013-14 partially offsets this increase in the stock of interest-bearing debt.

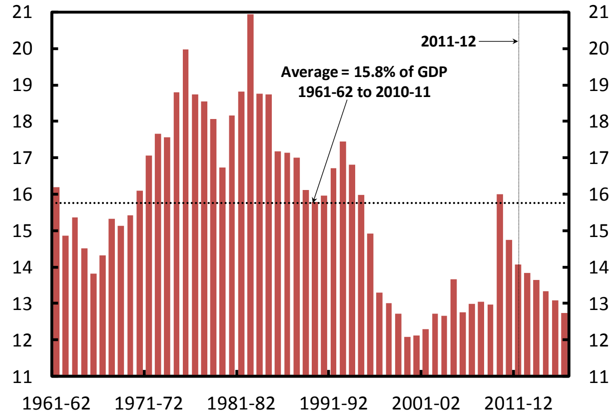
Longer-Term Perspective on Program Expenses

Based on PBO's projection, program expenses relative to the size of the economy will decrease by 1.3 percentage points from 14.1 per cent of GDP in 2011-12 to 12.7 per cent of GDP in 2016-17. Taking a longer-term historical perspective, Figure 3-4 shows that by 2016-17 the Government's program expenses relative to the size of the economy will decline to historically low levels, although remain 0.7 percentage points above the historical low of 12.1 per cent of GDP in 1999-00.

Figure 3-4

Program Expenses, 1961-62 to 2016-17

per cent of GDP

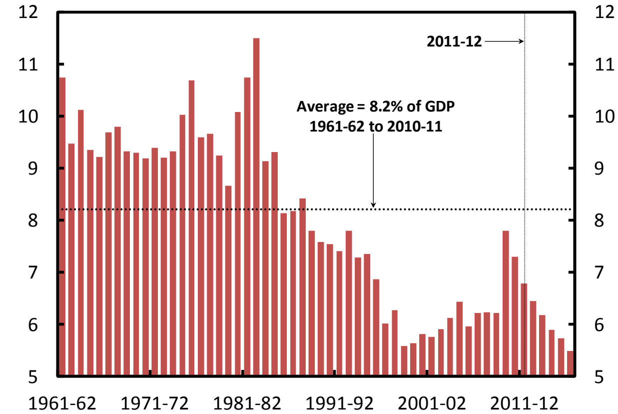


Sources: Office of the Parliamentary Budget Officer; Finance Canada.
Note: Finance Canada notes that due to a break in the series following the introduction of full accrual accounting, data from 1983-84 onward are not directly comparable with earlier years.

Figure 3-5

Direct Program Expenses, 1961-62 to 2016-17

per cent of GDP



Sources: Office of the Parliamentary Budget Officer; Finance Canada.
Note: Finance Canada notes that due to a break in the series following the introduction of full accrual accounting, data from 1983-84 onward are not directly comparable with earlier years.

The projected decline in program expenses relative to the size of the economy over the medium term stems from the planned reduction in the Government's direct program expenses. PBO's projection of direct program expenses, which is taken from Budget 2012, indicates that the Government's planned restraint and reductions in operating expenses will reduce direct program expenses to a historical low of 5.5 per cent of GDP in 2016-17 (Figure 3-5).

Comparison to Budget 2012 Fiscal Outlook

Table 3-5 provides a comparison between PBO's fiscal outlook and the Government's outlook presented in the March 2012 budget (see Annex F for more details). PBO is projecting budgetary revenues that are in line with the Government's projections – only $0.3 billion higher, on average, over the projection horizon. In 2016-17, PBO's revenue projection is $3.8 billion higher than projected in Budget 2012, largely as a result of higher EI premium revenues. Given the cumulative deficit in the EI Operating Account, PBO projects the EI premium rate in 2016 to be $2.03 per $100 of insurable earnings (and $2.08 per $100 of insurable earnings in 2017) while the projection in Budget 2012 shows a rate of $1.95 for 2016 (no rate is provided for 2017).

PBO is projecting slightly higher program expenses over the projection horizon ($1.2 billion on average) as a result of higher spending on EI benefits. This largely reflects differences in the unemployment rate projections. PBO's projected unemployment rate over 2012 to 2016 is 0.6 percentage points higher, on average, than the private sector forecast in Budget 2012. Compared to Budget 2012, PBO projects public debt charges to be lower over the projection horizon by $0.3 billion, on average, due to lower projected short-term interest rates. Overall, PBO's projection of the Government's total expenses is $0.8 billion higher, on average, than projected in Budget 2012.

Over the medium term, PBO's projected budgetary balance is only $0.6 billion lower, on average, than the balance projected in Budget 2012. This stems from lower revenues and higher spending on EI benefits projected over 2013-14 to 2015-16, resulting from PBO's weaker economic outlook, which incorporates the economic impacts of the Government's planned restraint and reductions in operating expenses.

Table 3-5

Comparison of Fiscal Projections (PBO – Budget 2012)

billions of dollars

	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Budgetary revenues	0.8	2.1	-0.7	-3.3	-1.0	3.8
Program expenses	-0.1	1.2	1.6	1.7	1.4	1.1
Public debt charges	0.2	0.2	0.9	-1.6	-1.5	-0.3
Total expenses	0.1	1.4	2.5	0.1	-0.1	0.8
Budgetary balance	0.7	0.7	-3.2	-3.5	-1.0	3.0
Federal debt	-0.7	-1.4	2.0	5.4	6.5	3.5

Sources: Office of the Parliamentary Budget Officer; Finance Canada.
Note: Table 3-5 is displayed as the PBO projection minus the Budget 2012 projection.

Uncertainty Surrounding PBO's Fiscal Projection

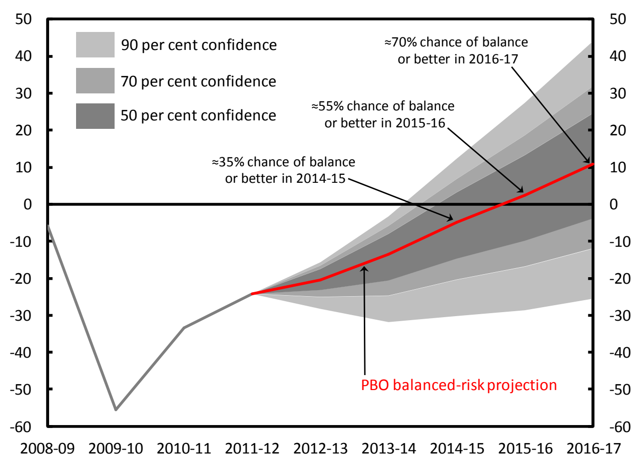
PBO uses a measure of economic uncertainty (based on the historical forecast performance of the average private sector forecast), as well as its assessment of the balance of risks to the average private sector forecast presented in Budget 2012, to construct a fan chart of the Government's budgetary balance using Finance Canada's fiscal sensitivities.

Although PBO judges that the balance of risks to the private sector economic outlook for nominal GDP presented in Budget 2012 is tilted to the downside, assuming that the Government does not increase its spending above planned levels in Budget 2012, PBO estimates that the likelihood of realizing budgetary balance or better is approximately 35 per cent, 55 per cent and 70 per cent in 2014-15, 2015-16 and 2016-17, respectively (Figure 3-6). These estimates are considerably higher than the PBO's previous estimates. In its November 2011 EFO, PBO estimated that the likelihood of realizing budgetary balance or better was approximately 10 per cent, 25 per cent and 40 per cent in 2014-15, 2015-16 and 2016-17, respectively. The substantial increase in the estimates of the likelihood of realizing budgetary balance or better is due to the change in PBO's projection of direct program expenses, which now incorporates the Government's planned reductions and forecast of operating expenses subject to freeze.

Figure 3-6

Budgetary Balance Outcomes Given Economic Uncertainty and Downside Risk

billions of dollars



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

PBO's Estimate of the Government's Structural Budget Balance

An estimate of the structural budget balance helps to provide a snapshot of a government's underlying financial situation. Moreover, distinguishing between structural and cyclical components of a government's budget balance is crucial because, while the cyclical component may be expected to dissipate over a medium-term horizon as the economy returns to its potential GDP, the structural component may necessitate policy actions. PBO routinely revises its estimates of the Government's structural budget balance to reflect revised estimates of trends in the economy, announced policy measures and changes to other assumptions.

