

OFFICE OF THE  
PARLIAMENTARY BUDGET OFFICER



BUREAU DU  
DIRECTEUR PARLEMENTAIRE DU BUDGET

## **Federal Fiscal Sustainability and Elderly Benefits**

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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 note reviews the framework PBO uses to assess fiscal sustainability and provides a comparison of projections of federal elderly benefits over the long term. Long-term federal debt-to-GDP projections and estimates of the federal fiscal gap are also provided under alternative assumptions regarding the indexation of elderly benefit payments.

**Prepared by:** Chris Matier\*

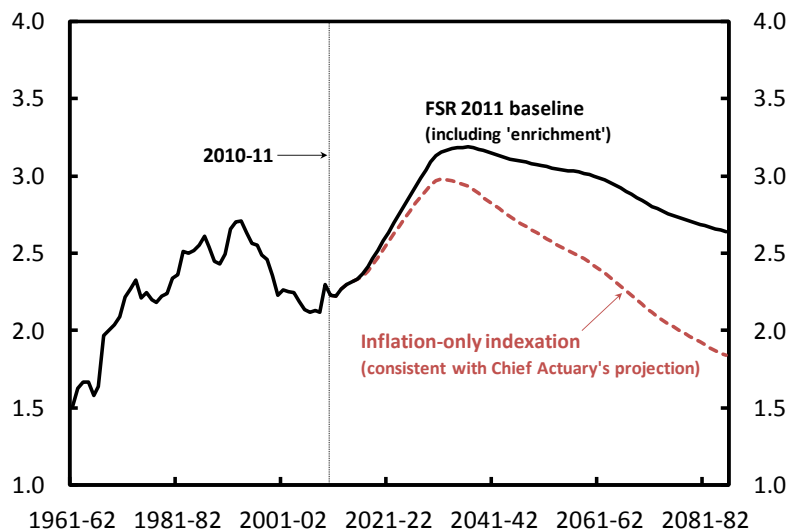
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\* The author would like to thank Mostafa Askari and Randall Bartlett for their helpful comments. Any errors or omissions are the responsibility of the author. Please contact Chris Matier (e-mail: [chris.matier@parl.gc.ca](mailto:chris.matier@parl.gc.ca)) for further information.

## Summary

- In seeking to fulfill its mandate to provide independent analysis to Parliament on the state of the nation’s finances and trends in the Canadian economy, PBO prepares long-term projections and publishes Fiscal Sustainability Reports (FSRs), which assess the sustainability of a government’s fiscal structure based on assumptions about current program commitments and tax ‘burden’ given projected demographic and economic trends. In their 2011 Article IV Report, International Monetary Fund staff welcomed these reports and acknowledged that they are an “important first step forward” in terms of providing regular and comprehensive fiscal sustainability reporting.
- PBO’s 2011 FSR baseline projection of federal elderly benefits shows an increase in the cost of the program of 1 percentage point of gross domestic product (GDP) from 2.2 per cent of GDP (\$36 billion) in 2010-11 to a peak of 3.2 per cent of GDP (\$142 billion) in 2036-37 (see below), reflecting the entry of the baby-boom cohorts into the 65-and-over segment of the population. This projection is somewhat higher than projected by the Office of the Chief Actuary as it includes some ‘enrichment’ to benefit payments over and above the statutory indexation to inflation.
- To examine the sensitivity of this enrichment assumption, elderly benefits are also projected based on the assumption that – consistent with the Chief Actuary – benefit payments are indexed to inflation only. Altering this assumption brings PBO’s projection of elderly benefits into line with the Chief Actuary’s projection. Based on this alternative assumption, elderly benefits relative to GDP are projected to increase by 0.8 percentage points from 2010-11 to a peak of 3.0 per cent of GDP in 2031-32 and then ultimately decline to 1.8 per cent of GDP.

