



# An Assessment of the Revisions to the Government's Fiscal Outlook

---

Ottawa, Canada  
November 29, 2012  
[www.pbo-dpb.gc.ca](http://www.pbo-dpb.gc.ca)

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

This report provides an assessment of the revisions to the Government of Canada's fiscal outlook from the March 2012 budget to the November 2012 *Update of Economic and Fiscal Projections* (Update 2012).

**Prepared by:** Randall Bartlett and Chris Matier\*

---

\* The authors thank Mostafa Askari, Patricia Brown and Jason Jacques for helpful comments. Any errors or omissions are the responsibility of the authors. Please contact Chris Matier (email: [chris.matier@parl.gc.ca](mailto:chris.matier@parl.gc.ca)) for further information.

## Summary

Relative to Budget 2012, Finance Canada's updated projections indicate that the outlook for the Government of Canada's (the Government's) budgetary balance has been revised down by \$6.0 billion annually, on average, over the period 2012-13 to 2016-17.

As noted in Update 2012, this revision reflects changes to economic and fiscal assumptions as well as the impact of policy decisions since Budget 2012. Indeed, the Government's planning assumption for nominal gross domestic product (GDP) is \$22 billion lower annually, on average. Based on the Government's risk adjustment, which equates a reduction of \$20 billion in nominal GDP to a \$3.0 billion decline in revenues, the revision to the budgetary balance projection – even after adjusting for policy decisions (\$0.2 billion annually on average) – is almost twice as large as this relationship would suggest.

To provide a thorough assessment and reconciliation of the revisions to the Government's fiscal outlook since Budget 2012 would require additional information about Finance Canada's underlying assumptions and methods used to translate the private sector economic forecasts into its fiscal projections (e.g., the income and expenditure assumptions underlying nominal GDP, as well as the data to calculate effective tax rates). PBO previously requested data from Finance Canada pertaining to these assumptions; however, the department did not provide this data because it was deemed a Cabinet confidence by the Privy Council Office.

Therefore, to assess the revisions to the Government's fiscal outlook – in the absence of this data and information – PBO has used Finance Canada's sensitivities, which are “generalized rules of thumb” and show the broad impacts on revenues and expenses of changes to economic assumptions.

Given the changes to the Government's assumptions for nominal GDP and interest rates, PBO calculations indicate that the downward revision to the Government's outlook for the budgetary balance is \$4.7 billion larger annually, on average, compared to what Finance Canada's sensitivities would suggest. This discrepancy appears to reflect changes to assumptions about revenue yields (i.e., revenue relative to nominal GDP has been revised down permanently) as well as a more muted impact of changes to nominal GDP on program expenses (e.g., lower nominal GDP growth would result in a reduction in Equalization payments).

PBO believes that Finance Canada could significantly improve budget transparency by providing, on a regular basis, the information and data related to its assumptions and methods used to translate private sector economic forecasts into its fiscal projections. Such information and data is required to reconcile revisions to the Government's fiscal outlook. International Monetary Fund (IMF) staff have also noted that budget transparency could be improved in this regard:

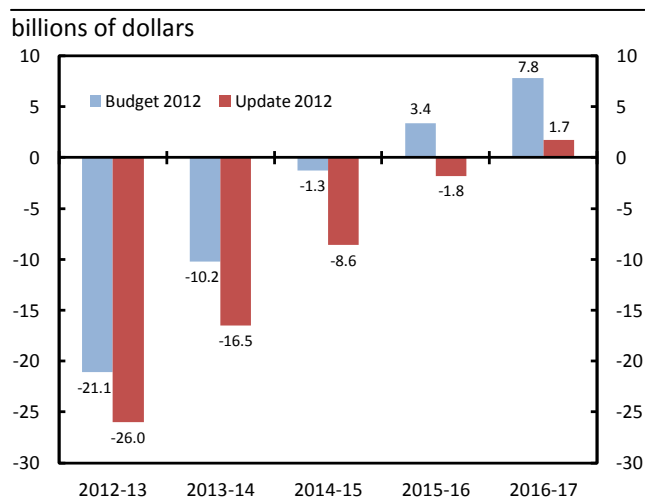
**“[...] providing more information about critical parts of the forecasting process—in particular the assumptions and methods used for transforming macroeconomic forecasts into fiscal projections—would invite greater outside scrutiny, helping to improve forecast quality and bolster public confidence in budget projections.” – IMF Working Paper WP/05/66**

