FISCAL SUSTAINABILITY REPORT 2020: UPDATE



The Parliamentary Budget Officer (PBO) supports Parliament by providing economic and financial analysis for the purposes of raising the quality of parliamentary debate and promoting greater budget transparency and accountability.

This report updates PBO's February 2020 assessment of the sustainability of government finances over the long term for the federal government, subnational governments and public pension plans. It incorporates federal and provincial budgetary measures up to 1 September and 30 October, respectively.

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Summary

The Parliamentary Budget Officer (PBO) published Fiscal Sustainability Report 2020 (FSR) on February 27. On March 11, the World Health Organization declared that COVID-19 was a pandemic, prompting governments to undertake unprecedented measures. According to the International Monetary Fund, "[t]his forceful response by governments has saved lives, supported vulnerable people and firms, and mitigated the fallout on economic activity."

The immediate impact of the pandemic and support measures on public finances in Canada has been stark. The collapse in global oil prices has compounded the negative impact of the pandemic on the Canadian economy. For the general government sector as a whole, PBO projects the primary deficit (that is, revenues less program spending) to reach 14.8 per cent of GDP in 2020—the largest on record—and net debt to increase sharply, rising to 48.1 per cent of GDP from 30.3 per cent in 2019.

Given the impact of the pandemic on the economy and deficit financing of support measures, PBO has updated its assessment of the sustainability of government finances over the long term for the federal government, subnational governments and public pension plans. Recall that in PBO's analytical framework, fiscal sustainability means that government debt does not increase continuously as a share of the economy.

Our updated fiscal sustainability assessment incorporates pandemic budgetary measures, but assumes that pandemic response measures are withdrawn as currently scheduled. Once these measures are withdrawn, we assume that fiscal policy reverts to its pre-crisis setting—new programs or extensions are not introduced. The medium-term projection is based on our Economic and Fiscal Outlook – September 2020.

Assessment

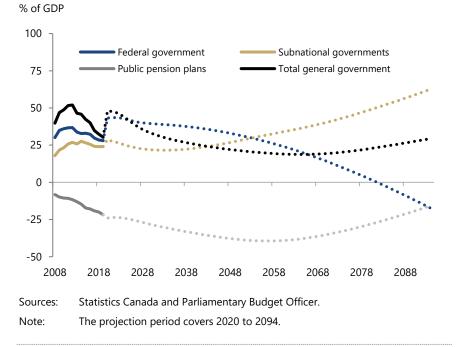
Total general government sector

From the perspective of the general government sector as a whole, that is federal and subnational governments and public pension plans combined, current fiscal policy in Canada is sustainable over the long term, assuming no new programs or extensions of pandemic measures are introduced. Relative to the size of the Canadian economy, total general government net debt is projected to remain below its 2019 pre-pandemic level over the long term.

General government sector

In the Canadian Government Finance Statistics program, the general government sector "consists of groups of resident institutional units classified by level of governments. Non-market, non-profit institutions (NPIs) that are controlled by government units are also classified to this sector and are imbedded under their respective level of government. The sector does not include public corporations, even when all the equity of such corporations is owned by government units."– Statistics Canada

(https://www150.statcan.gc.ca/n1/pub/1 3-607-x/2016001/822-eng.htm)



Total general government net debt

Fiscal sustainability and the fiscal gap

PBO assesses fiscal sustainability using the fiscal gap—the difference between current fiscal policy and a policy that is sustainable over the long term.

The fiscal gap represents the immediate and permanent change in revenues, program spending, or combination of both, expressed as a share of GDP, that is required to stabilize a government's net debt-to-GDP ratio at its current level over the long term.

A negative gap indicates that net debt is projected to decline as a share of GDP and that there is room available to increase spending or reduce taxes while maintaining fiscal sustainability.

For each public pension plan, the fiscal gap represents the immediate and permanent change in contributions or benefits that returns the net asset-to-GDP ratio to its current level over the long term.

Federal government

Current fiscal policy at the federal level is sustainable over the long term. PBO estimates that the federal government could permanently increase spending or reduce taxes by 0.8 per cent of GDP (\$19 billion in current dollars, growing in line with GDP thereafter) while stabilizing the net debt ratio at its pre-pandemic level of 28.0 per cent of GDP over the long term.

