OFFICE OF THE PARLIAMENTARY BUDGET OFFICER

BUREAU DU DIRECTEUR PARLEMENTAIRE DU BUDGET

PBO Economic and Fiscal Outlook: Follow-up Report to the Standing Committee on Finance

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

This report provides follow-up information related to requests and issues raised by members of the Standing Committee on Finance (FINA) at Meeting No. 54 on April 26, 2012. PBO would be pleased to meet with members of the Standing Committee on Finance, or any parliamentarians, to further discuss PBO's analysis and provide additional information. The following report is based on data received up to May 3, 2012.

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* The authors thank Mostafa Askari, Patricia Brown, Jason Jacques, Jocelyne Scrim and Stephen Tapp for helpful comments. Any errors or omissions are the responsibility of the authors.
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Requests and Issues Raised by FINA Members at Meeting No. 54[1] – Key Points

Analysis of Budget 2012 Measures (page 4)

Estimates of the economic impact of Budget 2012 measures presented in PBO's April 2012 Economic and Fiscal Outlook[2] (EFO) included job creation measures related to the reduction in maximum increase in the Employment Insurance (EI) premium rate as well as others included in the Government's[3] forecast of direct program expenses. PBO's estimates did not include some Budget 2012 measures, to increase both taxes and spending, based on their materiality. When these measures are included the impacts on real gross domestic product (GDP) and employment are, on balance, only marginally larger (i.e., more negative) and not materially different from the estimates presented in the April 2012 EFO.

PBO Economic Forecast Performance (page 6)

Following the approach undertaken in the 2005 *Review of Canadian Federal Fiscal Forecasting*, PBO has compared its one-year-ahead economic and fiscal projections with actual outcomes. For the period 2009 to 2011, PBO's projections of real GDP growth are very much in line with other organizations. Projections of other economic indicators over the same period are essentially the same as Finance Canada, which is not surprising given that over this period PBO based its projections on the average private sector forecast from either its own survey or Finance Canada's survey.

Provincial-Territorial Government Health Spending (page 10)

Although the Government of Ontario is projecting that its spending on healthcare will increase by 2.1 per cent on average over the next 3 years while Canada Health Transfer (CHT) cash transfers are assumed to increase by 6 per cent, in dollar terms, Ontario will still be increasing healthcare spending by more than it receives in CHT cash over the next 3 years ($1.0 billion versus $0.7 billion annually, respectively, on average).

PBO has not produced provincial-territorial government health spending projections by individual province or territory. PBO's projection of health spending is based on the consolidated provincial-territorial government sector. Based on PBO's projection of provincial-territorial health spending and the CHT over the next 10 years, health spending will rise from $134 billion in 2011-12 to $228 billion in 2021-22, an increase of $94 billion (5.5 per cent average annual growth) while the CHT is projected to rise from $27 billion in 2011-12 to $44 billion in 2021-22, an increase of $17 billion (5.0 per cent average annual growth).

Analysis of Super-Projects in Fort McMurray—Athabasca (page 12)

Like most private sector and institutional forecasters, PBO does not construct its economic projections on a sector-by-sector basis. PBO's approach to projecting real GDP growth is aggregate in nature and captures linkages with the U.S. economy, interest and exchange rates, as well as commodity prices. PBO's April 2012 EFO outlook was based on commodity prices rising from current levels over the entire projection horizon. As such, economic activity associated with rising commodity prices is reflected in PBO's projection of real GDP growth over the next 5 years, based on its historical relationship. It is not possible to identify or isolate the contribution of individual super-projects in Fort McMurray—Athabasca to PBO's economic projection.

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1 http://www.parl.gc.ca/content/hoc/Committee/411/FINA/Evidence/EV5527596/FINAEV54-E.PDF.
2 http://www.parl.gc.ca/PBO-DPB/documents/EFO_April_2012.pdf.
3 In this report 'the Government' refers to the Government of Canada. All rates are reported at annual rates unless otherwise noted.

Distinguishing between Economic Impacts and Projected Levels (page 12)

PBO's estimate presented in its April 2012 EFO of the overall employment impact – e.g., a reduction of 94,000 jobs in 2016 – does not mean that PBO expects that, going forward, there will be a decline of 94,000 jobs from the current level of employment (17.4 million as of March 2012). Rather, it means that, in the absence of these measures, employment would have been higher by 94,000. Based on PBO's April 2012 EFO projection, 617,000 net jobs will be created over the period 2012 to 2016 in spite of the restraint and reductions in government spending on programs. In the absence of these measures, PBO projected that 711,000 net jobs – 94,000 more jobs – would be created. Further, PBO's estimate that reductions in government spending on programs result in lower economic activity and employment is widely supported by research and analysis.

PBO's "Balanced" April 2012 Economic Outlook (page 13)

Since June 2011, PBO has produced its own model-based economic projection, characterizing it as "balanced". It is balanced in the sense that the balance of downside or upside risks is factored into the projection. In contrast, most – if not all – private sector forecasts are not adjusted for the balance of risks. Therefore, a more appropriate comparison is between PBO's projection and the average private sector forecast adjusted for risk by Finance Canada. Based on this comparison, PBO's projection is, overall, more "optimistic" than Finance Canada's outlook for economic growth. Over the 5 years of the projection horizon, PBO projects real GDP growth that is higher in 3 of the 5 years and PBO projects a higher level of real GDP in 4 of the 5 years.

It is also useful to compare PBO's estimate of the output gap (real GDP relative to potential GDP) in 2012 to assess whether PBO is "pessimistic" with respect to the relative performance of the Canadian economy. Estimates of the output gap in 2012 range from -0.2 per cent (Bank of Canada) to -3.7 per cent (Finance Canada, based on PBO calculations). PBO's estimate of -2.2 per cent is the closest estimate to the midpoint of this range and lies between estimates by the OECD and IMF. Based on this comparison, PBO's characterization that the economy is operating well below its potential GDP is not, relative to other organizations, pessimistic. Indeed, Finance Canada's estimate of the Canadian economy's performance relative to potential GDP (based on PBO calculations) is the most pessimistic.

The Amount of Slack in the Labour Market (page 15)

To assess the degree of slack in the labour market, it is useful to look at several indicators, both relative to historical experience and estimated trends. For example, as noted by the Governor of the Bank of Canada, there has been a "fairly sizeable and persistent" increase in the proportion of workers working part-time that would prefer to be working full-time. In his April 25, 2012 testimony to the Senate Committee on Banking, Trade and Commerce, Governor Carney noted that "[a]ll our labour market indicators suggest that there still is some considerable slack in the labour market. … The unemployment rate has come down, importantly, but not as much as it could."

Further, Statistics Canada publishes supplementary measures of unemployment "to shed further light on the degree of labour market slack and the extent of hardship associated with joblessness." More specifically, an often-cited supplementary measure of unemployment is the so-called 'R8', which is comprised of the official unemployment rate plus discouraged searchers, waiting group, portion of involuntary part-timers. This measure (seasonally unadjusted, 12-month moving average) has evolved from a trough of 8.5 per cent in early 2008, to a peak of 11.6 per cent in early 2010, to its current level of 10.5 per cent – well above the official unemployment rate of 7.2 per cent and above its pre-recession level.

Commodity Price Outlook (page 17)

PBO uses the Bank of Canada Commodity Price Index (BCPI) in its economic projections. The recent peak of this index was in April 2011, nearly 25 per cent below the historical peak reached in June 2008. Relative to the recent April 2011 peak, the BCPI was 15 per cent lower in March 2012 – the last month of BCPI data to be used in the April 2012 EFO projection. The PBO's comments about the relative weakness of commodity prices were directed at this recent decline and not the longer-term historical perspective that Governor Carney was referring to in his remarks. PBO's projected increases in commodity prices that are greater than or equal to the rate of inflation over the projection horizon is more optimistic than futures prices would suggest and possibly more optimistic than the Bank of Canada's forecast of the BCPI (which is not published).

Changes to PBO's Assessment of Federal Fiscal Sustainability (page 17)

Following the renewal of the federal CHT on December 19, 2011, PBO updated the analysis presented in its September 2011 Fiscal Sustainability Report.[4] The updated analysis indicated that **as a result of the change to the CHT (to grow in line with nominal GDP beyond 2016-17 at around 4 per cent annually instead of the current 6 per cent) the federal fiscal structure was sustainable and had sufficient room to absorb the cost pressures arising from the Old Age Security (OAS) program**. However, the change to the federal CHT structure is mirrored at the provincial-territorial level – the provincial-territorial long-term fiscal situation has deteriorated. PBO provided parliamentarians with its updated analysis on January 12[5], February 8[6], and February 16[7] of this year.

While there may be other policy rationales for changing the OAS program, PBO's analysis indicates that the program itself is financially sustainable over the long term within the Government's current fiscal structure, given projected demographic and economic trends.