The projected improvement in the budgetary balance over the medium term, from a deficit of $24.2 billion in 2011-12 to a surplus of $10.8 billion, is largely the result of a (projected) structural improvement in the Government's financial position (Table 3-6). Assuming that the Government achieves its planned spending reductions and restraint, PBO projects that the Government's structural deficit will be eliminated by 2013-14, ultimately giving rise to a structural surplus of $14.3 billion in 2016-17.

Table 3-6

Structural and Cyclical Balance Estimates

billions of dollars

	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Structural balance	-15.8	-8.5	1.3	9.6	12.1	14.3
Cyclical balance	-8.4	-11.9	-14.7	-14.4	-9.6	-3.5
Budgetary balance	-24.2	-20.4	-13.4	-4.8	2.4	10.8

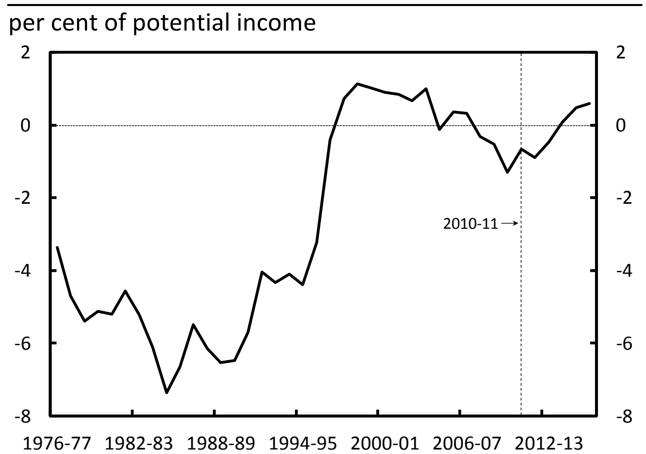
Source: Office of the Parliamentary Budget Officer.

Relative to the November 2011 EFO, PBO's estimate of the Government's structural balance in 2016-17 is $15.8 billion higher. This upward revision is the result of incorporating the Government's recently announced policy actions to reduce departmental spending and the Government's forecast of operating expenses subject to freeze, as well as their corresponding impacts on public debt charges. In the absence of these policy actions (and their corresponding impacts on public debt charges) PBO projects that the structural balance would remain in deficit through the medium term, resulting in a structural deficit of $3.8 billion in 2016-17. This is somewhat larger than the $1.6 billion structural deficit estimated in PBO's November 2011 EFO, resulting from the reduction in the maximum increase in the EI premium rate announced in Budget 2012.

Relative to potential income, PBO's structural balance projection represents an improvement of 1.6 percentage points in the structural balance from -0.9 per cent in 2011-12 to 0.7 per cent in 2016-17 (Figure 3-7). The elimination of the structural deficit and rising structural surplus projected by PBO over the medium term stem from policy actions announced in recent budgets to reduce/restrain the Government's spending on programs, as well as to increase EI premium rates to help balance the EI Operating Account.

Figure 3-7

Structural Budget Balance, 1976-77 to 2016-17



Source: Office of the Parliamentary Budget Officer.

PBO's estimate of the structural balance in 2016-17 ($14.3 billion) is larger than its projected budgetary balance of $10.8 billion, reflecting the impact of the economic cycle (i.e., the output/income gap) on components of the Government's revenues and program spending. Although Finance Canada does not publish its medium-term projections of the output or income gap, it is possible to approximate Finance Canada's estimate of the output gap over history and the medium term using Finance

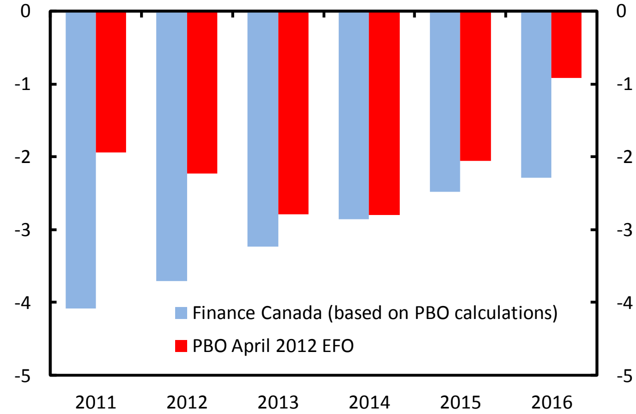
Canada's publicly available data (see Annex G for further detail).[11]

Based on publicly available data, PBO believes that Finance Canada's estimate of the economic cycle as measured by the output gap is larger than PBO's estimate in 2016 (Figure 3-8). Given the Budget 2012 projection of a budgetary surplus of $7.8 billion in 2016-17, this would suggest that Finance Canada's estimate of the Government's structural surplus in 2016-17 would likely exceed PBO's estimate of $14.3 billion.[12] Based on PBO's calculations described in Annex G, Finance Canada's output gap is 2.5 times larger than PBO's projection in 2016. Assuming that Finance Canada's estimate of the sensitivity of the overall budgetary balance to the output gap is the same as PBO's, this would result in a proportionately larger cyclical balance (-$8.75 billion compared to PBO's estimated -$3.5 billion), all else being equal. Given that the structural balance is defined and calculated as the (actual) budgetary balance minus the cyclical balance, this suggests that Finance Canada's estimate of the structural balance would be approximately $16.6 billion ($7.8 billion plus $8.75 billion) in 2016-17.

Figure 3-8

Estimates of the Output Gap

per cent of potential GDP



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

PBO believes that estimates and forecasts of structural budget balances provide useful information about a government's underlying financial position and can be used to help guide policy actions. Finance Canada could improve budget transparency by publishing its National and Public Accounts estimates of the Government of Canada's structural balance both over history and over the medium-term planning horizon, as well as its methodology and assumptions used, including its estimates of potential GDP and income over history and over the medium-term projection horizon.

Fiscal Sustainability

Although PBO projects that the Government's structural balance will shift from a deficit to a surplus over the medium term, this in itself does not necessarily imply that the Government's fiscal structure is sustainable over the longer term. Assessing whether a government's fiscal structure is sustainable requires looking beyond projections of budgetary deficits and debt over a medium-term horizon to take into account the economic and fiscal implications of population ageing. Fiscal sustainability requires that government debt cannot ultimately grow faster than the economy.

[11] Despite providing estimates of the output gap to the IMF in 2011 under the G-20 Mutual Assessment Process (MAP), Finance Canada has not provided its estimates to the PBO following repeated requests for this data: November 30, 2011 (http://www.parl.gc.ca/PBO-DPB/documents/InformationRequests/Requests/IR0056_IMF_submission.pdf), February 3, 2012 (http://www.parl.gc.ca/PBO-DPB/documents/InformationRequests/Requests/IR0056_IMF_submission_followup.pdf) and March 9, 2012 (http://www.parl.gc.ca/PBO-DPB/documents/InformationRequests/Requests/IR0077_Finance_FRT.pdf).

[12] PBO (2011c) provided a comparison of Finance Canada and PBO estimates of the Government's structural balance (on a National Accounts basis) and showed that the two sets of estimates tracked each other quite closely over the period 1975 to 2005. From 2006 to 2010, however, Finance Canada and PBO estimates diverged, likely as a result of differences in estimates of potential income.

PBO's Updated Fiscal Sustainability Analysis

Following the Government's December 2011 announcement to renew the Canada Health Transfer (CHT), PBO updated the long-term projections presented in its 2011 Fiscal Sustainability Report (FSR) in January 2012 to reflect this change to the structure of federal transfers.[13] Based on these updated projections, PBO assessed the Government's fiscal structure to be sustainable over the long term given projected demographic and economic trends. However, the mirror image of this change to the federal CHT structure is reflected at the provincial-territorial level. PBO's January 2012 analysis indicated that the provincial-territorial fiscal situation continued to be unsustainable over the long term and deteriorated further as a result of the reduction in federal CHT transfers.

