



Financial  
Accountability  
Office of Ontario

# LONG – TERM BUDGET OUTLOOK

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FISCAL IMPLICATIONS OF THE GOVERNMENT'S  
PROGRAM TRANSFORMATION: 2020-2050

An abstract geometric pattern composed of a dense network of interconnected lines and dots, creating a mesh-like structure. The colors transition from a deep purple on the left to a bright pink in the center, and then to a dark blue on the right. The pattern has a sense of depth and perspective, with lines converging towards the center.

2020



# About this document

Established by the *Financial Accountability Officer Act, 2013*, the Financial Accountability Office (FAO) provides independent analysis on the state of the Province's finances, trends in the provincial economy and related matters important to the Legislative Assembly of Ontario.

This report was prepared by Sabrina Afroz, Edward Crummey, Zohra Jamasi, Jay Park and Nicolas Rhodes, under the direction of Paul Lewis and David West and with contributions from Laura Irish. External reviewers were provided with earlier drafts of this report for their comments. However, the input of external reviewers implies no responsibility for this final report, which rests solely with the FAO.

The content of this report is based on information available to –February 26, 2020. Background data used in this report are available upon request.

In keeping with the FAO's mandate to provide the Legislative Assembly of Ontario with independent economic and financial analysis, this report makes no policy recommendations.

## FAO's Fiscal Projections

The FAO's fiscal projections provide an assessment of the long-term implications of maintaining current fiscal policy trends. These projections are not intended to be a prediction of actual budgetary outcomes over the long term. Instead, the FAO's projections provide an assessment of the long-term implications of maintaining the current fiscal structure, without anticipating any new government policy decisions.

Some long-term government policies, including energy and infrastructure planning, are laid out in government reports.\* However, fiscal policies including taxation and spending plans are rarely well defined over the long term.

Given the government's discretion over spending, the FAO adopts the government's announced spending plans from fiscal documents and incorporates policy announcements as appropriate. Beyond the government's published spending projections, the FAO assumes that the government will continue to fund public services at rates reflecting population growth, price inflation, and past rates of program enrichment.

The FAO's long-term fiscal projections assume that the tax system and federal-provincial fiscal arrangements will remain largely unchanged.

All average annual growth rates in this report are calculated using the year before the first indicated year as the base.

\*See Ontario's Long-Term Report on the Economy, Ontario Infrastructure Reports, or Ontario's Long-Term Energy Plan.

# Table of Contents

1. Key Points	2
2. Summary	3
3. The Demographic and Economic Projection	5
4. The Fiscal Projection	18
Appendix A1: Economic Projection Summary	32
Appendix A2: Fiscal Projection Details	33
Methodology	34

# 1. Key Points

- Over the next 30 years, Ontario's population will become older and grow somewhat slower than in the past. This will lead to slower growth in Ontario's labour force and more moderate economic growth.
- Slower economic growth will contribute to a slower pace of revenue gains for the Province while a growing but older population will put upward pressure on public spending.
- The government has committed to balancing the budget by 2023-24, relying on spending restraint and program transformation. The success of the government's planned transformation to spending programs will have a significant impact on Ontario's long-term fiscal outlook.
- Under the FAO's baseline projection, the government is assumed to successfully transform public services, achieving permanent cost savings over the long term. These on-going cost savings result in a steady improvement in Ontario's fiscal position over the long term, with the Province's debt reaching 35.0 per cent of GDP by 2050, below today's ratio of 39.5 per cent.
- However, if the government does not successfully transform key spending programs and instead relies on temporary restraint measures, the province's future fiscal finances would be challenging. In this case, Ontario's debt burden would rise sharply to almost 66 per cent of GDP by 2050, likely prompting the need for significant future policy changes.

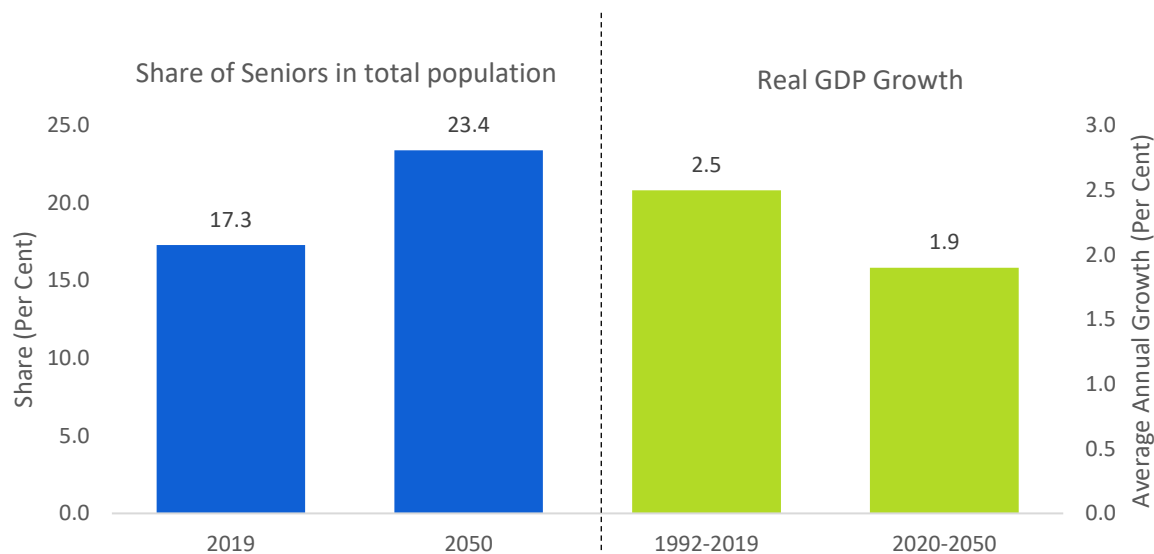
## 2. Summary

This report provides a forecast of Ontario's economy and the province's fiscal position through 2050, based on current fiscal policies.<sup>1</sup>

Over the next 30 years, Ontario will undergo significant demographic change as the population becomes older and grows more slowly than in the past. These changes will lead to slower growth in the labour force and employment and contribute to more moderate gains in overall incomes.

Slower economic growth will result in a slower pace of revenue gains for the province compared to the past. At the same time, on-going population growth and a rising number of seniors will put upward pressure on public spending.

### Ontario's changing demographics will contribute to slower economic growth



Source: Statistics Canada and FAO.

In the medium term, the Ontario government has committed to balancing the budget by 2023-24 and plans to rely on limiting the growth in spending through efficiency gains and transforming the way public services are delivered.<sup>2</sup>

The FAO's baseline projection assumes that the government's policy changes lead to significant and lasting efficiencies, resulting in permanent cost savings beyond 2023-24.

However, the extent to which the current government's medium-term fiscal plan will deliver an improvement to Ontario's long-term finances is uncertain and will depend on the success of the planned transformational changes to public services.

<sup>1</sup> The FAO's long-term projection adopts the Ontario government's five-year spending plan as outlined in the 2019 budget and updated in the 2019 Ontario Economic Outlook and Fiscal Review. Beyond the medium-term outlook this projection generally assumes the Province will fund public services at rates reflecting population growth, price inflation, and past rates of program enrichment.

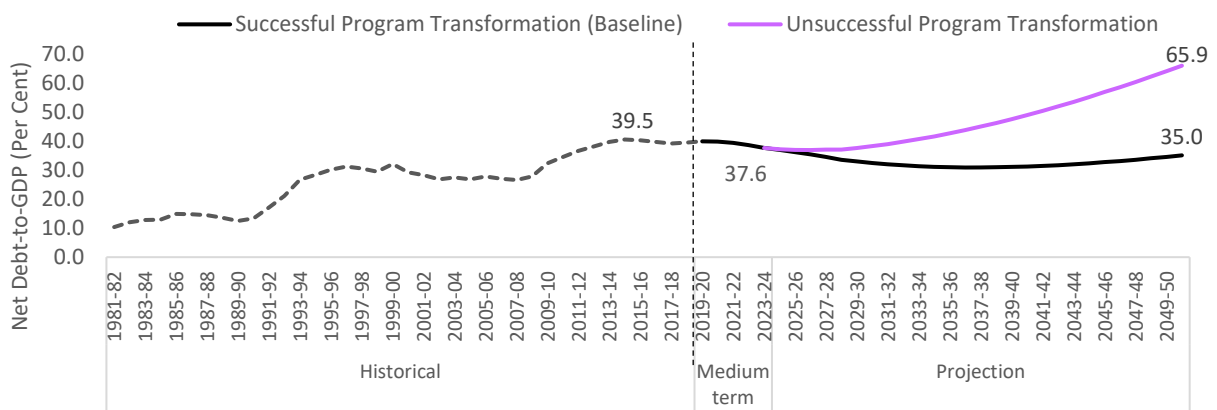
<sup>2</sup> 2019 Ontario Budget, page 8.

While transformational changes to public services that lead to permanent efficiency gains are possible, they have generally been difficult to achieve.<sup>3</sup> Given the challenge of achieving transformational changes, there is significant risk that the current fiscal plan will not provide sufficient resources to meet future on-going demand for key public services.

To assess this risk, the FAO developed an alternative scenario which assumes that the government fails to find significant spending efficiencies and instead relies on temporary measures to balance the budget by 2023-24. Under this scenario, these temporary cost-cutting measures result in a period of sharp increases in program spending to address built-up demand for additional public services.

Importantly, under both the baseline projection and alternative scenario, spending will exceed revenues leading to on-going budget deficits over the outlook.

### Debt-to-GDP could rise dramatically depending on success of government’s current program changes



Source: Ontario Public Accounts and Budgets, Statistics Canada and FAO.

Under the baseline projection, Ontario’s fiscal position would improve. Although the budget deficit would increase modestly over the outlook, the province’s net debt-to-GDP ratio would reach 35 per cent by 2050-51, below the current ratio of almost 40 per cent.<sup>4</sup> In the baseline projection, Ontario’s debt interest payments would rise modestly to 9.3 cents of every dollar of revenue by 2050, up from 8.1 cents in 2019-20.

In contrast, if the government is unable to achieve lasting cost savings and spending rebounds to address the built-up demand for public services, Ontario’s long-term fiscal outlook would be challenging. Deficits would increase sharply, and the province’s debt would rise significantly, reaching 65.9 per cent of GDP by 2050-51. In this “Unsuccessful Program Transformation” scenario, interest costs would increase rapidly, more than doubling to 17.2 cents of every dollar of revenue by 2050-51, becoming the third largest spending category after health and education. Under these circumstances, the province’s deteriorating fiscal position would potentially limit the government’s ability to pursue its own policy priorities or to respond to other future developments. Instead, future governments would likely be required to respond to the province’s fiscal situation by reducing spending or increasing taxes.