Our estimate of federal fiscal room has been revised down by 1 percentage point from 1.8 per cent of GDP in our February report. This primarily reflects upward revisions to projected program spending as a share of the economy due to the negative impact of the pandemic and oil prices shocks on GDP.

Subnational governments

For the subnational government sector, which includes provincial-territorial, local and Indigenous governments, current fiscal policy is not sustainable over the long term. PBO estimates that permanent tax increases or spending reductions amounting to 0.5 per cent of GDP (\$12 billion in current dollars, growing in line with GDP thereafter) would be required to stabilize the subnational government net debt ratio at its pre-pandemic level of 24.1 per cent of GDP over the long term. The fiscal effort required to achieve sustainability would be in addition to expiring pandemic response measures.

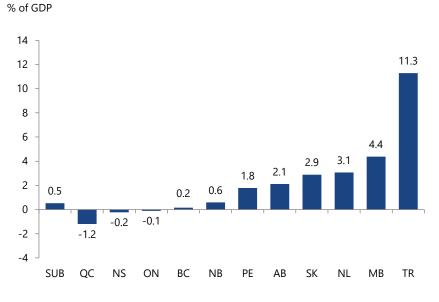
Our estimate of the subnational fiscal gap has been revised up by 0.2 percentage points from 0.3 per cent of GDP in our February report. This

revision is mainly due to the impact of the pandemic and lower oil prices on provincial government finances in Alberta.

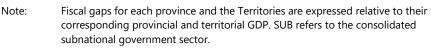
Rising health care costs due to population ageing drive the deterioration in subnational government finances over the long term. The negative impact of the pandemic and oil price shocks results in higher program spending relative to GDP across provinces and territories.

- We estimate that current fiscal policy in three provinces is sustainable: Quebec, Nova Scotia and Ontario.
- We estimate that governments in the fiscally sustainable provinces have fiscal room to increase spending or reduce taxes, ranging from 1.2 per cent of provincial GDP in Quebec to 0.1 per cent of provincial GDP in Ontario.
- Current fiscal policy is not sustainable in the remaining provinces and the Territories. The amount of policy actions required to achieve fiscal sustainability in these jurisdictions ranges from 0.2 per cent of provincial GDP in British Columbia to 11.3 per cent of territorial GDP for the Territories.
- We estimate that the subnational government sector in Alberta and Manitoba contributes 0.5 percentage points to the subnational fiscal gap.

Subnational government fiscal gap estimates



Source: Parliamentary Budget Officer.



3

Public pension plans

The current structure of the Canada Pension Plan (CPP) is not sustainable over the long term—albeit to a modest extent. Under the current structure of the CPP, projected contributions and benefits are not sufficient to ensure that, over the long term, the net asset-to-GDP position returns to its prepandemic level. Increased contributions, or reduced benefits, amounting to 0.1 per cent of GDP (\$1.3 billion in current dollars, growing in line with GDP thereafter) would be required to achieve sustainability.

Under the current structure of the Quebec Pension Plan (QPP), projected contributions and benefits are sufficient to ensure that, over the long term, the net asset-to-GDP position does not fall below its pre-pandemic level. In the case of the QPP, contributions could be reduced, or benefits increased, by 0.1 per cent of GDP (\$0.3 billion in current dollars, growing in line with GDP thereafter), while maintaining fiscal sustainability.

Our fiscal gap estimates have been revised slightly from 0.0 per cent of GDP for the CPP and from -0.2 per cent of GDP for the QPP in our February report. This slight revision reflects lower rate of return assumptions.

1. Introduction

PBO published its 2020 Fiscal Sustainability Report (FSR) on February 27.¹ On March 11, the World Health Organization declared that COVID-19 was a pandemic, prompting governments to undertake unprecedented measures. According to the International Monetary Fund, "[t]his forceful response by governments has saved lives, supported vulnerable people and firms, and mitigated the fallout on economic activity."²

In response to COVID-19, governments in Canada have implemented or announced \$281 billion in fiscal measures, representing 12 per cent of prepandemic (2019) GDP.³

Given the impact of the pandemic on the economy and deficit financing of support measures, we have updated our assessment of the sustainability of government finances over the long term for the federal government, subnational governments and public pension plans.

