

# Fiscal Sustainability Report 2023



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 provides PBO's assessment of the sustainability of government finances over the long term for the federal government, subnational governments and public pension plans.

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Yves Giroux Parliamentary Budget Officer

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# Highlights

From the perspective of the total general government sector, 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 decline steadily over the long term due to fiscal room at the federal level and to rising net asset positions in the public pension plans.

Current fiscal policy at the federal level is sustainable over the long term. We estimate that the federal government could permanently increase spending or reduce taxes by 1.7 per cent of GDP (\$49.5 billion in current dollars, growing in line with GDP thereafter) while maintaining fiscal sustainability.

For the subnational government sector, which includes provincial-territorial, local and Indigenous governments, current fiscal policy is sustainable over the long term. Under current policy, projected subnational government revenues and program spending are sufficient to keep the subnational government net debt-to-GDP ratio below its 2022 level over the 75-year projection horizon.

The current structure of the Canada Pension Plan (CPP) and Quebec Pension Plan (QPP) is sustainable over the long term. Under the current structure of the plans, projected contributions and benefits are sufficient to ensure that the net asset-to-GDP position is above its 2022 value after 75 years.

# Summary

To assess whether a government's fiscal policy is sustainable requires projecting current policy beyond a budget's medium-term planning horizon. Fiscal sustainability means that government debt does not grow continuously as a share of the economy.

Across all provinces and territories, the ageing of the population will move an increasing share of Canadians out of their prime working-age years and into their retirement years, resulting in slower growth in the Canadian economy.

Slower economic growth will put downward pressure on government revenues as growth in the tax base slows. At the same time, population ageing will put upward pressure on government programs such as health care, Old Age Security and pension benefits. Programs targeted to younger age groups will face reduced pressure as the population ages.

The objective of this report is to identify if changes to current fiscal policy are required to avoid unsustainable government debt accumulation and to estimate the magnitude of these changes.

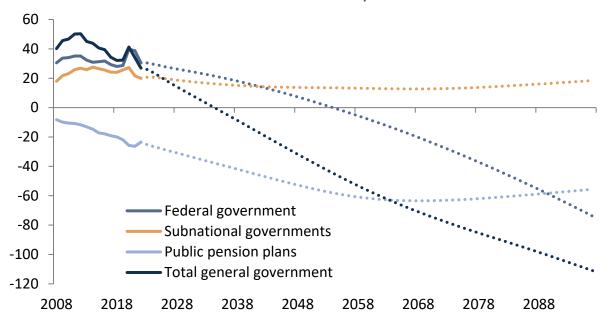
## Assessment

## 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. Relative to the size of the Canadian economy, total general government net debt is projected to decline steadily over the long term due to fiscal room at the federal level and to rising net asset positions in the public pension plans (Summary Figure 1).

## **Summary Figure 1**

Government net debt relative to GDP, per cent



Textual description:

Data for this figure are available in tab S-1 of the FSR 2023 Figures file.

Sources:

Statistics Canada and Office of the Parliamentary Budget Officer.

Note:

The projection period covers 2023 to 2097.

## Federal government

Current fiscal policy at the federal level is sustainable over the long term. We estimate that the federal government could permanently increase spending or reduce taxes by 1.7 per cent of GDP (\$49.5 billion in current dollars, growing in line with GDP thereafter) while stabilizing net debt at its initial level of 30.5 per cent of GDP over the long term.

Our assessment reflects all Budget 2023 measures. These measures include, for example, funding for health and dental care and investment tax credits in green technologies, which permanently raise the level of federal program spending over the long term, even after accounting for savings from

spending reviews. Revenue-raising measures such as the taxation of dividends financial institutions receive on Canadian shares, as well as international tax reform, permanently raise federal revenues over the long term.

Our estimate of 1.7 per cent of GDP in federal fiscal room is marginally lower relative to our previous assessment (1.8 per cent of GDP). Despite an upward revision to our medium-term outlook for revenues that more than offsets increased program spending, the upward revision to the federal effective interest rate reduces the amount of fiscal room.

## 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 initial 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 initial level over the long term.

## Subnational governments

Current fiscal policy is sustainable over the long term for the subnational government sector as a whole, which includes provincial-territorial, local and Indigenous governments. Our assessment reflects provincial and territorial government budgets from spring 2023.

Over the long term, relative to the size of their economies, subnational governments will face rising health care expenses due to population ageing. In addition, all subnational governments will face a less favourable effective interest-GDP growth rate differential compared to the federal government. Some subnational governments will also face significant budgetary pressures owing to reduced federal transfers (relative to the size of their economies).

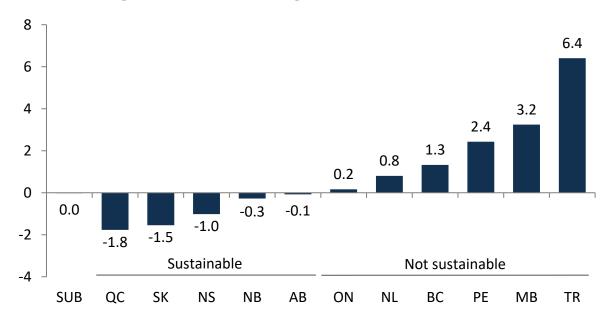
That said, for the subnational sector as a whole, their own-source revenues, combined with federal transfers, are sufficient to keep the subnational government net debt-to-GDP ratio below its 2022 level over the 75-year projection horizon.

- Our assessment indicates that current fiscal policy in five provinces is sustainable: Quebec, Saskatchewan, Nova Scotia, New Brunswick and Alberta (Summary Figure 2).
- We estimate that governments in fiscally sustainable provinces have fiscal room to increase spending or reduce taxes, ranging from 1.8 per cent of provincial GDP in Quebec to 0.1 per cent of GDP in Alberta.
- Current fiscal policy is not sustainable in the remaining provinces and the territories. The amount of policy action required to achieve fiscal sustainability in these jurisdictions ranges from 0.2 per cent of provincial GDP in Ontario to 6.4 per cent of territorial GDP for the territories.
- We estimate that subnational governments in Quebec and Saskatchewan combined contribute 0.35 percentage points to

subnational fiscal room while subnational governments in British Columbia, Manitoba and Ontario combined contribute 0.32 percentage points to the subnational fiscal gap (Summary Figure 3).

## **Summary Figure 2**

Subnational government fiscal gap estimates, per cent of GDP



## Textual description:

Data for this figure are available in tab S-2 of the FSR 2023 Figures file.

#### Source:

Office of the Parliamentary Budget Officer.

## Notes:

Fiscal gaps for each province and the territories are expressed relative to their corresponding provincial and territorial GDP. SUB refers to the consolidated subnational government sector.

## **Summary Figure 3**

Contributions to the consolidated subnational fiscal gap, percentage points of GDP



Textual description:

Data for this figure are available in tab S-3 of the FSR 2023 Figures file.

#### Source:

Office of the Parliamentary Budget Officer.

#### Notes:

Contributions are expressed relative to Canadian GDP. SUB refers to the consolidated subnational government sector.

Compared to our previous assessment, the subnational fiscal gap has been revised down from 0.1 per cent of GDP. Our current assessment reflects the budgets of provincial governments from spring 2023. Based on these recent budget plans, the medium-term outlook for provincial and territorial government own-source revenues has been revised up in most provinces and, consistent with our methodology, we assume that the revision carries through to the long term. The upward revision to subnational own-source revenues is partially offset by upward revisions to program spending.

## Public pension plans

The current structure of the Canada Pension Plan (CPP) and Quebec Pension Plan (QPP) is sustainable over the long term. We estimate the fiscal gaps for the CPP and QPP to be, respectively, -0.1 per cent of GDP (in Canada) and -0.4 per cent of GDP (in Quebec).

Under the current structure of the CPP, contributions could be reduced, or benefits increased by 0.1 per cent of GDP while ensuring that the net asset-to-GDP position is at its initial value after 75 years. In the case of the QPP, contributions could be reduced, or benefits increased, by 0.4 per cent of GDP, while maintaining fiscal sustainability.

In comparison to our previous assessment, the fiscal gap estimate has improved by 0.04 percentage points of GDP for the CPP and by 0.10 percentage points of GDP for the QPP. This revision reflects a higher rate of return assumed over the long term that more than offsets downward revisions to projected net cash flows (relative to GDP).

## Sensitivity of results

To help gauge the sensitivity of our baseline fiscal gap estimates, we consider alternative demographic, economic and fiscal policy scenarios.

We find that our qualitative assessment of fiscal sustainability for the federal government is unchanged across all the scenarios considered.

Our qualitative sustainability assessments for most provinces and the territories are essentially unchanged across the alternative demographic, economic and fiscal policy scenarios considered. However, our sustainability assessment is reversed under some alternative scenarios for subnational governments, mostly in cases where their baseline fiscal gap estimates are close to zero.

# 1. Introduction

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 throughout that period.

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.

We produce these projections to motivate discussion about the adequacy of current fiscal policy to deal with expected long-term demographic and economic challenges; the earlier that a required policy intervention can be identified, the lower will be the cost of its implementation.