<sup>3</sup> See pages 124 and 366 of [Public services for Ontarians: A Path to sustainability and excellence](#) for a discussion of the challenges associated with achieving permanent efficiency gains. Other examples of these challenges include the province’s efforts to digitize health records (see the Ontario Auditor General’s review of eHealth) or the Federal government’s attempt to centralize pay services (see the Auditor General of Canada’s report).

<sup>4</sup> According to [Parliamentary Budget Office \(PBO\)](#) and [Congressional Budget Office \(CBO\)](#), fiscal sustainability means that government debt does not grow continuously as a share of GDP.

# 3. The Demographic and Economic Projection

## Overview

Over the next 30 years, Ontario will undergo significant demographic change as the population becomes older and grows more slowly than in the past. With the overall labour force participation rate trending lower, growth in Ontario’s labour force is projected to moderate. Labour productivity growth is also expected to be more muted compared to its performance over the past 30 years.

Given the outlook for Ontario’s labour force and productivity, the FAO projects long-term real GDP growth will average 1.9 per cent per year over the outlook, slower than the historical average of 2.5 per cent.<sup>5</sup> The GDP price deflator – a measure of economy-wide prices – is forecast to rise at an average annual rate of 1.9 per cent, somewhat faster than the historical average growth rate, but consistent with trends since the early 2000s. Nominal GDP, which provides a broad measure of the tax base, is projected to grow at an average annual pace of 3.9 per cent over the outlook, slower than the historical 4.1 per cent average growth rate.<sup>6</sup>

### Summary of the FAO’s Demographic and Economic Projection

Average Growth* (Per Cent)	Historical		Projection			
	1992-2019**	2020-2023***	2024-2030	2031-2040	2041-2050	2020-2050
Nominal GDP	4.1	3.6	3.9	3.9	3.9	3.9
GDP Deflator	1.6	1.8	1.9	1.9	1.9	1.9
Real GDP	2.5	1.7	1.9	2.0	2.0	1.9
Labour Productivity	1.1	0.5	1.0	1.1	1.1	1.0
Labour Force	1.3	1.0	0.9	0.9	0.9	0.9
Employment	1.4	0.9	0.9	0.9	0.9	0.9
Unemployment Rate	7.5	5.8	5.9	5.8	5.7	5.8
Population	1.2	1.6	1.1	1.0	1.0	1.1
Real GDP Per Capita	1.3	0.1	0.8	0.9	1.0	0.8
Consumer Price Index	1.9	2.0	2.0	2.0	2.0	2.0
Ontario 10-year Bond Yield	4.9	3.0	3.7	4.0	4.4	3.9

Source: Statistics Canada, Ontario Ministry of Finance and FAO.

\* Unemployment rate and bond yield are expressed as averages.

\*\* Reflects the period since the Bank of Canada began inflation targeting.

\*\*\* Reflects the FAO’s economic projection from the 2019 Fall Economic and Budget Outlook.

<sup>5</sup> Unless otherwise noted, all historical averages in this chapter refer to the past 30 years.

<sup>6</sup> The FAO’s projection is broadly consistent with long-term private sector forecasts for Ontario (see Appendix A1).



The FAO projects moderate but steady employment growth and a gradual decline in the unemployment rate over the next 30 years. Consumer prices are projected to continue rising at an average rate of 2 per cent per year as the Bank of Canada maintains its policy of inflation targeting. Ontario Government 10-year bond yields are expected to rise gradually over the outlook, maintaining a steady spread above Government of Canada 10-year bond yields.

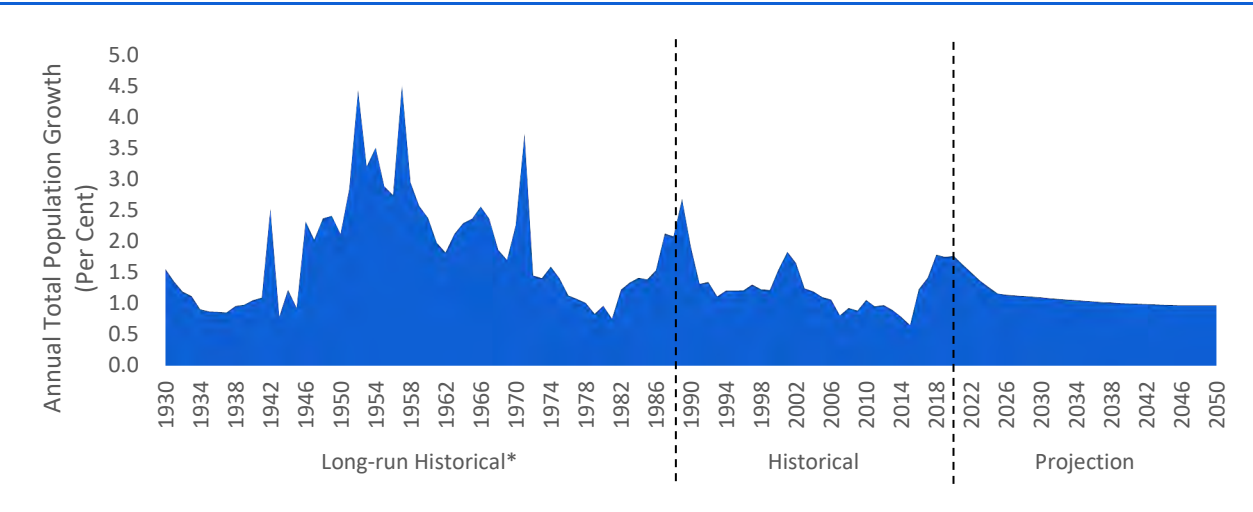
The FAO’s long-term economic projection does not attempt to predict future business cycles – the normal cyclical swings that all economies experience – but instead projects average or trend growth over the long term.<sup>7</sup>

## Ontario’s Aging Population

### Population growth to moderate

Ontario’s population grew at an average annual rate of 1.2 per cent over the past 30 years, rising from 10.1 million in 1989 to 14.6 million in 2019.<sup>8</sup> Over the next 30 years, Ontario’s population growth is projected to moderate, averaging 1.1 per cent annually. By 2050, there will be a projected 20.5 million people living in Ontario.

#### Total population growth to moderate in Ontario



Source: Statistics Canada and FAO.

\* Long-run provincial data from Statistics Canada [Table 36-10-0229-01](#).<sup>9</sup>

Population growth can occur through both natural increases (when births outnumber deaths) and positive net migration (when in-migration exceeds out-migration). In Ontario, the natural increase in the population has trended lower over the past 30 years, from a high in the late 1980s when the baby boomers<sup>10</sup> reached peak child-bearing years.<sup>11</sup> Over the next several years of the projection, population growth from natural increase is expected to pick up modestly as the children of the baby boomers (the echo boomers) enter their peak child-bearing years. Over the longer term, the contribution of natural increases to population growth will gradually diminish as echo boomers enter retirement age and baby

<sup>7</sup> See appendix 7.5 of [Long-Term Budget Outlook 2017](#), FAO, Fall 2017 for a description of the FAO’s demographic, economic and fiscal models used to construct the forecasts in this report.

<sup>8</sup> Since 2015, Ontario has experienced an acceleration in population growth due to a strong increase in immigrants and non-permanent residents.

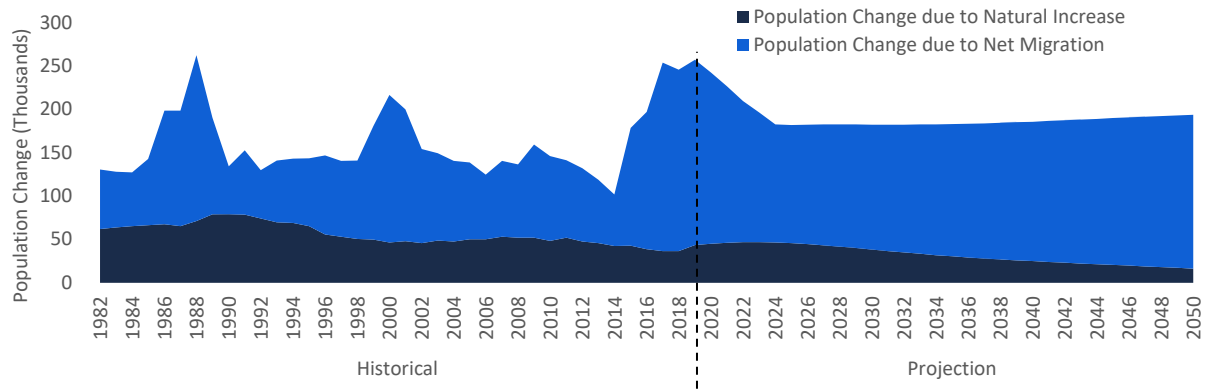
<sup>9</sup> Where available, the FAO presents long-run provincial data to provide historical context for the long-term projection.

<sup>10</sup> See appendix 7.3 of [Long-Term Budget Outlook 2017](#), FAO, Fall 2017 for the FAO’s definitions of Ontario generations.

<sup>11</sup> Peak child-bearing years refer to the age range with the highest birth rates, from the mid-20s to the early-30s.

boomers begin to reach the end of their life expectancy. Over the projection, Ontario will become increasingly reliant on net migration, and especially international immigration, to drive population growth. The contribution of net migration to population growth is projected to rise from its historical average of 68 per cent to almost 90 per cent by 2050.

### Net migration expected to drive population growth in Ontario

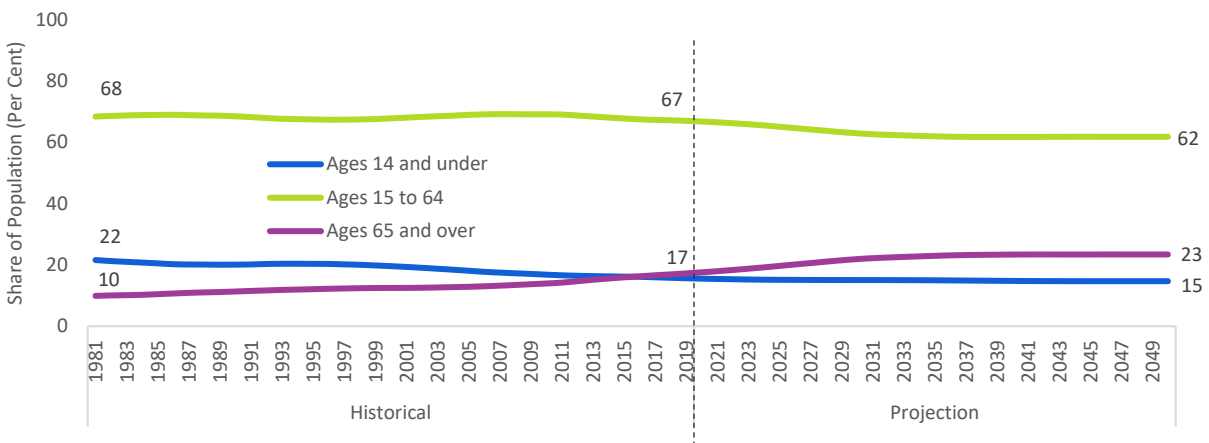


Source: Statistics Canada and FAO.