PBO also published a note[14] that compared various long-term projections of federal elderly benefits and assessed their sustainability in a broader analytical framework. PBO's analysis reiterated that given the change in the CHT transfer over the long term, the federal fiscal structure is sustainable even though elderly benefits are projected to rise relative to the size of the economy from 2.2 per cent of GDP ($36 billion) in 2010-11 to 3.0 per cent of GDP ($110 billion) in 2031-32, based on the assumption that the increase in average benefit payments is limited to the rate of CPI inflation. Based on this assumption, PBO projected that the federal net debt-to-GDP ratio would decline steadily from its current level, ultimately resulting in a net asset position (i.e., financial assets exceeding liabilities) over the long term, indicating that the federal fiscal structure was sustainable. Further, PBO's projections at that time did not incorporate savings from the Government's freeze on operating expenses nor its planned Strategic and Operating Review. Incorporating these savings would further improve the Government's fiscal room to reduce revenue, increase program spending or some combination of both while maintaining fiscal sustainability.

Budget 2012 Proposed Change to the Age of Eligibility for Elderly Benefits

In contrast, Budget 2012 suggests that the projected increase in elderly benefits through 2030 demonstrates that the program is not sustainable over the long term. As a result, Budget 2012 proposes to increase the age of eligibility for elderly benefits from 65 to 67 years of age starting in 2023, with full implementation by January 2029. However, Budget 2012 does not provide long-term projections or estimates of the impact of this proposed policy change.

Based on long-term projections from its 2011 Fiscal Sustainability Report, PBO has examined the impact of this proposed policy change on the Government's spending on elderly benefits. PBO projects that the increase in the age of eligibility for elderly benefits would reduce spending on elderly benefits by approximately 12 per cent ($12 billion) in 2029-30. Under this proposed policy, PBO projects that, relative to the size of the economy, elderly benefits would rise from 2.2 per cent of GDP to a peak of 2.7 per cent of GDP in 2033-34, which is 0.3 percentage points of GDP lower than would be the case without this policy change (Figure 3-9). By the end of the long-term projection horizon, spending on elderly benefits would fall to 1.7 per cent of GDP, 0.2 percentage points of GDP lower than would be the case without this policy change.

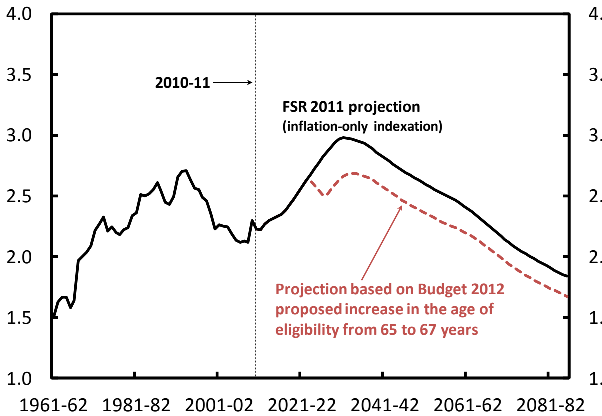
[13] http://www.parl.gc.ca/PBO-DPB/documents/Renewing_CHT.pdf.

[14] http://www.parl.gc.ca/PBO-DPB/documents/Sustainability_OAS.pdf.

Figure 3-9

Elderly Benefits, 1961-62 to 2085-86

per cent of GDP



Sources: Office of the Parliamentary Budget Officer; Statistics Canada.

PBO believes that long-term economic and fiscal projections are an essential element of budget transparency and sustainability analysis. The Government could further improve budget transparency by providing its analysis and long-term projections of the impacts of its proposed policy change to increase the age of eligibility for elderly benefits, in addition to fulfilling the commitment it made in Budget 2007 to publish a "comprehensive fiscal sustainability and intergenerational report". As noted in Budget 2007, this report would "provide a broad analysis of current and future demographic changes and the implication of these changes for Canada's long-run economic and fiscal outlook".

4 Longer-Term Economic Trends

While PBO has focused its analysis on the longer-term economic and fiscal implications of population ageing, there are other important trends that will shape Canada's economy and public finances over the longer term. This section describes some additional longer-term economic trends, including: slowing productivity growth; industrial change; and rising income inequality across households and provinces.

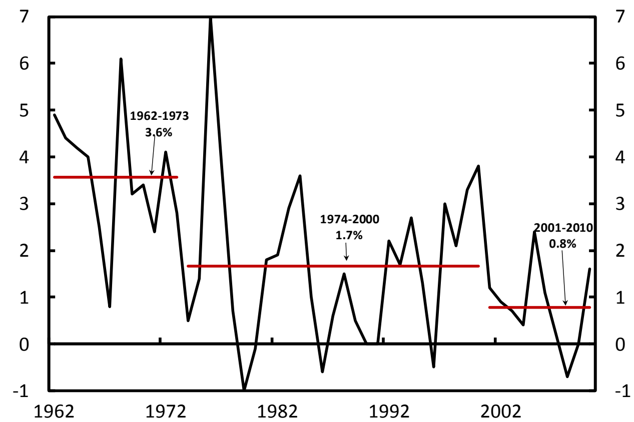
Productivity

A country's productivity performance is a key driver of its long-run living standards. Canada's labour productivity growth has slowed over the past five decades and in the past decade grew at only 0.7 per cent annually (Figure 4-1).

Figure 4-1

Business Sector Labour Productivity Growth, 1962 to 2010

per cent



Sources: Office of the Parliamentary Budget Officer; Statistics Canada.
Note: Labour productivity is real GDP divided by total hours worked. Changes in labour productivity reflect the joint influence of physical capital, skill upgrading, and overall productive efficiency.

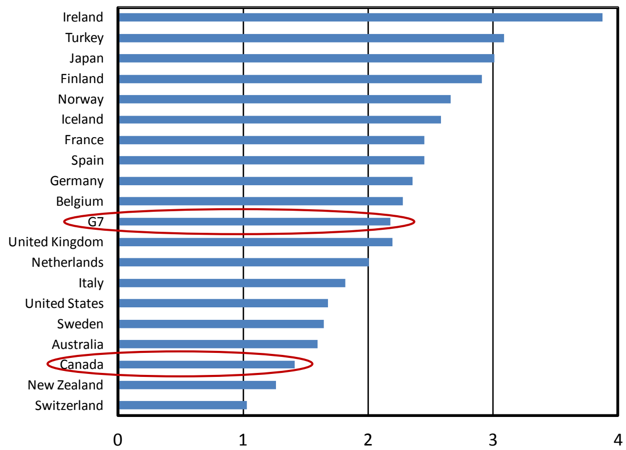
Canada's recent productivity performance has been weak relative to previous decades and has also been weak internationally (Figure 4-2). This issue matters because seemingly small differences in productivity can produce significant differences in national incomes when compounded over long periods of time. As an illustrative example, if Canada's labour productivity had grown at the G7 average over 1971 to 2009,[15] Canada's real GDP in 2010 would have been roughly one-third higher, other things equal.

[15] OECD (2011) reports labour productivity growth over this period of 2.2 per cent annually for the G7 compared to Canada's 1.4 per cent.

Figure 4-2

Average Annual Labour Productivity Growth, 1971 to 2009

per cent



Source: OECD, Productivity Database.
Note: Labour productivity is real GDP in the national currency divided by total hours worked.

Productivity is a complex issue and there is no single explanation for Canada's weak performance or single policy action to address it. Nonetheless, it is generally accepted that improving Canada's innovation and competitiveness is the key to improving its productivity, and this consists of creating economic value through better products, production processes, organizational practices and marketing.