## The primary balance

A government's primary balance is defined as revenues less noninterest spending. It represents the contribution to debt accumulation that is directly influenced by fiscal policy. Subtracting public debt charges from the primary balance yields the more familiar budgetary balance or "net lending".

In the case of the public pension plans, we refer to the primary balance as the net cash flow, which represents plan contributions less benefits and administrative expenses. The degree to which current fiscal policy needs to be adjusted to achieve sustainability can be quantified by the fiscal gap.<sup>1</sup> 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 its initial level over a 75-year horizon.

The fiscal gap estimate reflects both policy and structural factors:

- Policy factor: 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 factor: 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 a government runs primary surpluses. However, for the federal government and some provinces, we project a favourable interest-growth rate differential over the long term, that is, GDP growth exceeding their effective interest rate.

We use Statistics Canada's Provincial and Territorial Economic Accounts and Government Finance Statistics (GFS) as the basis for our fiscal projections.<sup>2</sup> 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.<sup>3</sup> The scope of our analytical framework is limited to the general government sector.<sup>4</sup>

Our medium-term economic and federal fiscal projections are based on PBO's March 2023 Economic and Fiscal Outlook, adjusted to incorporate Budget 2023 measures.<sup>5</sup> Our medium-term fiscal projections for subnational governments are aligned with the Public Accounts-based budget forecasts prepared by provincial governments in spring 2023. Detailed data for all our Fiscal Sustainability Report (FSR) projections are

available electronically on our website.<sup>6</sup> Additional methodological and technical details are provided in our 2017 FSR.<sup>7</sup>

# 2. Demographic projection

The evolving demographic profile of the Canadian population is one of the key drivers of PBO's long-term economic and fiscal projection. Across all provinces and territories, the ageing of the population will move an increasing share of Canadians out of their prime working-age years and into their retirement years, resulting in slower growth in employment and GDP.

PBO's baseline demographic assumptions reflect Statistics Canada's latest population projections which include upward revisions to mortality rates and changes to projections of interprovincial migration.<sup>8</sup> The baseline demographic assumptions also include the Government's 2021 immigration targets.<sup>9</sup> While Canada's population growth rebounded in 2022, changes to demographic assumptions lower the projected level of the population compared to our 2022 assessment by 3.5 per cent in 2097, the last year of our projection.<sup>10</sup> Population growth at the national level is projected to slow from 1.8 per cent in 2022 to 0.7 per cent in 2097 (Figure 2-1).

There continue to be meaningful disparities in population projections at the subnational level. Alberta and Saskatchewan will see the highest population growth, although projected to slow from current levels. In contrast, the population of Newfoundland and Labrador is projected to decline over the projection period.

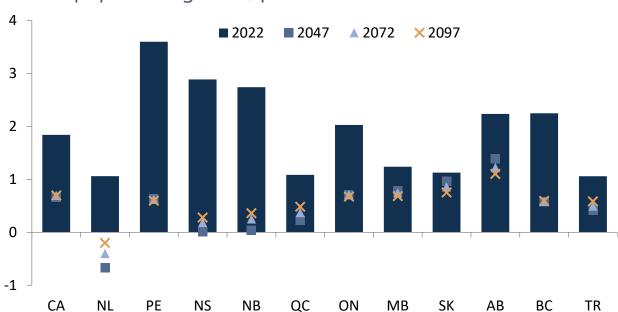


Figure 2-1
Annual population growth, per cent

Textual description:

Data for this figure are available in tab 2-1 of the FSR 2023 Figures file.

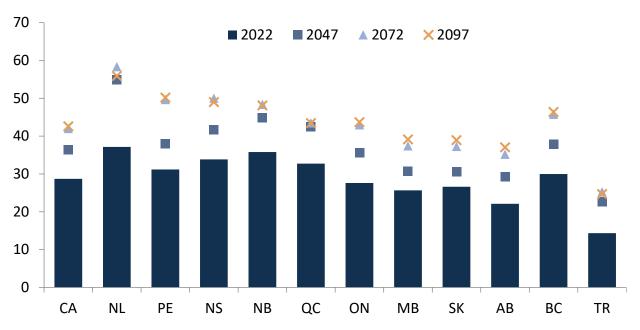
#### Sources:

Statistics Canada and Office of the Parliamentary Budget Officer.

The average age of Canada's population is projected to increase from 41.7 years in 2021 to 45.1 in 2068.<sup>11</sup> 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 28.7 per cent in 2022 to 42.6 per cent in 2097 (Figure 2-2). The most acute period of population ageing is projected to occur over the next 13 years.

At the subnational level, the senior dependency ratio in the Atlantic provinces is projected to remain well above the national average over the long term. The higher senior dependency ratio in these provinces reflects lower fertility and net migration rates compared to other provinces.

Figure 2-2
Senior dependency ratio, per cent



Textual description:

Data for this figure are available in tab 2-2 of the FSR 2023 Figures file.

### Sources:

Statistics Canada and Office of the Parliamentary Budget Officer.

In contrast, the senior dependency ratio in the prairie provinces and the territories is projected to remain well below the national average over the long term. The lower senior dependency ratio in these provinces reflects higher fertility and net migration rates compared to other provinces. That said, their senior dependency ratios are projected to rise well above current levels, particularly over the next 13 years.

# 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).<sup>12</sup> PBO's methodology for projecting GDP at the provincial and territorial level is detailed in our 2017 FSR.<sup>13</sup>

As a greater proportion of the population shifts into older age groups that are less likely to work, or work fewer hours, this will put downward pressure on growth in total hours worked in the economy. Consequently, growth in real GDP and real GDP per capita—a commonly used measure of average living standards—is expected to be slower.

## Labour input, labour productivity and GDP

Labour input measures the total number of hours worked and is determined by the size of the working-age population, the employment rate and the average number of hours worked.

Labour productivity measures the amount of output produced per hour worked.

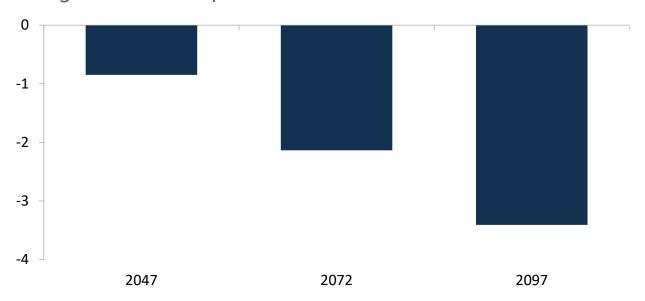
Real GDP is equal to labour input multiplied by labour productivity. Potential GDP is the amount of output that the economy can produce when capital, labour and technology are at their respective trends.

Growth in real GDP per capita is typically used to measure increases in living standards.

Compared to our 2022 assessment—both domestically and globally—monetary policy has been tighter; near-term inflation has been higher and economic growth has been weaker than we projected. While the projected level of real GDP in 2027 (the last year of our medium-term projection) is 1.3 per cent lower than projected in our 2022 FSR, the level of nominal GDP in 2027 is now 1.5 per cent higher.

PBO's long-term baseline projection of real GDP now incorporates estimates of the impact of future changes in weather patterns due to climate change. Based on previous PBO estimates, we project that future changes in weather patterns will decrease the level of real GDP by 3.4 per cent in 2097 relative to what our baseline projection would have been in the absence of future changes in weather patterns (Figure 3-1).<sup>15</sup>

Figure 3-1
Impact of future changes in weather patterns due to climate change on real GDP, per cent



Textual description:

Data for this figure are available in tab 3-1 of the FSR 2023 Figures file.

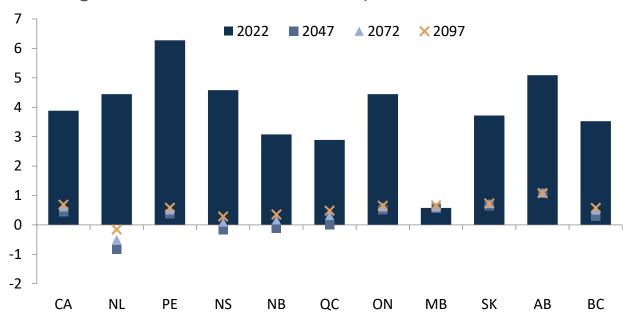
Source:

Office of the Parliamentary Budget Officer.

Beyond the medium term, nominal GDP growth across provinces and territories is, on balance, slightly lower compared to our 2022 assessment.

Population ageing will contribute to slower growth in total hours worked at the national level, but the magnitude of such changes varies across provinces and territories. For example, Alberta will see relatively less drag on economic growth from population ageing (Figure 3-2). In contrast, Newfoundland and Labrador, Nova Scotia and New Brunswick will experience significantly more drag on economic growth from population ageing.

Figure 3-2
Annual growth in total hours worked, per cent



Textual description:

Data for this figure are available in tab 3-2 of the FSR 2023 Figures file.