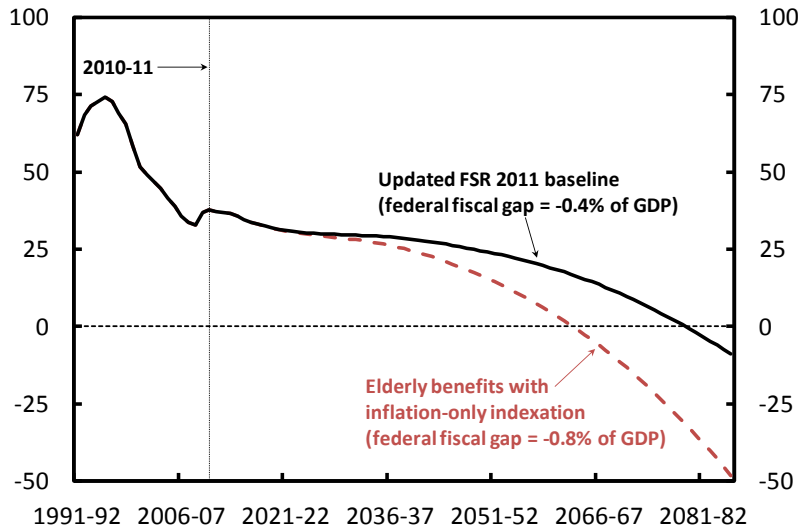
**PBO Projections of Federal Elderly Benefits Relative to GDP (per cent)**



- To provide some additional context, PBO’s projection of elderly benefits – assuming indexation to inflation only – can be compared to projected federal revenues. Based on PBO’s assumption that the federal tax ‘burden’ remains at 15 per cent of GDP (its projected level in 2015-16), which is almost 2 percentage points of GDP lower than the average over the last 50 years, elderly benefits are projected to increase from 15.9 cents per dollar of revenue in 2010-11 to 19.8 cents in 2030-31 but then decline steadily to 12.8 cents per dollar of revenue by 2080-81.

- Elderly benefits are financed from the Government of Canada’s general revenues. As such, PBO believes that assessing the sustainability of the elderly benefits program should take into account the overall tax ‘burden’ at the federal level as well as other federal program expenses. That is, the elderly benefits program should be assessed in the broader framework of fiscal sustainability, which requires that government debt cannot ultimately grow faster than the economy.
- PBO’s updated long-term debt-to-GDP projections that incorporate the new nominal GDP escalator for the Canada Health Transfer show that the federal fiscal structure is sustainable even under the baseline assumption that there is some additional enrichment to elderly benefit payments. PBO projects that the federal net debt-to-GDP ratio will decline steadily from its current level, ultimately resulting in a net asset position (i.e., financial assets exceeding liabilities). Under the assumption that elderly benefits are indexed to inflation only, the rate of decline in the federal debt ratio would be faster.

**PBO Projections of Federal Net Debt Relative to GDP (per cent)**



- Under the baseline assumption that there is some additional enrichment to elderly benefit payments, PBO estimates that the federal fiscal gap is -0.4 per cent of GDP. This indicates that – relative to PBO’s projection – the federal government could reduce revenue, increase program spending or some combination of both by 0.4 per cent of GDP annually while maintaining fiscal sustainability. This amounts to \$7 billion in 2011-12, increasing over time in line with nominal GDP. Under the assumption that elderly benefit payments are indexed to inflation only, the federal fiscal gap estimate doubles to -0.8 per cent of GDP.
- It is important to note that PBO’s long-term projections and fiscal gap estimates do not incorporate spending restraint related to the Budget 2010 operating budget freeze (these operating expenses are assumed to grow in line with inflation and population) or the Budget 2011 Strategic and Operating Review savings. Under the assumption that these restraint measures are implemented and made permanent, the federal fiscal gap would be reduced further by approximately 0.5 percentage points of GDP.