Fiscal sustainability means that government debt does not grow continuously as a share of the economy. Assessing whether—and the degree to which fiscal policy is sustainable involves projecting government net debt relative to the size of the economy over the long term under the assumption that current fiscal policy is maintained.

Recall that these long-term fiscal projections are not forecasts or predictions of the most likely outcomes. They are illustrative scenarios that show the consequences of maintaining a government's current fiscal policy over the long term, after accounting for the economic and fiscal implications of population ageing.

The degree to which current fiscal policy needs to be adjusted to achieve sustainability can be quantified by the fiscal gap. PBO's baseline fiscal gap is calculated as the immediate and permanent change in the primary balance (that is, revenues less program spending) required to return the net debt-to-GDP ratio to:

- The pre-pandemic (2019) net debt-to-GDP ratio,
- Over a 75-year horizon (from 2020 to 2094).

The fiscal gap estimate reflects both policy and structural factors:

 Policy factors: The primary balance reflects the policy driver of sustainability. Permanent changes in the primary balance can be achieved by adjusting revenues and/or spending on programs. Structural factors: When interest rates exceed the rate of GDP growth, interest charges on government debt outpace growth in the overall economy. This can lead to excessive debt accumulation unless government runs primary surpluses. However, we currently project a favourable interest-rate growth differential, that is, GDP growth exceeding the effective interest rate.

We use Statistics Canada's Government Finance Statistics (GFS) as the basis for our fiscal projections.⁴ The GFS measure and analyze the economic dimensions of the public sector of Canada, consistent with Canada's System of National Accounts and the International Monetary Fund's global guidelines Government Finance Statistics Manual 2014.⁵ Additional methodological and technical details are provided in our 2017 FSR.⁶

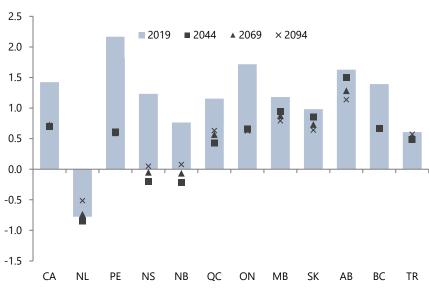
2. Demographic projection

PBO's baseline demographic assumptions reflect Statistics Canada's latest population projections.⁷ Except for new 2019 data, demographic assumptions are unchanged from our February report. We assume that Canada's long-run demographic trends will not be materially affected by the COVID-19 pandemic.

Population growth at the national level is projected to slow from 1.4 per cent in 2019 to 0.7 per cent in 2094, the end of our projection period (Figure 2-1). There are, however, meaningful disparities in population projections at theacross the provinces and territories. Alberta, Manitoba and Saskatchewan will see the highest population growth. By contrast, the population in Newfoundland and Labrador, Nova Scotia and New Brunswick is projected to decline over the long term.

Figure 2-1 Population growth

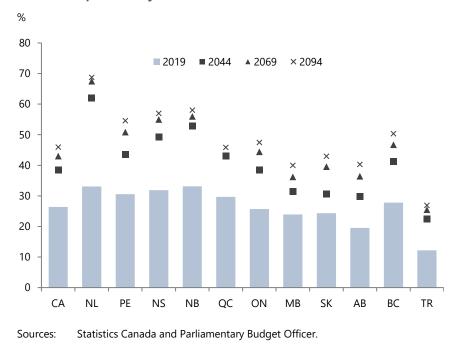
% annual growth



Sources: Statistics Canada and Parliamentary Budget Officer.

The senior dependency ratio—the ratio of individuals 65 years and older relative to the population between 15 to 64 years of age—is projected to increase at the national level from 26.4 per cent in 2019 to 46 per cent in 2094 (Figure 2-2). The most acute period of population ageing is projected to occur over the next 25 years.

The Atlantic provinces are projected to experience the most acute population ageing. The Prairie provinces and the Territories are projected to experience a smaller increase in the senior dependency ratio compared to other provinces.