Macroeconomic analysis suggests some factors that have potentially contributed to Canada's relatively poor productivity performance including: weaker business investment in machinery and equipment and information and communications technology; and, Canada's smaller market size. In addition, various government policies have been suggested including: regulation (e.g., foreign ownership restrictions, supply management); preferential tax treatment of small business that dull incentives to grow; and, an over-reliance on tax incentives to promote research and development rather than commercialization.[16]

Finally, as Drummond (2011) notes, Canada's weak productivity performance over the past decade is particularly disappointing and puzzling given that government policies and external factors — including a stronger Canadian dollar and increased international competition — have moved in directions that most experts expected would have strengthened Canada's productivity growth.

Industrial Change

Over the past four decades, the share of manufacturing employment in the overall economy has declined in Canada and most advanced countries (Figure 4-3). This decline is broad-based within the manufacturing sector and is evident in both low- and high-technology manufacturing industries. Indeed, Canada's manufacturing sector has experienced large job losses over the past decade – with 500,000 net jobs lost, as net employment grew by 2.8 million jobs in the rest of the Canadian economy – which have led to concerns about this sector going forward.

In part, manufacturing job losses reflect a longer-term trend in advanced economies that has shifted resources away from goods-producing sectors and into services over time. However, even though the share of manufacturing employment has declined, its share of overall production (i.e., real GDP) has been roughly constant because the manufacturing sector has been more productive than the rest of the economy, meaning that fewer workers are needed to produce the same amount of output (Figure 4-4).[17]

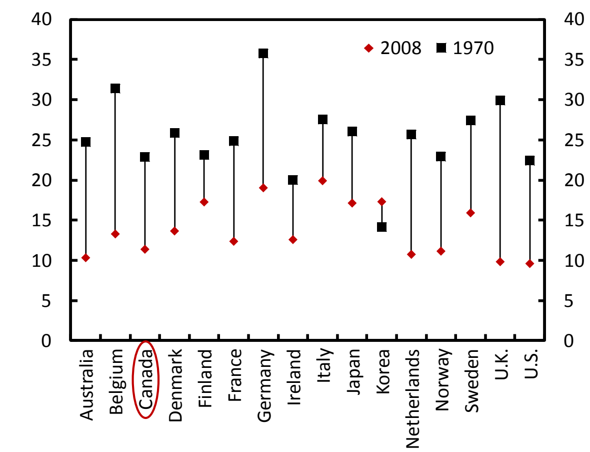
A key challenge for Canada, as well as other advanced economies, will be to smooth the transition of the workforce from manufacturing into other sectors, as research suggests that the adjustment costs for the economy may be significant when workers have difficulty transferring their skills between jobs (Tapp, 2011).

[16] Some recent policy-relevant work on productivity and innovation includes Jenkins et al. (2011); and Canada 2020 (2011).

[17] This higher productivity in conjunction with increased global competition has meant that prices have grown more slowly in manufacturing than in the rest of the economy. For a more thorough discussion of these issues, see Baldwin and Macdonald (2009).

Figure 4-3

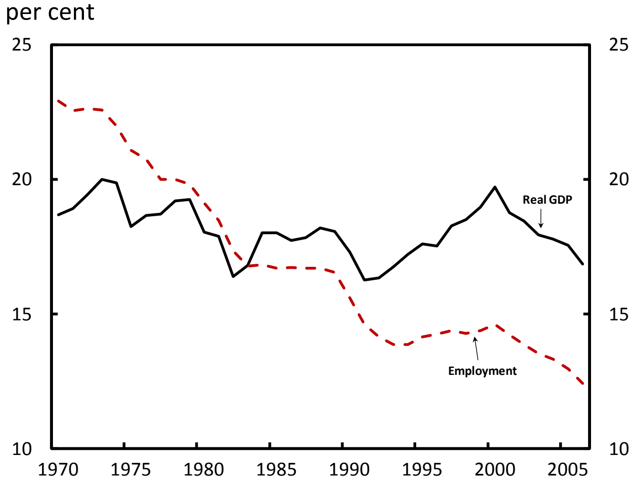
Manufacturing Share of Total Employment, 1970 and 2008



Sources: Office of the Parliamentary Budget Officer; OECD Structural Analysis Database.
Note: Employment measured as 'number of persons engaged', i.e. total employment in manufacturing as a share of total employment. Australia and U.K. data are for 1971 not 1970.

Figure 4-4

Manufacturing Share of Real Output and Employment in Canada, 1970 to 2006



Sources: Office of the Parliamentary Budget Officer; OECD Structural Analysis Database.
Note: Real GDP is total value added in volumes, while employment is the 'number of persons engaged'.

Income Inequality

Income inequality in Canada has increased over the past three decades (Figure 4-5). Rising inequality matters because it may weaken social cohesion and can increase demand for government programs and corrective policies. Inequality also matters if it persists from generation to generation, suggesting a lack of equality of opportunities over time (OECD, 2011).

Inequality has increased because the upper end of the distribution experienced much larger gains due to rising market incomes (Figure 4-6). In contrast, market incomes in the bottom three quintiles fell in real terms between 1976 and 2009. Canada's tax and transfer system offset some of the increased inequality, as incomes measured after taxes and transfers rose marginally at the lower end of the distribution over this period.

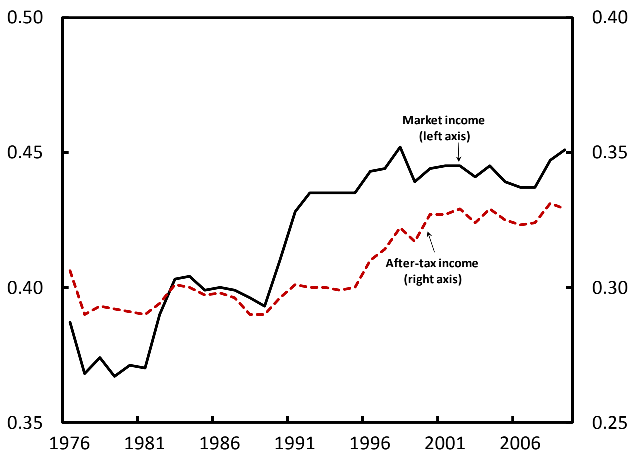
Most of the growth in the upper end of the distribution was driven by the rising earnings of the top percentile, related to executive wages and stock options (Saez and Veall, 2006). The growing share of the top one per cent was also observed in many advanced countries in recent decades — although the trend in Canada was stronger than in most countries (OECD, 2011). Indeed, the rise in income inequality has been particularly pronounced in English-speaking countries having increased most in the U.S., followed by the U.K. and then Canada (Piketty and Saez, 2006).

Similar trends occurred within Canada, as the increased shares of the top percentile earners were largest in Alberta, Ontario, Anglophone Quebec and British Columbia, but were much more modest for francophones in Quebec (Figure 4-7).[18]

[18] Also see Saez and Veall (2006) and Veall (2010). Language was identified based on the language used to file taxes.

Figure 4-5

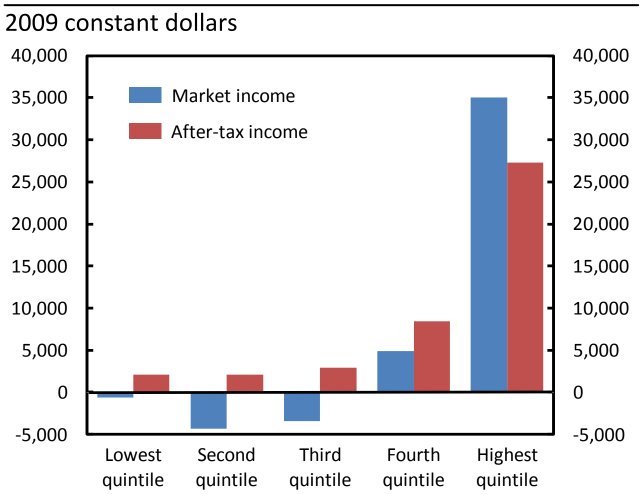
Gini Coefficients for Canada, 1976 to 2009



Source: Statistics Canada.
Note: The Gini coefficient is a number between zero and one that measures inequality in the distribution of income, where a higher number represents higher income inequality. These data cover economic families, with two or more persons.