## 1 Fiscal Sustainability Reporting

In February 2010, PBO released its first Fiscal Sustainability Report<sup>1</sup> (FSR), which committed the PBO to preparing long-term economic and fiscal projections and to providing a FSR on a regular basis. PBO's 2011 FSR<sup>2</sup> expanded the analytical scope to include, on a consolidated basis, the provincial and territorial governments. In the 2011 Article IV Report for Canada<sup>3</sup> International Monetary Fund (IMF) staff welcomed these reports and acknowledged that they are an "important first step forward" in terms of providing regular and comprehensive fiscal sustainability reporting.

Governments in several OECD (Organisation for Economic Co-operation and Development) countries have assessed fiscal sustainability by routinely preparing long-term economic and fiscal projections. According to the OECD<sup>4</sup> such reports "offer invaluable signposts to help current governments to respond to known fiscal pressures and risks in a gradual manner, earlier rather than later, and help future governments avoid being forced to adopt sudden policy changes". PBO views long-term economic and fiscal projections as providing an essential perspective for analyzing – consistent with its mandate – the state of the nation's finances and trends in the national economy.

In Budget 2007 the Government of Canada committed to "publish a comprehensive fiscal sustainability and intergenerational report with the 2007 Economic and Fiscal Update".<sup>5</sup> This report would "provide a broad analysis of current and future demographic changes and the implication of these changes for Canada's long-run economic and fiscal outlook".

<sup>1</sup> Available at: [http://www.parl.gc.ca/PBO-DPB/documents/FSR\\_2010.pdf](http://www.parl.gc.ca/PBO-DPB/documents/FSR_2010.pdf).

<sup>2</sup> Available at: [http://www.parl.gc.ca/PBO-DPB/documents/FSR\\_2011.pdf](http://www.parl.gc.ca/PBO-DPB/documents/FSR_2011.pdf).

<sup>3</sup> Available at: <http://www.imf.org/external/pubs/ft/scr/2011/cr11364.pdf>.

<sup>4</sup> See p. 2 in *The Benefits of Long-term Fiscal Projections* available at: <http://www.oecd.org/dataoecd/40/26/43836144.pdf>.

<sup>5</sup> See p. 155 in *The Budget Plan 2007* available at: <http://www.budget.gc.ca/2007/pdf/bp2007e.pdf>.

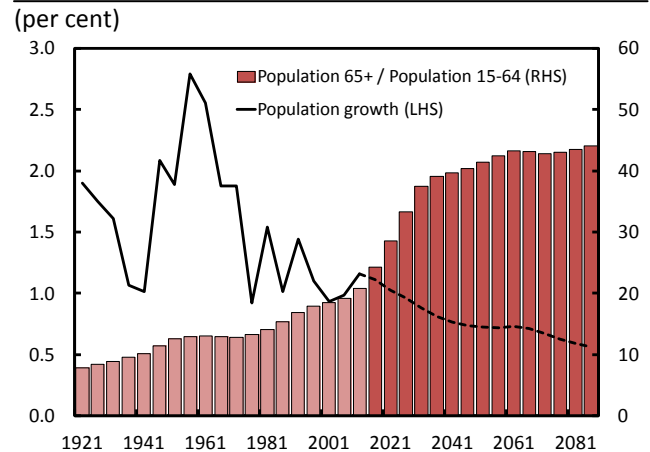
PBO believes that the Government of Canada could improve fiscal transparency by fulfilling its Budget 2007 commitment to publish a fiscal sustainability and intergenerational report.

## 2 Assessing Fiscal Sustainability

Medium-term fiscal projections provide a useful but incomplete description of a government's financial position. The main limitation of analysis based on medium-term projections is that, given the demographic transition underway, they cannot be used to determine whether a government's fiscal structure is sustainable over the long term. In the coming decades the demographic transition is expected to intensify with population growth declining steadily and the ratio of individuals 65 years of age and over to the population 15 to 64 years of age rising sharply (Figure 2-1).

Figure 2-1

### The Demographic Transition



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

PBO's assessment of fiscal sustainability involves projecting government debt relative to the size of the economy over a long-term horizon based on assumptions about current program commitments and tax 'burden' given projected demographic and economic trends. Fiscal sustainability requires that government debt cannot ultimately grow faster than the economy.