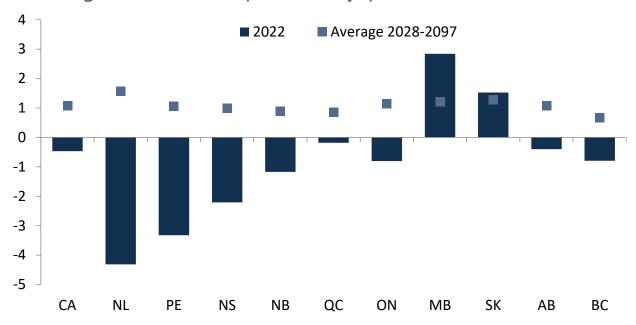
### Sources:

Statistics Canada and Office of the Parliamentary Budget Officer.

Nationally, we project labour productivity growth to converge to its steady-state rate of 1.07 per cent over the long term, which is slightly lower than historical average annual growth in labour productivity of 1.12 per cent observed over 1982 to 2019 (Figure 3-3). The difference in labour

productivity growth projected over the long term primarily reflects the impact of future changes in weather patterns due to climate change.

Figure 3-3
Annual growth in labour productivity, per cent



Textual description:

Data for this figure are available in tab 3-3 of the FSR 2023 Figures file.

Sources:

Statistics Canada and Office of the Parliamentary Budget Officer.

For the provinces, we project growth in labour productivity based on their respective historical average growth rates (over 1982 to 2019) but make adjustments to ensure consistency with our national projection.

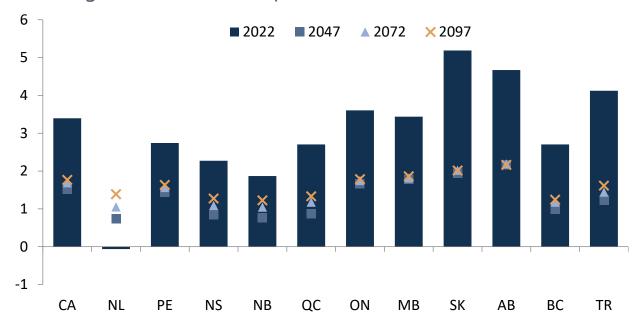
Newfoundland and Labrador and Saskatchewan are projected to have the

fastest labour productivity growth over the next 75 years while British Columbia and Quebec are projected to have the slowest growth.

We project that real GDP growth in Canada will slow to 1.7 per cent annually, on average, over the long term (Figure 3-4).<sup>16</sup> The relative profile of real GDP growth across provinces and territories over the long term primarily reflects differences in growth in total hours worked. By 2072, we

project real GDP growth to range from 1.0 per cent in New Brunswick to 2.2 per cent in Alberta.

Figure 3-4
Annual growth in real GDP, per cent



Textual description:

Data for this figure are available in tab 3-4 of the FSR 2023 Figures file.

#### Sources:

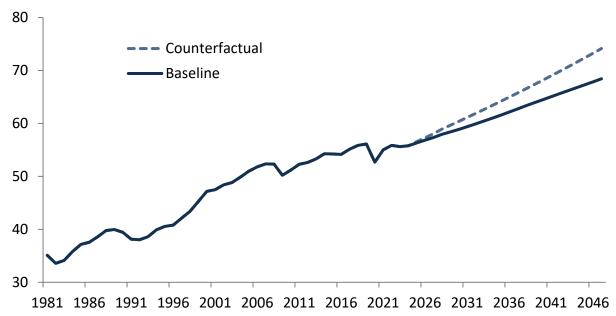
Statistics Canada and Office of the Parliamentary Budget Officer.

Growth in real GDP per capita—typically used to measure increases in living standards—is projected to average 0.9 per cent annually from 2023 to 2097, which is 0.3 percentage points lower than the average growth observed over 1982 to 2019. This projected slowdown reflects slower growth in total hours worked. With total hours worked projected to ultimately grow in line with the population over the long term, growth in real GDP per capita will ultimately be driven by labour productivity.

To illustrate the impact on real GDP per capita of slower growth in hours worked, we compare our baseline projection to a counterfactual scenario in which growth in total hours worked relative to the population grows at its historical average (1982 to 2019) of 0.1 per cent annually, instead

of -0.2 per cent projected over 2025 to 2047 under the baseline (Figure 3--5). We project that real GDP per capita in 2047 would be \$5,700 or 8.3 per cent higher in this no-ageing scenario.

Figure 3-5
Real GDP per capita, chained 2012 dollars, thousands



Textual description:

Data for this figure are available in tab 3-5 of the FSR 2023 Figures file.

### Sources:

Statistics Canada and Office of the Parliamentary Budget Officer.

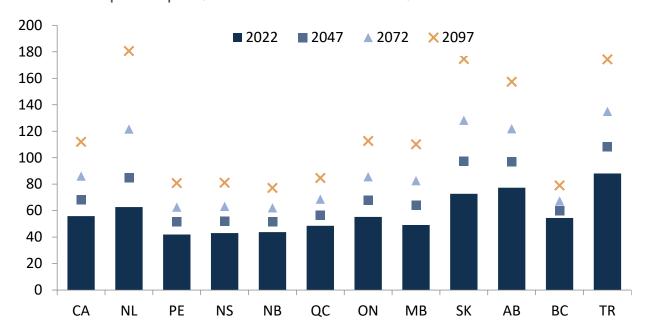
#### Notes:

The projection period covers 2023 to 2047. The counterfactual scenario starts in 2025, where growth in total hours worked relative to the population is maintained at its 1982 to 2019 historical average. Growth in labour productivity is the same under both projections.

Reflecting the length of the projection period and despite relatively small differences in growth rates, real GDP per capita levels are projected to diverge significantly across provinces and territories. Alberta, Newfoundland and Labrador, Saskatchewan and the territories are projected to enjoy the highest living standards over the long term while New Brunswick, British Columbia and Prince Edward Island are projected to have the lowest (Figure 3-6).

For provinces, real GDP per capita is an important contributor to their fiscal capacity (which is closely linked to income per capita) that determines their eligibility for Equalization payments from the federal government. Provinces with fiscal capacity below the national standard are eligible to receive Equalization.

Figure 3-6
Real GDP per capita, chained 2012 dollars, thousands



Textual description:

Data for this figure are available in tab 3-6 of the FSR 2023 Figures file.

#### Sources:

Statistics Canada and Office of the Parliamentary Budget Officer.

Consistent with the economic developments over the past year, our medium-term projection of inflation and interest rates is higher compared to our 2022 assessment.

However, our long-term assumption for inflation is unchanged from our 2022 assessment. Beyond the medium term, we assume that inflation will settle at 2.0 per cent. In nominal terms, we assume that the 3-month treasury bill rate will be 2.45 per cent over the long term. The 10-year Government of Canada benchmark and long-term (maximum 30-year

maturity) bond rates are assumed to be 3.25 per cent and 3.50 per cent—both are 25 basis points higher compared to our 2022 assessment.<sup>17</sup>

The federal effective interest rate is projected to settle at 3.1 per cent. Provincial and territorial effective interest rate spreads (that is, the difference relative to the federal effective rate) are unchanged from our previous assessment. Over the long term, effective interest rate spreads range from a low of 82 basis points for British Columbia to 108 basis points for Newfoundland and Labrador.

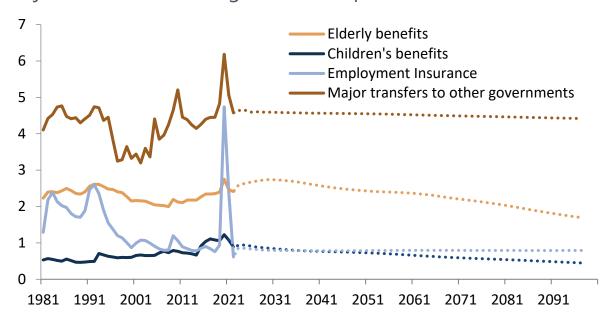
For some jurisdictions (the federal government and subnational governments in Saskatchewan and Alberta), their effective interest rate is lower than their nominal GDP growth rate, on average, over the long term.<sup>19</sup>

# 4. Federal government

Current fiscal policy at the federal level is sustainable over the long term. Our assessment reflects Budget 2023 measures, including funding for health and dental care, investment tax credits for clean energy and revenue raising measures such as international tax reform, as well as the taxation of dividends financial institutions receive on Canadian shares, in addition to savings from spending reviews.

Over the long term, federal program spending declines in our projection (relative to the size of the economy prior to the pandemic) for elderly benefits, children's benefits, and transfers to other governments, under status quo policies (Figure 4-1).

Figure 4-1
Major transfers: federal government, per cent of GDP



Textual description:

Data for this figure are available in tab 4-1 of the FSR 2023 Figures file.

Sources:

Statistics Canada and Office of the Parliamentary Budget Officer.

#### Notes:

The projection period covers 2023 to 2097. Employment Insurance includes the Canada Emergency Response Benefits and Canada Recovery Benefits. Major transfers to other governments include Equalization, the Canada Health Transfer, the Canada Social Transfer, the Territorial Formula Financing, and other transfers.