Figure 4-6

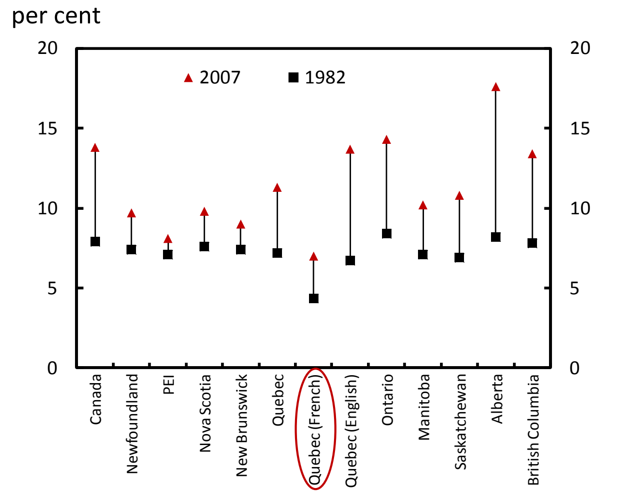
Real Incomes Changes by Quintile, 2009 vs. 1976



Sources: Office of the Parliamentary Budget Officer; Statistics Canada.
Note: A quintile divides the income distribution in fifths, where each quintile represents 20 per cent of the population.

Figure 4-7

Share of Total Pre-tax Income Held by Top 1 per cent, 1982 and 2007



Source: Veall (2010).

Some researchers interpret these findings as evidence that the possibility of highly skilled executives and professionals moving to the U.S may be a key contributor the surge in top wage shares in Canada. If this is indeed the case, it begs the question of what caused the rising U.S. inequality in the first place. While this issue remains unresolved, one view is that corporate governance changes have given executives more control over their compensation. In addition, a variety of other factors may contribute to rising income inequality including technological and market-based factors such as skill-biased technological change which provides larger returns to high-skilled workers. Government policies may also play a role through: product market deregulation; reduction in employment protection legislation; declining unionization and unemployment insurance coverage (OECD, 2011).

Regional Income Disparity

The inequality of incomes has increased in Canada not only between individuals and households but also between regions, at least over the past decade. Figure 4-8 plots several measures of the dispersion across provinces of economic production and incomes over the past three decades. The results suggest that provincial income disparities generally declined in the 1980s and were relatively stable throughout the 1990s. However, beginning in 2002, as global commodity prices began to rise dramatically, regional income disparities rose sharply, an effect that was attenuated only in 2009 with the global recession.[19]

Figure 4-9 focuses on an important measure of provincial purchasing power – the growth of real gross domestic income per capita – during the commodity price boom of 2002 to 2008. During this period, growth was significantly stronger in the resource-producing provinces of Newfoundland, Saskatchewan and Alberta (9.2, 8.4 and 5.6 per cent, respectively)[20] and was weakest in central Canada, where Ontario and Quebec grew at only 0.6 and 1.5 per cent, respectively.

If global commodity price changes were to continue to drive large differences in provincial growth within Canada, then over time this could have longer-term implications for tax and transfer programs that redistribute resources among the provinces, such as the Equalization program.

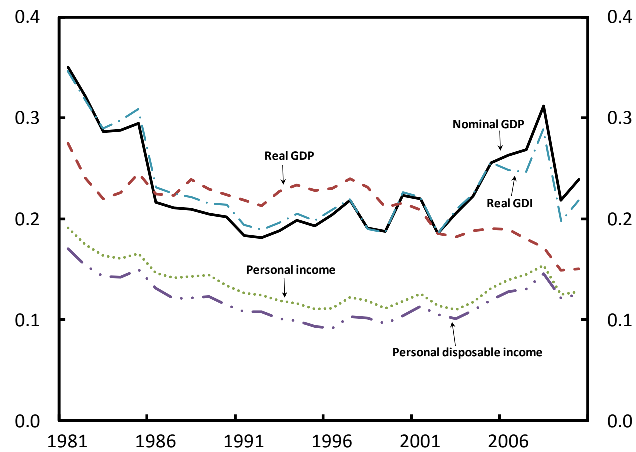
[19] While the measure of dispersion based on real GDP (production volumes) has displayed a downward trend over the 1981-2010 period, the remaining measures, which also capture the impacts of price changes, suggest increased dispersion in overall 'purchasing power' across the provinces over the past decade. Specifically, nominal GDP represents the overall value of output (prices and volumes); real gross domestic income (GDI) takes account of the purchasing power of incomes generated by production including a 'trading gain' resulting from changes in the terms of trade. Personal income is measured in nominal terms and finally, personal disposable income is personal income after taxes.

[20] These same provinces also experienced the largest declines in 2009 when commodity prices fell dramatically during the global recession.

Figure 4-8

Measures of the Dispersion of Provincial Production and Incomes, 1981 to 2010

coefficient of variation

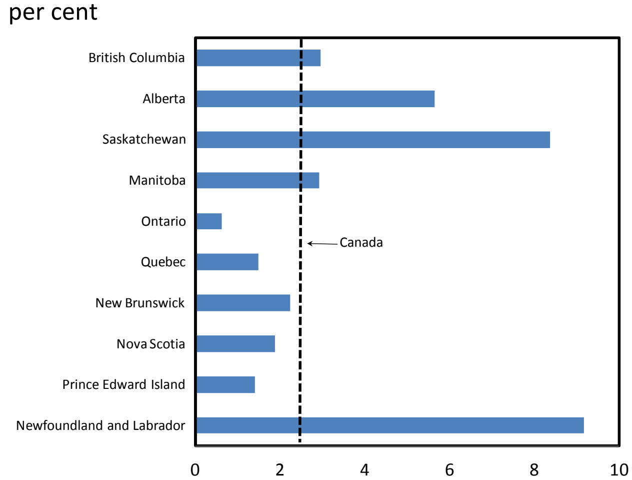


Sources: Office of the Parliamentary Budget Officer; Statistics Canada.
Note: All underlying series are expressed in per capita terms. The coefficient of variation is a normalized measure of the dispersion of a distribution. It is calculated in each year as the standard deviation of each series across all provinces divided by the mean of each series across all provinces.

Figure 4-9

Average Annual Real Gross Domestic Income Growth Per Capita, by Province 2003 to 2008

per cent



Sources: Office of the Parliamentary Budget Officer; Statistics Canada.

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Annex A
Estimating Economic Impacts of Changes in Government Spending on Programs and Other Fiscal Measures

To incorporate the economic impacts of changes to government spending on programs contained in Budget 2012 and other measures into its medium-term economic outlook, PBO used Finance Canada's estimates of expenditure and tax multipliers published in Budgets 2009 and 2010. These multipliers were used by Finance Canada to estimate the economic impacts of the Government's Economic Action Plan (EAP). According to Budget 2010, these fiscal multipliers

> …are summary measures that take into account first-round, indirect and induced impacts, and leakages to saving and imports… Given the considerable uncertainty surrounding the size of fiscal multipliers, prudent estimates have been used… In addition, recent economic research suggests that fiscal multipliers are larger than those used in this analysis when the policy interest rate has reached its effective lower bound...

To estimate the economic impacts of Budget 2012 planned reductions in direct program expenses and the Government's freeze on operating expenses, PBO has allocated these measures to Finance Canada's expenditure multiplier used for 'other spending measures' (re-labeled as 'direct program expenses' in Table A-1). These measures correspond to the category of government current expenditure on goods and services in Finance Canada's Canadian Economic and Fiscal Model (CEFM). PBO has also allocated its assumed reductions in provincial government spending on programs to this multiplier.

To estimate the economic impacts of the Budget 2012 measure to reduce the maximum increase in the EI premium rate, PBO has used Finance Canada's tax multiplier for 'Employment Insurance premiums'. The proposed reduction in the maximum increase in the EI premium rate will offset some of the negative economic impacts of Budget 2012 spending reductions and other measures.

Table A-1

Selected Finance Canada Fiscal Multipliers from Budgets 2009 and 2010

dollar impact on the level of real GDP of a permanent one-dollar increase in fiscal measures

	Year 1	Year 2	Final
Direct program expenses	0.8	1.3	1.4
Employment Insurance premiums	0.2	0.5	0.6

Sources: Office of the Parliamentary Budget Officer; Finance Canada.
Note: The 'Direct program expenses' fiscal multipliers in Table A1-1 are equivalent to those in the 'Other spending measures' category in Budgets 2009 and 2010.