### Ontario’s population will become older

In the early 2000s, the age structure of Ontario’s population began to shift as the proportion of youths in the overall population gradually declined while the proportion of seniors (aged 65 and over) trended higher. Over the next decade, Ontario’s age structure will continue to transform as the share of seniors increases further and the share of Ontario’s working-age population (aged 15 to 64) decreases.

### The share of seniors in the population will rise

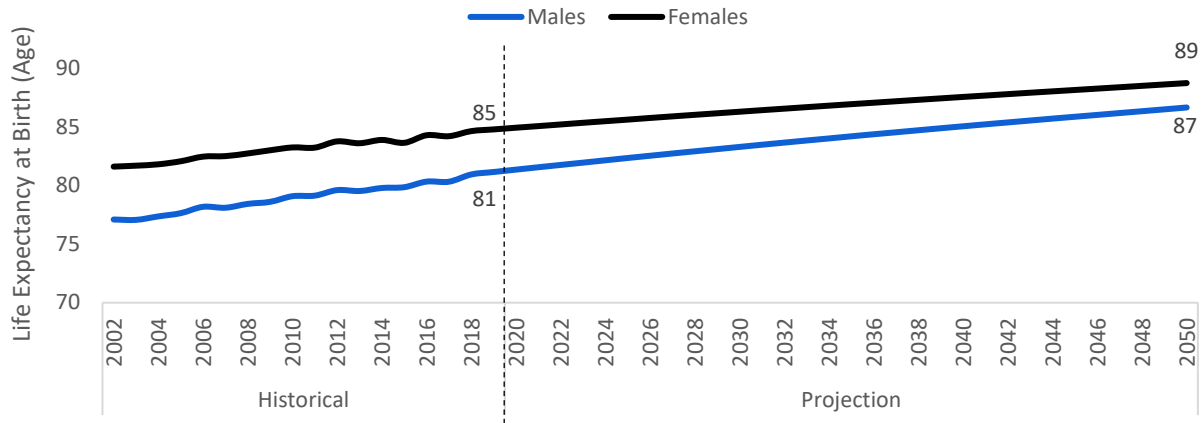


Source: Statistics Canada and FAO.

Ontario’s working-age population is expected to decline from 67 per cent of the total population in 2019 to 62 per cent by 2050 as the large cohort of baby boomers will have transitioned into their senior years. At the same time, the number of seniors is expected to almost double from 2.5 million in 2019 to 4.8 million by 2050, increasing the share of Ontario’s seniors from 17 per cent of the population in 2019 to 23 per cent by 2050. Ontario’s population is also expected to live longer – the average life expectancy

for men is expected to rise from 81 years in 2019 to 87 years by 2050, while life expectancy for women will rise from 85 to 89 years over the same period.

### Ontario's average life expectancy\* will continue to rise



Source: Statistics Canada and FAO.

\* Life expectancy at birth is defined as the average number of years an individual born in that year would be expected to live assuming mortality rates at the time of birth remain constant.

### An older population will lead to slower labour force growth

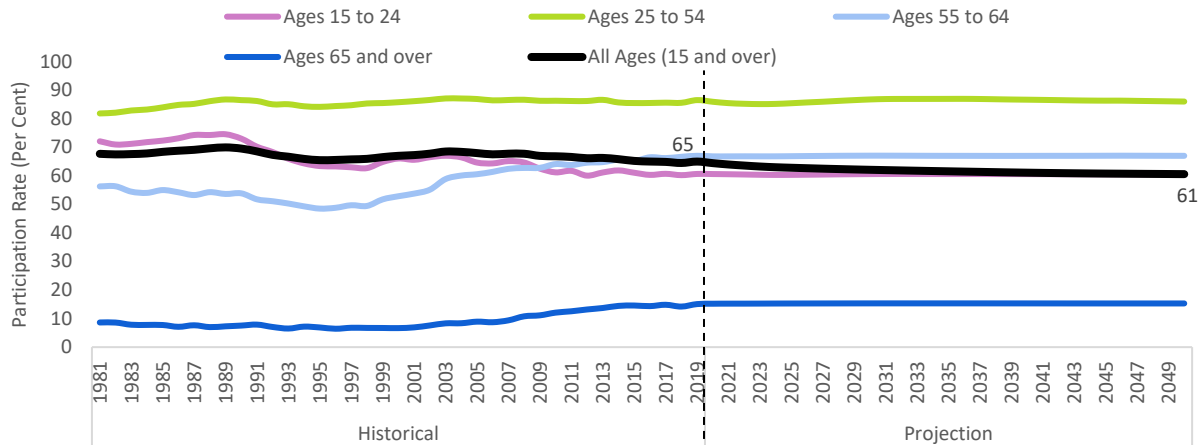
The growth in Ontario's labour force depends on the underlying age structure of the population and the proportion of Ontarians at different ages choosing to work. Since its peak in the late 1980s, the overall labour force participation rate in Ontario has edged lower even though the participation rate for core-age workers (ages 25 to 54) has remained relatively unchanged. This decline in the overall participation rate is largely explained by population aging, as participation rates tend to fall as the workforce grows older.

However, partially offsetting this downward trend in the overall participation rate has been the rising rate of workforce participation by older workers. Since the late 1990s, older workers have chosen to postpone retirement and remain in the labour force longer, tempering the decline in the overall participation rate.<sup>12</sup>

Over the outlook, the FAO projects Ontario's aggregate labour force participation rate will decrease from 65 per cent in 2019 to 61 per cent by 2050.

<sup>12</sup> See [Labour Market Report 2019](#), FAO, January 2020, for a discussion of the rising labour force participation rates of older workers in Ontario.

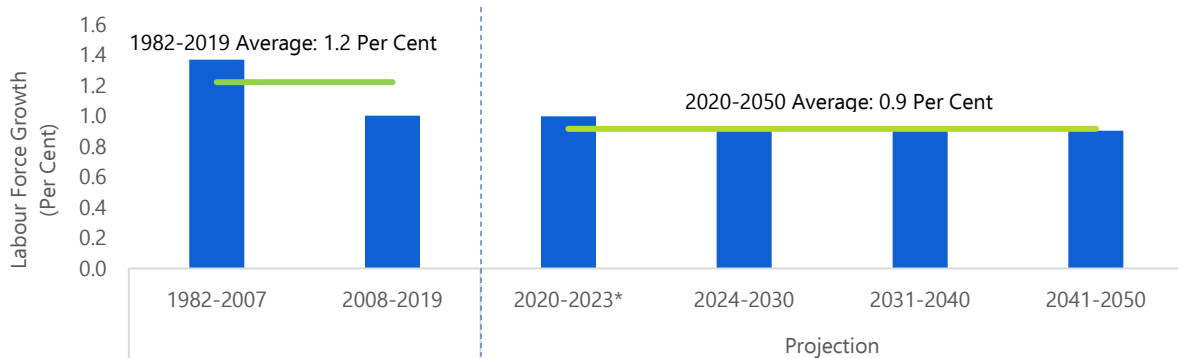
## Ontario's overall labour force participation rate will decline



Source: Statistics Canada and FAO.

The projection for relatively moderate population growth combined with a lower overall rate of labour force participation results in slower growth for Ontario's labour force over the outlook. Over the 2020 to 2050 period, labour force growth is projected to average 0.9 per cent per year, down noticeably from average growth of 1.2 per cent over the previous three decades. Slower labour force growth is a primary contributor to the forecast for slower economic growth over the outlook compared to the past.

## Ontario's labour force growth expected to slow



Source: Statistics Canada and FAO.

\* Reflects the FAO's economic projection from the 2019 Fall Economic and Budget Outlook.

## Labour Productivity

Labour productivity – a measure of how efficiently an economy's workers produce goods and services – is a key determinant of economic growth in long-term projections.<sup>13</sup> Higher labour productivity is generally associated with higher real income growth and rising average living standards.<sup>14</sup>

<sup>13</sup> Labour productivity is defined as real economic output per hour worked.

<sup>14</sup> Rising labour productivity is often associated with rising income per person, but the connection between productivity and "living standards" is indirect. See [The Relationship between labour productivity and real wage growth in Canada and OECD countries](#), Sharpe, Harrison, and Arsenault, 2008; and [Towards a social understanding of productivity: An introduction and overview](#), Banting, Sharpe, and St-Hilaire, 2002.

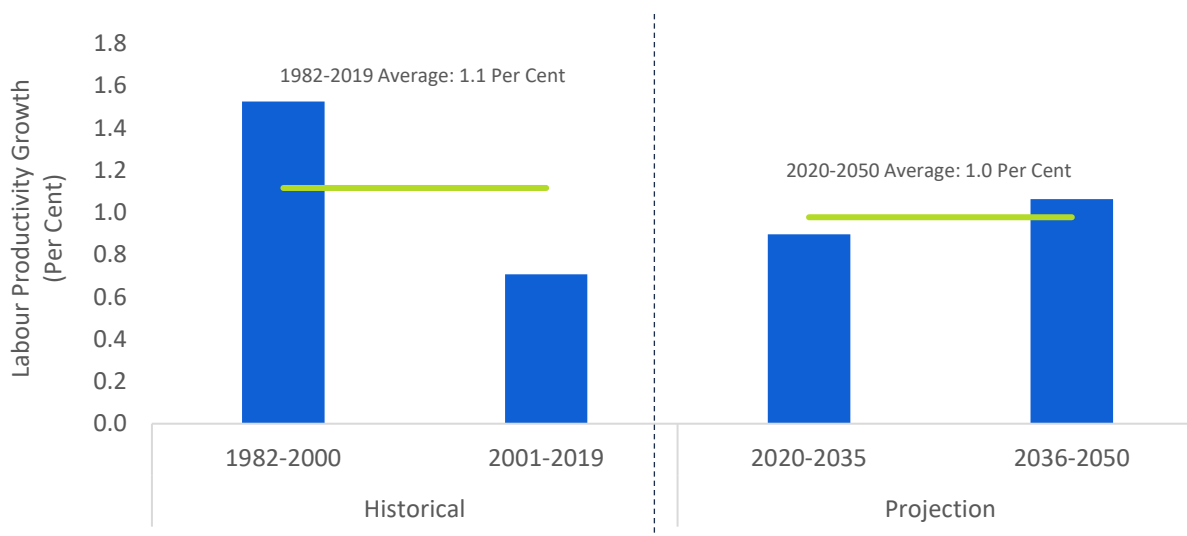
Growth in overall labour productivity is the outcome of many inter-related factors, including:

- available production technologies
- business investments in new equipment and innovation
- public sector investments, including infrastructure, education and skills training
- organizational effectiveness of public and private institutions
- overall demand for goods and services which allows for efficiencies through “economies of scale” and
- the changing industrial composition of the economy.