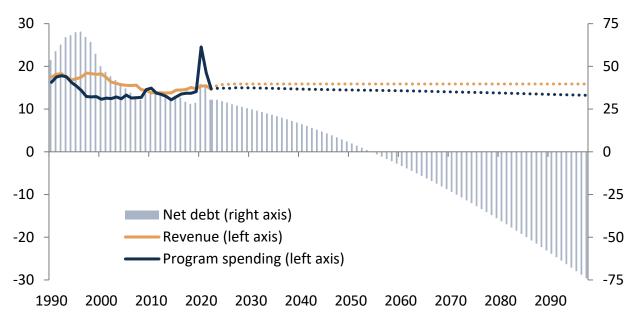
Federal spending on elderly benefits amounted to 2.4 per cent of GDP in 2022. As the last of the baby-boom cohort reaches 65 years of age, we project that spending on elderly benefits will continue to increase, peaking at 2.7 per cent of GDP in 2030. However, given that benefit payments are indexed to inflation only, spending on elderly benefits is ultimately projected to decline as these cohorts age and pass on.

Children's benefits reached a peak of 1.2 per cent of GDP in 2020 mainly due to the additional children's benefits allocated during the pandemic. However, given that the under-18 age group will comprise a smaller share of the total population over the coming decades and that benefit payments are indexed only to inflation, children's benefits will decline relative to the size of the economy. By the end of our projection, children's benefits are projected to amount to 0.4 per cent of GDP.

Federal major transfers to other levels of government are also projected to decline slightly between 2022 and 2097, from 4.7 per cent of GDP to 4.5 per cent of GDP. The Canada Health Transfer (CHT) and Equalization are legislatively linked to growth in nominal GDP. However, the Canada Social Transfer (CST) is legislated to increase by 3 per cent per year, which is 0.7 percentage points lower, on average, than projected GDP growth.

Given projected declines in transfers to individuals and other governments, we project that revenues will exceed program spending over much of the projection period, resulting in sizable primary surpluses by the end of our long-term projection (Figure 4-2).

Figure 4-2
Fiscal projection summary: federal government, per cent of GDP



Textual description:

Data for this figure are available in tab 4-2 of the FSR 2023 Figures file.

Sources:

Statistics Canada and Office of the Parliamentary Budget Officer.

Note:

The projection period covers 2023 to 2097.

In addition, we project that the federal effective interest rate will remain below the growth rate of nominal GDP, further contributing to the sustainability of current federal fiscal policy. Based on our projection, the federal government's net debt of 30.5 per cent of GDP in 2022 would be eliminated in 2054 in the absence of policy changes.

## Fiscal sustainability assessment

Current fiscal policy at the federal level is sustainable over the long term. To stabilize its net debt at 30.5 per cent of GDP over the long term, we estimate that the federal government could permanently increase spending

or reduce taxes by 1.7 per cent of GDP (\$49.5 billion in current dollars, growing in line with GDP thereafter).

Our assessment reflects all Budget 2023 measures. These measures include, for example, funding for health and dental care and investment tax credits in green technologies, which permanently raise the level of federal program spending over the long term, even after accounting for savings from spending reviews.<sup>20</sup> Revenue-raising measures such as the taxation of dividends financial institutions receive on Canadian shares, as well as international tax reform, permanently raise federal revenues over the long term.

Our estimate of 1.7 per cent of GDP in federal fiscal room is marginally lower relative to our previous assessment (1.8 per cent of GDP). Despite an upward revision to our medium-term outlook for revenues that more than offsets increased program spending, the upward revision to the federal effective interest rate reduces the amount of fiscal room.

Our qualitative assessment that current federal fiscal policy is sustainable over the long term is unchanged across all the alternative demographic, economic and fiscal policy assumptions considered (see Tables A-1 to A-3 in Appendix A).

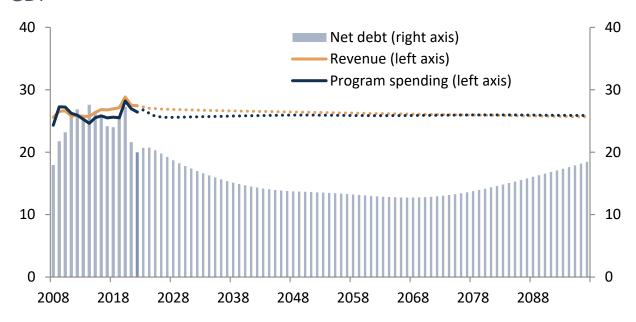
# 5. Subnational governments

Current fiscal policy is sustainable over the long term for the subnational government sector as a whole, which includes provincial-territorial, local and Indigenous governments. Our assessment reflects provincial and territorial government budgets from spring 2023.

Over the long term, relative to the size of their economies, subnational governments will face rising health care expenses due to population ageing. In addition, all subnational governments will face a less favourable effective interest-GDP growth rate differential compared to the federal government. Some subnational governments will also face significant budgetary pressures owing to reduced federal transfers (relative to the size of their economies).

That said, for the subnational sector as a whole, their own-source revenues, combined with federal transfers, are sufficient to keep the subnational government net debt-to-GDP ratio below its 2022 level over the 75-year projection horizon (Figure 5-1).

**Figure 5-1**Fiscal projection summary: subnational government, per cent of GDP



Textual description:

Data for this figure are available in tab 5-1 of the FSR 2023 Figures file.

Sources:

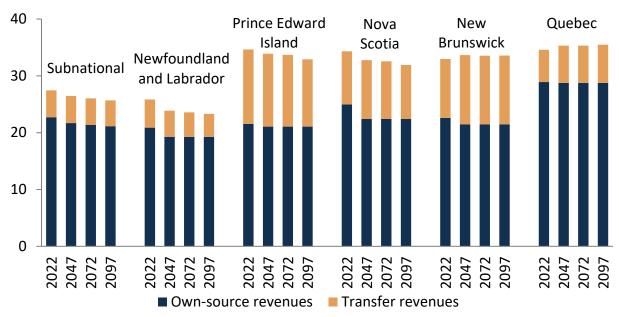
Statistics Canada and Office of the Parliamentary Budget Officer.

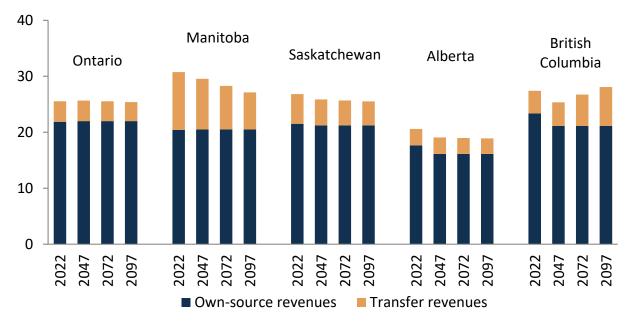
Note:

The projection period covers 2023 to 2097.

Subnational governments derive most of their revenues from own-sources—most notably taxes on income, consumption, and property. We assume that these revenues grow in line with provincial nominal GDP over the long term. Consequently, total revenues rise or fall as a share of provincial GDP in our projection because of changes in federal transfers, such as Equalization, CHT and CST (Figure 5-2).<sup>21</sup>

Figure 5-2
Subnational government revenues: provinces, per cent of GDP





Textual description:

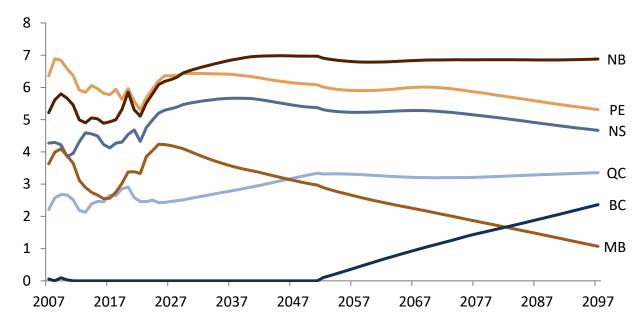
Data for this figure are available in tab 5-2 of the FSR 2023 Figures file.

### Sources:

Statistics Canada and Office of the Parliamentary Budget Officer.

Equalization payments help explain part of these long-term changes in federal transfer revenue projections, because they are determined according to each province's fiscal capacity relative to the national average. Equalization entitlements for provinces with below-average growth in per capita incomes, such as Quebec and British Columbia, tend to increase over time (relative to provincial GDP). In contrast, provinces with relatively higher per capita income growth will see decreases in Equalization payments relative to their GDP, such as Prince Edward Island and Manitoba (Figure 5-3).

Figure 5-3
Equalization payments: receiving provinces, per cent of GDP



Textual description:

Data for this figure are available in tab 5-3 of the FSR 2023 Figures file.

Sources:

Statistics Canada and Office of the Parliamentary Budget Officer.

Note:

The projection period covers 2023 to 2097.

Under current legislation, the Equalization envelope grows in line with nominal GDP at the national level. Therefore, the amounts transferred to subnational governments can be either above or below the necessary amounts to bring all provinces to the national standard.