PBO's long-term projections are best viewed as illustrative 'what if' scenarios that attempt to quantify the implications of leaving a government's current fiscal structure unchanged over long periods of time. As such, these scenarios should not be interpreted as predictions of the most likely outcomes. Further, although long-term debt projections serve as a useful signal and a gauge of fiscal sustainability, it is important to recognize that they are – as is the case with all long-term projections – subject to considerable uncertainty.

Following the Congressional Budget Office (CBO) in the United States and the Office for Budget Responsibility (OBR) in the United Kingdom, PBO estimates the degree to which this structure is not sustainable using the 'fiscal gap'. In its description of the fiscal gap, CBO<sup>6</sup> notes:

How much would policies have to change to avoid unsustainable increases in government debt? A useful answer comes from looking at the fiscal gap, which measures the immediate change in spending or revenues that would be necessary to keep the debt-to-GDP ratio the same at the end of a given period as at the beginning of the period.

That said, the fiscal gap cannot determine which actions a government should take in order to achieve fiscal sustainability over the long term or what a government's debt-to-GDP ratio should be in the long term. To assess the sensitivity of PBO's long-term projections and fiscal gap estimates, FSR 2011 considered alternative fiscal, demographic and economic assumptions.

#### *PBO's Recent Assessment of Fiscal Sustainability*

Following the renewal of the Canada Health Transfer (CHT) PBO updated its 2011 FSR baseline federal and provincial-territorial fiscal projections to incorporate changes to the CHT escalator over the long term.<sup>7</sup> As a result of incorporating the new CHT escalator, PBO assessed the fiscal structure at the federal level to be sustainable.

<sup>6</sup> See p. 14 in *CBO's 2011 Long-Term Budget Outlook* available at: [http://www.cbo.gov/ftpdocs/122xx/doc12212/06-21-Long-Term\\_Budget\\_Outlook.pdf](http://www.cbo.gov/ftpdocs/122xx/doc12212/06-21-Long-Term_Budget_Outlook.pdf).

<sup>7</sup> Available at: [http://www.parl.gc.ca/PBO-DPB/documents/Renewing\\_CHT.pdf](http://www.parl.gc.ca/PBO-DPB/documents/Renewing_CHT.pdf).

PBO projected that the federal net debt-to-GDP ratio would decline steadily from its current level, ultimately resulting in a net asset position (i.e., financial assets exceeding liabilities). PBO estimated the federal fiscal gap to be -0.4 per cent of GDP, indicating that – relative to PBO's baseline projection – the federal government could reduce revenue, increase program spending or some combination of both while maintaining fiscal sustainability.<sup>8</sup>

### **3 Fiscal Sustainability and Elderly Benefits**

At the federal level, the elderly benefits program is comprised of three types of benefits.<sup>9</sup> The largest category is Old Age Security (OAS), which provides payments to individuals 65 and over based on a past-residency requirement. The payment is not income tested, however, benefits begin to be reduced for higher-income recipients. Remaining elderly benefits are provided through the Guaranteed Income Supplement (GIS) and the Allowance, which are income-tested benefits provided to seniors with low incomes. GIS is provided to OAS recipients with incomes below the threshold, while the Allowance is provided to individuals aged 60-64 who are married to, or have been widowed by, an OAS recipient and have incomes below the threshold. Maximum benefits for all three programs are indexed to the Consumer Price Index (CPI).

Elderly benefits are financed from the Government of Canada's general tax revenues. As such, PBO believes that assessing the sustainability of the elderly benefits program should take into account the overall tax 'burden' at the federal level as well as other federal program expenses. That is, the elderly benefits program should be assessed in the broader framework of fiscal sustainability.

<sup>8</sup> In contrast, PBO projected provincial-territorial net debt relative to GDP to increase substantially over the long term and estimated that the provincial-territorial fiscal gap to be +2.9 per cent of GDP, indicating that – relative to PBO's projection – provincial-territorial governments would need to raise revenue, reduce program spending or some combination of both to achieve fiscal sustainability.