The linkages between productivity growth and these factors are complex and often self-reinforcing. For example, higher returns to capital that resulted from an increase in productivity would encourage businesses to expand production through new investment, which should result in further productivity gains. Current and future innovations may also significantly enhance the efficiency of existing production processes. As a result, future goods and services might be produced with fewer resources, significantly accelerating the productivity of the average worker.

Importantly, Ontario’s productivity growth has been slowing, particularly since the late 1990s. A key contributor to Ontario’s slow productivity growth has been the relatively weak performance of the province’s exports – which in turn was an outcome of intense competition from low-cost jurisdictions. Weaker growth in Ontario’s traditional exports contributed to a broad structural shift in the composition of the province’s economy, with high-productivity manufacturing jobs being replaced by less productive service-sector jobs.<sup>15</sup>

### Ontario’s labour productivity expected to grow slightly below historical average



Source: Statistics Canada and FAO.

The FAO’s projection assumes productivity growth will remain relatively subdued in the 2020s based on recent trends. Over the longer term, real output per hour worked will rise by an average 1.0 per cent per

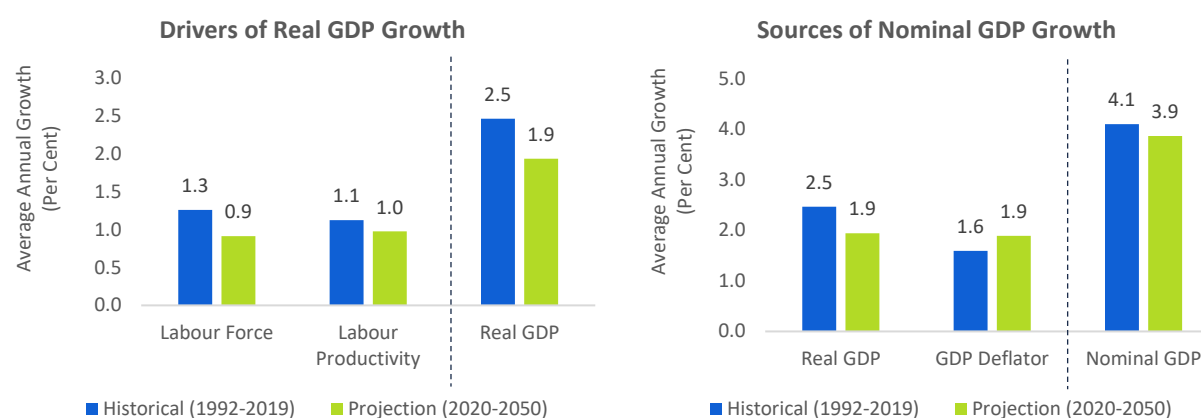
<sup>15</sup> [Ontario’s Productivity Performance, 2000-2012: A Detailed Analysis](#), Centre for the Study of Living Standards, 2015.

year, in-line with the outlook of other long-term forecasters. The expectation of relatively moderate productivity growth over the outlook is a key contributor to the projection for slower economic growth.

## Details of the Economic Projection

The FAO is projecting long-term average annual real GDP growth of 1.9 per cent, slower than average growth of 2.5 per cent over history, primarily due to weaker labour force growth and somewhat slower productivity gains.<sup>16</sup> The GDP price deflator – a measure of economy-wide prices – is forecast to rise at an average annual rate of 1.9 per cent, faster than historical performance, but consistent with trends since the early 2000s. Based on the outlook for these two factors, nominal GDP growth is projected to rise at an average annual pace of 3.9 per cent, slower than the average rate of 4.1 per cent over history.

### Deconstructing Ontario's GDP growth



Source: Statistics Canada and FAO.

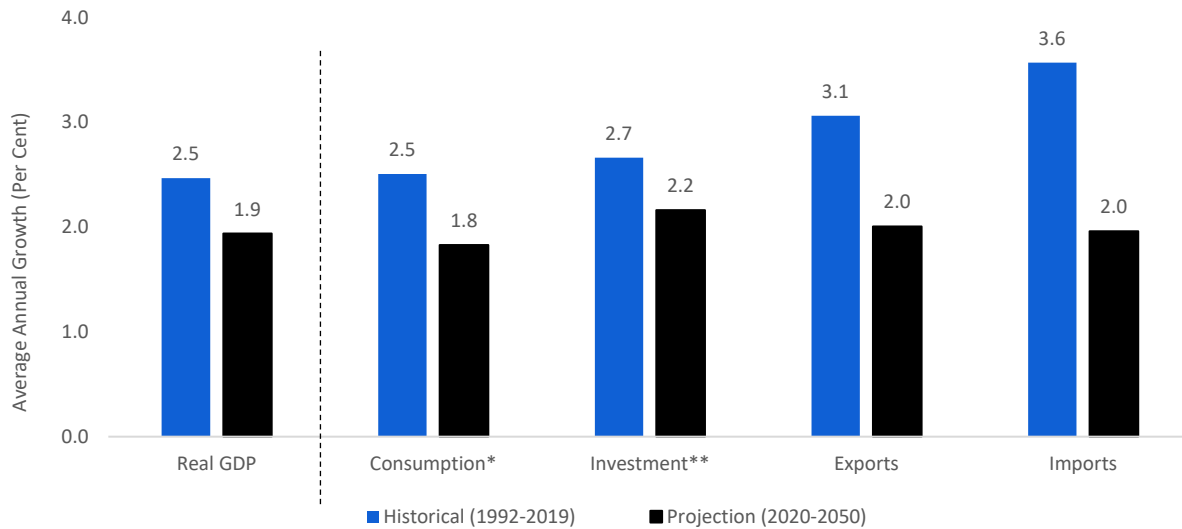
The FAO's projection for slower real economic growth is reflected across the outlook for each component of real GDP:

- Real consumption (that is, spending excluding the effects of price inflation) is projected to grow at an average rate of 1.8 per cent per year, as household spending grows in-line with real income gains.
- Real investment is projected to increase by 2.2 per cent per year on average, reflecting a modest recovery in business investment and moderate growth in residential construction spending consistent with population growth.
- Real imports and exports are forecast to grow more slowly over the projection than in the past, as the pace of global trade integration slows.<sup>17</sup> Overall, trade is expected to make a small net contribution to real GDP growth.

<sup>16</sup> Over the long-term outlook, the Ontario economy is assumed to be operating at its level of "potential" output or full capacity. The FAO estimates Ontario's long-term potential real GDP growth at around 1.9-2.0 per cent per year, based on trend projections for working-age population, labour force participation rates, average hours worked and productivity.

<sup>17</sup> [The Slowdown in Global Trade](#), Bank of Canada, Spring 2015.

## Growth in Ontario real GDP components



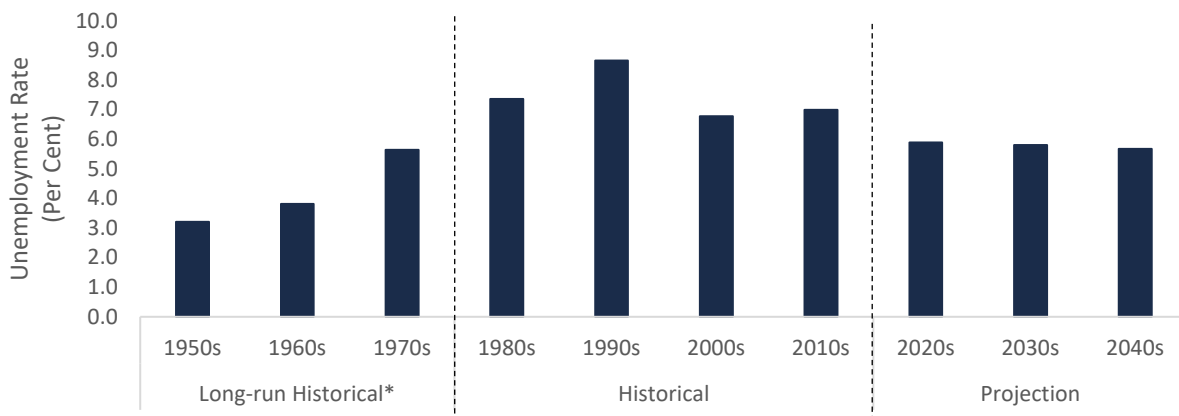
Source: Statistics Canada and FAO.

\* Includes household consumption and government current expenditures.

\*\* Includes residential investment, business investment and government capital expenditures.

The FAO's projection includes a short-term rise in the unemployment rate to about 6.0 per cent in the mid-2020s, followed by a steady decline to a stable long-run average of 5.7 per cent in the 2040s, close to the consensus projection of other economic forecasters.

## Ontario's unemployment rate expected to trend lower over outlook

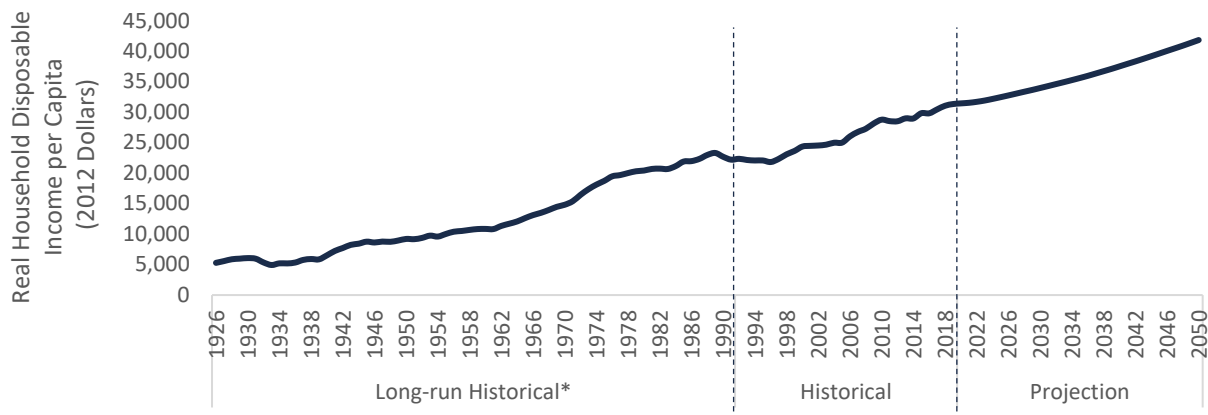


Source: Statistics Canada and FAO.