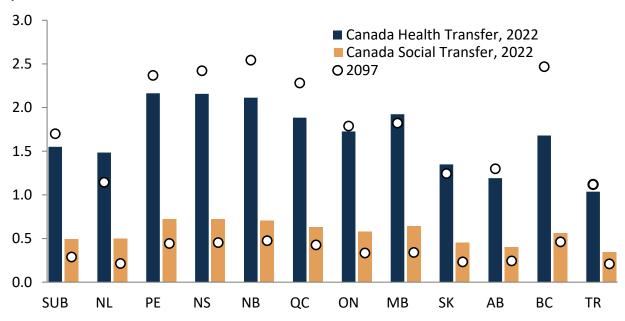
Based on our projection of interprovincial fiscal disparities, the nominal GDP growth escalator does not have a large impact on the Equalization program. Total Equalization payments in our projection are only marginally lower than the amount required to bring all provinces to the national standard over the 75-year horizon (0.1 per cent of GDP per year, on average).<sup>22</sup>

Similar to Equalization, CHT and CST payments do not increase uniformly across the provinces when measured relative to their nominal GDP.

Given the structure of the Canada Health Transfer, CHT payments will increase (relative to the size of their economies) in provinces that have lower growth in nominal GDP per capita, compared to the national average. Conversely, CHT payments will decrease relative to GDP in several other provinces that are projected to have growth in nominal GDP per capita above the national average (Figure 5-4).<sup>23</sup>

The legislated annual growth of CST payments (3 per cent) is lower, on average, than the rate of growth of national nominal GDP over the long term. Consequently, all provinces and territories will receive lower CST payments relative to GDP over the long term.

Figure 5-4
Canada Health Transfer (CHT) and Canada Social Transfer (CST),
per cent of GDP



Textual description:

Data for this figure are available in tab 5-4 of the FSR 2023 Figures file.

Sources:

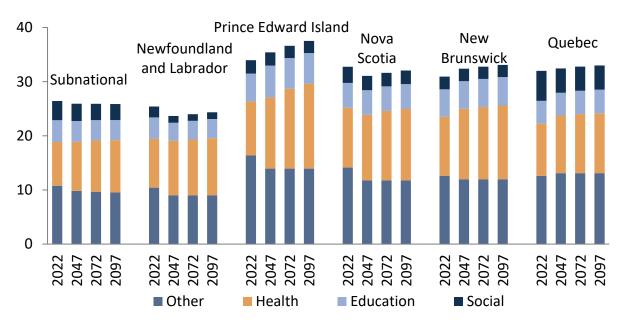
Statistics Canada and Office of the Parliamentary Budget Officer.

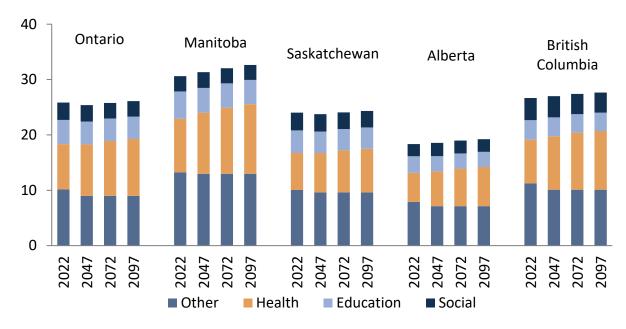
Note:

SUB refers to the consolidated subnational government sector.

Subnational government program spending is categorized into four main categories: health, education, social and other (Figure 5-5).<sup>24</sup> Health spending makes up a large portion of provincial and territorial program spending and all provinces and territories will face rising health care costs due to population ageing. However, based on our projections, these cost pressures will not be spread uniformly across provinces, as they reflect differences in the demographic composition of provincial populations and current provincial policies.<sup>25</sup>

Figure 5-5
Subnational government program spending: provinces, per cent of GDP





Textual description:

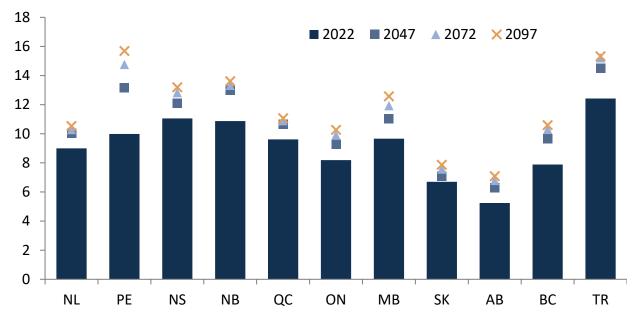
Data for this figure are available in tab 5-5 of the FSR 2023 Figures file.

### Sources:

Statistics Canada and Office of the Parliamentary Budget Officer.

Subnational government spending on health care varies significantly across provinces and territories. In 2022, health care spending ranged from a low of 5.2 per cent of GDP in Alberta, to a high of 12.4 per cent of GDP in the territories (Figure 5-6).

Figure 5-6
Health spending: subnational governments, per cent of GDP



Textual description:

Data for this figure are available in tab 5-6 of the FSR 2023 Figures file.

Sources:

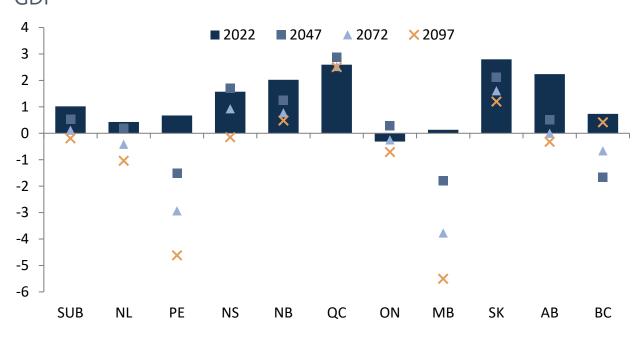
Statistics Canada and Office of the Parliamentary Budget Officer.

Over the long term, we project that Prince Edward Island will experience the largest (percentage-point) increase in health care spending, of 5.7 percentage points of GDP. Two factors contribute to this result. First, under current policy, Prince Edward Island spends more on elderly health care on a per-person basis, relative to other age groups, than any other province. Second, we project that Prince Edward Island will experience population ageing to a greater extent than other provinces (measured as the percentage-point increase in the senior dependency ratio).

In addition, given that we project that health care spending will grow faster than nominal GDP, and since the federal CHT envelope is limited to grow in line with nominal GDP (or 3 per cent per year), we estimate that the ratio of the federal CHT to subnational health spending will decline from 19.2 per cent in 2022 to 17.6 per cent by 2097.

Primary balances (relative to GDP) in provinces and territories are projected to ultimately deteriorate over the long term—to varying degrees—as population ageing puts upward pressure on health care spending. In the case of Quebec, the primary balance-to-GDP ratio declines only marginally from 2.6 per cent in 2022 to 2.5 per cent in 2097 (Figure 5-7). This relative stability primarily reflects rising Equalization and CHT transfers (relative to the size of Quebec's economy) that largely offset increased health care spending.

Figure 5-7
Subnational government primary balances: provinces, per cent of GDP



Textual description:

Data for this figure are available in tab 5-7 of the FSR 2023 Figures file.

Statistics Canada and Office of the Parliamentary Budget Officer.

Note:

SUB refers to the consolidated subnational government sector.

For Manitoba, spending pressures are exacerbated by a reduction in federal Equalization payments relative to the size of its economy, as they are projected to have the highest growth in nominal GDP per capita among receiving provinces—exceeding per capita growth at the national level. Consequently, under current policy, we project that Manitoba will see the largest deterioration in the primary balance-to-GDP ratio over the long term.

Over the long term, primary deficits, combined with rising public debt charges, lead to excessive debt accumulation in some provinces and the territories. Net debt in four provinces and in the territories is projected to exceed 100 per cent of GDP by 2097. However, the net debt ratio in the remaining six provinces, and the subnational government sector as a whole, will remain under 100 per cent. In four cases (Nova Scotia, New Brunswick, Quebec and Saskatchewan), net asset positions are projected after 75 years under current fiscal policies (Table 5-1).

Table 5-1
Net debt: subnational governments, per cent of GDP

Years	2022	2047	2072	2097
Subnational	20.0	13.8	12.9	18.5
Newfoundland and Labrador	25.4	37.9	70.9	116.3
Prince Edward Island	20.6	46.5	119.6	244.3
Nova Scotia	18.9	-31.3	-71.1	-88.3
New Brunswick	18.1	7.8	-3.3	-12.6
Quebec	29.5	-9.8	-73.3	-146.8
Ontario	28.6	19.8	24.7	41.6
Manitoba	29.8	70.8	154.7	281.7
Saskatchewan	8.1	-33.7	-72.4	-101.8
Alberta	5.6	-4.0	-5.5	0.6
British Columbia	1.5	53.0	104.8	131.3
Territories	-8.1	157.0	362.0	583.0

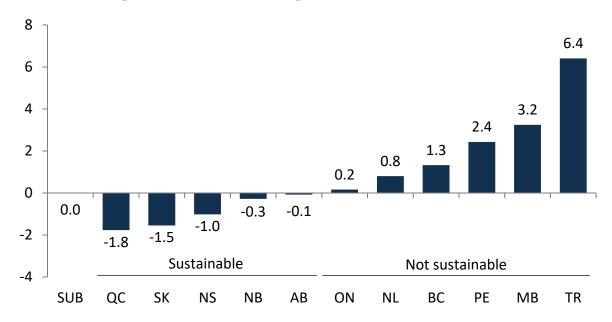
Office of the Parliamentary Budget Officer.