## 1 Introduction

On November 13, 2012, Finance Canada released the Government's updated economic planning assumptions and fiscal projections. Compared to the outlook presented in Budget 2012, the Government's (risk-adjusted) budgetary balance is now projected to be \$6.0 billion lower annually, on average, over the 5-year period 2012-13 to 2016-17 (Figure 1-1).<sup>1</sup>

**Figure 1-1**

### Finance Canada's Budgetary Balance Projections



Source: Finance Canada.

The revision to the outlook for the budgetary balance reflects, in part, the revised planning assumption for nominal GDP, which has been reduced by \$22 billion annually, on average, over the period 2012 to 2016. Based on the Government's risk adjustment, which equates a reduction of \$20 billion in nominal GDP to a \$3.0 billion decline in revenues, the actual revision to the budgetary balance projection is, however, almost twice as large, on average, than this relationship would suggest.

<sup>1</sup> Without the risk adjustment the projected budgetary balance would be \$6.4 billion lower annually, on average, relative to the Budget 2012 outlook. With the exception of 2012-13, the risk adjustment in both projections is \$3 billion annually. In Update 2012, the Government reduced the risk adjustment for 2012-13 to \$1 billion. The revision also reflects the impact of policy decisions since Budget 2012, which amount to \$0.2 billion annually, on average, over the same period.

To provide a thorough assessment and reconciliation of the revisions to the outlook for the budgetary balance would require Finance Canada's assumptions and projections used to translate the private sector economic forecasts into its fiscal projections. PBO has requested these data previously from Finance Canada; however, the department did not provide the data because it was deemed a Cabinet confidence by the Privy Council Office. Therefore, to assess the revisions to Finance Canada's fiscal outlook, PBO has used the department's fiscal sensitivities presented in Update 2012, which show the impacts on revenues and expenses of changes to economic assumptions. Finance Canada notes that these sensitivities are "generalized rules of thumb" and are meant to provide a "broad illustration of the impact of economic shocks on the outlook for the budgetary balance". While the changes to the economic assumptions from Budget 2012 to Update 2012 may have different fiscal impacts than suggested by the sensitivities, these sensitivities can nonetheless be used to provide a benchmark to assess the revisions to Finance Canada's fiscal projections.

The remainder of this report reviews the changes to the economic assumptions and fiscal projections from Budget 2012 to Update 2012 and provides estimates of the fiscal impacts of the economic changes based on Finance Canada's sensitivities. The estimates of the fiscal impacts are then compared with the actual revisions to the fiscal projections to identify discrepancies.

## 2 Changes to Finance Canada's Economic Assumptions Since Budget 2012

In its 2012 *Update of Economic and Fiscal Projections* (Update 2012), Finance Canada revised down its planning assumptions for nominal GDP, as well as for short- and long-term interest rates, relative to Budget 2012 (Table 2-1). The Update 2012 planning assumption for nominal GDP was revised down by \$22 billion (1.1 per cent) annually, on average, for the period 2012 to 2016. In addition, the assumptions for the rates on 3-month treasury bills and 10-year Government of Canada

bonds have also been marked down relative to the assumptions at the time of Budget 2012. The average reduction in the rates for 3-month treasury bills and 10-year government bonds is equivalent to 0.3 and 0.5 percentage points (approximately 30 and 50 basis points), respectively.<sup>2</sup>