\* Long-run provincial data from Statistics Canada [Table 36-10-0229-01](#).

Real household disposable income per capita is projected to grow by 0.9 per cent per year on average during the projection, down slightly from 1.0 per cent average growth over the past 30 years. By 2050, average disposable income per person is projected to be approximately 34 per cent higher than today, after adjusting for inflation.

## Real household disposable income per capita, Ontario



Source: Statistics Canada and FAO.

\* Based on long-run provincial data from Statistics Canada [Table 36-10-0229-01](#), adjusted for revisions to recent history.

Over the projection, aggregate income shares for labour and business are expected to remain relatively consistent with the current distribution of economy-wide incomes. While income shares of GDP are subject to variation over business cycles, they have been largely stable since the early 2000s.

## The External Economic Environment

Ontario's economy is influenced by several key external factors, including US economic growth, interest rates, the Canada-US exchange rate and energy prices.

For the US economy, the FAO has adopted the US Congressional Budget Office's (CBO) long-term projection.<sup>18</sup> The CBO projects average annual growth of 1.8 per cent for US real GDP over the long term, slower than the 2.5 per cent average growth recorded over history.

Interest rates are projected to rise from current lows, although the FAO outlook assumes rates will remain below average historical yields. The interest rate outlook reflects relatively modest economic growth over the projection, coupled with continued inflation targeting by central banks.<sup>19</sup> The Government of Canada 10-year bond yield is assumed to rise slowly over the outlook, maintaining a steady spread with the CBO's projection for the US government 10-year bond yield.<sup>20</sup> The spread between Ontario Government and Government of Canada 10-year bond yields is assumed to be stable at 0.6 percentage points over the projection.

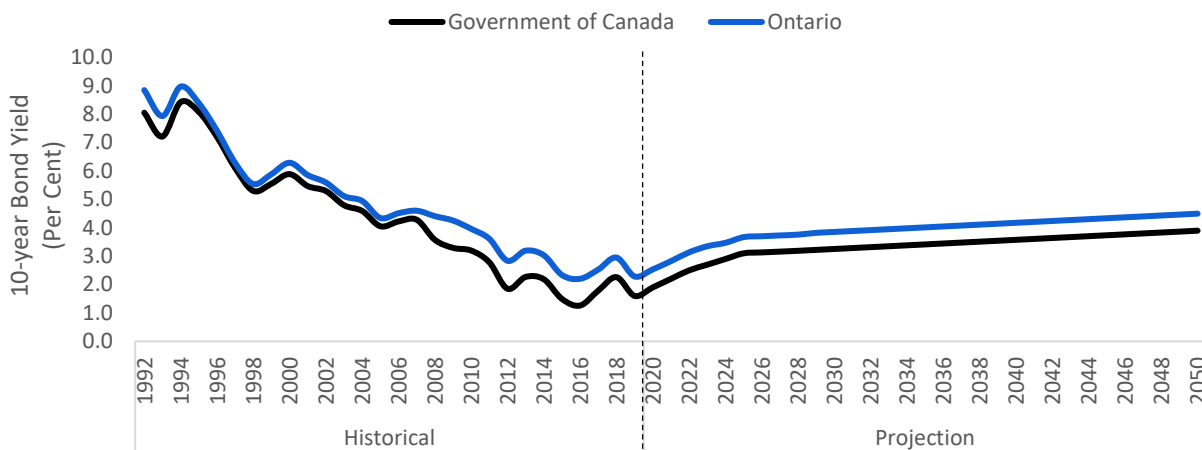
<sup>18</sup> [The 2019 Long-Term Budget Outlook](#), Congressional Budget Office, June 2019.

<sup>19</sup> The FAO's projection assumes the continuation of the Bank of Canada's policy of an inflation-control target which aims at keeping overall annual CPI inflation at 2.0 per cent.

<sup>20</sup> The FAO has adopted the CBO's projection for the US government 10-year bond yield, adjusted for the FAO's projection from the 2019 Fall Economic and Budget Outlook.



## Ontario and Government of Canada 10-year bond yields to rise slowly



Source: Statistics Canada, Ontario Ministry of Finance and FAO.

The FAO's projection also incorporates a gradual, steady rise in oil prices. This outlook assumes that oil extraction will become more expensive in the future, placing upward pressure on economy-wide prices. However, global efforts at reducing carbon emissions are expected to continue dampening demand for oil, helping to moderate the overall increase in real oil prices over the projection. The FAO's projection also assumes that the Canadian dollar will gradually strengthen over the long term, in-line with the steady rise in real oil prices.

### Outlook for Key External Factors

	Historical		Projection		
	1992-2019*	2020-2030	2031-2040	2041-2050	2020-2050
US Real GDP Growth (Per Cent)	2.6	1.8	1.8	1.9	1.8
US Unemployment Rate (Per Cent)	5.8	4.6	4.6	4.5	4.5
US 10-year Bond Yield (Per Cent)	4.3	3.0	3.4	3.8	3.4
Government of Canada 3-Month Treasury-Bill Rate (Per Cent)	2.9	2.3	2.8	3.2	2.7
Government of Canada 10-year Bond Yield (Per Cent)	4.4	2.8	3.4	3.8	3.3
Ontario 10-year Bond Yield (Per Cent)	4.9	3.4	4.0	4.4	3.9
West-Texas Intermediate Oil Price per Barrel (US \$)	50	65	94	128	95
Canada-US Exchange Rate (US Cents)	80	78	81	85	81
Canada Real GDP Growth (Per Cent)	2.4	1.8	1.8	1.8	1.8

Source: The US Congressional Budget Office, US Energy Information Agency, Statistics Canada, The Conference Board of Canada, the University of Toronto's Policy and Economic Analysis Program, Ontario Ministry of Finance and FAO.

\* Reflects the period since the Bank of Canada began inflation targeting.

## Comparison with the FAO's 2017 Long-Term Budget Outlook

The FAO's updated long-term projection is largely consistent with its first Long-term Budget Outlook (LTBO) report released in 2017.<sup>21</sup> However, several important updates have been incorporated into the current long-term demographic and economic projections.

- Ontario's population and labour force are expected to grow faster than projected in the 2017 LTBO, reflecting the significant increase in net international migration over the past several years. As a result, and because new immigrants tend to be younger than average, the aging of Ontario's population is now projected to occur at a more moderate pace than previously projected.
- Over the medium term,<sup>22</sup> real GDP growth is forecast to be slower in the current projection than was the case in 2017, impacting average growth rates over the long-term outlook.
- Ontario's real GDP per capita is projected to grow at a more moderate pace over the outlook compared to the 2017 LTBO, due to the projection for slower real GDP growth combined with stronger population growth.
- In the current outlook, Canadian and Ontario bond yields are projected to rise at a slower pace than was expected previously. Current rates are considerably lower than anticipated in the 2017 LTBO and the consensus view among economic forecasters is that global bond yields will remain lower into the future.

### Comparison of FAO's 2017 and Current Projections and Key Assumptions

Average Growth* (Per Cent)	2017 LTBO (2016-2050)	2020 LTBO (2020-2050)
Nominal GDP	3.9	3.9
GDP Deflator	1.9	1.9
Real GDP	2.0	1.9
Labour Productivity	1.1	1.0
Labour Force	0.8	0.9
Employment	0.9	0.9
Population	0.9	1.1
Real GDP Per Capita	1.0	0.8
Consumer Price Index	2.0	2.0
Government of Canada 3-Month Treasury-Bill Rate	2.9	2.7
Government of Canada 10-year Bond Yield	4.1	3.3
Ontario 10-year Bond Yield	4.8	3.9

Source: FAO.

\* Unemployment rate and bond yields are expressed as averages.

<sup>21</sup> [Long-Term Budget Outlook 2017](#), FAO, Fall 2017.

<sup>22</sup> Reflects the FAO's economic projection from the [2019 Fall Economic and Budget Outlook](#).

## Uncertainty in Long-Term Projections

A 30-year demographic and economic projection requires many assumptions and involves significant uncertainty. Many unanticipated events and developments could have a material impact on the Ontario economy over the next few decades.<sup>23</sup>

### World Economy

Global economic growth has slowed over the past two years due to trade tensions, geopolitical uncertainty and country-specific developments. While renegotiations of the Canada-United States-Mexico Agreement (CUSMA) have concluded and the US-China trade relationship has recently improved, protectionist sentiments and challenges to global trade arrangements still pose a risk to global economic growth.

### Technological Change

Continued technological change is expected to impact the composition of the job market, as many occupations are automated or become obsolete and new occupations are created. The prevalence of non-standard employment is also expected to increase, potentially at the expense of more traditional permanent jobs. The changing composition of employment could impact income growth in the long term, while technological advances could dramatically change Ontario's future industrial composition.

### Climate Change

Climate change and policies to combat climate change will have significant and lasting impacts on the economy, incomes and tax revenues. Climate change is also increasing the frequency and intensity of natural disasters and altering the range of weather conditions that public and private sector infrastructure must withstand. While the FAO's current projection assumes that climate change does not materially affect the long-term economic and fiscal outlook, the FAO plans to include additional analysis on the likely fiscal impacts of climate change in future long-term outlook reports.

### Rising Income Inequality

Income inequality in Ontario has continued to increase over the past four decades, consistent with the experience in other provinces and the average across developed economies.<sup>24</sup> Research has suggested that rising income inequality over the long term can negatively impact the pace and durability of economic growth.<sup>25</sup>

## Alternative Economic Scenarios

While the FAO's baseline economic projection is a reasonable long-term outlook for the Ontario economy consistent with the consensus views of other economic forecasters, there is considerable uncertainty inherent in any long-term projection. To account for this uncertainty, the FAO developed both high and low growth alternative scenarios. These alternative scenarios are built on reasonable assumptions for key economic variables.

In both scenarios, the age structure of Ontario's population continues to shift, and the share of seniors is projected to be higher over the outlook than in 2019.

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<sup>23</sup> The FAO implicitly assumes that these factors do not adversely impact the long-term economic projection.

<sup>24</sup> [Income in Ontario: Growth, Distribution and Mobility](#), FAO, January 2019.

<sup>25</sup> [Redistribution, Inequality, and Growth](#), International Monetary Fund, 2014.

The low growth scenario assumes lower productivity, employment gains, labour force participation and overall economic growth in Ontario than in the base case. This low growth scenario for Ontario is based on similar economic conditions in the US and the rest of Canada. Ontario's fiscal performance would deteriorate markedly in this scenario.

The high growth scenario assumes higher productivity, employment gains, labour force participation and overall economic growth in Ontario than in the base case. This high growth scenario for Ontario is based on similar economic conditions in the US and the rest of Canada. Ontario's fiscal performance would improve significantly under this scenario.