## Fiscal sustainability assessment

For the subnational government sector as a whole, current fiscal policy is sustainable over the long term (Figure 5-8). We estimate the fiscal gap for the subnational sector to be 0.0 per cent of GDP. For the subnational sector as a whole, their own-source revenues, combined with federal transfers, are sufficient to keep the subnational government net debt-to-GDP ratio below its 2022 level over the 75-year projection horizon.

We estimate that current fiscal policy in five provinces is sustainable over the long term: Quebec, Saskatchewan, Nova Scotia, New Brunswick and Alberta. We estimate that these provinces have fiscal room to increase spending or reduce taxes, ranging from 1.8 per cent of provincial GDP in Quebec to 0.1 per cent of GDP in Alberta. All other provinces and territories have current fiscal policies that are not sustainable over the long term. Based on our estimates, the amount of policy action required to achieve fiscal sustainability ranges from 0.2 per cent of provincial GDP in Ontario to 6.4 per cent of territorial GDP for the territories.<sup>26</sup>

Figure 5-8
Subnational government fiscal gap estimates, per cent of GDP



Textual description:

Data for this figure are available in tab 5-8 of the FSR 2023 Figures file.

Source:

Office of the Parliamentary Budget Officer.

Note:

SUB refers to the consolidated subnational government sector.

We estimate that subnational governments in Quebec and Saskatchewan combined contribute 0.35 percentage points to subnational fiscal room while subnational governments in British Columbia, Manitoba and Ontario combined contribute 0.32 percentage points to the subnational fiscal gap (Figure 5-9).

Figure 5-9
Contributions to the consolidated subnational fiscal gap, percentage points of GDP



Textual description:

Data for this figure are available in tab 5-9 of the FSR 2023 Figures file.

Source:

Office of the Parliamentary Budget Officer.

Note:

SUB refers to the consolidated subnational government sector.

Compared to our previous assessment, the subnational fiscal gap has been revised down from 0.1 per cent of GDP. Our current assessment reflects the budgets of provincial governments from spring 2023. Based on these recent budget plans, the medium-term outlook for provincial and territorial government own-source revenues has been revised up in most provinces and, consistent with our methodology, we assume that the revision carries through to the long term. The upward revision to subnational own-source revenues is partially offset by upward revisions to program spending.

To help gauge the sensitivity of our fiscal gap estimates, we consider alternative demographic, economic and fiscal policy scenarios. Our qualitative sustainability assessments for most jurisdictions are essentially unchanged across the alternative demographic, economic and fiscal policy scenarios considered (see Tables A-1 to A-3 in Appendix A). However, our sustainability assessment is reversed under some alternative scenarios, mostly in cases where their baseline fiscal gap estimates are close to zero.

## 6. 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. These plans consist of a base plan and additional plan.

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.

Our CPP and QPP projections reflect the 31<sup>st</sup> Actuarial Report of the Canada Pension Plan as at December 31, 2021 (published in December 2022) and the Évaluation actuarielle du Régime de rentes du Québec as at December 31, 2021 (published in December 2022).

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 initial levels after 75 years.

### Net cash flows and financial positions

Contributions to the CPP and QPP are projected to grow in line with earnings and contribution rates. Contributions to the CPP (for the combined base and additional plans) are projected to rise from 2.5 per cent of GDP in 2022 to 3.2 per cent of GDP (in Canada) by the end of our projection horizon. For the QPP, contributions are projected to increase from 4.1 per cent of GDP in 2022 to 4.9 per cent of Quebec's GDP in 2097.

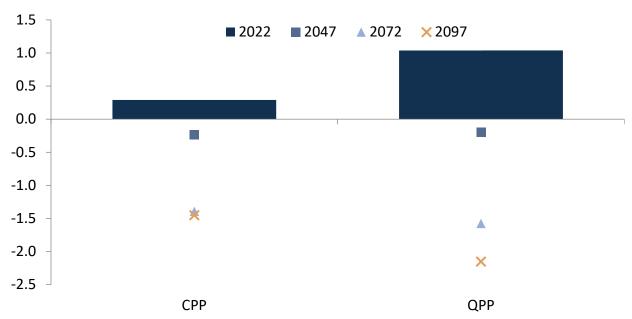
CPP and QPP benefit payments are projected to grow in line with the retirement age population and inflation, increasing steadily as population ageing drives retirement benefits.<sup>27</sup> CPP benefit payments (for the

combined base and additional plans) are projected to increase from 2.2 per cent of GDP in 2022 to 4.6 per cent in 2097. Over the same period, QPP benefits are projected to rise from 3.1 per cent of GDP to 7.0 per cent.

We have assumed that CPP and QPP administrative expenses, including investment expenses, are set equal to 1.0 per cent of their respective financial assets over the projection horizon. For the base (additional) CPP and QPP, the ultimate nominal rate of return on assets, before investment expenses, is assumed to be 6.47 (5.77) per cent.<sup>28</sup>

The additional CPP and QPP benefits and contributions are combined with their base plans to project their respective financial positions over the long term. The net cash flow (that is, contributions less expenses) of the CPP is projected to decline from a surplus of 0.3 per cent of GDP in 2022 to a deficit of 1.5 per cent by the end of the projection horizon (Figure 6-1). The net cash flow of the QPP is projected to decrease from a surplus of 1.0 per cent of GDP in 2022 to a deficit of 2.2 per cent in 2097.

Figure 6-1
Net cash flow (contributions less expenses): CPP and QPP, per cent of GDP



Textual description:

Data for this figure are available in tab 6-1 of the FSR 2023 Figures file.

#### Sources:

Statistics Canada and Office of the Parliamentary Budget Officer.

#### Note:

The CPP (QPP) net cash flow is expressed relative to GDP in Canada (Quebec).

Although CPP and QPP contributions are projected to fall short of their plans' expenses over the long term, the rate of return on plan assets generates additional investment income to help cover the annual cash flow deficits.

Under the current structure of the CPP, the net asset position is projected to increase from 19.4 per cent of GDP in 2022, reaching a peak of 49.3 per cent of GDP in 2065, before declining to 37.2 per cent of GDP at the end of our projection horizon (Figure 6-2). Under the current structure of the QPP, the net asset position is projected to rise from 20.8 per cent of GDP in 2022 to 141.8 per cent of GDP in 2097.

QPP

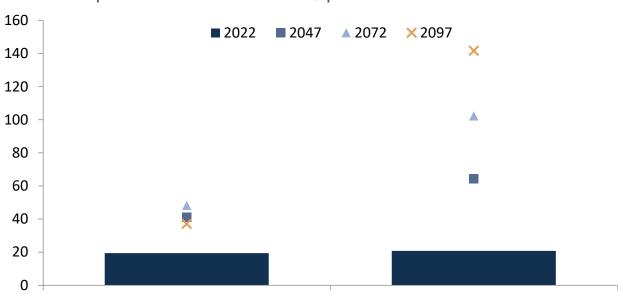


Figure 6-2
Net asset positions: CPP and QPP, per cent of GDP

Textual description:

Data for this figure are available in tab 6-2 of the FSR 2023 Figures file.

Sources:

Statistics Canada and Office of the Parliamentary Budget Officer.

**CPP** 

Note:

The CPP (QPP) net asset position is expressed relative to GDP in Canada (Quebec).

The QPP's net asset position is projected to exceed that of the CPP (as a share of GDP), even though the asset return assumptions are the same for both plans and its net cash flow deficit (relative to GDP) is larger than the CPP's over the long term. This is due to QPP's higher relative rate of return over the long term.<sup>29</sup>

## Fiscal sustainability assessment

The current structure of the CPP and QPP is sustainable over the long term. We estimate the fiscal gaps for the CPP and QPP to be -0.1 per cent of GDP (in Canada) and -0.4 per cent of GDP (in Quebec), respectively.<sup>30</sup>

Under the current structure of the CPP, contributions could be reduced, or benefits increased by 0.1 per cent of GDP while ensuring that the net asset-to-GDP position is at its initial value after 75 years. In the case of the QPP, contributions could be reduced, or benefits increased, by 0.4 per cent of GDP, while maintaining fiscal sustainability.

Our qualitative assessment that the CPP is sustainable over the long term is reversed under the scenario of a lower interest rate (rate of return). However, our qualitative assessment that the QPP is sustainable is unchanged across the alternative demographic and economic scenarios considered (see Tables A-1 and A-2 in Appendix A).