PBO has not yet updated its fiscal sustainability analysis to incorporate the Government's forecast of direct program expenses in Budget 2012. Incorporating this forecast would further improve the Government's fiscal room to reduce revenue, increase program spending or some combination of both while maintaining fiscal sustainability.

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

1 Analysis of Budget 2012 Measures

Request by Mrs. Shelly Glover (Saint Boniface):

> "...So I would like you to send me in writing an analysis of all those measures for job creation that are put in the budget. I would like you to include that, since you neglected to do so and only focused on the negative and you can't explain how you got there. I would like you to send that to the committee in writing, if you wouldn't mind."
> …
> "…I'd like it in written form, if you wouldn't mind. My time is up, unfortunately, but I'd like it in written form so I can actually see that you did provide the fair, transparent, balanced report that I'm hoping it is."

PBO based its estimates of the economic impacts of Budget 2012 measures on: i) the change in the Government's forecast of direct program expenses (DPE) relative to the Government's November 2011 *Update of Economic and Fiscal Projections* (UEFP); and, ii) PBO's estimate of the fiscal impact of the reduction in the maximum increase in the EI premium rate. PBO's estimates of the economic impacts are "macro" in nature, reflecting the overall impact on activity across the entire economy (real GDP) and labour market (employment) and therefore do not distinguish among sectors, industries or regions.

Change in Direct Program Expenses

In the first instance, by using the change in the Government's forecast of DPE, PBO's estimate is therefore 'net' of all Budget 2012 measures allocated to this category (i.e., departmental spending reductions combined with DPE measures and other changes). However, in estimating the economic impact of the change in DPE, PBO estimated the *overall* impact of this change – and not the impacts of individual measures – given that the same expenditure multiplier (from Finance Canada) was assumed to apply to all DPE measures.[8]

Table 1-1 provides a summary of the breakdown of changes in DPE relative to the Government's November 2011 UEFP. Over the period 2012-13 to 2016-17, the change in the Government's forecast of DPE amounts to $21.1 billion. Coincidentally, the total amount of departmental spending reductions over the same period ($21.0 billion) is almost exactly equal to the change in DPE ($21.1 billion), which could make it appear that PBO only included spending reductions and excluded Budget 2012 measures in DPE related to job creation. However, the job creation impacts of Budget 2012 measures allocated to DPE are more than offset by the departmental spending reductions and other[9] reductions to DPE.

Table 1-1

Changes in Direct Program Expenses: Budget 2012 vs. Update 2011

billions of dollars

	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Update 2011	118.000	117.800	117.600	119.600	120.700
Budget 2012	114.700	113.700	113.000	115.100	116.100
Change	**-3.300**	**-4.100**	**-4.600**	**-4.500**	**-4.600**
Source of change:					
Capital amortization	0.400	0.400	0.500	0.500	0.500
Departmental reductions	-1.762	-3.481	-5.332	-5.175	-5.219
Budget 2012 measures in DPE	0.579	0.559	0.008	0.008	0.012
Other	-2.517	-1.578	0.224	0.167	0.107
Change	**-3.300**	**-4.100**	**-4.600**	**-4.500**	**-4.600**

Sources: Office of the Parliamentary Budget Officer; Finance Canada.
Note: Totals may not add due to rounding.

Given the information provided in Budget 2012, PBO has identified $1.2 billion in total measures within DPE. The DPE measures presented in Table 1-1 are calculated net of funds existing in the fiscal framework (i.e., funds were set aside in Update 2011 for future measures), given that PBO is estimating the economic impact of the change in DPE relative to Update 2011. Annex A provides the detailed breakdown of Budget 2012 measures in DPE that are reflected in PBO's estimate of the impact on real GDP and employment. Further,

[8] Further, for simplicity, PBO assumed that the dollar change in DPE (accrual basis) was equivalent to the dollar change in government spending on current goods and services (National Accounts basis).

[9] Based on information provided to PBO by Finance Canada (http://www.parl.gc.ca/PBO-DPB/documents/InformationRequests/Responses/Response_IR0081_Finance_EN.pdf) these reductions appear to be allocated to the category of 'Other transfer payments'.

since increases in 'Capital amortization' are included, PBO's estimate of the economic impact of the change in DPE could be understated given that the change in capital amortization may not represent actual incremental investment, rather it may reflect changes to assumptions of the useful life of capital existing assets.

Reduction in the Maximum Increase in the EI Premium Rate

PBO's estimate of the overall economic impact of federal and provincial restraint and reductions in spending on programs did include the job creation impacts associated with the reduction in the maximum increase in the EI premium rate from 10 cents to 5 cents per 100 dollars of insurable earnings. Table 1-2 presents PBO's fiscal and economic impact estimates of this change.

Table 1-2

Economic Impacts of the Reduction in the Maximum Increase in the EI Premium Rate

	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Fiscal impact (billions of dollars)	0.157	0.800	1.493	2.254	2.349
Economic impacts:	**2012**	**2013**	**2014**	**2015**	**2016**
Real GDP (per cent)	0.00	0.01	0.03	0.04	0.05
Employment (per cent)	0.00	0.01	0.02	0.03	0.04
Employment (thousands)	0	1	4	6	7

Source: Office of the Parliamentary Budget Officer.

Budget 2012 Measures Excluded from PBO's Economic Impact Estimates

In preparing its economic impact estimates, PBO included only the $21.1 billion reduction in DPE and the $7.1 billion reduction in EI premium revenues resulting from the reduction in the maximum increase in the premium rate. While Budget 2012 did include other measures that would affect job creation – both positively and negatively – PBO did not include these measures on the basis that they were not materially significant. Further, following the approach used in Budget 2009, PBO did not account for Budget 2012 policy actions whose effects would be difficult to estimate.[10]

Budget 2012 included several measures to increase revenues related to closing tax loopholes and eliminating tax preferences for individuals and corporations. At the same time, measures such as extending the hiring credit for small businesses will result in lower revenues. The revenue measures – on a net basis – excluded from PBO's economic impact estimates average -$0.7 billion annually over 2012-13 to 2016-17 (Table 1-3). The spending measures – on a net basis – excluded from PBO's economic impact estimates average $0.1 billion per year over the same period. Annex B provides the detailed breakdown of Budget 2012 measures that were not included in PBO's estimated economic impacts presented in the April 2012 EFO.

Table 1-3

Budget 2012 Measures Not Included in PBO's April 2012 EFO Estimated Economic Impacts

billions of dollars	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Revenue measures	0.195	-0.434	-0.845	-1.089	-1.248
Expense measures	0.227	0.343	0.000	0.000	0.000
Net fiscal impact	**0.422**	**-0.091**	**-0.845**	**-1.089**	**-1.248**

Source: Office of the Parliamentary Budget Officer.
Note: A negative number implies a decrease in spending and an improvement in the budgetary balance. A positive number implies an increase in spending and a deterioration in the budgetary balance. Totals may not add due to rounding.

Using Finance Canada's tax and expenditure multipliers, PBO has estimated the economic impacts of Budget 2012 fiscal measures that were not included in the April 2012 EFO estimate. Table 1-4 shows that the economic impacts of these fiscal measures are negligible. In terms of the impact on the level of real GDP, the excluded measures range from -0.04 to 0.03 per cent and over the 5-year period average -0.01 per cent

[10] For example, in the case of Budget 2009, the effects of measures to "improve access to credit and strengthen the financial system" were not included in the Government's estimate of job creation. In the case of Budget 2012, policy actions such as "refresh[ing] the Global Commerce Strategy through extensive consultations with Canada's business community" were therefore not included in PBO's economic impact estimates.

annually. The employment impacts range from -4 thousand to 3 thousand (equivalent to -0.02 and 0.02 per cent of employment, respectively) and average -205 jobs annually over the same period. Had PBO included these fiscal measures, its estimate of the overall economic impacts would, on balance, be only marginally larger (i.e., lower real GDP and lower employment) and not materially different from the estimates presented in the April 2012 EFO.

Table 1-4

Economic Impacts of Budget 2012 Fiscal Measures

	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Real GDP (per cent):					
PBO April 2012 EFO	-0.30	-0.71	-0.88	-0.81	-0.66
Impact of excluded fiscal measures	0.01	0.03	0.00	-0.04	-0.03
Total impact	**-0.29**	**-0.68**	**-0.88**	**-0.85**	**-0.69**
Employment (thousands):					
PBO April 2012 EFO	-18	-69	-102	-108	-94
Impact of excluded fiscal measures	1	3	2	-2	-4
Total impact	**-17**	**-66**	**-100**	**-110**	**-98**

Source: Office of the Parliamentary Budget Officer.
Note: Totals may not add due to rounding.

2 PBO Forecast Performance

Request by Mr. Dave Van Kesteren (Chatham-Kent—Essex):

> "We've got to admit that in the past you've had maybe a poor track record in some of your predictions. There was a private sector study published in the Globe and Mail, and you're probably aware of that. It said that the government was more accurate than your office nine times out of fifteen.
>
> Can you enlighten this committee and explain those apparent contradictions? And lastly, could you provide this committee with a written comparison of your predictions since 2008, comparing the economic indicators and what actually happened?"