**Table 2-1**

**Revisions to Finance Canada's Economic Assumptions**

	2012	2013	2014	2015	2016
<b>Nominal GDP level (\$ billions)</b>					
Budget 2012	1,824	1,905	1,993	2,082	2,170
Update 2012	1,815	1,875	1,964	2,058	2,149
revision	-8	-29	-29	-24	-21
<b>3-month treasury bill rate (%)</b>					
Budget 2012	0.9	1.3	2.2	3.3	3.9
Update 2012	1.0	1.2	1.8	2.6	3.4
revision	0.1	-0.1	-0.4	-0.7	-0.5
<b>10-year government bond rate (%)</b>					
Budget 2012	2.2	2.8	3.6	4.3	4.5
Update 2012	1.9	2.2	2.9	3.5	4.2
revision	-0.3	-0.6	-0.7	-0.8	-0.3

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

The downward revision to Finance Canada's nominal GDP assumption (1.1 per cent annually on average) is consistent with the downward revision to the forecast of GDP inflation based on its March and October 2012 surveys of private sector economists. Over the same period, the downward revision to the private sector forecast of GDP inflation results in a reduction of 1.0 per cent annually, on average, to projected nominal GDP.

### 3 Revisions to Finance Canada's Fiscal Projections Since Budget 2012

Table 3.3 in Update 2012 provides a summary of the changes to the Government's fiscal outlook since Budget 2012. According to Finance Canada, the changes reflect the impact of economic and fiscal developments, policy decisions and reclassifications due to the change in the accounting treatment of tax revenues. To assess the revisions to the fiscal outlook stemming from changes to the economic assumptions, it is first necessary to put the 2012 budget and update projections on a comparable basis so that changes related to policy decisions and reclassifications are removed. Table 3-1 presents a summary of Finance Canada's fiscal projections on the accounting basis that existed at the time of Budget 2012 and excluding policy decisions since Budget 2012.<sup>3</sup> Annex A presents the revisions to the underlying revenue and program expense categories.

Over the five-year period 2012-13 to 2016-17, Finance Canada revised down its projection of the Government's budgetary balance by \$5.8 billion annually, on average, as a result of changes to its economic and fiscal assumptions. The revisions to the budgetary balance range from -\$3.8 billion in 2012-13 to -\$7.3 billion in 2014-15. The downward revision to the outlook for the budgetary balance is due to lower projected revenues (\$6.8 billion lower annually, on average) and higher projected program expenses (\$0.8 billion higher annually, on average). Lower projected public debt charges (\$1.8 billion annually, on average) dampen the impact of the changes to Finance Canada's projections of revenues and program expenses.

<sup>2</sup> Other economic assumptions that play a key role in constructing fiscal projections were also revised but to a lesser extent. Over the period 2012 to 2016, on average, the Consumer Price Index was revised down by 0.4 per cent annually and the unemployment rate was revised down by 0.1 percentage points annually relative to Budget 2012.

<sup>3</sup> The revenue projections include the Government's adjustment for risk since they correspond to the fiscal planning assumption for nominal GDP.

**Table 3-1****Revisions to Finance Canada's Fiscal Projections**

billions of dollars	2012- 2013	2013- 2014	2014- 2015	2015- 2016	2016- 2017
<b>Budgetary revenues:</b>					
Budget 2012	255.0	270.4	285.5	300.0	312.5
Update 2012	250.7	263.3	277.7	292.4	305.2
revision	-4.3	-7.1	-7.8	-7.7	-7.3
<b>Program expenses:</b>					
Budget 2012	245.3	249.4	253.9	261.7	268.6
Update 2012	246.1	250.0	255.3	262.3	269.1
revision	0.8	0.6	1.5	0.5	0.5
<b>Public debt charges:</b>					
Budget 2012	30.8	31.1	33.0	34.9	36.1
Update 2012	29.6	29.8	31.0	32.0	34.5
revision	-1.3	-1.3	-2.0	-2.9	-1.6
<b>Budgetary balance:</b>					
Budget 2012	-21.1	-10.2	-1.3	3.4	7.8
Update 2012	-24.9	-16.5	-8.6	-1.9	1.6
revision	-3.8	-6.3	-7.3	-5.3	-6.2

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

Note: Revisions reflect changes to the economic and fiscal assumptions and do not include the impacts of policy decisions since Budget 2012. Totals may not add due to rounding.