### Summary of Alternative Economic Scenarios

Average Growth* (Per Cent)	Historical	High	Base	Low
	1992-2019	2020-2050	2020-2050	2020-2050
Nominal GDP	4.1	4.3	3.9	3.5
GDP Deflator	1.6	2.0	1.9	1.8
Real GDP	2.5	2.2	1.9	1.6
Labour Force	1.3	1.0	0.9	0.8
Labour Productivity	1.1	1.2	1.0	0.8
Employment	1.4	1.0	0.9	0.8
Unemployment Rate	7.5	5.5	5.8	6.1
Population	1.2	1.1	1.1	1.0
Consumer Price Index	1.9	2.0	2.0	1.9

Source: Statistics Canada and FAO.

\* Unemployment rate is expressed as average.

# 4. The Fiscal Projection

## Overview

Over the next 30 years, demographic changes will contribute to significant fiscal challenges for Ontario. Slower labour force growth will result in more moderate economic growth, leading to slower revenue gains. The aging baby boom cohort will require additional resources from Ontario’s health care system. Given these trends, persistent and rising budget deficits could emerge, potentially leading to a steady increase in Ontario’s debt burden.

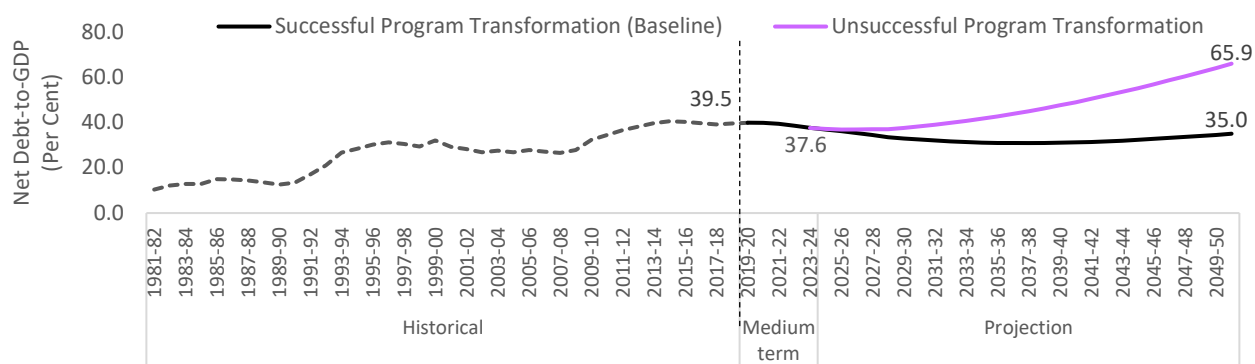
The FAO’s fiscal projections reflect current government policies, including unannounced tax cuts.<sup>26</sup> For program spending, the FAO assumes that the government implements its medium-term expenditure plan, which includes significantly restraining program spending growth.<sup>27</sup>

The FAO’s baseline projection assumes that the government’s current policy changes will lead to permanent cost savings. Under these assumptions, although the Province records modest budget deficits over the outlook, the net debt-to-GDP ratio reaches 35 per cent by 2050-51, below today’s ratio of 39.5 per cent.

However, beyond 2023-24, the path of program spending is uncertain and will depend on the success of the government’s policy changes for key programs – notably health, education and social services. Historically, transformational changes to public services that lead to permanent cost savings have been difficult to achieve. Given the risk that the government may not successfully transform key public services, the FAO developed an alternative scenario for future program spending which leads to a sharply different fiscal outcome for the Province.

In the alternative scenario, the FAO assumes that the path of future spending follows historical experience and the current period of expenditure restraint is followed by a “catch-up” phase when spending rises sharply for several years to meet pent-up demand for public services.<sup>28</sup> Significantly larger budget deficits over the projection result in a dramatic increase in the net debt-to-GDP ratio to 65.9 per cent by 2050-51, well above the Province’s current debt ratio.

### Outlook for Ontario’s debt-to-GDP ratio depends on success of current program reforms



Source: Ontario Public Accounts and Budgets, Statistics Canada and FAO.

<sup>26</sup> See Page 12, [2019 Fall Economic and Budget Outlook](#), FAO, December 2019 for details.

<sup>27</sup> See Page 6, [2019 Ontario Economic Outlook and Fiscal Review](#) (referred to Fall Economic Statement, or FES).

<sup>28</sup> The catch-up periods were estimated based on analysis of historical spending growth in key program areas. For details, see Appendix A2.

The success of the government’s current program changes is a key factor in the province’s long-term fiscal outlook. If the government’s program reforms, particularly for health care and education, deliver permanent efficiencies and cost savings, Ontario’s long-term fiscal position improves. However, if instead the government relies on temporary cost-cutting measures that do not deliver on-going savings, Ontario’s long-term fiscal outlook will be challenging and likely require additional future policy changes.

**Summary of the FAO’s Fiscal Projection**

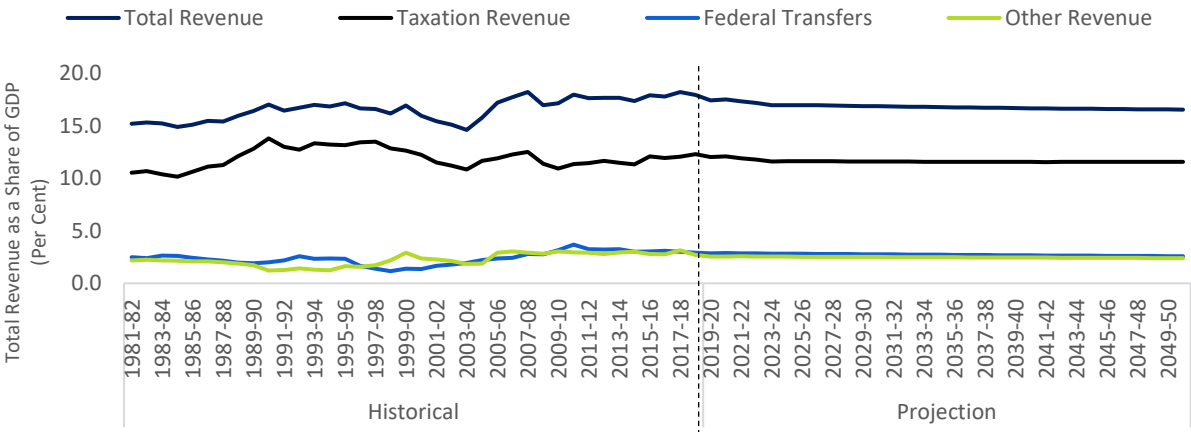
Component (Per cent of GDP)	2018-19		2050-51	
	Actual	Successful Program Transformation (Baseline)	Unsuccessful Program Transformation	
Revenue	17.9	16.5	16.5	
Program Expense	17.3	16.3	17.5	
Budget Balance	-0.9	-1.3	-3.8	
<b>Net Debt</b>	<b>39.5</b>	<b>35.0</b>	<b>65.9</b>	
Interest on debt as a share of revenue	8.1	9.3	17.2	

Source: Ontario Public Accounts and Budgets, Statistics Canada and FAO.

**Revenue Projection**

Since the 2008-2009 recession, provincial revenues as a share of nominal GDP have remained relatively stable at around 18 per cent. Over the next five years, the FAO projects provincial revenue as a share of GDP will decline to 17 per cent, the result of the government’s tax policy changes, including planned tax cuts.<sup>29</sup> Over the long term, all major revenue sources are expected to maintain their shares relative to the size of the economy.

**Revenues as share of GDP to remain stable**

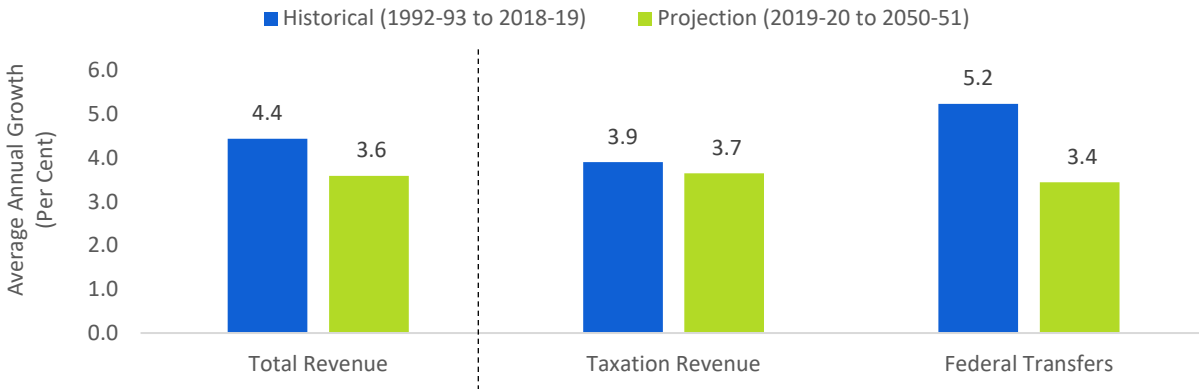


Source: Ontario Public Accounts and Budgets, Statistics Canada and FAO.

<sup>29</sup> See Page 12, [2019 Fall Economic and Budget Outlook](#), FAO, December 2019 for details.

Total revenue is projected to grow at an average annual rate of 3.6 per cent over the next 30 years, down from its historical rate of 4.4 per cent.<sup>30</sup> Slower revenue growth is anticipated across all major revenue sources, and largely reflects the weaker projected pace of economic growth over the outlook.

### Revenues projected to grow slower



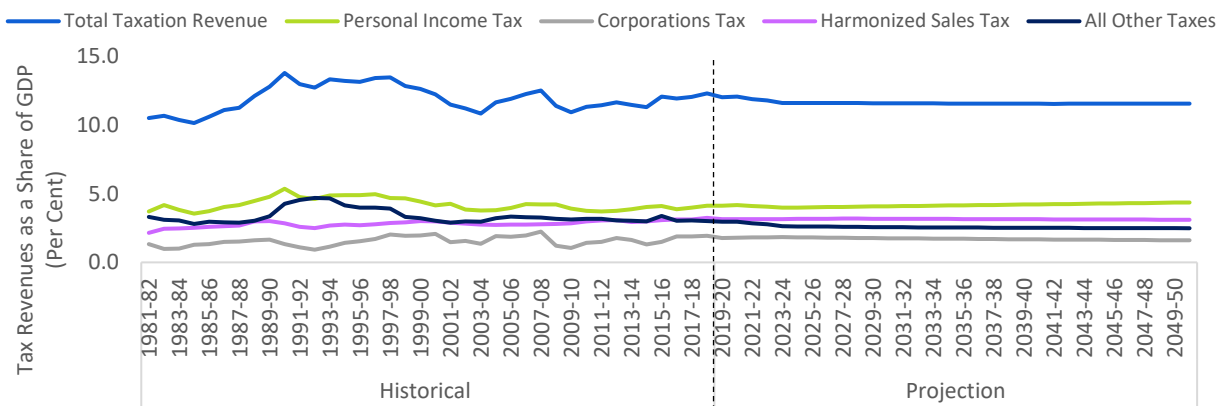
Source: Ontario Public Accounts and Budgets, and FAO.