Given that the Canadian economy continues to operate well below its potential GDP (based on PBO estimates) and that the Bank of Canada's policy interest rate remains relatively close to its effective lower bound (i.e., only 75 basis points above), PBO assumed that Finance Canada's expenditure multiplier for government spending on goods and services is symmetric. That is, a reduction in government direct program expenses has an equal and opposite impact on the economy as an increase in direct program expenses. To paraphrase the example provided in Budget 2009, "a multiplier of 1 means that one dollar in budget expenditure (reduction) generates (withdraws) one dollar in real output ..." [parentheses added].

In addition, PBO's estimate of the impact on employment is based on the historical relationship between employment and real GDP (relative to their respective trends). PBO's estimate of this relationship is in line with the assumptions used by Finance Canada to translate the estimated real GDP impact of the Government's EAP into employment. Further, some of the economic impacts of the restraint and reductions in government spending are further offset by PBO's assumption that, as a result of the tepid pace of the economic recovery and the firm anchoring of inflation expectations, the Bank of Canada will maintain its policy interest rate at 1 per cent until the last quarter of 2014 before gradually, but steadily, raising its policy rate over the remainder of the projection (to approximately 3.2 per cent by the end of 2016). In the absence of Budget 2012 spending changes and other measures, PBO assumed that the Bank of Canada would begin to gradually increase its policy interest rate in the second quarter of 2013. As a result of this assumption, the impact of the restraint and reductions in government spending on programs is dampened somewhat.

Table A-2 details the fiscal impacts of the spending reductions in Budget 2012 and freeze on operating expenses, in addition to assumed spending reductions by provincial governments and the reduction in the maximum increase in the EI premium rate.

Table A-2

Fiscal Impacts of Reductions in Government Spending on Programs and Other Measures

billions of dollars

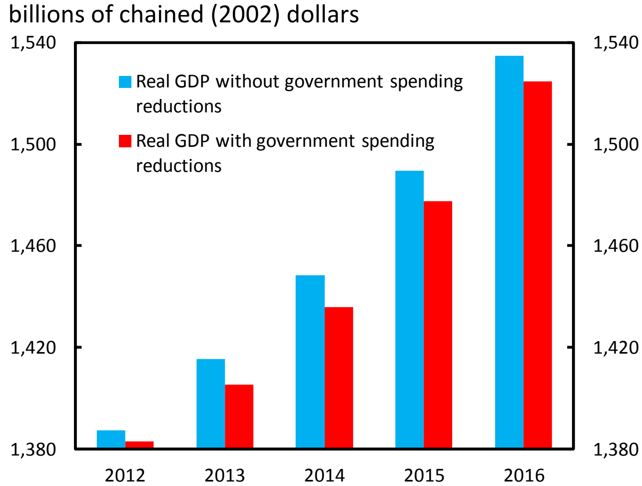
	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Budget 2012 direct program expenses	-3.3	-4.1	-4.6	-4.5	-4.6
Budget 2012 EI premium rates	0.2	0.8	1.5	2.3	2.3
Provincial spending reductions	0.0	0.0	-2.0	-3.0	-4.0
Operating expenses subject to freeze	-4.6	-5.4	-6.1	-6.8	-7.9
Overall	-7.7	-8.7	-11.2	-12.0	-14.2

Source: Office of the Parliamentary Budget Officer.
Note: The amount allocated to 'Operating expenses subject to freeze' represents the reduction in spending relative to the case where it is assumed to grow in line with inflation and population growth.

PBO's April 2012 real GDP projection results in a lower projected path for the level of real GDP than would have been the case in the absence of the planned restraint and reductions in government spending on programs (Figure A-1). The difference between these projected real GDP levels is equivalent to the overall impact of the measures in Table A-2 on the level of real GDP, after accounting for the influence of changes to interest and exchange rates.

Figure A-1

Real GDP Impact of Changes in Government Spending on Programs



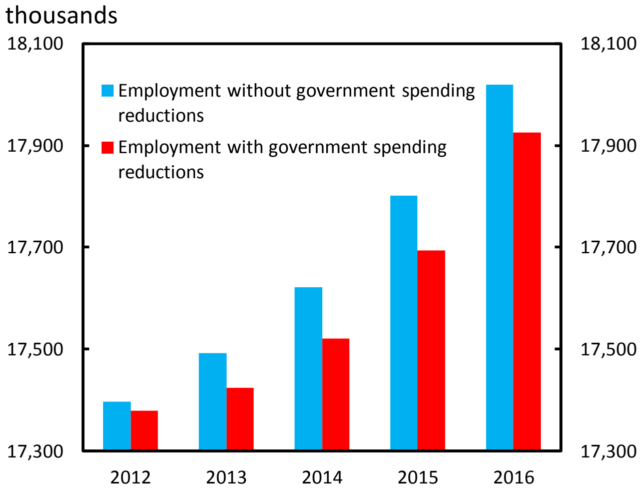
Source: Office of the Parliamentary Budget Officer.
Note: The estimated impact on real GDP takes into account offsetting impacts from Budget 2012 EI measures as well as from changes to interest and exchange rates.

The planned restraint and reductions in spending on government programs pushes the economy further away from its potential GDP and delays the economic recovery. PBO estimates that on a cumulative basis over 2012 to 2017, the output gap is over 50 per cent larger than would be the case without the restraint and reductions in government spending on programs.

As the drag from the restraint and reductions in government spending take hold, the unemployment rate is projected to be 0.3 percentage points higher over the period 2013 to 2015 than would otherwise be the case. The higher unemployment rate, in combination with a lower labour force participation rate, leads to a lower projected level of employment (Figure A-2). The difference between the employment projections is equivalent to the overall impact of the Budget 2012 spending reductions and other measures on the level of employment, which at its peak amounts to approximately 108,000 fewer jobs in 2015 for the economy as a whole.

Figure A-2

Employment Impact of Changes in Government Spending on Programs



Source: Office of the Parliamentary Budget Officer.
Note: The estimated impact on employment takes into account offsetting impacts from Budget 2012 EI measures as well as from changes to interest and exchange rates.

In summary, PBO estimates that the economic impacts of the spending reductions in Budget 2012 and freeze on operating expenses in addition to assumed spending reductions by provincial governments will be pronounced over the medium term, even after accounting for the reduction in the maximum increase in the EI premium rate and the assumption of a (limited) monetary policy response. Table A-3 presents PBO's estimate of the overall impact of these measures on the levels of real GDP and employment.

Table A-3

Estimated Economic Impacts of Changes in Government Spending on Programs

per cent, thousands	**2012**	**2013**	**2014**	**2015**	**2016**
Real GDP (%)	-0.3	-0.7	-0.9	-0.8	-0.7
Employment (%)	-0.1	-0.4	-0.6	-0.6	-0.5
Employment ('000s)	-18	-69	-102	-108	-94

Source: Office of the Parliamentary Budget Officer.
Note: The estimated impacts take into account offsetting impacts from Budget 2012 EI measures as well as from changes to interest and exchange rates.