On the revenue side, all major categories have been revised lower, with the exception of Employment Insurance (EI) premium revenues and customs import duties (see Annex A). EI premium revenues were revised up by \$0.3 billion annually, on average, while customs import duties were essentially unchanged from Budget 2012. In terms of program expenses, direct program expenses were revised up by \$1.2 billion annually, on average, while major transfers to persons were revised down by \$0.4 billion annually, on average. Major transfers to other levels of government were essentially unchanged from Budget 2012.

#### 4 Revisions to the Fiscal Outlook Based on Finance Canada's Sensitivities

To help quantify the economic risks to its fiscal projections, Finance Canada provides estimates of the sensitivity of the budgetary balance to changes in its economic assumptions in its budget and update publications. Estimates are provided for the first two years as well as the fifth year of the projection horizon. Table 4-1 presents Finance Canada's sensitivity estimates related to the changes in the economic assumptions identified in the previous section (i.e., changes to GDP inflation<sup>4</sup> and interest rates<sup>5</sup>). To construct sensitivity estimates for the third and fourth years of the projection horizon, PBO has taken a linear interpolation of Finance Canada's estimates. In addition, the first year of the projection is assumed to be 2012-13.<sup>6</sup>

**Table 4-1****Finance Canada's Fiscal Sensitivities**

billions of dollars	2012- 2013	2013- 2014	2014- 2015	2015- 2016	2016- 2017
<b>Budgetary revenues:</b>					
1 per cent reduction in GDP deflator	-3.1	-2.8	-2.8	-2.9	-2.9
100-basis-point interest rate reduction	-1.2	-1.5	-1.7	-1.9	-2.1
<b>Program expenses:</b>					
1 per cent reduction in GDP deflator	-0.6	-1.0	-1.2	-1.4	-1.6
<b>Public debt charges:</b>					
100-basis-point interest rate reduction	-1.8	-3.0	-3.4	-3.8	-4.2

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

Note: Sensitivity estimates for 2014-15 and 2015-16 are based on a linear interpolation of Finance Canada's estimates.

<sup>4</sup> Finance Canada notes that the estimate of the sensitivity to changes in GDP inflation is based on a one-year, 1-percentage point reduction in GDP inflation, which is approximately equivalent to a permanent 1 per cent reduction in the level of the GDP deflator. In addition, the sensitivity estimate is based on the assumption that the Consumer Price Index (CPI) moves in line with GDP inflation.

<sup>5</sup> Finance Canada notes that the estimate of the sensitivity to changes in interest rates is based on a permanent increase in all interest rates and excludes the impacts on public sector pension and benefit expenses.

<sup>6</sup> At the time of Budget 2012, the first complete fiscal-year projection was 2012-13 and therefore corresponds to the Year 1 sensitivity estimate.

Given the changes to the economic assumptions identified in Section 2, Finance Canada's sensitivities can be used to provide an estimate of the impact on its fiscal projections. Although Finance Canada's sensitivities are stylized estimates of the fiscal impacts of particular economic changes and therefore may not exactly reflect the actual changes to Finance's Canada's assumptions – and in the absence of these assumptions – they nonetheless provide a useful guide by which revisions to the fiscal projections can be assessed. Ideally, Finance Canada would provide, on a regular basis, all the economic and fiscal assumptions underlying its fiscal projections to help explain the revisions to its outlook.