While making comparisons of forecast accuracy is useful, it is also important to note that in order to provide parliamentarians with a rich planning environment, PBO provides – in a transparent manner – not only independent economic and fiscal projections but also (both qualitative and quantitative) risk analysis; estimates of the economic uncertainty around our projections (fan charts); estimates of the economy's potential capacity and labour market trends; and, a decomposition of the projected (as well as historical) budgetary balance into structural and cyclical components which are helpful for guiding fiscal policy.

Fiscal Forecast Performance

A September 28, 2011 article published by The Globe and Mail compared Finance Canada and PBO's projections of the Government's budgetary balance over the period November 2008 to June 2011.[11] The article noted that among 15 comparable forecasts: the Government "beat" PBO nine times; PBO forecasts were more accurate four times; and, there were two ties.

Such analysis might give the impression that there were 15 forecasts of 15 budgetary balance outcomes. However, at the time of publication, there were only 2 final budgetary outcomes (2008-09 and 2009-10) and 1 interim estimate (2010-11) based on the Government's June 2011 Budget, which total 3 budgetary balance outcomes. Thus the multiple forecasts simply reflect updates of initial forecasts of 3 outcomes and provide little, if any, informative content with respect to evaluating relative forecast performance. That said, there are limitations to forecast evaluation, particularly in the presence of a sample size based on 3 outcomes. According to the Congressional Budget Office (CBO), "[s]tatistical measures do not necessarily produce reliable indicators of a forecast's quality when the sample of observations is small, as with CBO's relatively limited set – 33 in all … Small samples reduce the reliability of statistical tests, because a few particular errors can have an unduly large influence on the measures. Moreover, historical track records only weakly indicate the possible direction or size of forecasting inaccuracies in the future."[12]

[11] *Double Vision: Flaherty's fiscal forecasts win out over watchdog's*, by Bill Curry.
[12] http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/115xx/doc11553/forecastingaccuracy.pdf.

Furthermore, the article showed that in only one instance did Finance Canada and PBO accurately forecast the budgetary balance. This occurred in the fall of 2009 with respect to the balance for 2008-09. In all other instances, both Finance Canada and PBO did not correctly forecast the budgetary balance. On average, and in absolute terms, Finance Canada missed the budgetary balance by $12.6 billion and PBO missed by $13.2 billion. This difference of $0.6 billion is equivalent to 0.2 per cent of the Government's total expenses in 2010-11. **Statistically speaking, there is no difference between PBO and Finance Canada's average (absolute) forecast errors.**

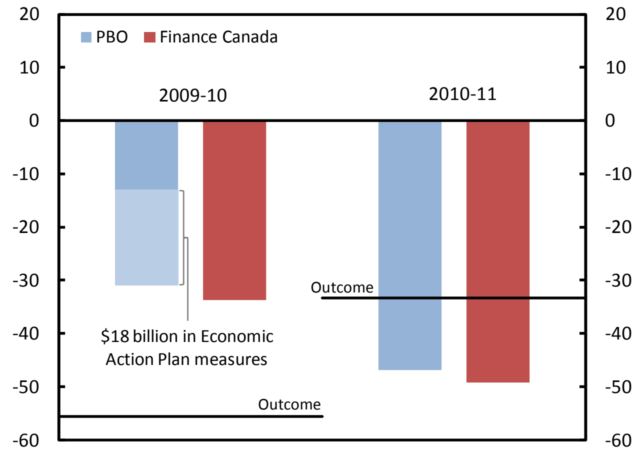
Following the approach undertaken in the 2005 *Review of Canadian Federal Fiscal Forecasting*[13] (i.e., the "O'Neill Report"), PBO has compared its and Finance Canada's one-year-ahead budget projections with actual outcomes. The 2005 Review notes that "these are the projections [one-year-ahead] which get the most attention from analysts as they are the most critical for the fiscal planning and policy debate".

Figure 2-1 compares the year-ahead projections of the budgetary balance made by PBO and Finance Canada at the time of Budget 2009 and Budget 2010. PBO's January 2009 projection preceded Budget 2009 and therefore did not include policy measures announced in the budget. Of particular significance, the Government announced $18 billion in federal stimulus in 2009-10 as part of the first year of the Economic Action Plan (EAP). To put PBO and Finance Canada projections for 2009-10 on a comparable basis, PBO has added the $18 billion in EAP measures from Budget 2009 to its January 2009 projection. No adjustments to PBO's projection of the budgetary balance in 2010-11 (published after Budget 2010) were required given that PBO's March 2010 outlook incorporated measures in Budget 2010.

Figure 2-1

PBO and Finance Canada Projections of the Budgetary Balance in 2009-10 and 2010-11

billions of dollars



Sources: Office of the Parliamentary Budget Officer; Finance Canada.
Note: PBO's projection for 2009-10 was published prior to the Budget 2009 announcement of the Economic Action Plan and did not include the $18 billion in fiscal measures.

For 2009-10, the Finance Canada projection (-$33.7 billion) is closer to the budgetary balance outcome (-$55.6 billion) than the PBO projection adjusted for the EAP (-$31.0 billion). However, for 2010-11, PBO and Finance Canada both over-estimated the size of the budgetary deficit. PBO's projection (-$46.9 billion) was closer to the actual outcome (-$33.4 billion) than Finance Canada's projection (-$49.2 billion).

The projected budgetary balance is a composite of projections for revenue, program spending, and public debt charges. Offsetting errors in any of these categories could lead to an accurate projection of the budgetary balance by chance. A comparison of the projections for these major categories is provided in Table 2-1.

[13] http://www.fin.gc.ca/activty/pubs/Oneil/PDF/Oneil_e.pdf.

Table 2-1

PBO and Finance Canada Fiscal Projections for 2009-10 and 2010-11

billions of dollars

	2009-10		2010-11	
	PBO	Finance Canada	PBO	Finance Canada
Budgetary balance				
Published projection	-13.0	-33.7	-46.9	-49.2
Announced measures	-18.0	-	-	-
Adjusted projection	-31.0	-33.7	-46.9	-49.2
Outcome	-55.6	-55.6	-33.4	-33.4
difference	24.6	21.9	-13.5	-15.8
Budgetary revenues				
Published projection	238.1	224.9	234.3	231.3
Announced measures	-6.8	-	-	-
Adjusted projection	231.3	224.9	234.3	231.3
Outcome	218.6	218.6	237.1	237.1
difference	12.7	6.3	-2.8	-5.8
Program expenses				
Published projection	219.5	229.1	249.2	249.2
Announced measures	11.2	-	-	-
Adjusted projection	230.7	229.1	249.2	249.2
Outcome	244.8	244.8	239.6	239.6
difference	-14.1	-15.7	9.6	9.6
Public debt charges				
Published projection	31.7	29.5	32.0	31.3
Announced measures	-	-	-	-
Adjusted projection	31.7	29.5	32.0	31.3
Outcome	29.4	29.4	30.9	30.9
difference	2.3	0.1	1.1	0.4

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

Economic Forecast Performance

Since November 2008, PBO has produced nine economic projections. These employed two different approaches and were published at various times over the course of each year. The first approach, used from November 2008 to February 2011, was based on the average of private sector economic forecasts from a survey conducted by PBO or Finance Canada. The second approach, used from June 2011 to the present, is an independent, model-based, economic projection.

Following the approach used by the Policy and Economic and Analysis Program (PEAP) and the Centre Interuniversitaire de Recherche en Analyse des Organisations (CIRANO) to assess the forecasting performance of Finance Canada[14] PBO has compared its one-year-ahead projections of real GDP growth with the actual outcomes.[15] Three PBO projections correspond to the relevant forecast horizons, all of which are based on the average forecast of private sector economists.

Figures 2-2 to 2-4 summarize PBO's real GDP growth projections which correspond to the one-year-ahead forecasts made at approximately the start of calendar years 2009, 2010 and 2011. Given that the approach and timing are very similar to that used by Finance Canada to prepare federal budgets, PBO has included Finance Canada's forecasts for these same periods. To provide some perspective of PBO's relative forecast performance, PBO has also included the forecasts of leading institutions such as the Bank of Canada and International Monetary Fund (IMF) whose projections are independent and model based.