<sup>9</sup> Additional detail regarding the elderly benefits program is available at: <http://www.servicecanada.gc.ca/eng/isp/oas/oasoverview.shtml>.

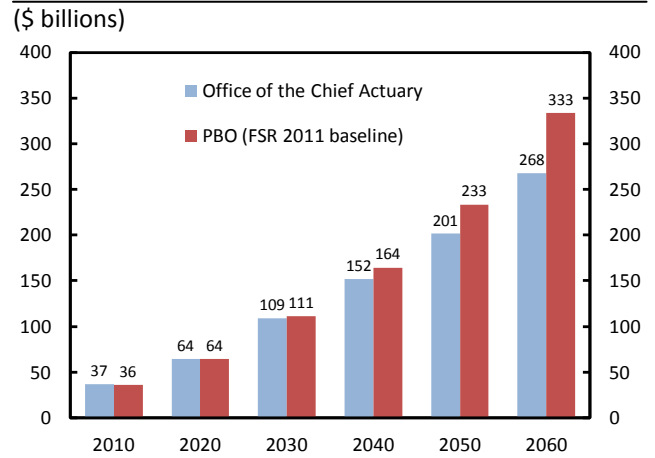
*PBO's FSR Baseline Projection of Elderly Benefits*

In PBO's 2011 FSR, federal spending on elderly benefits over the medium term is projected to grow in line with the number of recipients (i.e., the population 65 and over) and the average benefit payment, which is assumed to increase in step with the CPI.<sup>10</sup> Under the existing program benefit payments are indexed to CPI inflation; however, over the long term, PBO assumes that there is additional 'enrichment' equal to one half of the increase in real GDP per capita.

This assumption is akin to assuming that recipients of OAS, GIS and Allowance programs benefit at least somewhat from the growth in living standards experienced by the remainder of the population over the 75-year projection horizon. That is, although indexed to inflation and therefore the cost of living, an assumption of no 'real' (i.e., inflation-adjusted) enrichment to the elderly benefits program would mean that seniors whose income is made up entirely by OAS, GIS and Allowance benefits would not experience any of the increase in the standard of living, materializing through real income gains, realized by the rest of the population. Largely as a result of this indexation assumption, PBO's baseline projection of elderly benefits over the long term is higher than projected by the Office of the Chief Actuary (OCA) in its Actuarial Report (10<sup>th</sup>) on the OAS program<sup>11</sup> (Figure 3-1). For instance, in 2060, PBO's baseline FSR 2011 projection for elderly benefits is 25 per cent higher than the OCA's projection.

**Figure 3-1**

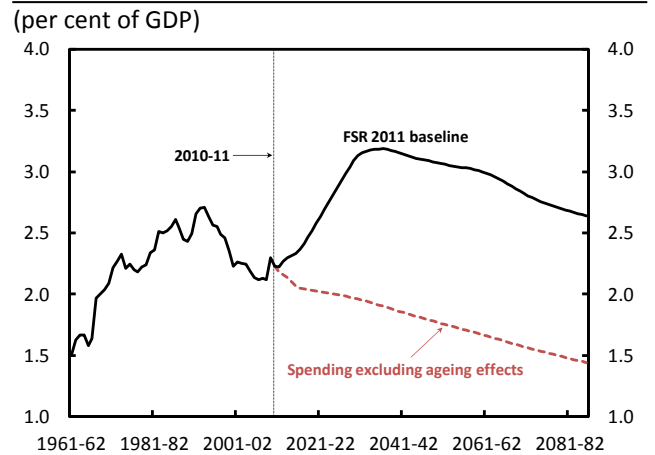
**Projected Elderly Benefits, 2010-2060**



Source: Office of the Parliamentary Budget Officer; Statistics Canada; Office of the Chief Actuary (OCA).  
 Note: OCA projections are based on the calendar year and PBO projections are based on the fiscal year (i.e., 2010 represents fiscal year 2010-11).