### Taxation Revenue

Total tax revenue is projected to grow at an average annual rate of 3.7 per cent over the outlook, down from its historical pace of 3.9 per cent. The moderation in taxation revenue growth reflects slower economic growth compared to the past, compounded by recent policy changes, including unannounced tax cuts beginning in 2021-22.<sup>31</sup>

Despite these policy changes, tax revenues as a share of GDP are projected to remain relatively stable over the outlook, growing in-line with underlying economic factors.<sup>32</sup>

### Tax revenues as a share of GDP stable over the outlook



Source: Ontario Public Accounts and Budgets, Statistics Canada and FAO.

<sup>30</sup> Unless otherwise noted, all historical averages for revenues in this chapter refer to the period during 1992-93 to 2018-19.

<sup>31</sup> See Page 12, [2019 Fall Economic and Budget Outlook](#), FAO, December 2019 for details.

<sup>32</sup> See table below for the underlying assumptions for major revenue sources.

## Federal Transfer Revenue

Based on current federal-provincial agreements, federal transfers are projected to grow at an average annual rate of 3.4 per cent over the outlook, down from 5.2 per cent historically. This slower rate of growth reflects a number of factors, including:

- the federal government’s policy to increase the Canada Social Transfer by 3 per cent per year and the Canada Health Transfer by the growth rate of Canadian nominal GDP<sup>33</sup>
- Ontario not qualifying for Equalization payments over the outlook, a reflection of Ontario’s relatively strong economic performance compared with other provinces, and
- the assumption that all other federal transfers will grow in-line with Ontario nominal GDP over the projection.<sup>34</sup>

## All Other Revenue

All other revenue includes income from Ontario’s government business enterprises (including the Lottery and Gaming Corporation, the Ontario Cannabis Store, the Liquor Control Board and electricity enterprises) as well as non-tax revenues which includes various fees, asset sales, and royalties. Over the outlook, all other revenue is expected to grow in-line with nominal GDP growth.

The following table summarizes the main assumptions behind the FAO’s revenue projection.

Revenue Source	Driver	Assumptions
<b>Personal Income Tax (PIT)</b>	Grows slightly faster than total compensation.	Government will continue to index tax brackets to CPI inflation. Real income growth will support PIT revenues by pushing taxpayers into higher tax brackets.
<b>Corporations Tax (CT)</b>	Grows slightly slower than corporate profits.	Corporations will continue to use tax preferences to limit corporate tax liabilities, resulting in slower growth in corporate tax revenues relative to corporate profits.
<b>Harmonized Sales Tax (HST)</b>	Grows with nominal consumption.	Continues historical trend.
<b>All other taxes</b>	Grows with either nominal or real GDP, depending on the tax base.	Volume based taxes (i.e. gas tax) grow with real GDP, other taxes grow with nominal GDP.
<b>Federal transfers</b>	Reflects federal-provincial agreements.	Current funding formulas are maintained.
<b>All other revenues</b>	Grows with nominal GDP.	Continues historical trend.

<sup>33</sup> [Canada Social Transfer](#) and [Canada Health Transfer](#), Department of Finance Canada.

<sup>34</sup> These transfers include federal-provincial infrastructure and labour-support programs. Since most of these transfers are based on time-limited agreements, the FAO assumes that the federal and provincial governments will agree to extend these transfers over the outlook.



## Spending Projection

In the 2019 Ontario Budget, the government committed to balancing the budget by 2023-24 and putting the province's finances on a path towards fiscal sustainability.<sup>35</sup> The FAO's fiscal projection incorporates the government's medium-term spending plans as presented in the 2019 Ontario Budget and updated in the 2019 Fall Economic Statement.<sup>36</sup>

Over the medium term, the government plans to restrain spending growth through program reforms focused on healthcare, education, and children's and social services.<sup>37</sup> In the baseline projection, the FAO assumes that the government's policy changes in key program areas will successfully lead to permanent cost savings. Beyond 2023-24, spending is assumed to grow in-line with underlying cost drivers, including population growth and price inflation, as well as long-term average rates of program enrichment.<sup>38</sup>

If successful, the government's plan would reduce overall program spending growth to just 1.4 per cent annually over the 2019-20 to 2023-24 period, well below the forecast rate of growth for population and consumer prices. Importantly, when the current spending plan is combined with earlier expenditure restraint beginning in 2011-12, this would mark nearly a decade-long period over which growth in provincial government spending did not keep pace with underlying demand drivers for public services.

The extent to which the current government's medium-term fiscal plan will deliver an improvement to Ontario's finances is uncertain and will depend on the success of the planned transformational changes to public services.

Transformational changes to public services that lead to permanent efficiency gains are possible but have generally been difficult to achieve.<sup>39</sup> As a result, governments have often relied on temporary restraint measures – such as hiring and wage freezes or postponing capital spending – to limit the growth of public spending.

Historically, prolonged periods of spending restraint have often been followed by a period where program spending increases significantly for several years to address gaps in public services.<sup>40</sup> It is important to note that even a modest catch-up in spending can significantly alter Ontario's long-term fiscal outlook. To highlight the markedly different fiscal outcome in the event that the planned transformation is not successful, the FAO developed an alternative spending scenario.

In this alternative scenario, the FAO assumes that program spending restraint over the medium term will result in a "catch-up" period when expenditures rise sharply to meet pent-up demand for public services.<sup>41</sup> After this, spending growth returns to long-term trends based on underlying cost drivers and program enrichment modestly lower than observed historically over similar periods of catch-up expenditures.

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<sup>35</sup> In the 2019 Fall Economic Statement, page 3, the government reaffirmed its commitment to balance the budget by 2023-24.

<sup>36</sup> The government's spending plan is based on updated program spending by sector from the 2019 Fall Economic Statement combined with program spending growth assumed in the 2019 Ontario Budget for 2022-23 and 2023-24.

<sup>37</sup> For more details, see the FAO's [Economic and Budget Outlook, Spring 2019](#), Appendices A1 and A2.

<sup>38</sup> See Appendix A2 for a discussion on methodology, demand drivers, and program enrichment.

<sup>39</sup> See [Public Services for Ontarians: A Path to Sustainability and Excellence](#) pages 124 and 366, the Ontario [Auditor General's Review of eHealth](#), the Province's effort to digitize health records, or the Auditor General of Canada's [Report](#) on the Federal government's attempt to centralize pay services.

<sup>40</sup> See the FAO's [Economic and Budget Outlook, Spring 2019](#) Appendix A1 for a discussion of program spending over history.

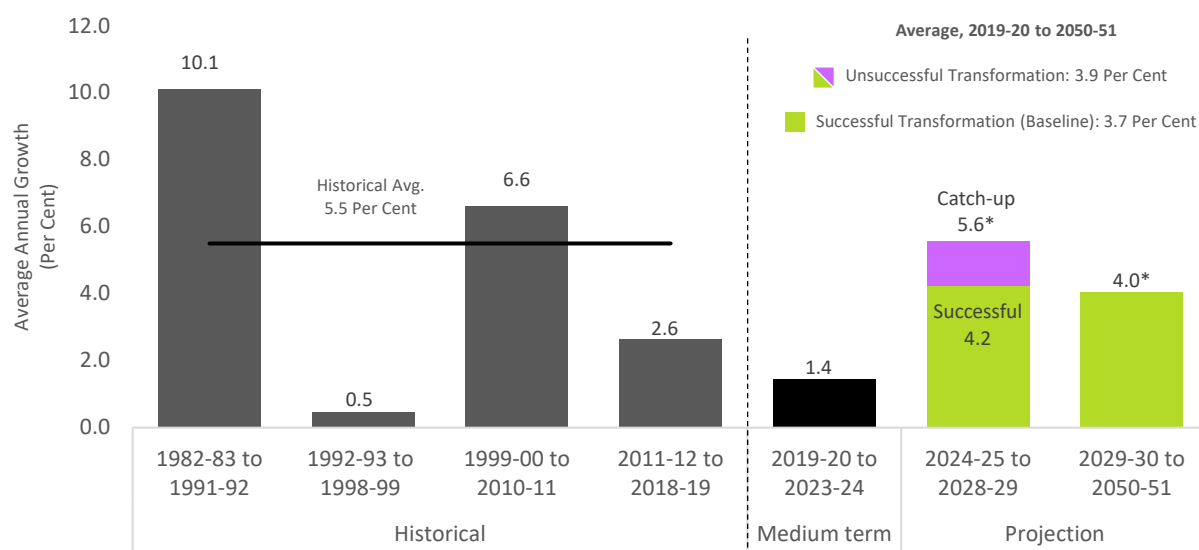
<sup>41</sup> The duration of the catch-up period and the boost in spending growth were determined based on sector-specific historical analysis. See Appendix A2 for details.

## Program Spending Outlook Depends on Success of Current Policies

The FAO projects program spending will grow considerably slower over the next 30 years compared to average annual historical growth of 5.5 per cent.<sup>42</sup> In the baseline outlook, program spending is projected to grow at an average rate of 3.7 per cent annually over 2019-20 to 2050-51.

In the unsuccessful transformation scenario, program spending is assumed to increase sharply for several years after 2023-24 to address pent-up demand for public services. Including this rebound, program spending growth over the full 30-year outlook is modestly stronger, averaging 3.9 per cent annually.

### Program spending projected to grow slower over the outlook



Source: Ontario Public Accounts and Budgets, and FAO.

\*In the “Unsuccessful Program Transformation” scenario, program spending growth accelerates to 5.6 per cent during 2024-25 to 2028-29. This period of higher spending is consistent with historical periods of “catch-up” spending, which includes additional expenditures to meet pent-up demand for public services following a period of restraint. Program spending over the longer term grows at 4.0 per cent annually, consistent with core demand drivers. See Appendix A2 for details.

Based on the government’s medium-term fiscal plan, Ontario program spending as a share of GDP will be reduced from 17.3 per cent in 2018-19 to 15.6 per cent by 2023-24.