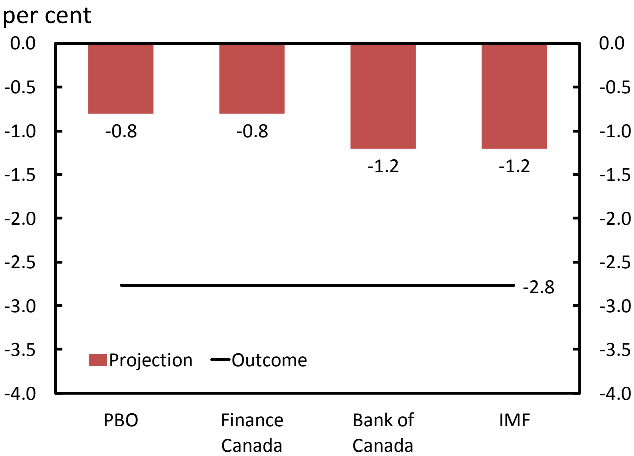
PBO, like other organizations, did not accurately forecast the depth of the decline in real GDP in 2009 (Figure 2-2). Not surprisingly, PBO and Finance Canada's forecasts were the same given that they both used average forecasts from their respective surveys. Although the Bank of Canada and IMF forecasts were closer to the actual decline of 2.8 per cent, the size of their forecast errors was still relatively large – 1.6 percentage points, which is almost 60 per cent of the observed decline.

[14] http://www.fin.gc.ca/wp/Freview-eng.asp.

[15] Consistent with the PEAP-CIRANO study, PBO selected projections that were closest to the start of the calendar year. The 'actual' outcomes against which the projections are compared are drawn from the current vintage of data (as of March 2, 2012) from Statistics Canada.

Figure 2-2

Comparison of 1-Year-Ahead Forecasts of Real GDP Growth in 2009

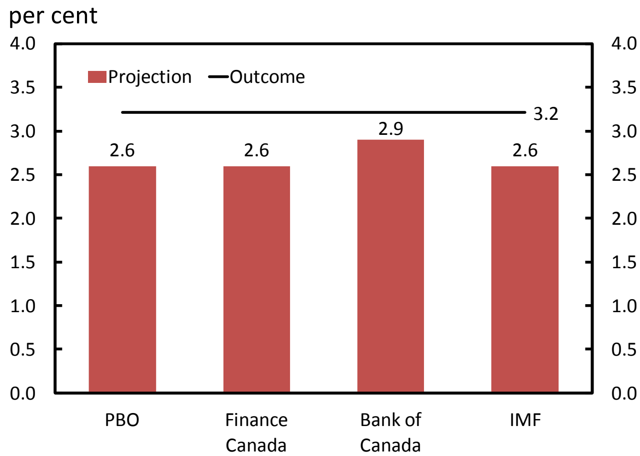


Sources: Office of the Parliamentary Budget Officer (January 2009 *Pre-Budget Economic and Fiscal Briefing*); Finance Canada (January 2009 *Budget Plan*); Bank of Canada (January 2009 *Monetary Policy Report Update*); International Monetary Fund (January 2009 *World Economic Outlook Update*).

Figure 2-3 indicates that PBO's projection of real GDP growth in 2010 was 0.6 percentage points lower than the outcome, the same as Finance Canada and the IMF. The Bank of Canada's projection was 0.3 percentage points closer to the outcome. Thus in all cases, following the under-prediction of the decline in real GDP in 2009, all forecasters under-predicted the rebound in 2010, although to a lesser extent.

Figure 2-3

Comparison of 1-Year-Ahead Forecasts of Real GDP Growth in 2010



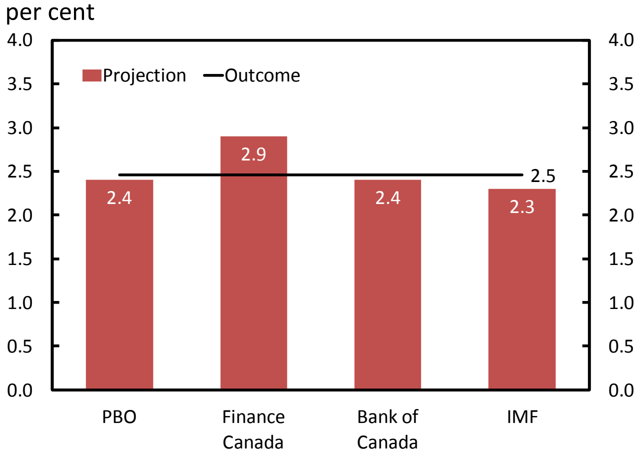
Sources: Office of the Parliamentary Budget Officer (March 2010 *Assessment of the Budget 2010 Economic and Fiscal Outlook*); Finance Canada (March 2010 *Budget Plan*); Bank of Canada (January 2010 *Monetary Policy Report*); International Monetary Fund (January 2010 *World Economic Outlook Update*).

Figure 2-4 indicates that PBO's projection of real GDP growth in 2011 was only slightly lower than the outcome (2.4 versus 2.5 per cent), the same as the Bank of Canada and closer than the IMF. Finance Canada was the only organization that over-predicted real GDP growth in 2011, missing the outcome by 0.4 percentage points, larger than the under-predictions by PBO, the Bank of Canada and the IMF.[16]

[16] Although PBO and Finance Canada both used the average of private sector forecasts, the surveys used were based on different Finance Canada surveys. PBO used Finance Canada's December 2010 survey while the March 2011 budget was based on the March 2011 survey.

Figure 2-4

Comparison of 1-Year-Ahead Forecasts of Real GDP Growth in 2011



Sources: Office of the Parliamentary Budget Officer (February 2011 *Economic and Fiscal Assessment Update*); Finance Canada (March 2011 *Budget Plan*); Bank of Canada (January 2011 *Monetary Policy Report*); International Monetary Fund (January 2011 *World Economic Outlook Update*).

Annex C provides the comparison for two-year-ahead forecasts of real GDP growth as well as comparisons between the projections of PBO and Finance Canada for other economic indicators: GDP inflation, nominal GDP growth and level, the 3-month treasury bill rate, the 10-year government bond rate, and the unemployment rate, respectively.[17]

3 Provincial-Territorial Government Health Spending

Request by Ms. Lois Brown (Newmarket—Aurora):

> "I come from the province of Ontario; I represent an Ontario riding. I know that Mr. McGuinty, in his most recent budget, said that increases for the province of Ontario are going to be kept to an average of 2.1% growth annually. Yet we've been transferring 6% year over year into the province of Ontario for health transfers. I don't get how this jibes. I just don't get how this matches with what you're saying, that health care is going to be impacted so negatively.
>
> I wonder if you could speak to that and if you could provide to the committee those numbers as far as increases from the provinces are concerned. Are they looking at spending more than that 6%?"

In the 2012 Ontario budget, the Government of Ontario committed to "slowing the overall growth in health spending in Ontario to an average of 2.1 per cent annually, over the next three years."[18] PBO estimates that average annual growth of 2.1 per cent in Ontario health spending over 2012-13 to 2014-15 would result in an annual increase in health spending of $1.0 billion, on average (Figure 3-1). Over the same period, based on 6 per cent growth in the Canada Health Transfer (CHT), PBO estimates that the increase in CHT cash to Ontario would average $0.7 billion annually.[19] Thus, although CHT cash transfers to Ontario are projected to grow faster than health spending over this 3-year period (6 per cent versus 2.1 per cent respectively), the dollar increase in health spending is *larger* than the increase in CHT cash given that the share of CHT cash in health spending is approximately 20 per cent.

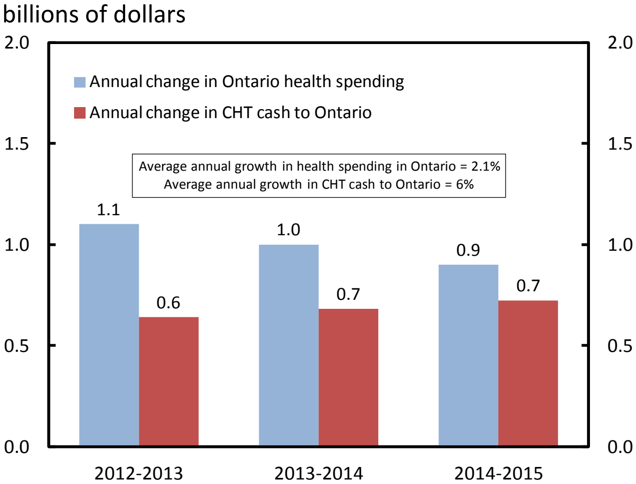
[17] PBO's approach does differ from the PEAP-CIRANO study in that for the two-year-head forecast it uses the annual growth rate in year 2 of the forecast instead of its cumulative two-year growth rate.

[18] Ontario Budget 2012, p.24. Available at http://www.fin.gov.on.ca/en/budget/ontariobudgets/2012/.

[19] The amount of CHT cash transfers to individual provincial and territorial governments depends on the value of their tax points and, starting in 2014-15, CHT cash transfers will be based on an equal per capita allocation. Thus, CHT cash payments will increase at different rates for different jurisdictions. In the case of Ontario mentioned above, PBO has, for simplicity, assumed that Ontario's CHT cash grows at 6 per cent annually beyond 2012-13. However, the 6 per cent annual increase to 2016-17 applies only to the total amount of CHT cash.