**Figure 3-2**

**PBO Projected Elderly Benefits**



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

Relative to the size of the economy, PBO's FSR 2011 baseline projection of elderly benefits (Figure 3-2) shows an increase in the cost of the program of 1 percentage point of GDP from 2.2 per cent of GDP in 2010-11 to a peak of 3.2 per cent of GDP in 2036-37, reflecting the entry of the baby-boom cohorts into the 65-and-over segment of the population. Elderly benefits are then projected to decline gradually to 2.6 per cent of GDP by the end

<sup>10</sup> Elderly benefits are projected on a 'gross' basis, i.e., before the application of the OAS Recovery Tax.

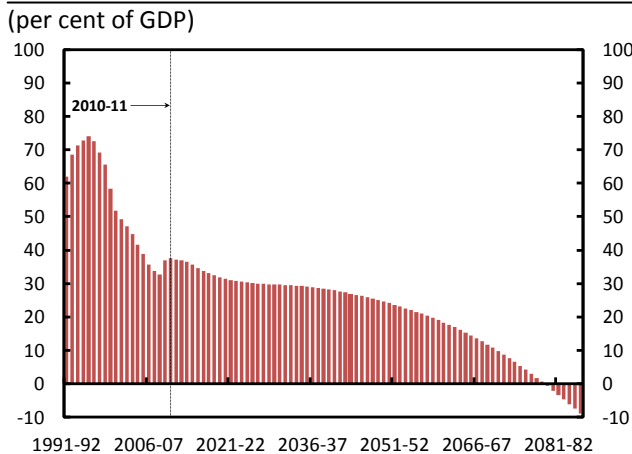
<sup>11</sup> Available at: [http://www.osfi-bsif.gc.ca/app/DocRepository/1/eng/reports/oca/OAS10\\_e.pdf](http://www.osfi-bsif.gc.ca/app/DocRepository/1/eng/reports/oca/OAS10_e.pdf).



of the projection horizon as the baby-boom cohorts expire and as growth in the average benefit payment (adjusted for inflation) continues to lag growth in real GDP per capita. To illustrate the contribution of population ageing to the projected growth in spending on elderly benefits, Figure 3-2 also presents the projection excluding ageing effects.<sup>12</sup> In the absence of population ageing, projected federal spending on elderly benefits would decline to 1.4 per cent of GDP over the long term. This projected decline results from the assumption that the average benefit payment, adjusted for inflation, does not increase over the medium term and then it is only partially indexed to growth in real GDP per capita.

Based on PBO’s updated baseline projection, which assumes that the new nominal GDP escalator for CHT is maintained (all other assumptions and projections are unchanged from the 2011 FSR), and given the assumption that there is some inflation-adjusted enrichment to elderly benefit payments, PBO projects that the federal net debt-to-GDP ratio will decline steadily from its current level, ultimately resulting in a net asset position by the end of the projection horizon (Figure 3-3).

**Figure 3-3**  
**Federal Government Net-Debt-to-GDP Ratio**



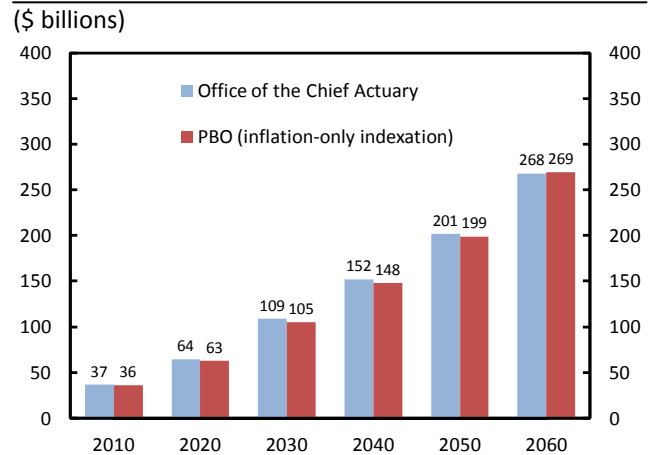
Source: Office of the Parliamentary Budget Officer; Statistics Canada.