In comparison to our previous assessment, the fiscal gap estimate has improved by 0.04 percentage points of GDP for the CPP and by 0.10 percentage points of GDP for the QPP. This revision reflects a higher rate of return assumed over the long term that more than offsets downward revisions to projected net cash flows (relative to GDP).<sup>31</sup>

## Estimates of steady-state contribution rates

Consistent with our March 2021 report assessing the sustainability of the CPP, we calculate steady-state contribution rates based on stabilising the asset-to-expenditure ratio at the end of our 75-year projection horizon. To calculate the steady-state contribution rate for the base plans, the endpoint (2097) value is set at the asset-to-expenditure ratio in 2022. For the additional plans, the endpoint value is set at 24.5, which corresponds to the target ratio used in the 31<sup>st</sup> Actuarial Report.<sup>32</sup>

For the base CPP, we estimate the steady-state contribution rate to be 9.96 per cent (of base contributory earnings), which is slightly higher than the statutory rate of 9.90 per cent (Table 6-1). For the additional CPP, the steady-state contribution rates are somewhat higher than the statutory rates.

Our steady-state contribution rate estimates of the base and additional plans would suggest that the CPP is not sustainable over the long term within this framework. This contrasts our assessment based on the fiscal gap estimate and reflects the higher threshold to achieve sustainability based on stabilizing the asset-to-expenditure ratio over the long term.<sup>33</sup>

Table 6-1
Steady-state contribution rates, per cent

Plan	Rate	Base	1 <sup>st</sup> Additional	2 <sup>nd</sup> Additional
СРР	Statutory	9.90	2.00	8.00
CPP	Steady-state	9.96	2.52	10.07
QPP	Statutory	10.80	2.00	8.00
QPP	Steady-state	9.40	2.20	8.81

Source:

Office of the Parliamentary Budget Officer.

For the base QPP, we estimate the steady-state contribution rate to be 9.40 per cent (of base contributory earnings), which is lower than the statutory rate of 10.80 per cent, indicating that the base plan is sustainable within this framework. However, for the additional QPP, the steady-state contribution rates are higher than the statutory rates. This would suggest that the additional plans are not sustainable over the long term based on this framework.

Similar to our March 2021 report, to examine the sensitivity of our estimates to rate of return assumptions, we calculate steady-state contribution rates based on rate of return assumptions from the 31<sup>st</sup> Actuarial Report of the CPP. Based on these (higher) rate of return assumptions, our estimates of the steady-state contribution rates for both the CPP and QPP base and additional plans improve significantly compared to our estimates presented in Table 6-1.<sup>34</sup>

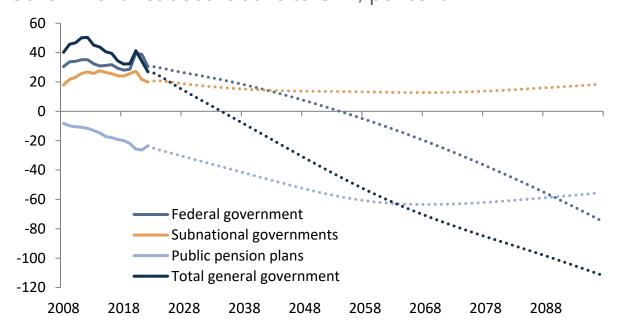
# 7. Total general government sector

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.

Under status quo policy, relative to the size of the Canadian economy, total general government net debt is projected to decline steadily over the long term due to fiscal room at the federal level and to rising net asset positions in the public pension plans (Figure 7-1). At the same, the net debt position of the subnational government sector effectively returns to its current level.

We project total general government net debt to decrease from 27.0 per cent of GDP in 2022, reaching a net asset position in 2035. As the total primary balance surplus is maintained over the long term, the total net asset ratio rises to over 110 per cent of GDP in 2097.

Figure 7-1
Government net debt relative to GDP, per cent



#### Textual description:

Data for this figure are available in tab 7-1 of the FSR 2023 Figures file.

#### Sources:

Statistics Canada and Office of the Parliamentary Budget Officer.

#### Note:

The projection period covers 2023 to 2097.

# Appendix A: Sensitivity analysis

To help gauge the sensitivity of our baseline fiscal gaps, we consider alternative demographic, economic and fiscal policy scenarios. Fiscal gaps for each jurisdiction under our baseline and demographic, economic and fiscal policy scenarios are expressed as a percentage of GDP in Tables A-1 to A-3 below.

The following provides additional detail for the alternative scenarios considered.

## Alternative demographic projections

PBO projects the fiscal gap under three alternative demographic scenarios: (1) a higher population growth scenario with higher fertility, higher life expectancy, and higher immigration rates; (2) a lower population growth scenario with lower fertility, lower life expectancy and lower immigration rates; and (3) an interprovincial migration scenario based on more recent historical trends.

## Alternative economic projections

To assess the sensitivity of the economic assumptions, we construct alternative projections for real GDP growth ( $\pm$  0.5 percentage points) and interest rates ( $\pm$  50 basis points), beginning in 2028. Alternative real GDP growth projections are constructed using different assumptions for labour productivity growth.

## Alternative fiscal policy assumptions

In terms of alternative fiscal policy assumptions, we limit our focus to alternative health spending projections and alternative endpoint assumptions for government debt ratios. In the baseline subnational government projections, we assume that growth in health care spending is determined by income growth (nominal GDP) and growth due to changes in the age structure of the population. Our alternative health care spending projections include excess cost growth in health care spending (that is, growth in excess of nominal GDP and growth due to population ageing) of  $\pm$  0.25 percentage points, beginning in 2028.

Our baseline fiscal gap is estimated based on an assumption that the ratio of net debt-to-GDP converges to its current level in 75 years. We consider two alternative endpoint scenarios for the federal government and subnational governments: 0 and 100 per cent of GDP.

**Table A-1**Fiscal gap estimates under alternative demographic scenarios, per cent of GDP

Sector	Baseline	Higher population growth	Lower population growth	Interprovincial migration
Federal	-1.7	-2.4	-1.3	-1.7
Subnational	0.0	-0.2	0.1	0.1
Newfoundland and Labrador	0.8	0.6	0.9	0.9
Prince Edward Island	2.4	2.2	2.5	2.7
Nova Scotia	-1.0	-1.2	-1.0	-0.7
New Brunswick	-0.3	-0.4	-0.2	-0.1
Quebec	-1.8	-2.1	-1.6	-1.6
Ontario	0.2	-0.1	0.3	0.1
Manitoba	3.2	2.8	3.5	3.4
Saskatchewan	-1.5	-1.6	-1.5	-1.5
Alberta	-0.1	-0.2	-0.1	0.1
British Columbia	1.3	1.0	1.4	1.4
Territories	6.4	7.2	6.0	7.0
Canada Pension Plan	-0.1	-0.1	-0.1	-0.1
Quebec Pension Plan	-0.4	-0.5	-0.4	-0.4

Office of the Parliamentary Budget Officer.

**Table A-2**Fiscal gap estimates under alternative economic scenarios, per cent of GDP

Sector	Baseline	Higher GDP growth	Lower GDP growth	Higher interest rates	Lower interest rates
Federal	-1.7	-2.5	-1.0	-1.5	-2.0
Subnational	0.0	0.0	0.0	0.1	-0.1
Newfoundland and Labrador	0.8	0.8	0.9	1.0	0.7
Prince Edward Island	2.4	2.6	2.2	2.4	2.4
Nova Scotia	-1.0	-0.9	-1.1	-1.0	-1.1
New Brunswick	-0.3	-0.2	-0.3	-0.1	-0.4
Quebec	-1.8	-1.9	-1.7	-1.5	-2.0
Ontario	0.2	0.1	0.2	0.3	0.1
Manitoba	3.2	3.3	3.2	3.3	3.2
Saskatchewan	-1.5	-1.5	-1.6	-1.5	-1.6
Alberta	-0.1	0.0	-0.1	-0.1	-0.1
British Columbia	1.3	1.3	1.3	1.4	1.2
Territories	6.4	6.9	5.9	6.4	6.4
Canada Pension Plan	-0.1	0.0	-0.1	-0.2	0.0
Quebec Pension Plan	-0.4	-0.4	-0.5	-0.5	-0.3

Office of the Parliamentary Budget Officer.

**Table A-3**Fiscal gap estimates under alternative fiscal policy assumptions, per cent of GDP

Sector	Baseline	Higher health spending growth	Lower health spending growth	0% debt/GDP endpoint	100% debt/GDP endpoint
Federal	-1.7	-1.7	-1.7	-1.2	-2.9
Subnational	0.0	0.8	-0.7	0.2	-1.0
Newfoundland and Labrador	0.8	1.6	0.1	1.1	0.2
Prince Edward Island	2.4	3.7	1.3	2.7	1.6
Nova Scotia	-1.0	-0.0	-1.9	-0.8	-1.8
New Brunswick	-0.3	0.8	-1.2	-0.1	-1.0
Quebec	-1.8	-0.9	-2.5	-1.4	-2.4
Ontario	0.2	1.1	-0.6	0.5	-0.7
Manitoba	3.2	4.3	2.3	3.7	2.4
Saskatchewan	-1.5	-0.8	-2.2	-1.4	-2.8
Alberta	-0.1	0.6	-0.7	0.0	-1.5
British Columbia	1.3	2.2	0.6	1.4	0.3
Territories	6.4	6.6	6.3	6.3	5.3

Office of the Parliamentary Budget Officer.