Figure 3-1

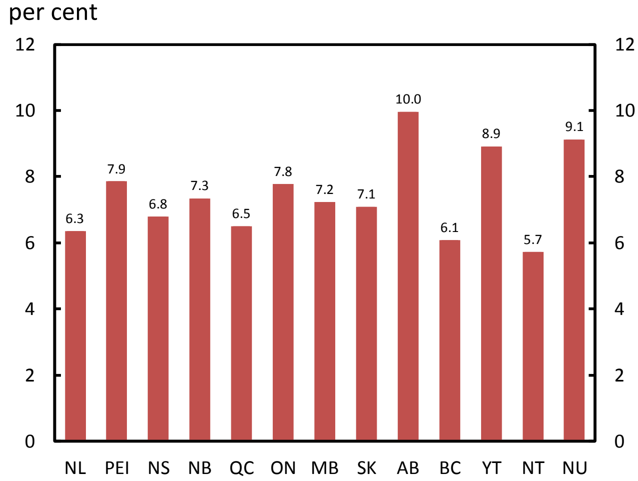
Increases in Ontario Government Health Spending and CHT Cash to Ontario



Sources: Office of the Parliamentary Budget Officer; Ontario Ministry of Finance.

Figure 3-2

Average Annual Growth in Provincial and Territorial Health Spending, 2000 to 2009



Sources: Office of the Parliamentary Budget Officer; Canadian Institute for Health Information.

Request by Mrs. Shelly Glover (Saint Boniface):

> "While you're looking for that, sir, I'd like to also ask you to clarify a couple of other things, because I only have five minutes and really four of those minutes were wasted dancing around the question last time.
>
> The province-to-province health care spending, I thought that was an excellent question by Ms. Brown, and the ten-year projections I thought was an interesting comment. I would love to see that. If you could provide that to us, the ten-year projections of what the health care spending was, province to province, territory to territory, that would be very helpful."

PBO has not produced provincial-territorial government health spending projections by individual province or territory. PBO's projection of health spending is based on the consolidated provincial-territorial government sector. In response to Ms. Lois Brown's request, PBO did offer to provide the average growth rates over the past 10 years by province and territory. Figure 3-2 presents average annual growth rates of health spending by provincial and territorial governments over the 10-year period 2000 to 2009.[20]

Based on PBO's projections in its 2011 Fiscal Sustainability Report[21] provincial-territorial health spending over the next 10 years will rise from $134 billion in 2011-12 to $228 billion in 2021-22, an increase of $94 billion (5.5 per cent average annual growth) while CHT cash transfers will increase from $27.2 billion in 2011-12 to $44 billion in 2021-22, an increase of $17 billion over the period (5.0 per cent average annual growth).

[20] The most up-to-date data from the Canadian Institute for Health Information (CIHI) extends up to 2009; figures for 2010 and 2011 are CIHI's projections.

[21] http://www.parl.gc.ca/PBO-DPB/documents/FSR_2011.pdf.

4 Analysis of Super-Projects in Fort McMurray—Athabasca

Request by Mr. Brian Jean (Fort McMurray—Athabasca):

> "It's just that I never saw anything in your report in relation to what's happening in the economy. In my riding, we provide about $5 billion in income tax payments a year, and that's supposed to go up to $20 billion within 20 years. There are 500 big projects, and with that will come $500 billion in construction in the next 10 to 20 years. But I didn't see that in the report anywhere."
> ...
> "I would like to have an analysis of these 500 super-projects, of this $500 billion in investment that's going to take place in this country, because I think you've ignored it in your report. I didn't see it anywhere. I didn't see it mentioned in one place in that report—"

PBO has not prepared an analysis of the 500 super-projects requested by Mr. Brian Jean. In preparing its Economic and Fiscal Outlook, PBO does not construct its projections on a sector-by-sector basis. PBO's approach to projecting real GDP growth is aggregate in nature and captures linkages with the U.S. economy, interest and exchange rates, as well as commodity prices. PBO's April 2012 EFO outlook was based on commodity prices rising from current levels over the entire projection horizon. As such, economic activity associated with rising commodity prices is reflected in PBO's projection of real GDP growth over the next 5 years, based on its historical relationship. It is not possible to identify or isolate the contribution of individual super-projects to PBO's projection.

5 Additional Information

This section provides some additional information related to discussions between FINA Committee members and the PBO at Meeting No. 54 on April 26, 2012.

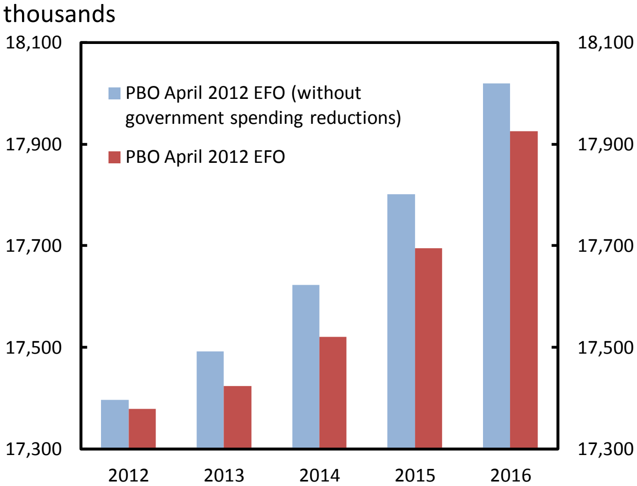
i) Distinguishing between Economic Impacts and Projections

In its April 2012 EFO, PBO provided estimates of the economic impacts of restraint and reductions in government spending on programs, as well as its economic projections. PBO's projections reflected these economic impacts. That is, in the absence of the restraint and reductions in government spending on programs, PBO would have projected higher levels of real GDP and employment. Thus, PBO's estimate of the overall employment impact – e.g., amounting to a reduction of 94,000 jobs in 2016 – does not mean that PBO expects that, going forward, there will be a decline of 94,000 jobs from the current level of employment (17.4 million jobs as of March 2012). Rather, it means that, in the absence of these measures, employment would have been higher by 94,000 jobs.

Indeed, despite the restraint and reductions in government spending on programs, PBO projects that, going forward, employment will increase each and every year (Figure 5-1). Based on PBO's April 2012 EFO projection, 617,000 net jobs will be created over the period 2012 to 2016. In the absence of the restraint and reductions in government spending on programs, PBO projects that 711,000 net jobs – 94,000 more jobs – would be created.

Figure 5-1

Projected Employment Levels



Source: Office of the Parliamentary Budget Officer.

Furthermore, PBO's estimate that reductions in government spending on programs reduces economic activity and employment is widely supported by research and analysis. In her review of the evidence about the effects of fiscal policy[22] Christina Romer concluded that,

> "The bottom line is that, as much as policymakers and even many economists want to believe that doing what seems like a noble thing – lowering the budget deficit – is good for growth in the near term, the evidence is firmly against this proposition. Fiscal austerity may be desirable for the long-run solvency and health of the economy. But it lowers growth and raises unemployment in the near term. That is an essential fact that needs to inform policy decisions."

Moreover, recent IMF research[23] shows that fiscal tightening "is likely to have a larger adverse impact on economic activity when implemented while output gaps are negative than when gaps are positive." The IMF has also illustrated the impact of fiscal tightening on the Canadian economy when policy interest rates are near the effective lower bound and when many countries undertake fiscal tightening at the same time.[24] The IMF analysis indicates that in such an environment, the impacts of fiscal tightening on the Canadian economy are substantially higher compared to the case when the policy interest rate is well above zero (and free to decline) and Canada is the only country pursuing fiscal tightening.

ii) PBO's "Balanced" Economic Outlook

Some Committee members described PBO's economic outlook presented in its April 2012 EFO as "pessimistic", particularly when compared to the average private sector forecast presented in Budget 2012. Since June 2011, PBO has produced its own model-based economic projection, characterizing it as a "balanced" projection. That is, there is an equal probability (50/50) that the outcome will be higher or lower than projected. It is balanced in the sense that the balance of downside or upside risks is factored into the projection.

In contrast, most – if not all – private sector forecasts typically provide their judgment with respect to where the balance of risks to their forecast lies (e.g., "the risks are tilted to the downside or upside"). In the case in which the risks are tilted to the downside, this means that there is a higher probability (i.e., greater than 50 per cent) that the outcome will be lower than their projection. However, private sector forecasters do not quantify the balance of risks to their economic forecasts.

Thus, comparing PBO's economic projection to the average private sector forecast from Finance Canada's survey fails to account for the risk adjustment implicit in PBO's projection. Recall that in light of the ongoing downside risks to the global economic outlook identified in Budget 2012, "the Government has judged it appropriate to adjust downward the private sector forecast for nominal

[22] http://elsa.berkeley.edu/~cromer/Written%20Version%20of%20Effects%20of%20Fiscal%20Policy.pdf.

[23] For example, see Section 3 "Easy Does It: The Appropriate Pace of Fiscal Consolidation" and Appendix 1 "Fiscal Multipliers in Expansion and Contractions" in http://www.imf.org/external/pubs/ft/fm/2012/01/pdf/fm1201.pdf.