3. Economic projection

Over the long term, the Canadian economy is assumed to operate at its productive capacity, or potential GDP, which is determined by trends in labour input (that is, total hours worked) and labour productivity (that is, GDP per hour worked). The medium-term economic projection is taken from our Economic and Fiscal Outlook – September 2020.⁸

We expect that the COVID-19 pandemic and oil price shocks will have a permanent impact on the Canadian economy. Compared to our February report, real GDP is projected to be 1.6 per cent lower in 2025, the last year in our medium-term projection. This impact is due to lower labour productivity.

However, based on historical data revisions we have revised slightly our assumed steady-state labour productivity growth from 1.0 to 1.1 per cent. Consequently, over the longer term, the level of labour productivity and real GDP is modestly higher compared to our February FSR projection.⁹ We assume that trend employment and average weekly hours worked will not be negatively affected, or scarred, in the aftermath of the pandemic.

We project that real GDP growth in Canada will stabilize at around 1.7 per cent annually over the long term, which is in line with our February report (Figure 3-1).

Differences in real GDP growth across provinces and territories over the projection horizon primarily reflect differences in the growth in total hours worked. These are driven by long-term demographic trends and remain essentially unchanged from our February report. By 2069, we project real GDP growth to range from 0.8 per cent in Newfoundland and Labrador to 2.3 per cent in Alberta.

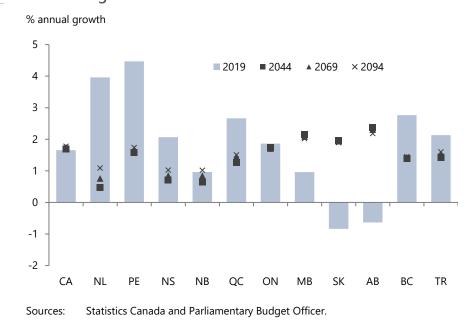


Figure 3-1 Real GDP growth

Nationally, we project labour productivity growth to converge to its steady state rate of 1.1 per cent over the long term, which is in line with historical average annual growth in labour productivity observed over 1982 and 2019 (1.1 per cent).

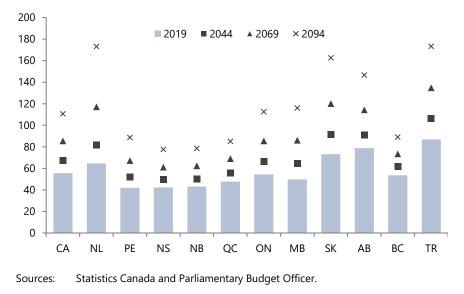
Beyond the medium term, growth in real GDP per capita—typically used to measure increases in living standards—is projected to average 1.0 per cent annually, which is 0.2 percentage points lower than the average growth observed over 1982 to 2019. This projected slowdown reflects slower growth in total hours worked relative to the size of the population.

Alberta, Newfoundland and Labrador, Saskatchewan and the Territories are projected to enjoy the highest living standards over the long term while Nova Scotia, New Brunswick and Quebec are projected to have the lowest (Figure 3-2).

The pandemic and oil price shocks have had a sizeable impact on Alberta and Saskatchewan which has lowered real GDP per capita for these two provinces across the projection horizon relative to our February report. That said, the remaining provinces and the Territories will have a higher GDP per capita by 2094, compared to our February report.

Figure 3-2 Real GDP per capita

Thousands of chained 2012 dollars



Our long-term assumptions for inflation are unchanged from the February FSR. However, the pandemic and oil price shocks have resulted in a permanently lower GDP price level (down by 1.7 per cent). Combined with lower levels of real GDP through 2062, this results in lower projected nominal GDP levels. Thereafter, the lower GDP price level more than offsets upward revisions to real GDP, resulting in lower nominal GDP.

We have revised down our assumption for the (nominal) neutral interest rate (down 25 basis points from 2.5 per cent to 2.25 per cent), as well as revised estimates of the term premia for long-term government bonds.