<sup>12</sup> The ‘spending excluding ageing effects’ projection is constructed under the assumption that the population aged 65 years and over grows at the same rate as the total population.

#### 4 Inflation-only Indexation of Elderly Benefits

To examine the sensitivity of the long-term projections to PBO’s assumption of inflation-adjusted enrichment, PBO also projects elderly benefits based on the assumption that – consistent with the Office of the Chief Actuary – average benefit payments are indexed to CPI inflation only. Figure 4-1 shows that altering the indexation assumption brings PBO’s projection of elderly benefits into line with the OCA projection. Indeed, in 2060, PBO’s projection is only \$1 billion (or 0.5 per cent) higher.

**Figure 4-1**  
**Projected Elderly Benefits, 2010-2060**



Source: Office of the Parliamentary Budget Officer; Statistics Canada; Office of the Chief Actuary (OCA).

Note: OCA projections are based on the calendar year and PBO projections are based on the fiscal year (i.e., 2010 represents fiscal year 2010-11).

While assessing fiscal sustainability requires projecting government debt relative to the size of the economy over a long-term horizon, it is also informative to compare projected elderly benefits relative to overall revenues and program spending. Table 4-1 presents PBO’s projection of elderly benefits – under the assumption of inflation-only indexation – relative to PBO’s projection of federal revenues and program spending over the long term.



Based on the assumption that the federal tax ‘burden’ remains at 15 per cent of GDP (its projected level in 2015-16) over the long term, which is almost 2 percentage points of GDP lower than the average observed over the last 50 years, elderly benefits are projected to increase from 15.9 per cent of revenue in 2010-11 to 19.8 per cent in 2030-31 but then decline steadily to 12.8 per cent of revenue by 2080-81. Expressed in terms of program spending, elderly benefits are projected to increase from 14.8 per cent of program spending in 2010-11 to 20.9 per cent in 2030-31 and then decline to 14.9 per cent by 2080-81.

**Table 4-1**

**PBO Projected Elderly Benefits  
(assuming inflation-only indexation)**

(\$ billions, per cent)

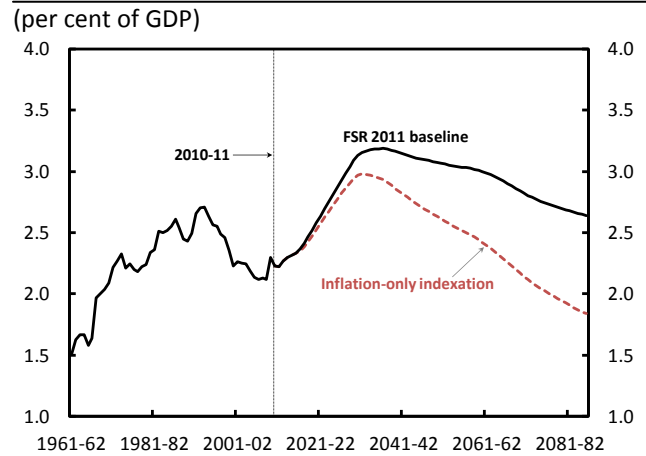
	\$ billions	% of revenue	% of program spending
2010-11	36	15.9	14.8
2020-21	63	16.8	18.3
2030-31	105	19.8	20.9
2040-41	148	18.9	20.3
2050-51	199	17.4	19.1
2060-61	269	16.1	18.0
2070-71	351	14.3	16.3
2080-81	460	12.8	14.9

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

Relative to the size of the economy, the assumption that average benefits are indexed to inflation only results in an increase in the cost of the program of 0.8 percentage points of GDP from 2010-11 (2.2 per cent of GDP) to a peak of 3.0 per cent of GDP in 2031-32 (Figure 4-2). Elderly benefits are then projected to decline steadily to 1.8 per cent of GDP by the end of the projection horizon as the baby-boom cohorts expire and as growth in the average benefit payment further lags growth in GDP per capita.