To calculate the impact of the change to nominal GDP, PBO has used Finance Canada's sensitivity estimate corresponding to a reduction in GDP inflation, which is consistent with the revision to the average private sector forecast of nominal GDP. To calculate the impact of the change to short- and long-term interest rates on Government securities, PBO has used Finance Canada's sensitivity estimate corresponding to a change in interest rates. Although this sensitivity estimate is based on a uniform reduction in all interest rates, PBO has assumed that the overall reduction is an equally weighted average of Finance Canada's short- and long-term interest rate assumptions.

Table 4-2 presents PBO's calculations of the fiscal impact of changes to Finance Canada's assumptions for nominal GDP and interest rates. The reduction in the GDP deflator (representing a \$22 billion reduction in nominal GDP annually, on average) results in a downward revision to revenues of \$3.2 billion annually, on average, which is in line with the magnitude of the Government's risk adjustment (i.e., a reduction in \$20 billion in nominal GDP is equal to a \$3 billion reduction in revenues). The reduction in interest rates (approximately 40 basis points lower annually, on average) reduces revenues further by \$0.8 billion annually, on average, reflecting lower investment income, which is included in other revenues. Based on Finance Canada's sensitivities, the fiscal impact of changes to its assumptions for nominal GDP and

interest rates suggest that revenues would be, on average, \$4.0 billion lower each year, all else equal.

**Table 4-2**

**Fiscal Impact of Changes to Finance Canada's Economic Assumptions**

billions of dollars	2012- 2013	2013- 2014	2014- 2015	2015- 2016	2016- 2017
<b>Budgetary revenues:</b>					
Reduction in nominal GDP	-1.4	-4.3	-4.1	-3.3	-2.8
Reduction in interest rates	-0.1	-0.5	-0.9	-1.4	-0.8
<b>Program expenses:</b>					
Reduction in nominal GDP	-0.3	-1.5	-1.7	-1.6	-1.5
<b>Public debt charges:</b>					
Reduction in interest rates	-0.2	-1.1	-1.9	-2.9	-1.7
<b>Budgetary balance</b>	<b>-1.1</b>	<b>-2.3</b>	<b>-1.4</b>	<b>-0.3</b>	<b>-0.4</b>

Source: Office of the Parliamentary Budget Officer.

Note: Fiscal impacts are based on Finance Canada's sensitivity estimates and changes to Finance Canada's economic assumptions. Totals may not add due to rounding.

The reduction in the GDP deflator also results in reduced program expenses, reflecting lower costs of programs that are indexed to inflation as well as programs such as Equalization which is directly tied to nominal GDP growth. Based on Finance Canada's sensitivities, the fiscal impact of changes to its assumptions for nominal GDP suggests that federal program expenses would be, on average, \$1.3 billion lower each year, all else equal. Lower interest rates also affect program expenses by increasing the expenses on public sector pension and benefit expenses, however, these impacts are not included in Finance Canada's sensitivities.

The reduction in interest rate assumptions does affect public debt charges as longer-term debt matures and is financed at lower rates. Based on Finance Canada's sensitivities, the fiscal impact of changes to its interest rate assumptions suggests that public debt charges would be, on average, \$1.5 billion lower each year, all else equal.

Thus, given the changes to the economic assumptions for nominal GDP and interest rates, Finance Canada's sensitivities suggest that the

budgetary balance would, all else equal, be \$1.1 billion lower annually, on average, compared to Budget 2012.

## 5 Reconciling Revisions to the Government's Fiscal Outlook Since Budget 2012

As indicated in Update 2012, changes to economic and fiscal assumptions result in a downward revision to the budgetary balance amounting to \$5.8 billion annually, on average, which is significantly larger than the \$1.1 billion average annual downward revision based on what Finance Canada's sensitivities would suggest. Table 5-1 compares the revisions due to changes to economic and fiscal assumptions recorded in Update 2012 to the revisions based on Finance Canada's sensitivities.