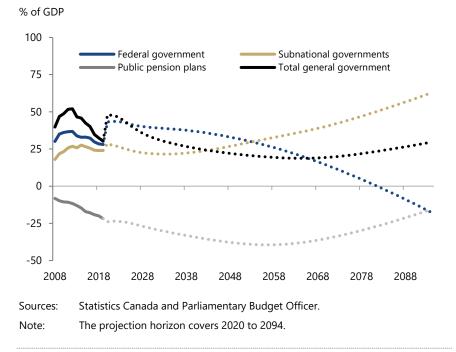
In nominal terms, we assume that the 3-month treasury bill rate will be 2.2 per cent over the long term (revised down by 25 basis points). The 10-year Government of Canada benchmark and long-term (maximum 30-year maturity) bond rates are assumed to be 3.0 per cent and 3.25 per cent (revised down by 25 and 40 basis points), respectively.

4. Fiscal sustainability assessment

Total general government

From the perspective of the general government sector as a whole, that is federal and subnational governments and public pension plans combined, current fiscal policy in Canada is sustainable over the long term. Relative to the size of the Canadian economy, total general government net debt is projected to remain below its 2019 pre-pandemic level over the long term (Figure 4-1).¹⁰

Figure 4-1 Total general government net debt



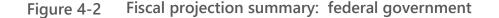
This perspective, however, masks fiscal policy at the subnational level that is not sustainable. Under current policy, we project that the federal government would ultimately eliminate its net debt and shift into a net asset position. This net asset accumulation more than offsets the projected increase in subnational government net debt.

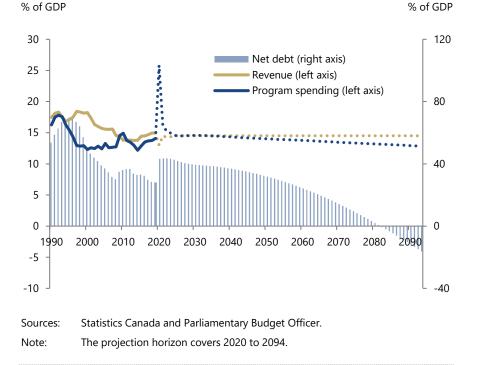
Our updated assessment of the total general government sector is unchanged from our February report.¹¹

Federal government

Current fiscal policy at the federal level is sustainable over the long term. PBO estimates that the federal government could permanently increase spending or reduce taxes by 0.8 per cent of GDP (\$19 billion in current dollars, growing in line with GDP thereafter) while stabilizing the net debt ratio at its pre-pandemic level of 28.0 per cent of GDP over the long term.^{12,13}

We project that federal spending on children's benefits and the Canada Social Transfer will decline (as a share of GDP) over the long term under current policy (Figure 4-2). In addition, we project that interest rates will remain lower than the rate of future economic growth, contributing to federal fiscal policy that is sustainable over the long term.





Medium-term federal fiscal projections in this update are based on PBO's Economic and Fiscal Outlook – September 2020. Therefore, our sustainability assessment reflects current fiscal policy and accounts for \$247 billion in federal COVID-19 response measures up to and including September 1. These expenditures contribute to a sudden increase in debt of 15.2 percentage points of GDP in 2020. We assume that pandemic-related spending is temporary and expires as currently scheduled.

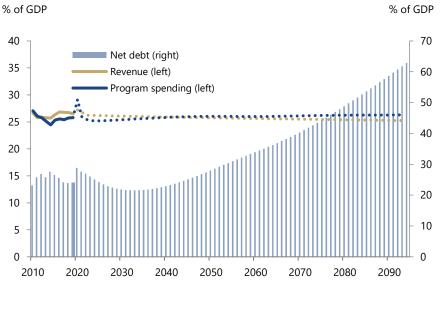
Our estimate of federal fiscal room has been revised down by 1 percentage point from 1.8 per cent of GDP in our February report. This primarily reflects upward revisions to projected program spending as a share of the economy due to the negative impact of the pandemic and oil prices shocks on GDP, which are only partially offset by lower interest rates.

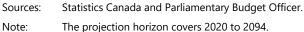
Subnational government

For the subnational government sector, which includes provincial-territorial, local and Indigenous governments, current fiscal policy is not sustainable over the long term. We estimate that permanent tax increases or spending reductions amounting to 0.5 per cent of GDP (\$12 billion in current dollars, growing in line with GDP thereafter) would be required to stabilize the subnational government net debt ratio at its pre-pandemic level of 24.1 per cent of GDP over the long term.