[24] See Chapter 3 "Will It Hurt? Macroeconomic Effects Of Fiscal Consolidation" in http://www.imf.org/external/pubs/ft/weo/2010/02/pdf/text.pdf.

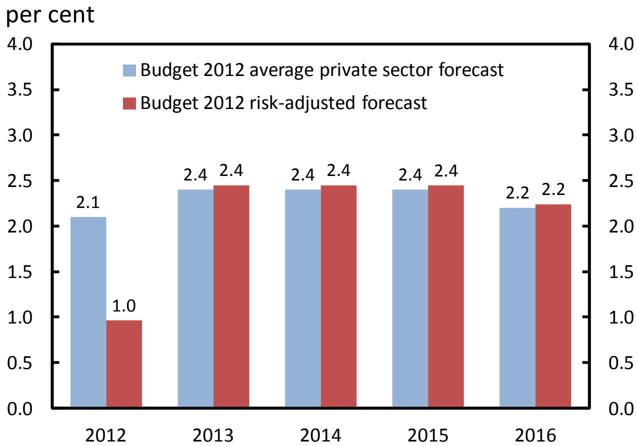
GDP by $20 billion per year over the 2012–2016 period".

Therefore, a more appropriate comparison would be between PBO's projection and the average private sector forecast adjusted for risk by Finance Canada, given that both are considered "balanced" or "risk-adjusted".

Further, the Budget 2012 risk assessment suggests that the private sector forecast for GDP inflation in the March survey is prudent since it is consistent with largely flat commodity prices yet, "the experience of the past decade suggests that continued strong demand from emerging economies is likely to put upward pressure on commodity prices over time." This implies that the risk adjustment to nominal GDP (i.e., the product of real GDP and the GDP deflator) reflects the balance of downside risks to *real* GDP. As such, PBO has adjusted the private sector outlook for real GDP growth presented in Budget 2012 to include the Government's own risk adjustment (Figure 5-2).

Figure 5-2

Budget 2012 Average Private Sector Forecast of Real GDP Growth



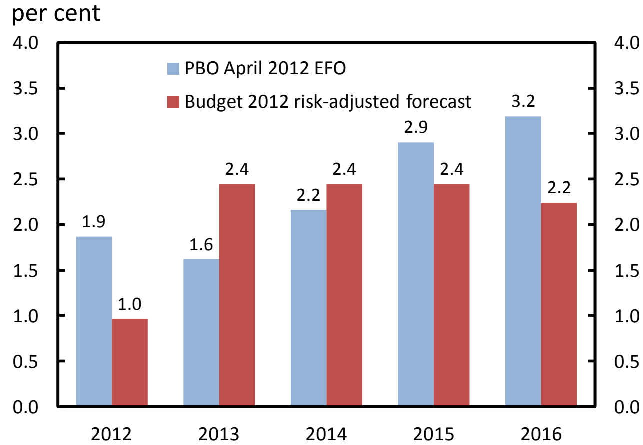
Sources: Office of the Parliamentary Budget Officer; Finance Canada.

Incorporating the Government's $20 billion risk adjustment into the average private sector forecast of real GDP growth significantly reduces forecasted growth in 2012 from 2.1 to 1.0 per cent. Since the risk adjustment is constant in dollar terms, forecasted growth rates in the remaining years are only marginally affected and slightly higher (0.05 percentage points higher annually on average).

Figure 5-3 compares PBO's balanced-risk projection of real GDP growth with Finance Canada's risk-adjusted forecast. PBO projects real GDP growth to be higher than Finance Canada in three of the five years of the projection horizon.

Figure 5-3

Budget 2012 Risk-Adjusted Real GDP Growth Forecast vs. PBO's Balanced Projection



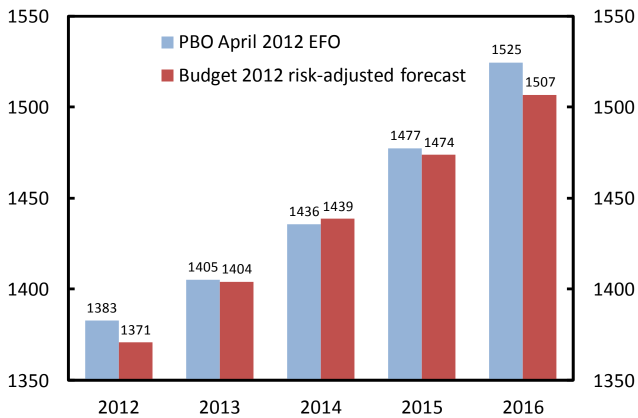
Sources: Office of the Parliamentary Budget Officer; Finance Canada.

Moreover, in terms of the projected level of real GDP, PBO's projection is higher than Finance Canada's in every year for the projection with the exception of 2014, and in this instance it is only marginally lower by 0.2 per cent (Figure 5-4). Thus when PBO and Finance Canada's projections of real GDP are put on a comparable basis, PBO's outlook for real GDP growth is more "optimistic" than the outlook on which Budget 2012 is based.

Figure 5-4

Budget 2012 Risk-Adjusted Real GDP Forecast vs. PBO's Balanced Projection

billions of chained (2002) dollars



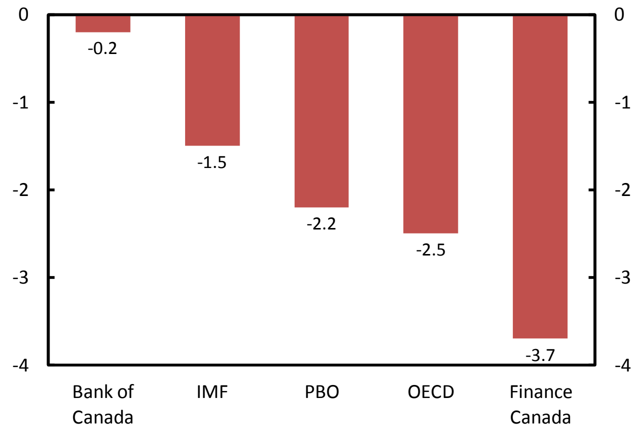
Sources: Office of the Parliamentary Budget Officer; Finance Canada.

It is also useful to compare PBO's estimate of the output gap (real GDP relative to potential GDP) in 2012 to assess whether PBO is pessimistic with respect to the relative performance of the Canadian economy. Figure 5-5 presents estimates of the output gap in 2012 from leading institutions such as the IMF, OECD and the Bank of Canada as well as PBO's calculation of Finance Canada's estimate (since Finance Canada does not publish its internal estimates).[25]

Figure 5-5

Estimates of the Output Gap in 2012

per cent of potential GDP



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

Estimates of the output gap in 2012 range from -0.2 per cent (Bank of Canada) to -3.7 per cent (Finance Canada, based on PBO calculations). PBO's estimate of -2.2 per cent is the closest estimate to the midpoint of this range and lies between estimates by the OECD and IMF. Based on this comparison, PBO's characterization that the economy is operating well below its potential GDP is not, relative to other organizations, pessimistic. Indeed, Finance Canada's estimate of the Canadian economy's performance relative to potential GDP (based on PBO calculations) is the most pessimistic.[26]

iii) The Amount of Slack in the Labour Market

Some Committee members questioned PBO's claim that there was slack in the labour market in Canada. To assess the degree of labour market slack, it is useful to look at several indicators.

First, Figure 5-6 presents the evolution of the unemployment rate from January 2007 to March

[25] The Bank of Canada's estimate of the output gap is calculated using the level of potential GDP in 2011 based on the "conventional" measure and the projections of real GDP and potential output growth in the April 2012 *Monetary Policy Report*. PBO's calculations of Finance Canada's estimates are described in Annex G in the April 2012 EFO.

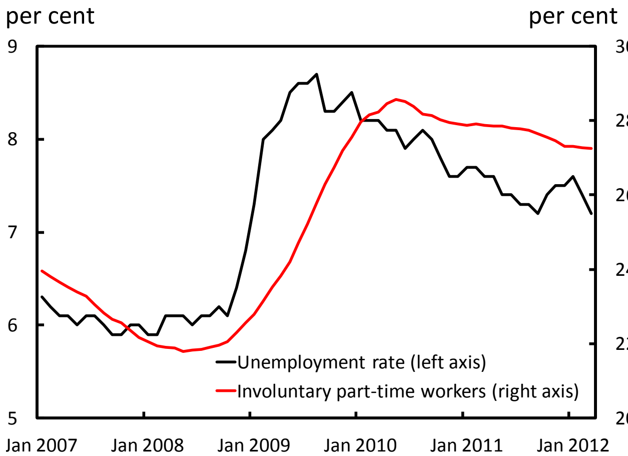
[26] Even without factoring in the Government's risk adjustment, the average private sector forecast of real GDP growth would suggest that Finance Canada's output gap over the entire projection horizon is (in absolute terms) larger – more pessimistic – than PBO's. PBO's April 2012 EFO provides a comparison of PBO and Finance Canada estimates (based on PBO calculations).