Annex B

Table B-1 – PBO April 2012 and November 2011 Economic Outlooks

	2012	2013	2014	2015	2016
Real GDP growth (%)					
November 2011 EFO	1.5	2.1	2.5	2.8	3.0
April 2012 EFO	1.9	1.6	2.2	2.9	3.2
difference	0.4	-0.5	-0.3	0.1	0.2
GDP inflation (%)					
November 2011 EFO	1.1	1.8	2.0	2.2	2.2
April 2012 EFO	1.7	1.8	1.9	1.9	2.0
difference	0.6	0.0	-0.1	-0.3	-0.2
Nominal GDP growth (%)					
November 2011 EFO	2.6	4.0	4.5	5.0	5.3
April 2012 EFO	3.6	3.4	4.1	4.9	5.2
difference	1.0	-0.5	-0.4	-0.1	0.0
Nominal GDP level (billions of dollars)					
November 2011 EFO	1,747	1,817	1,899	1,995	2,100
April 2012 EFO	1,780	1,841	1,917	2,011	2,116
difference	33	25	18	16	17
3-month treasury bill rate (%)					
November 2011 EFO	1.0	1.0	1.8	2.8	3.8
April 2012 EFO	0.9	1.0	1.0	1.8	2.8
difference	0.0	-0.1	-0.8	-1.0	-1.0
10-year government bond rate (%)					
November 2011 EFO	3.1	3.8	4.5	5.0	5.3
April 2012 EFO	2.7	3.8	4.3	4.6	4.9
difference	-0.5	0.0	-0.2	-0.4	-0.4
Exchange rate (US cents/C$)					
November 2011 EFO	96.0	96.3	96.8	98.2	99.8
April 2012 EFO	100.2	99.3	98.8	99.1	100.2
difference	4.2	3.0	2.0	0.8	0.4
Unemployment rate (%)					
November 2011 EFO	8.0	8.0	7.8	7.5	7.0
April 2012 EFO	7.7	7.9	7.9	7.5	7.0
difference	-0.3	-0.1	0.1	0.1	0.0
Total CPI inflation (%)					
November 2011 EFO	1.6	1.8	1.9	2.0	2.0
April 2012 EFO	2.0	1.7	1.8	1.9	2.0
difference	0.4	-0.1	-0.1	-0.1	0.0
US GDP growth (%)					
November 2011 EFO	1.6	2.3	2.6	3.1	3.5
April 2012 EFO	2.1	2.2	2.7	3.3	3.6
difference	0.5	-0.1	0.1	0.2	0.2

Source: Office of the Parliamentary Budget Officer.

Annex C

Table C-1 – Comparison of PBO April 2012 and Budget 2012 Economic Outlooks

	2012	2013	2014	2015	2016
Real GDP growth (%)					
Budget 2012	2.1	2.4	2.4	2.4	2.2
April 2012 EFO	1.9	1.6	2.2	2.9	3.2
difference	-0.2	-0.8	-0.2	0.5	1.0
GDP inflation (%)					
Budget 2012	2.4	2.0	2.1	2.0	2.0
April 2012 EFO	1.7	1.8	1.9	1.9	2.0
difference	-0.7	-0.2	-0.2	-0.1	0.0
Nominal GDP growth (%)					
Budget 2012	4.6	4.4	4.6	4.4	4.2
April 2012 EFO	3.6	3.4	4.1	4.9	5.2
difference	-1.0	-1.0	-0.5	0.5	1.0
Nominal GDP level (billions of dollars)					
Budget 2012 (March survey)	1,798	1,877	1,963	2,050	2,136
April 2012 EFO	1,780	1,841	1,917	2,011	2,116
difference	-18	-36	-46	-39	-20
3-month treasury bill rate (%)					
Budget 2012	0.9	1.3	2.2	3.3	3.9
April 2012 EFO	0.9	1.0	1.0	1.8	2.8
difference	0.0	-0.4	-1.2	-1.5	-1.1
10-year government bond rate (%)					
Budget 2012	2.2	2.8	3.6	4.3	4.5
April 2012 EFO	2.7	3.8	4.3	4.6	4.9
difference	0.5	1.0	0.7	0.3	0.4
Exchange rate (US cents/C$)					
Budget 2012	99.6	101.8	101.1	100.5	100.2
April 2012 EFO	100.2	99.3	98.8	99.1	100.2
difference	0.6	-2.5	-2.3	-1.4	0.0
Unemployment rate (%)					
Budget 2012	7.5	7.2	6.9	6.7	6.6
April 2012 EFO	7.7	7.9	7.9	7.5	7.0
difference	0.2	0.7	1.0	0.8	0.4
Total CPI inflation (%)					
Budget 2012	2.1	2.0	2.0	2.0	2.0
April 2012 EFO	2.0	1.7	1.8	1.9	2.0
difference	-0.1	-0.3	-0.2	-0.1	0.0
US GDP growth (%)					
Budget 2012	2.3	2.4	2.8	2.9	2.8
April 2012 EFO	2.1	2.2	2.7	3.3	3.6
difference	-0.2	-0.2	-0.1	0.4	0.8

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

Annex D

Table D-1 – Summary of PBO April 2012 Fiscal Outlook

billions of dollars	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Income taxes						
Personal income tax	120.5	128.7	135.8	143.1	151.7	160.4
Corporate income tax	32.1	27.5	29.2	31.3	34.1	37.0
Non-resident income tax	5.6	5.8	6.2	6.5	7.1	7.6
Total income tax	158.2	161.9	171.3	180.9	192.9	205.0
Excise taxes/duties						
Goods and Services Tax	29.1	30.6	31.7	32.9	34.5	36.2
Custom import duties	3.8	4.1	4.2	4.4	4.7	4.9
Other excise taxes/duties	10.9	10.9	10.9	11.0	10.9	10.7
Total excise taxes/duties	43.8	45.6	46.8	48.4	50.1	51.8
EI premium revenues	18.8	20.1	21.7	23.2	25.0	26.9
Other revenues	28.0	29.4	29.9	29.8	31.1	32.6
Total budgetary revenues	248.8	257.1	269.7	282.2	299.0	316.3
Major transfers to persons						
Elderly benefits	38.0	40.4	42.6	44.9	47.4	49.9
EI benefits	17.8	20.2	21.5	21.7	21.7	21.5
Children's benefits	12.8	13.2	13.5	13.8	14.0	14.1
Total	68.5	73.9	77.6	80.4	83.1	85.5
Major transfers to OLG	56.8	57.9	59.8	62.2	64.9	68.1
Direct program expenses	116.5	114.7	113.7	113.0	115.1	116.1
Public debt charges	31.2	31.0	32.0	31.4	33.4	35.8
Total expenses	273.0	277.5	283.1	287.0	296.5	305.5
Budgetary balance	-24.2	-20.4	-13.4	-4.8	2.4	10.8
Other income/adjustments	-6.1	0.0	0.0	0.0	0.0	0.0
Federal debt	580.6	601.0	614.5	619.3	616.9	606.1
Per cent of GDP						
Total budgetary revenues	14.5	14.4	14.6	14.7	14.9	14.9
Program expenses	14.1	13.8	13.6	13.3	13.1	12.7
Public debt charges	1.8	1.7	1.7	1.6	1.7	1.7
Budgetary balance	-1.4	-1.1	-0.7	-0.3	0.1	0.5
Federal debt	33.8	33.8	33.4	32.3	30.7	28.6

Source: Office of the Parliamentary Budget Officer.

Annex E

Table E-1 – Comparison of PBO April 2012 and November 2011 Fiscal Outlooks

billions of dollars	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Income taxes						
Personal income tax	0.9	1.5	1.3	0.9	0.8	0.7
Corporate income tax	4.3	1.0	1.0	1.5	1.8	1.7
Non-resident income tax	0.2	0.1	0.1	0.1	0.1	0.1
Total income tax	5.4	2.6	2.4	2.4	2.7	2.5
Excise taxes/duties						
Goods and Services Tax	0.1	0.5	0.4	0.3	0.3	0.3
Custom import duties	0.0	0.0	0.0	0.0	0.0	0.0
Other excise taxes/duties	-0.1	0.0	0.0	0.2	0.1	-0.1
Total excise taxes/duties	-0.1	0.5	0.4	0.5	0.4	0.1
EI Premium revenues	-0.2	-0.7	-1.3	-2.1	-2.9	-3.1
Other revenues	0.3	0.4	0.2	0.2	0.2	0.1
Total budgetary revenues	5.5	2.9	1.8	1.0	0.3	-0.3
Major transfers to persons						
Elderly benefits	0.4	0.6	0.6	0.6	0.6	0.6
EI benefits	-0.8	-0.5	0.1	0.0	-0.2	-0.3
Children's benefits	-0.3	-0.3	-0.2	0.0	0.1	0.2
Total	-0.7	-0.2	0.5	0.6	0.5	0.5
Major transfers to OLG	-0.7	1.1	0.4	0.4	0.3	0.3
Direct program expenses	-5.8	-7.3	-9.0	-11.1	-12.1	-14.2
Public debt charges	-0.4	-0.8	-0.9	-2.8	-3.9	-4.9
Total expenses	-7.6	-7.2	-9.0	-12.9	-15.2	-18.4
Budgetary balance	13.1	10.1	10.7	13.9	15.6	18.1
Federal debt	-7.0	-17.0	-27.8	-41.7	-57.2	-75.3

Source: Office of the Parliamentary Budget Officer.
Note: Table E-1 is displayed as the PBO April 2012 projection minus the November 2011 projection.