In contrast to the federal government, subnational governments will face ever-increasing health care costs due to population ageing. Unlike federal spending on Old Age Security, the costs of population ageing will not be dampened or offset by lower inflation-adjusted spending per beneficiary. The growth constraints in federal transfers also reduces their importance relative to the size of their economies, contributing to the deterioration in subnational government finances over the long term (Figure 4-3).

Figure 4-3 Fiscal projection summary: subnational government





The pandemic has strained subnational government finances in 2020 particularly funding for health and social programs. But the costliest COVID-19 measures are concentrated at the federal level, primarily income supports for individuals and businesses. Consequently, the sudden increase in subnational debt in 2020 is less pronounced (4.7 percentage points of GDP) than for the federal government (15.2 percentage points of GDP).

That said, our updated long-term economic projection impacts federal and subnational governments alike. Consistent with our projection for the federal government, we assume that current policy will be maintained. Few provinces have published post-pandemic fiscal plans, so our medium-term projections are based primarily on provincial governments' fiscal plans from spring 2020 and these key assumptions:¹⁴

- Own-source revenues: we assume that own-source revenues are proportionately lower over the medium term in line with our provincial nominal GDP projection.¹⁵
- Program spending: we assume that the level of inflation-adjusted program spending in the medium-term is unchanged from our February projection, except in 2020, which reflects COVID-related spending. Therefore, our program spending projections have changed only to reflect our revised outlook for GDP price levels.
- *Interest rates*: we assume that subnational interest rate spreads (relative to federal rates) are unchanged from our February report.

Our estimate of the subnational fiscal gap has been revised up by 0.2 percentage points from 0.3 per cent of GDP in our February report. This revision is mainly due to the impact of the pandemic and lower oil prices on provincial government finances in Alberta.

The negative impact of the pandemic and oil price shocks results in higher program spending relative to GDP across provinces and territories.

- We estimate that current fiscal policy in three provinces is sustainable: Quebec, Nova Scotia and Ontario (Figure 4-4).
- We estimate that governments in the fiscally sustainable provinces have fiscal room to increase spending or reduce taxes, ranging from 1.2 per cent of provincial GDP in Quebec to 0.1 per cent of provincial GDP in Ontario.
- Current fiscal policy is not sustainable in the remaining provinces and the Territories. The amount of policy actions required to achieve fiscal sustainability in these jurisdictions ranges from 0.2 per cent of provincial GDP in British Columbia to 11.3 per cent of territorial GDP for the Territories.
- We estimate that the subnational government sector in Alberta and Manitoba contributes 0.5 percentage points to the subnational fiscal gap (Figure 4-5).

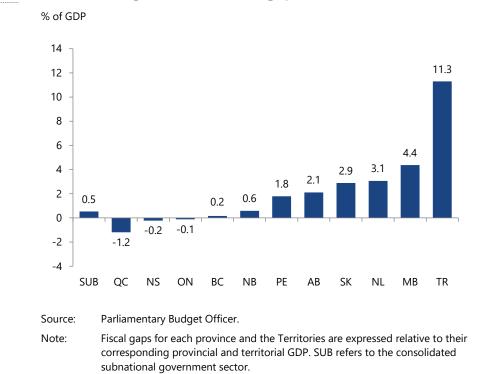
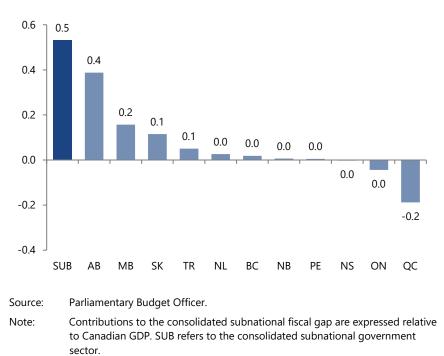


Figure 4-4Subnational government fiscal gap estimates



Contributions to the subnational government fiscal gap

Percentage points of GDP



Public pension plans

The Canada Pension Plan (CPP) and Quebec Pension Plan (QPP) are defined benefit public plans that provide inflation-indexed benefits for retirement, disability and survivor benefits to working Canadians. Contributions are shared equally between employees and employers.