2012 along with the proportion of workers working part-time that would prefer to be working full-time. This figure is very similar to Chart 22 in the April 2012 *Monetary Policy Report*, to which Bank of Canada Governor Mark Carney referred in his April 25, 2012 testimony to the Senate Committee on Banking, Trade and Commerce, stating that

> "All our labour market indicators suggest that there still is some considerable slack in the labour market. I give you two, and they are detailed in the report. Involuntary part time workers are about 28 per cent, up from 22 per cent prior to the recession. That is fairly sizeable and persistent. These are people who want to work full time but still are working part time. The unemployment rate has come down, importantly, but not as much as it could."

Figure 5-6

Unemployment Rate and Involuntary Part-Time Workers, January 2007 to March 2012



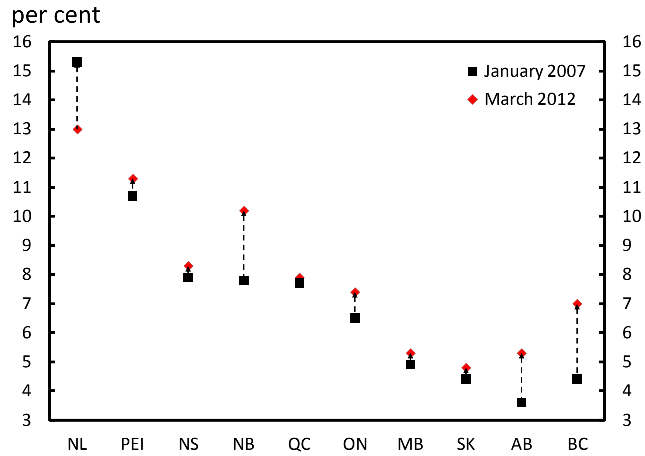
Sources: Office of the Parliamentary Budget Officer; Statistics Canada.
Note: Involuntary part-time workers is a percentage of total part-time employment, unadjusted, 12-month moving average.

Complementing this analysis, as "no single measure can capture the complexity of the labour market," Statistics Canada publishes supplementary measures of unemployment "to shed further light on the degree of labour market slack and the extent of hardship associated with joblessness."[27] More specifically, an often-cited supplementary measure of unemployment is the so-called 'R8', which is comprised of the official unemployment rate plus discouraged searchers, waiting group, portion of involuntary part-timers. This measure (seasonally unadjusted, 12-month moving average) has evolved from a trough of 8.5 per cent in early 2008, to a peak of 11.6 per cent in early 2010, to its current level of 10.5 per cent – well above its pre-recession level.

While there is considerable slack in the labour market overall there are, according to Governor Carney, "pockets of tightness". Further, there are marked disparities across provinces, with unemployment currently ranging from a low of 4.8 per cent in Saskatchewan to a high of 13.0 per cent in Newfoundland and Labrador (Figure 5-7). However, with the exception of Newfoundland and Labrador, the current unemployment rate in every province is higher than its level in January 2007.

Figure 5-7

Provincial Unemployment Rates, January 2007 and March 2012



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

[27] http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=2820085&tabMode=dataTable&srchLan=-1&p1=-1&p2=9.

iv) Commodity Price Outlook

A member remarked that PBO's outlook for commodity prices conflicted with the Governor of the Bank of Canada's assessment.

> "We had the Governor of the Bank of Canada here a couple of days ago, and he said that commodity prices are high and they're going to remain high for the foreseeable future. I do see a conflict in that, and I would like a revised update based on that expertise from the Bank of Canada and what he sees as being the ongoing commodity prices."
> Mr. Brian Jean (Fort McMurray—Athabasca)

In preparing its Economic and Fiscal Outlook, PBO uses the Bank of Canada Commodity Price Index (BCPI). The recent peak of this index was in April 2011, nearly 25 per cent below the historical peak reached in June 2008. Relative to the recent April 2011 peak, the BCPI was 15 per cent lower in March 2012 – the last month of BCPI data to be used in the April 2012 EFO analysis. The PBO's comments about the relative weakness of commodity prices were directed at this recent decline and not the longer-term historical perspective that Governor Carney was referring to in his remarks.[28]

In determining a future path for commodity prices, PBO takes futures prices into consideration. At the time of the April 2012 EFO projection, West Texas Intermediate (WTI) crude oil futures suggested that oil prices would rise until late 2012, after which they would decline modestly but steadily, falling below US$90 by the end of 2016. The opposite was true for natural gas futures, which were expected to rise modestly but steadily through 2016. Combined with an expected modest increase in the prices of metals and broadly flat agricultural prices, PBO projected nominal commodity prices to rise steadily over the projection period, ultimately moderating to rise at the rate of inflation.

The Bank of Canada does not publish a forecast of the BCPI. However, in its discussion of commodity prices over the near term, the Bank of Canada stated that,

> "going forward, the BCPI and the terms of trade are projected to rise through 2014, reflecting some recovery in natural gas prices, continued increases in non-energy commodity prices, and an expected narrowing in the spread between Canadian export and import prices for crude oil."

In this context, PBO's outlook, with projected increases in commodity prices that are greater than or equal to the rate of inflation over the projection horizon, is more optimistic than futures prices would suggest, and perhaps more optimistic than the Bank of Canada's outlook for the BCPI (which is not published).

v) The Change in PBO's Assessment of Federal Fiscal Sustainability

At the Committee meeting, there appeared to be some confusion regarding the change in PBO's assessment of federal fiscal sustainability from its September 2011 Fiscal Sustainability Report (FSR), which had concluded that the federal fiscal structure was not sustainable over the long term.

In a February 16, 2012 letter[29] to all parliamentarians, PBO explained the evolution of its fiscal sustainability analysis from the publication of the September 2011 FSR to the publication of the PBO's February 2012 note *Federal Fiscal Sustainability and Elderly Benefits*.[30]

PBO's September 2011 FSR was based on the assumption that the federal CHT would continue to grow at 6 per cent annually beyond 2016-17. On December 19, 2011 the Government announced that starting in 2017-18 the CHT "will grow in line with a three-year moving average of nominal gross domestic product (GDP) growth, with funding guaranteed to increase by at least three per cent

[28] Pages 9 and 10 of Governor Carney's April 27 presentation on the economic outlook (http://www.bankofcanada.ca/wp-content/uploads/2012/04/presentation-270412.pdf) show commodity prices are elevated relative to historical experience.

[29] http://www.parl.gc.ca/PBO-DPB/documents/Letter_to_Parliamentarians.pdf.

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

per year. Based on long-term trends, it would be expected to grow in the range of four per cent annually." Following the renewal of the federal CHT, PBO updated its fiscal sustainability analysis and on January 12, 2012 provided parliamentarians with the note *Renewing the Canada Health Transfer: Implications for Federal and Provincial-Territorial Fiscal Sustainability*.[31] To quote from page ii of the January 12, 2012 note:

> "PBO's updated consolidated federal and provincial-territorial government net debt-to-GDP projection continues to indicate that the overall fiscal structure is not sustainable over the long term given projected demographic and economic trends. ... However, as a result of incorporating the new CHT escalator the fiscal structure at the federal level is now sustainable."

On February 8, 2012 PBO published the note *Federal Fiscal Sustainability and Elderly Benefits* that reiterated the updated federal results (published in January) and compared various projections of elderly benefits. The main contribution of the February note was to provide an analytical framework for assessing the sustainability of the Old Age Security program. With growth in the federal CHT beyond 2016-17 limited to nominal GDP growth, PBO estimates that the federal fiscal structure now has sufficient room to absorb the cost pressures arising from the impact of population ageing on the federal elderly benefits program. However, the mirror image of the change to the federal CHT structure is reflected at the provincial-territorial level – the provincial-territorial long-term fiscal situation has deteriorated.

PBO has not yet updated its assessment of federal fiscal sustainability to incorporate the Government's forecast of direct program expenses presented in Budget 2012. Incorporating the Government's forecast of direct program expenses would further improve the Government's fiscal room to reduce revenue, increase program spending or some combination of both while maintaining fiscal sustainability. PBO will provide its updated assessment of fiscal sustainability in its 2012 FSR.