## Notes

- <sup>1</sup> For a detailed definition of the fiscal gap, see Appendix B in <u>Fiscal Sustainability Report 2022</u>.
- <sup>2</sup> <u>Provincial and territorial economic accounts, 2021</u>. Statistics Canada. <u>Overview of the Canadian Government Finance Statistics</u>. Statistics Canada.
- <sup>3</sup> Government Finance Statistics Manual 2014. International Monetary Fund.
- <sup>4</sup> According to Statistics Canada, 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." See Statistics Canada's <u>General Government</u>.
- <sup>5</sup> <u>Economic and Fiscal Outlook March 2023</u>. Office of the Parliamentary Budget Officer.
- <sup>6</sup> <u>Fiscal Sustainability Report 2023</u>. Office of the Parliamentary Budget Officer.
- <sup>7</sup> <u>Fiscal Sustainability Report 2017</u>. Office of the Parliamentary Budget Officer.
- <sup>8</sup> <u>Population Projections for Canada (2021 to 2068), Provinces and Territories (2021 to 2043)</u>. Statistics Canada. PBO's projections were produced by the Centre for Demography of Statistics Canada based on assumptions provided or selected by the Office of the Parliamentary Budget Officer.

- <sup>9</sup> Notice Supplementary Information for the 2022-2024 Immigration Levels Plan. Immigration, Refugees and Citizenship Canada. These immigration levels were subsequently increased in November 2022 (Notice Supplementary Information for the 2022-2024 Immigration Levels Plan), but these increases are not captured in our demographic projection. The difference is about 34,000 in 2022, 38,000 in 2023 and 49,000 in 2024.
- <sup>10</sup> <u>Fiscal Sustainability Report 2022</u>. Office of the Parliamentary Budget Officer.
- <sup>11</sup> <u>Population Projections for Canada, Provinces and Territories, 2021 to 2068, 2022</u>. Statistics Canada.
- <sup>12</sup> PBO's methodology for projecting trends in labour input and labour productivity is described in our 2018 report, <u>PBO's Approach to Measuring Potential GDP</u>.
- <sup>13</sup> <u>Fiscal Sustainability Report 2017</u>. Office of the Parliamentary Budget Officer.
- <sup>14</sup> The medium-term (2023-2027) economic projection in our current FSR is based on our <u>March 2023 Economic and Fiscal Outlook</u> updated to reflect the actual results of the National Accounts for the fourth quarter of 2022 and incremental Budget 2023 measures.
- <sup>15</sup> Based on our November 2022 report, <u>Global greenhouse gas emissions</u> and <u>Canadian GDP</u>, future changes in weather patterns due to climate change are projected to reduce the level of Canadian real GDP in 2100 by 3.6 per cent through lower labour productivity. The impact at the national level was applied uniformly across provinces and territories by adjusting projected labour productivity growth downward.
- <sup>16</sup> Average annual real GDP growth of 1.7 per cent projected over the long-term (2028-2097) is slightly lower compared to average growth of 1.8 per cent projected in our assessment last year. The downward revision reflects

both lower labour productivity growth and lower average growth in hours worked.

- <sup>17</sup> The upward revision to our short-term and longer-term Government of Canada bond rates reflects a 25-basis point revision to our assumed nominal neutral rate of interest, bringing it to 2.50 per cent, consistent with the Bank of Canada's mid-point estimate. See Note 5 in our October 2022 Economic and Fiscal Outlook.
- <sup>18</sup> For each province, subnational effective interest rates are assumed to converge to the federal rate plus the average spread (that is, the difference between provincial government 10-year rates and the Government of Canada 10-year benchmark rate) estimated over 2014-2017.
- <sup>19</sup> Our <u>February 2020 FSR</u> provides additional discussion of the fiscal implications of a negative interest-growth rate differential.
- <sup>20</sup> At the end of our medium-term projection in 2027, program spending relative to nominal GDP is only slightly higher compared to our previous assessment (15.0 per cent of GDP versus 14.8 per cent of GDP). While new measures announced in the Government's 2022 Fall Economic Statement and Budget 2023 have been incorporated into our current projection, our revised medium-term nominal GDP outlook dampens their impact on the federal program spending-to-GDP ratio.

Over the long-term projection horizon, federal program spending relative to GDP is higher (0.3 percentage points annually, on average) compared to our previous assessment.

<sup>21</sup> Three quarters of territorial revenues are generated through transfers from the federal government. As such, the territories' projection is sensitive to growth in Territorial Formula Financing, the Canada Health Transfer and the Canada Social Transfer. The territories' overall transfer revenue is

projected to increase from 40.4 per cent of GDP in 2022 to 41.1 per cent of GDP in 2097.

<sup>22</sup> Based on our projections, Equalization transfers will exceed the fiscal requirements to bring all provinces up to a national standard through 2055, thus "over-equalizing" by an average of 0.1 per cent of GDP. From 2056 to 2097, transfers are "under-equalizing" by an average of 0.2 per cent of GDP.

See PBO's September 2020 report <u>Federal Support through Major Transfers</u> to <u>Provincial and Territorial Governments</u> for more information on overand under-equalization.

- <sup>23</sup> Total CHT transfers grow by a three-year moving average of growth in nominal GDP, with a minimum increase of 3 per cent annually. Budget 2023 temporarily changed the minimum increase to 5 per cent annually from 2023-24 until 2027-28. The allocation of CHT to provinces and territories is on an equal per capita basis.
- <sup>24</sup> Relative to the size of their economy, territorial total program spending is projected to increase from 57.2 per cent in 2022 to 60.4 per cent in 2097. Territorial health spending is projected to increase from 12.4 per cent in 2022 to 15.3 per cent in 2097. Territorial education spending is projected to increase from 6.0 per cent in 2022 to 6.4 per cent in 2097. Territorial social spending is projected to decrease from 6.0 per cent in 2022 to 5.3 per cent in 2097. Other program spending for the territories is projected to increase from 32.8 per cent in 2022 to 33.4 per cent in 2097.
- <sup>25</sup> For example, a province that spends more on health care for older age groups compared to the national average, will face greater cost escalation due to population ageing, all else equal.
- <sup>26</sup> Compared to our 2022 FSR, the fiscal gap for the territories was revised down by 4.0 percentage points. This revision reflects improvements in our approach for projecting other federal transfers to governments. Over the

long term, other federal transfer to governments are projected to remain stable as share of provincial-territorial nominal GDP, rather than converging to its share of aggregate nominal GDP, which for most provinces is broadly in line with historical experience.

- <sup>27</sup> Retirement benefits also include a growth factor linked to labour productivity growth.
- <sup>28</sup> For additional detail on our rate of return assumptions, see PBO's March 2021 report, <u>Assessing the Sustainability of the Canada Pension Plan</u>.
- <sup>29</sup> That is, the rate of return of its assets relative to nominal GDP growth. Since Quebec's GDP is projected to grow more slowly than GDP for the Canadian economy as a whole, its relative rate of return is higher, which results in additional asset-to-GDP accumulation for a given net cash flow.
- <sup>30</sup> We estimate fiscal gaps for the base and additional CPP to be -0.03 and -0.06 per cent of GDP, respectively. For the QPP base and additional plans, we estimate the fiscal gap at -0.31 and -0.13 per cent of GDP, respectively.
- <sup>31</sup> Upward revisions to our ultimate rate of return assumptions for the CPP (and QPP) of 81 and 88 basis points for the base and additional plans, respectively, reflect the 25-basis point increase in our long-term Government of Canada bond rate and revisions of 56 and 63 basis points to the risk premia for the base and additional plans, respectively, from the 31<sup>st</sup> Actuarial Report of the CPP.
- <sup>32</sup> We applied the target ratio for the CPP additional plan to the QPP despite differences in the legislation for determining sustainability of the additional QPP. The Chief Actuary of the QPP targets an asset value that is equal to the future value of expenditures in a scenario where contributions cease, and no additional beneficiaries are added after a certain point in

time. Given the significant gap in projection horizons, we applied the target ratio from the CPP additional plan.

- <sup>33</sup> As noted in our March 2021 report, <u>Assessing the Sustainability of the Canada Pension Plan</u>, switching from the asset-to-GDP to the asset-to-expenditure ratio raises the threshold for measuring sustainability, given that growth in expenditures is projected to outpace GDP growth due to population ageing.
- <sup>34</sup> Based on the rate of return assumptions in the 31<sup>st</sup> Actuarial Report on the CPP (that is, an ultimate nominal rate of return before investment expenses of 6.97 per cent and 6.27 per cent, respectively, for the base and additional plans), we calculate the steady-state contribution rate of the base CPP to be 9.49 per cent and the first and second additional CPP steady-state contribution rates are estimated at 2.24 per cent and 8.96 per cent, respectively. We estimate the steady-state contribution rate of the base QPP to be 9.11 per cent. The first and second additional QPP steady-state contribution rates are estimated at 2.03 per cent and 8.14 per cent, respectively.