**Table 5-1**

### Revisions to Finance Canada's Fiscal Projections Since Budget 2012 – Actual and Sensitivity Based

billions of dollars	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
<b>Budgetary revenues:</b>					
Sensitivity-based	-1.5	-4.8	-5.0	-4.7	-3.6
Update 2012	-4.3	-7.1	-7.8	-7.7	-7.3
difference	-2.8	-2.3	-2.8	-3.0	-3.7
<b>Program expenses:</b>					
Sensitivity-based	-0.3	-1.5	-1.7	-1.6	-1.5
Update 2012	0.8	0.6	1.5	0.5	0.5
difference	1.1	2.1	3.2	2.1	2.0
<b>Public debt charges:</b>					
Sensitivity-based	-0.2	-1.1	-1.9	-2.9	-1.7
Update 2012	-1.3	-1.3	-2.0	-2.9	-1.6
difference	-1.1	-0.3	-0.1	0.0	0.1
<b>Budgetary balance:</b>					
Sensitivity-based	-1.1	-2.3	-1.4	-0.3	-0.4
Update 2012	-3.8	-6.3	-7.3	-5.3	-6.2
difference	-2.7	-4.0	-5.9	-5.0	-5.8

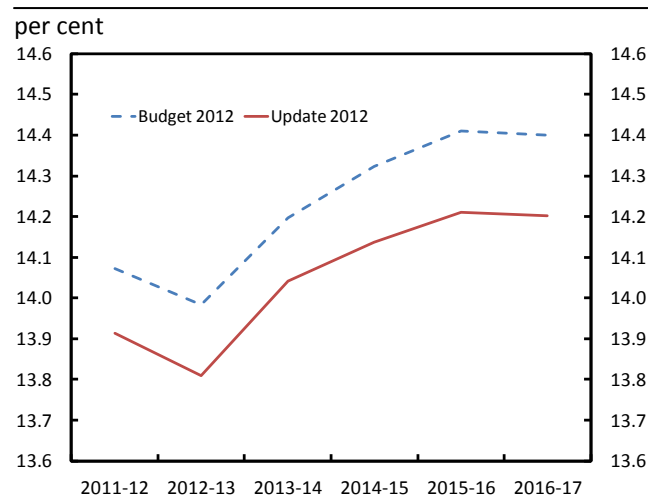
Source: Office of the Parliamentary Budget Officer.

Note: The revision is calculated as the Update 2012 projection minus the Budget 2012 projection. Totals may not add due to rounding.

The downward revision to revenues in Update 2012 is, on average, \$2.9 billion larger than the sensitivity-based revision. This discrepancy could reflect changes to fiscal assumptions related to revenue yields (effective tax rates). Indeed, a comparison of revenues relative to nominal GDP – the broadest measure of the Government's tax base – in the 2012 budget and update suggests that the revenue yield assumptions have been reduced (Figure 5-1). It appears that the impact of lower-than-expected revenues in 2011-12 (\$2.8 billion lower) is assumed to be permanent, feeding through all future fiscal years.

**Figure 5-1**

### Budgetary Revenues Relative to Nominal GDP



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

The upward revision to program expenses in Update 2012 is, on average, \$2.1 billion larger than the sensitivity-based revision. This discrepancy could reflect a number of factors. First, the sensitivity-based revision reflects the assumption that the CPI moves in line with the reduction to GDP inflation; however, the revision to the CPI in Update 2012 (0.4 per cent lower on average) is somewhat smaller than the 1.1 per cent reduction to the GDP deflator. As a result, the sensitivity would overstate the size of the downward revision to program expenses, although it would still suggest that program expenses would be lower relative to Budget 2012. In addition, the impact of lower interest rates on public sector pension and benefits



is not captured by the sensitivity. Incorporating this impact would also reduce the size of the sensitivity-based downward revision to program expenses.