Excess cash flows in these plans have been, and will continue to be, invested in financial markets to accumulate assets that will generate investment income to fund future cash shortfalls as the number of beneficiaries relative to contributors rises with the ageing of the population.

Fiscal gaps for the CPP and QPP represent the immediate and permanent change in contributions and/or benefits that returns their net asset-to-GDP ratios to their 2019 levels after 75 years.

The current structure of the Canada Pension Plan (CPP) is not sustainable over the long term—albeit to a modest extent (Figure 4-6). Under the current structure of the CPP, projected contributions and benefits are not sufficient to ensure that, over the long term, the net asset-to-GDP position returns to its pre-pandemic level. Increased contributions, or reduced benefits, amounting to 0.1 per cent of GDP annually (\$1.3 billion in current dollars, growing in line with GDP thereafter) would be required to achieve sustainability.

Under the current structure of the Quebec Pension Plan (QPP), projected contributions and benefits are sufficient to ensure that, over the long term, the net asset-to-GDP position does not fall below its pre-pandemic level. In the case of the QPP, contributions could be reduced, or benefits increased, by 0.1 per cent of GDP (\$0.3 billion in current dollars, growing in line with GDP thereafter), while maintaining sustainability.

Our fiscal gap estimates have been revised slightly from 0.0 per cent of GDP for the CPP and from -0.2 per cent of GDP for the QPP in our February report. This slight revision reflects lower rate of return assumptions.

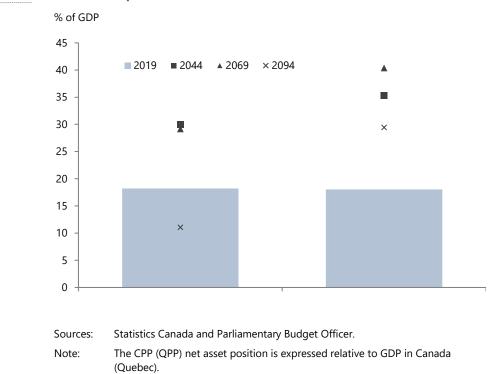


Figure 4-6 Net asset positions: CPP and QPP

Notes

- 1. Available at: <u>https://www.pbo-</u> <u>dpb.gc.ca/web/default/files/Documents/Reports/RP-1920-029-S/RP-1920-</u> <u>029-S en.pdf</u>.
- See the October 2020 IMF Fiscal Monitor available at: <u>https://www.imf.org/en/Publications/FM/Issues/2020/09/30/october-2020-fiscal-monitor</u>.
- Data is based on PBO calculations, reflecting an estimated \$247 billion in federal policy actions (up to and including 1 September 2020) and \$34 billion in spending by provinces and territories (up to and including 30 October 2020). See Economic and Fiscal Outlook – September 2020, Appendix C for details on federal fiscal policies. Available at: <u>https://www.pbodpb.gc.ca/web/default/files/Documents/Reports/RP-2021-027-S/RP-2021-027-S en.pdf.</u>
- 4. See <u>http://www.statcan.gc.ca/pub/13-605-x/2014005/article/14088-eng.htm</u> for an overview of the Canadian Government Finance Statistics.
- Available at: <u>https://www.imf.org/external/Pubs/FT/GFS/Manual/2014/gfsfinal.pdf</u>.
- 6. Available at: <u>https://www.pbo-</u> <u>dpb.gc.ca/web/default/files/Documents/Reports/2017/FSR%20Oct%202017/</u> FSR 2017 FINAL EN.pdf.
- Statistics Canada, Population Projections for Canada (2018 to 2068), Provinces and Territories (2018 to 2043) which was published on 17 September 2019.
- 8. Available at: <u>https://www.pbo-</u> <u>dpb.gc.ca/web/default/files/Documents/Reports/RP-2021-027-S/RP-2021-</u> <u>027-S en.pdf.</u>
- 9. At the end of our long-term projection horizon, labour productivity and real GDP levels are 0.6 and 1.0 per cent higher, respectively, compared to our February 2020 FSR. Higher trend employment, due to the inclusion of 2019 population data, also contributes to the upward revision to real GDP levels at the end of the projection horizon.
- 10. Throughout this report, our 75-year fiscal gap is calculated from 2020 to 2094. Therefore, the net debt-to-GDP ratio for 2019 serves as the long-run starting reference point for all governments. In our February 2020 FSR, the 75-year fiscal gap was calculated from 2019 to 2093, with the net debt-to-GDP ratio in 2018 serving as the reference point.
- 11. We did not conduct a sensitivity analysis in our updated assessment. However, the sensitivity analysis in our February report can be used to approximate the impacts on our updated fiscal gap estimate of alternative demographic, economic and fiscal policy scenarios. Comparing estimates under alternative scenarios and baseline estimates in Table A-1 of our