**Figure 4-2**

**PBO Projected Elderly Benefits**

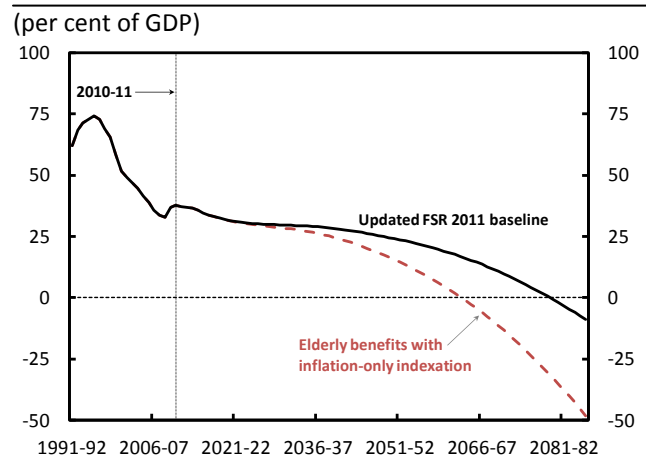


Source: Office of the Parliamentary Budget Officer; Statistics Canada.

Based on the projection of elderly benefits with inflation-only indexation, PBO projects that the federal net debt-to-GDP ratio would decline at a faster pace compared to the updated FSR 2011 baseline projection (Figure 4-3). In this scenario, federal net debt would be eliminated by 2063-64 and would ultimately lead to a net asset position of 48 per cent of GDP by the end of the projection horizon.

**Figure 4-3**

**Federal Government Net-Debt-to-GDP Ratio**



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

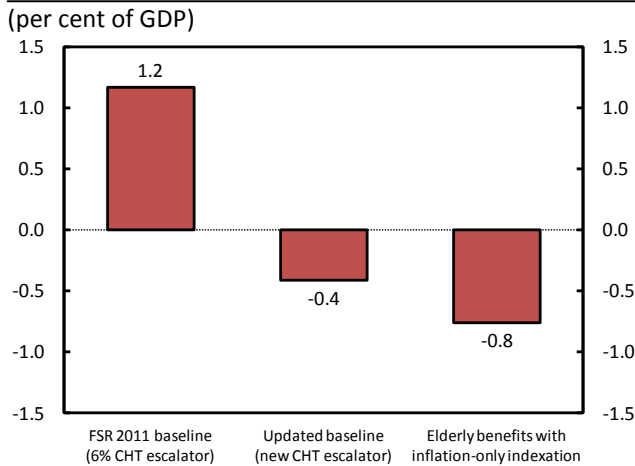
## 5 Fiscal Gap Estimates

Under the updated FSR 2011 baseline projection, the federal fiscal gap is estimated at -0.4 per cent of GDP, indicating that the federal government could – relative to PBO’s baseline projection – reduce revenue, increase program spending or some combination of both (amounting to 0.4 per cent of GDP annually) while maintaining a fiscally sustainable structure (Figure 5-1). Under the assumption that elderly benefit payments are indexed to inflation only, the fiscal gap is reduced to -0.8 per cent of GDP.

It is important to note that PBO’s long-term projections and fiscal gap estimates do not incorporate spending restraint related to the Budget 2010 operating budget freeze (these operating expenses are assumed to grow in line with inflation and population) or the Budget 2011 Strategic and Operating Review savings. As a result, PBO’s projection of direct program expenses is approximately \$12 billion higher in 2015-16 compared to Finance Canada’s November 2011 *Update of Economic and Fiscal Projections*. Under the assumption that these restraint measures are implemented and made permanent, the fiscal gap would be reduced further by approximately 0.5 percentage points (i.e., from -0.4 per cent of GDP in the updated FSR 2011 baseline projection to -0.9 per cent of GDP).

**Figure 5-1**

### Federal Government Fiscal Gap Estimates



Source: Office of the Parliamentary Budget Officer.

Note: The projection period starts in 2011-12. Calculations are based on the endpoint (2085-86) federal net debt-to-GDP ratio of 37.6 per cent.