That said, the revision to major transfers to other levels of government in Update 2012 does not appear to reflect the changes to nominal GDP growth since Budget 2012. For example, the downward revision to nominal GDP growth should ultimately result in lower Equalization payments compared to Budget 2012.<sup>7</sup> However, as shown in Annex A major transfers to other levels of government were not (on average) revised. Further, Update 2012 notes that the fiscal outlook reflects several cost-saving measures: expected savings from changes to federal employee pension plans; anticipated savings from changes to the Members of Parliament pension plan; and, additional savings from the elimination of voluntary service benefits. If the impact of the cost-saving measures was not fully reflected in the Budget 2012 fiscal outlook, then incorporating the impact of these savings measures in Update 2012 would, all else equal, result in lower program expenses compared to Budget 2012. All told, given the information available, the upward revision to program expenses in Update 2012 appears to be overstated.

The downward revision to public debt charges in Update 2012 is much closer to the sensitivity-based revision compared to the revisions to revenues and program expenses. On average, the downward revision to public debt charges is only \$0.3 billion larger than the revision based on Finance Canada's sensitivity.

#### *Revisions and Comparisons to PBO's Fiscal Outlook*

PBO released its updated economic and fiscal outlook<sup>8</sup> in late October, which showed only minor revisions to its projection of the Government's

budgetary balance over the period 2012-13 to 2016-17. PBO revised up its projection of the budgetary balance by an average of \$0.6 billion annually. Although PBO constructs its fiscal projections using models and assumptions that are different from Finance Canada, the sensitivities from Finance Canada would suggest that given the revisions to PBO's economic outlook, the projected budgetary balance would be \$0.9 billion lower annually, on average, compared to PBO's April 2012 Economic and Fiscal Outlook. This would result in a \$1.5 billion discrepancy, on average, between PBO's revision to the budgetary balance and the revision based on Finance Canada's sensitivities.<sup>9</sup> However, this discrepancy is significantly smaller than the \$4.7 billion (average) discrepancy between Finance Canada's revision and the revision based on its own sensitivities.

Over the period 2012-13 to 2016-17 (and adjusting for policy decisions since Budget 2012), PBO's updated budgetary balance projection is \$5.6 billion higher annually, on average, than the 2012 Update projection, as a result of higher projected revenues (\$4.7 billion on average) and lower projected program expenses (\$0.9 billion on average).

## **6 Improving Budget Transparency**

Given the changes to the Government's economic assumptions, and excluding the impact of policy decisions, the changes to Finance Canada's fiscal outlook since Budget 2012 are somewhat larger than what its sensitivities would suggest. While Finance Canada's sensitivities are stylized in nature and therefore may not precisely reflect the actual economic changes since Budget 2012, they do provide a useful benchmark to assess revisions to the fiscal outlook. However, Finance Canada does not provide sufficient information and data related to its assumptions and methods used to translate private sector economic forecasts into its fiscal

<sup>7</sup> Moreover, the reclassification of some expenses from major transfers to other levels of government to transfers payments in direct program expenses that was made after Budget 2012, would suggest an additional downward revision to major transfers to other levels of government.

<sup>8</sup> Available at: [http://www.pbo-dpb.gc.ca/files/files/EFOU\\_2012.pdf](http://www.pbo-dpb.gc.ca/files/files/EFOU_2012.pdf).

<sup>9</sup> This discrepancy stems from the revenue side. The downward revision to PBO's revenues is \$1.8 billion smaller annually, on average, than the sensitivity-based revision. This largely reflects a more muted impact of the downward revision to interest rates on investment income, which is included in other revenues.

projections, which would be required to conduct a thorough assessment. PBO previously requested<sup>10</sup> data from Finance Canada pertaining to its underlying assumptions; however, the department did not provide this data because it was deemed a Cabinet confidence by the Privy Council Office.

PBO believes that providing this information and data would significantly improve budget transparency. International Monetary Fund (IMF) staff<sup>11</sup> have also noted that budget transparency could be improved in this regard.