February report provides a reasonable approximation of the impact of a given alternative scenario on our updated fiscal gap estimates.

- 12. Based on the GFS measure, federal net debt amounted to 28.0 per cent of GDP in 2019. This differs from the federal debt ratio of 31.3 per cent of GDP in 2019-20, measured on a Public Accounts basis, estimated in our Economic and Fiscal Outlook September 2020. The difference between these measures primarily reflects the treatment of employee future benefits and non-financial assets.
- Current fiscal policy reflects announced budgetary measures up to and including 1 September 2020. Risks to the medium-term fiscal outlook, including the extension of temporary measures or the introduction of new permanent programs are discussed in Economic and Fiscal Outlook – September 2020.
- For subnational governments, this report reflects provincial governments' fiscal policies announced up to fall 2020. We have used data from the most current publicly available data published up to and including 30 October 2020.

Newfoundland and Labrador, Budget 2020, September 30, https://www.gov.nl.ca/budget/2020/wpcontent/uploads/sites/3/2020/09/Statements-and-Schedules-2020.pdf.

Prince Edward Island, Fall Fiscal Update, September 30, https://www.princeedwardisland.ca/sites/default/files/publications/fiscal_upd ate_2020_september.pdf.

Nova Scotia, Forecast Update, July 29, <u>https://notices.novascotia.ca/files/budget-forecast-notices/20-49868-</u> <u>115834 Budget Forecast Update July 2020.pdf</u>.

New Brunswick, 2020-21 First Quarter Report, August, https://www2.gnb.ca/content/dam/gnb/Departments/fin/pdf/Publications/2 020-2021FirstQuarterReport.pdf.

Quebec, Quebec's Economic and Financial Situation 2020-21, June 19, http://www.budget.finances.gouv.qc.ca/budget/portrait juin2020/en/docum ents/QC Financial Situation June2020.pdf.

Ontario, 2020-21 First Quarter Finances, August, https://www.fin.gov.on.ca/en/budget/finances/2020/ofin20 1.pdf.

Manitoba, Economic and Fiscal Update, June, https://www.gov.mb.ca/asset library/en/proactive/2020 2021/economicfiscal-update-june-2020.pdf.

Saskatchewan, 2020-21 First Quarter Budget Update and Medium-Term Outlook, August 27, <u>https://www.saskatchewan.ca/government/budget-planning-and-reporting/budget-2020-21#2020-21-budget-documents</u>.

Alberta, First Quarter Fiscal Update and Economic Statement, August, https://open.alberta.ca/dataset/9c81a5a7-cdf1-49ad-a923d1ecb42944e4/resource/df5d0611-2278-4fdb-aa7b-0c71932479cb/download/2020-21-first-quarter-fiscal-update-andeconomic-statement.pdf.

British Columbia, First Quarterly Report 2020-21, September 10, https://www2.gov.bc.ca/assets/gov/british-columbians-ourgovernments/government-finances/quarterly-reports/2020-21-q1report.pdf.

Yukon, Interim Fiscal and Economic Update, October, https://yukon.ca/sites/yukon.ca/files/fin-2020-21-interim-fiscal-economicupdate.pdf.

Northwest Territories, Supplementary Estimates, June, https://www.fin.gov.nt.ca/sites/fin/files/resources/supplementary estimates_ operations_expenditures_no_1_2020-2021.pdf.

Nunavut, 2020-21 Supplementary Appropriation, September, <u>https://www.gov.nu.ca/finance/documents/2020-21-supplementary-appropriation-om-no-1</u>.

15. Expressed differently, except for 2020, the ratios of own-source revenues-to-GDP for subnational governments are unchanged from our February FSR 2020.