Annex F

Table F-1 – Comparison of PBO April 2012 and Budget 2012 Fiscal Outlooks

billions of dollars	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Income taxes						
Personal income tax	-0.4	3.3	1.9	1.1	1.9	3.4
Corporate income tax	-0.5	-4.9	-5.1	-5.2	-3.8	-2.9
Non-resident income tax	0.4	0.3	0.2	0.0	0.1	0.2
Total income tax	-0.4	-1.4	-2.9	-4.0	-1.8	0.7
Excise taxes/duties						
Goods and Services Tax	0.0	-0.3	-0.7	-1.1	-1.1	-1.1
Custom import duties	-0.2	0.0	-0.1	-0.1	0.0	0.0
Other excise taxes/duties	0.0	0.0	0.0	0.0	0.0	0.0
Total excise taxes/duties	-0.3	-0.3	-0.8	-1.1	-1.1	-1.1
EI Premium revenues	0.1	0.0	0.2	0.2	0.8	3.3
Other revenues	1.4	3.7	2.9	1.6	1.1	1.0
Total budgetary revenues	0.8	2.1	-0.7	-3.3	-1.0	3.8
Major transfers to persons						
Elderly benefits	-0.1	0.0	0.0	-0.1	-0.1	-0.2
EI benefits	0.3	1.5	2.2	2.4	2.2	1.7
Children's benefits	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	1.7	2.1	2.3	2.1	1.5
Major transfers to OLG	-0.1	-0.5	-0.5	-0.6	-0.7	-0.4
Direct program expenses	0.0	0.0	0.0	0.0	0.0	0.0
Public debt charges	0.2	0.2	0.9	-1.6	-1.5	-0.3
Total expenses	0.1	1.4	2.5	0.1	-0.1	0.8
Budgetary balance	0.7	0.7	-3.2	-3.5	-1.0	3.0
Federal debt	-0.7	-1.4	2.0	5.4	6.5	3.5

Sources: Office of the Parliamentary Budget Officer; Finance Canada.
Note: Table F-1 is displayed as the PBO projection minus the Budget 2012 projection.

Annex G

Calculating Finance Canada's Estimates of Potential GDP and Output Gap

Potential GDP and the output gap are key indicators used in the conduct of monetary and fiscal policy. PBO defines potential GDP as the amount of output that the economy can produce when capital, labour and technology are at their respective trends. The output gap, the difference between actual and potential GDP expressed as a per cent of potential GDP, compares the Canadian economy relative to its potential. The output gap is typically used as an indicator of inflationary pressures and it is an essential input into the calculation of a government's structural budget balance.

PBO's estimates of potential GDP and the output gap are key inputs into its economic and fiscal projections and into its calculations of the Government's structural budget balance. Since potential GDP and the output gap cannot be directly observed, and therefore must be estimated, it is useful to compare PBO's potential GDP and output gap estimates with those produced by other organizations (e.g., Finance Canada) that use these indicators for similar purposes.[21]

Unfortunately, despite providing its estimates of the output gap to the IMF in 2011 under the G-20 Mutual Assessment Process (MAP), Finance Canada has not published its estimates of potential GDP levels and output gap, nor has Finance Canada provided these estimates to the PBO following its November 30, 2011, February 3, 2012 and March 9, 2012 requests for this data. However, Finance Canada does publish its estimates of the Government structural budget balance (on a National Accounts basis) over history, expressed in dollar terms and expressed relative to potential GDP, in its annual *Fiscal Reference Tables* (http://www.fin.gc.ca/frt-trf/2011/frt-trf-11-eng.asp). Further, Finance Canada has published its projection of the growth in potential GDP over the medium term (see page 329 in Budget 2010). Using this publicly available data, PBO has calculated what it believes to be are approximate estimates of Finance Canada's measures of potential GDP and output gap.

PBO's Approach to Calculating Finance Canada's Estimates of Potential GDP and Output Gap

Following the publication of the 2009 *Fiscal Reference Tables*, Finance Canada provided PBO with sufficient data to enable PBO to calculate a precise estimate of Finance Canada's measure of potential GDP over the period 1975 to 2008.[22] Next, using Finance Canada's projection of potential GDP growth over 2009 to 2014 published in Budget 2010, PBO extrapolated the 2008 level of potential GDP forward to produce estimates of potential GDP for 2009 and beyond.

As a check on its calculations, PBO used these estimates of potential GDP to reproduce Finance Canada's estimates of the Government's cyclically-adjusted balances relative to potential GDP for 2009 and 2010 that were published in the 2011 *Fiscal Reference Tables*. Although more precision is required, PBO has some confidence in its calculations given that the estimates through 2008 were calculated with a high degree of precision. However, the precision of PBO's calculations over the historical period 1975 to 2010 could be affected by revisions made by Finance Canada since Budget 2010.

To calculate the estimates of potential GDP over the period 2011 to 2016, PBO used Finance Canada's projection of potential GDP growth over

[21] PBO (2010) provides a comparative analysis of estimates of potential GDP and output gaps (http://www.parl.gc.ca/PBO-DPB/documents/Potential_GDP.pdf).

[22] The 2009 *Fiscal Reference Tables* provided to PBO contained sufficient precision to calculate the level of potential GDP given the level of cyclically-adjusted balances is expressed in dollar terms as well as relative to (nominal) potential GDP; and, given that the (actual) GDP deflator is used to calculate both the level of nominal GDP and nominal potential GDP.

2011 to 2014 (presented in Table A4.1 in Budget 2010) and then assumed that potential growth in 2015 and 2016 would remain at its 2014 projected level of 2 per cent growth annually. The projection of 'actual' real GDP used to calculate the output gap is based on the average private sector forecast over the period 2012 to 2016 presented in Budget 2012.

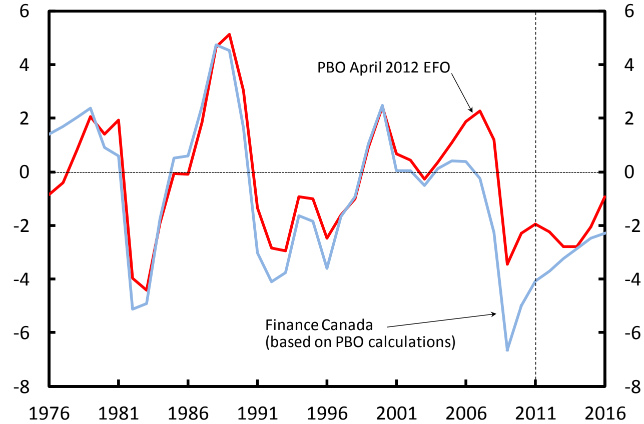
Over the period 1979 to 2004, PBO and Finance Canada's estimates of the output gap differs by only 0.4 percentage points (0.6 percentage points in absolute terms) on average (Figure G-1). However, over the period 2005 to 2011, the difference between output gap estimates has increased significantly to 2.3 percentage points, on average, reflecting (based on PBO's calculations) Finance Canada's faster growth in potential GDP.

Based on PBO's calculations, both PBO and Finance Canada's output gap projections suggest that the Canadian economy will remain well below its potential GDP over the medium term and will not fully recover from the severe downturn by 2016.

Figure G-1

Estimates of the Output Gap, 1976 to 2016

per cent of potential GDP



Source: Office of the Parliamentary Budget Officer.