“[...] providing more information about critical parts of the forecasting process—in particular the assumptions and methods used for transforming macroeconomic forecasts into fiscal projections—would invite greater outside scrutiny, helping to improve forecast quality and bolster public confidence in budget projections.”

---

<sup>10</sup> In 2008 and 2009, PBO requested from Finance Canada the income and expenditure assumptions underlying nominal GDP (as well as the data to calculate effective tax rates) that were used to develop their status quo fiscal projections.

---

<sup>11</sup> See “How Do Canadian Budget Forecasts Compare with Those of Other Countries” IMF Working Paper by M. Mühleisen et al. (March 2005). Available at: <http://www.imf.org/external/pubs/ft/wp/2005/wp0566.pdf>.

## Annex A

### Revisions to Finance Canada's Fiscal Projections, Update 2012 Relative to Budget 2012

billions of dollars	2012- 2013	2013- 2014	2014- 2015	2015- 2016	2016- 2017
<b>Income taxes</b>					
Personal income tax	-1.2	-3.2	-3.0	-2.4	-2.0
Corporate income tax	-1.7	-1.3	-1.2	-0.9	-1.1
Non-resident income tax	-0.2	-0.3	-0.5	-0.5	-0.5
<b>Total income tax</b>	<b>-3.1</b>	<b>-4.8</b>	<b>-4.6</b>	<b>-3.8</b>	<b>-3.6</b>
<b>Excise taxes/duties</b>					
Goods and Services Tax	-1.5	-1.6	-1.7	-1.7	-1.7
Custom import duties	0.0	-0.1	0.0	0.0	0.0
Other excise taxes/duties	0.0	-0.2	-0.2	-0.2	-0.2
<b>Total excise taxes/duties</b>	<b>-1.5</b>	<b>-1.9</b>	<b>-1.9</b>	<b>-1.9</b>	<b>-1.9</b>
<b>EI Premium revenues</b>	<b>0.0</b>	<b>0.3</b>	<b>0.3</b>	<b>0.4</b>	<b>0.3</b>
<b>Other revenues</b>	<b>0.3</b>	<b>-0.5</b>	<b>-1.6</b>	<b>-2.3</b>	<b>-2.0</b>
<b>Total budgetary revenues</b>	<b>-4.3</b>	<b>-7.1</b>	<b>-7.8</b>	<b>-7.7</b>	<b>-7.3</b>
<b>Major transfers to persons</b>					
Elderly benefits	0.0	0.1	-0.1	-0.2	-0.2
EI benefits	-0.5	-0.4	0.1	0.0	0.2
Children's benefits	-0.3	-0.3	-0.3	-0.2	-0.1
<b>Total</b>	<b>-0.7</b>	<b>-0.8</b>	<b>-0.2</b>	<b>-0.4</b>	<b>-0.1</b>
<b>Major transfers to OLG</b>	<b>0.2</b>	<b>0.0</b>	<b>-0.1</b>	<b>-0.1</b>	<b>0.0</b>
<b>Direct program expenses</b>	<b>1.3</b>	<b>1.3</b>	<b>1.7</b>	<b>1.1</b>	<b>0.7</b>
<b>Public debt charges</b>	<b>-1.3</b>	<b>-1.3</b>	<b>-2.0</b>	<b>-2.9</b>	<b>-1.6</b>
<b>Total expenses</b>	<b>-0.4</b>	<b>-0.8</b>	<b>-0.6</b>	<b>-2.3</b>	<b>-1.0</b>
<b>Budgetary balance</b>	<b>-3.8</b>	<b>-6.3</b>	<b>-7.3</b>	<b>-5.3</b>	<b>-6.2</b>

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

Note: The revision is calculated as the Update 2012 projection minus the Budget 2012 projection. The revision does not reflect the impact of policy changes and is based on the accounting treatment of tax revenues at the time of Budget 2012. Totals may not add due to rounding.