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

Annex A

Table A-1 – Budget 2012 DPE Measures Included in PBO's Economic Impact Estimates

millions of dollars	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Doubling the Industrial Research Assistance Program	110	110	NA	NA	NA
Integrating High-Quality Researchers Into the Labour Market	7	7	NA	NA	NA
Strengthening Knowledge Transfer and Commercialization	12	12	NA	NA	NA
Forestry Innovation and Market Development Support	55	50	NA	NA	NA
Supporting Innovation Through Procurement	0	25	NA	NA	NA
Refocusing the National Research Council	67	0	NA	NA	NA
Enhancing Predictability	4	2	NA	NA	NA
Promoting Post-Secondary and Private Sector Research Collaborations	37	37	NA	NA	NA
Investing in Genomics Research	10	50	NA	NA	NA
Investing in Mental Health Research	5	0	NA	NA	NA
Promoting Cost-Effective Health Care	3	2	NA	NA	NA
Diversifying Canada's Medical Isotope Supply	7	10	NA	NA	NA
Supporting Leading-Edge Researchers	5	5	NA	NA	NA
Supporting Canada's Ultra-High Speed Research Network	20	20	NA	NA	NA
Revitalizing Natural Resources Canada's Satellite Station Facilities	8	16	NA	NA	NA
Supporting Atomic Energy of Canada Limited	105	1	NA	NA	NA
Major Projects Management Office Initiative	27	27	NA	NA	NA
Consultation Under the Canadian Environmental Assessment Act	7	7	NA	NA	NA
Supporting Responsible Energy Development	12	24	NA	NA	NA
Strengthening Pipeline Safety	7	6	NA	NA	NA
The Northern Pipeline Agency	24	23	NA	NA	NA
Amending Mining Regulations	1	1	NA	NA	NA
Assessing Diamonds in the North	6	6	NA	NA	NA
Strengthening Agricultural Institutions	27	17	NA	NA	NA
Supporting Canada's Fisheries	11	0	NA	NA	NA
Continuing to Fight Counterfeit Bank Notes	3	3	NA	NA	NA
Enhancing the Youth Employment Strategy	25	25	NA	NA	NA
ThirdQuarter Project	2	2	NA	NA	NA
Improving Labour Market Opportunities for Canadians with Disabilities	5	13	NA	NA	NA
Investments to Improve First Nations Education	45	115	NA	NA	NA
Supporting First Nations Fishing Enterprises	34	0	NA	NA	NA
Urban Aboriginal Strategy	14	14	NA	NA	NA
Supporting Provincial, Territorial and Municipal Infrastructure	75	75	NA	NA	NA
Maintaining Safe and Reliable Passenger Rail Services	49	9	NA	NA	NA
Strengthening Canada's Port System	16	11	NA	NA	NA
Renewing the Canadian Coast Guard Fleet	9	29	NA	NA	NA
Maintaining and Improving Federal Infrastructure	0	1	NA	NA	NA
Strengthening Food Safety	26	26	NA	NA	NA
Canadian Nuclear Safety Commission	8	8	NA	NA	NA
Investments to Improve First Nations Water Infrastructure	165	165	NA	NA	NA
Addressing Family Violence on Reserve	12	0	NA	NA	NA
Wage Earner Protection Program	1	1	NA	NA	NA
Review of the Registered Disability Savings Plan	3	6	NA	NA	NA
Protecting Species at Risk	25	25	NA	NA	NA
Port Hope Area Initiative	4	4	NA	NA	NA
RDSP – Plan Holders	1	2	3	3	2
RDSP – Rollover of RESP Investment Income	0	1	0	0	0
RDSP – Termination of an RDSP following Cessation of Eligibility for the DTC	1	2	4	5	10
RDSP – Administrative Changes	1	1	1	0	0
Subtotal	1101	996	8	8	12
Less funds existing in the fiscal framework	-522	-437	0	0	0
Net fiscal impact	**579**	**559**	**8**	**8**	**12**

Sources: Office of the Parliamentary Budget Officer; Finance Canada.
Note: "NA" indicates that Budget 2012 did not provide figures on these initiatives.

Annex B

Table B-1 – Budget 2012 Measures Excluded from PBO's Economic Impact Estimate

millions of dollars (- = reduction in spending and an improvement in the budgetary balance)	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Personal Income Tax	**100**	**-160**	**-170**	**-205**	**-240**
Medical Expense Tax Credit	0	0	0	0	0
RDSP – Proportional Repayment Rule	0	0	0	0	0
RDSP – Maximum and Minimum Withdrawals	0	0	0	0	0
Mineral Exploration Tax Credit for Flow-Through Share Investors	130	-30	0	0	0
Eligible Dividends – Split-Dividend Designation and Late Designation	0	0	0	0	0
Group Sickness or Accident Insurance Plans	-20	-85	-95	-100	-105
Retirement Compensation Arrangements	0	0	0	0	0
Employee Profit Sharing Plans	-10	-35	-40	-40	-40
Salary of the Governor General of Canada	0	0	0	0	0
Overseas Employment Tax Credit	0	-10	-35	-65	-95
Corporate Income Tax	**-110**	**-328**	**-727**	**-936**	**-1061**
Clean Energy Generation Equipment Accelerated Capital Cost Allowance	0	2	3	4	4
Corporate Mineral Exploration and Development Tax Credit	0	-10	-25	-25	-30
Atlantic Investment Tax Credit – Oil and Gas and Mining Activities	0	0	-15	-35	-85
Atlantic Investment Tax Credit – Electricity Generation Equipment	0	1	1	1	1
SR&ED Investment Tax Credit Rate	0	0	-190	-285	-295
SR&ED Capital Expenditures	0	0	-15	-40	-40
SR&ED Overhead Expenditures	0	-10	-55	-95	-100
SR&ED Contract Payments	0	-25	-55	-60	-65
Tax Avoidance Through the Use of Partnerships	0	0	0	0	0
Partnership Waivers	0	0	0	0	0
Transfer Pricing Secondary Adjustments	0	0	0	0	0
Thin Capitalization – Debt-to-Equity Ratio	0	-60	-110	-75	-65
Thin Capitalization – Partnerships	0	0	0	0	0
Thin Capitalization – Disallowed Interest Treated as a Dividend	0	-1	-1	-1	-1
Thin Capitalization – Foreign Affiliate Loans	0	0	0	0	0
Foreign Affiliate Dumping	-110	-225	-265	-325	-385
GST	**3**	**3**	**4**	**4**	**4**
GST/HST Health Measures	3	3	4	4	4
Customs and Import Duties	**43**	**47**	**48**	**48**	**49**
Trade Measures to Support the Energy Industry	30	30	30	30	30
Travellers' Exemptions	13	17	18	18	19
EI Premium Revenues	**154**	**0**	**0**	**0**	**0**
Extending the Hiring Credit for Small Business	154	0	NA	NA	NA
Other Revenues	**5**	**4**	**0**	**0**	**0**
Federal Skilled Worker Fee Refund	5	4	NA	NA	NA
EI Benefit Payments	**177**	**305**	**0**	**0**	**0**
Connecting Canadians With Available Jobs	11	10	NA	NA	NA
New National Working While on Claim EI Pilot Project	28	46	NA	NA	NA
Aligning Benefits With Local Labour Market Conditions	138	249	NA	NA	NA
Major Transfers to Other Levels of Government	**50**	**38**	**0**	**0**	**0**
Support to Provinces and Territories for the Floods of 2011	50	38	NA	NA	NA
Net fiscal impact	**422**	**-91**	**-845**	**-1089**	**-1248**

Sources: Office of the Parliamentary Budget Officer; Finance Canada.
Note: "NA" indicates that Budget 2012 did not provide figures on these initiatives.

Annex C

Table C-1 – PBO and Finance Canada Economic Projections and Outcomes

	1-Year Ahead			2-Year Ahead	
	2009	**2010**	**2011**	**2010**	**2011**
Real GDP growth (%)					
Actual Outcome	*-2.8*	*3.2*	*2.5*	*3.2*	*2.5*
PBO	-0.8	2.6	2.4	2.6	3.2
Finance Canada	-0.8	2.6	2.9	2.4	3.2
GDP inflation (%)					
Actual Outcome	*-1.9*	*2.9*	*3.3*	*2.9*	*3.3*
PBO	-1.2	2.2	2.2	1.5	2.1
Finance Canada	-0.4	2.2	2.8	1.7	2.1
Nominal GDP growth (%)					
Actual Outcome	*-4.6*	*6.3*	*5.8*	*6.3*	*5.8*
PBO	-2.0	4.9	4.6	4.1	5.4
Finance Canada	-1.2	4.9	5.8	4.2	5.4
Nominal GDP level (billions of dollars)					
Actual Outcome	*1529*	*1625*	*1719*	*1625*	*1719*
PBO	1574	1601	1693	1639	1688
Finance Canada	1590	1601	1716	1657	1688
3-month treasury bill rate (%)					
Actual Outcome	*0.2*	*1.0*	*0.8*	*1.0*	*0.8*
PBO	0.9	0.7	1.4	1.9	2.4
Finance Canada	0.8	0.7	1.3	1.7	2.4
10-year government bond rate (%)					
Actual Outcome	*2.7*	*2.5*	*1.3*	*2.5*	*1.3*
PBO	2.9	3.7	3.4	3.4	4.3
Finance Canada	2.8	3.7	3.5	3.4	4.3
Unemployment rate (%)					
Actual Outcome	*8.3*	*8.0*	*7.5*	*8.0*	*7.5*
PBO	7.4	8.5	7.7	7.7	7.9
Finance Canada	7.5	8.5	7.5	7.7	7.9

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