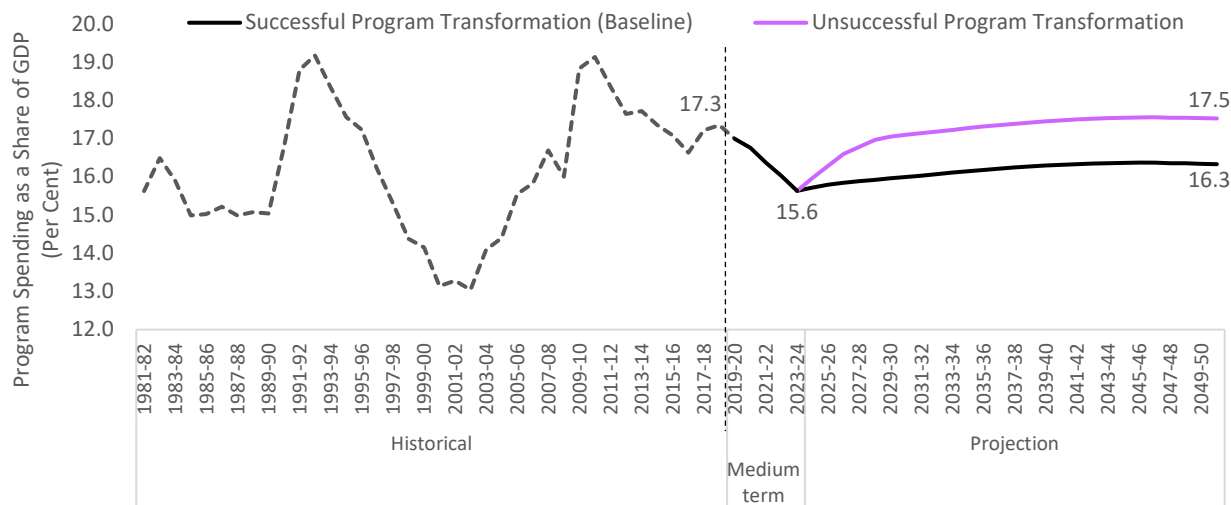
Beyond the government’s medium-term plan ending in 2023-24, the future path for program spending will depend on the success of the government’s policy changes.

In the baseline projection, program spending is expected to rise to just 16.3 per cent of GDP by 2050-51, remaining a full percentage point below its current share of GDP. However, under the unsuccessful transformation scenario, program spending as a share of GDP is expected to rebound back to 17.0 per cent by 2028-29 and then climb gradually to 17.5 per cent by 2050-51, slightly above its current share of GDP.<sup>43</sup>

<sup>42</sup> Unless otherwise noted, all historical averages for spending in this chapter refer to the period 1982-83 to 2018-19.

<sup>43</sup> By 2050-51, the level of program spending under the unsuccessful transformation scenario would be 7.3 per cent higher (or \$18.6 billion higher expressed in 2020 dollars) than in the baseline projection.

## Future program spending will depend on the success of current policy changes



Source: Ontario Public Accounts and Budgets, Statistics Canada and FAO.

### Health Sector Spending

In the health sector, the government has announced a variety of policy changes<sup>44</sup> intended to limit the growth in expenditures while also delivering on its core commitment to “cut hospital wait times and end hallway health care.”<sup>45</sup> Over the medium term, the government plans to limit the growth in health expenditures to just 2.0 per cent annually, below key drivers of health care demand. Importantly, Ontario’s health sector has already experienced an extended period of spending restraint, with growth averaging 3.3 per cent annually over 2010-11 to 2018-19.

Under the FAO’s baseline projection, Ontario’s health sector spending is driven by population growth, the rising number of seniors, steady increases in health care service prices and program enrichment<sup>46</sup> consistent with past experience. Health spending is projected to grow by an average of 4.5 per cent annually over the 30-year outlook.

In the FAO’s unsuccessful program transformation scenario, health sector spending increases at an annual average pace of 7.2 per cent over the five-year period 2024-25 to 2028-29, to address pent-up demand for health services created during the preceding period of spending restraint.<sup>47</sup> After this catch-up period, health care spending moderates to average annual growth of 4.9 per cent over the remainder of the outlook, consistent with the growth in core demand drivers.

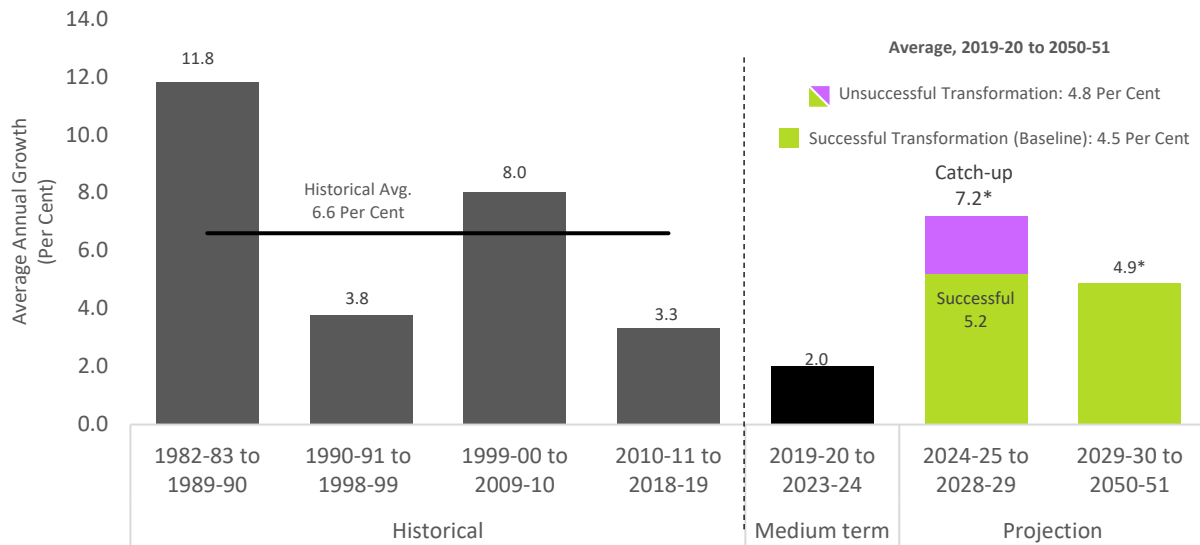
<sup>44</sup> For details on specific health sector measures see [2019 Updated Assessment of Ontario Health Spending](#), FAO.

<sup>45</sup> See [2019 Ontario Budget](#), Minister’s Foreword, Page vii.

<sup>46</sup> For more details on demand drivers and program enrichment in the health sector, see Appendix A2.

<sup>47</sup> Ontario’s health system is facing numerous challenges such as increasing average wait times in emergency departments. For a discussion on these challenges, see [Measuring Up 2019: A yearly report on how Ontario’s health system is performing](#) and [Expenditure Estimates 2019-20: Ministry of Health and Long-Term Care](#), FAO.

## Health care spending projected to rebound after lengthy period of restraint



Source: Ontario Public Accounts and Budgets, and FAO.

\*In the “Unsuccessful Program Transformation” scenario, health spending growth accelerates to 7.2 per cent during 2024-25 to 2028-29. This period of higher spending is consistent with historical periods of “catch-up” spending, which includes additional expenditures to meet pent-up demand for public services following a period of restraint. Health spending over the longer term grows at 4.9 per cent annually, consistent with core demand drivers. See Appendix A2 for details.

Under both the baseline projection and alternative scenario, health sector spending is projected to rise sharply from 42 per cent of total program spending in 2018-19 to more than 50 per cent by 2050-51.

### Education Sector Spending

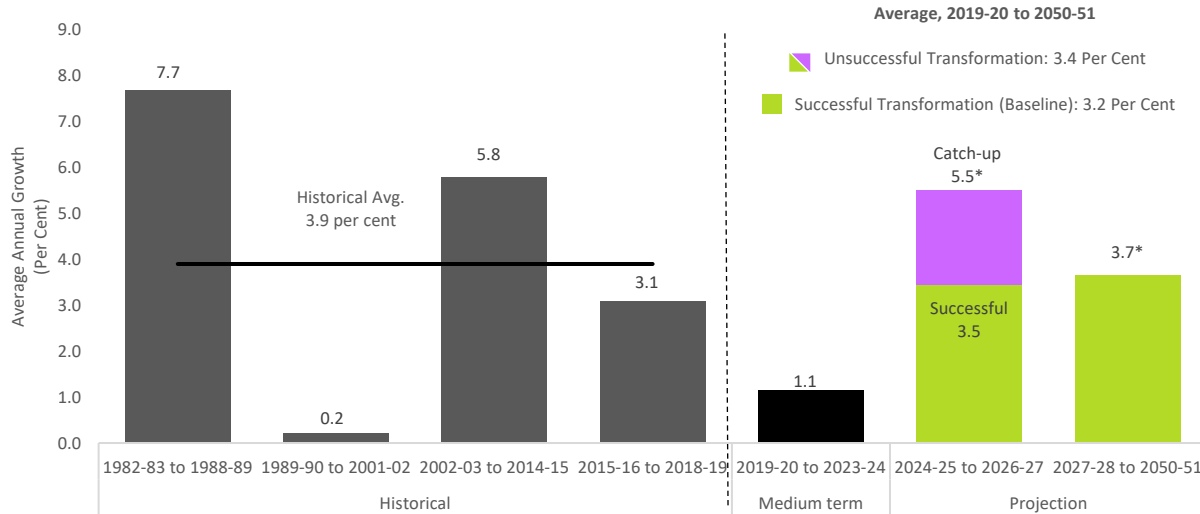
In the education sector, the government has announced a number of policy measures – including larger class sizes, expansion of e-learning, and restraining annual compensation growth – which are expected to help limit the growth in education sector spending to 1.1 per cent annually over the medium term.<sup>48</sup>

In the FAO’s baseline outlook, education sector spending is projected to grow at an average pace of 3.2 per cent annually over the next 30 years, slower than the 3.9 per cent growth over history. An increase in the number of school age children over the next two decades, combined with price inflation will contribute to the projected growth in education spending.

In the FAO’s unsuccessful program transformation scenario, education sector spending would increase sharply to average annual growth of 5.5 per cent over the three-year period, 2024-25 to 2026-27, rebounding from the spending restraint planned over the medium term. Beyond this catch-up period, education spending would be projected to grow in-line with underlying cost drivers, at an average annual rate of 3.7 per cent.

<sup>48</sup> See [Expenditure Estimate 2019-20: Ministry of Education](#), FAO, September 2019 and Appendix A2.

## Education spending growth to accelerate, driven by an increase in the student population



Source: Ontario Public Accounts and Budgets, and FAO.

\* In the “Unsuccessful Program Transformation” scenario, education spending growth accelerates to 5.5 per cent during 2024-25 to 2026-27. This period of higher spending is consistent with historical periods of “catch-up” spending, which includes additional expenditures to meet pent-up demand for public services following a period of restraint. Education spending over the longer term grows at 3.7 per cent annually, consistent with core demand drivers. See Appendix A2 for details.

### Other Spending

For program spending in other sectors, the government plans to hold expenditure growth to 1.0 per cent per year over the medium term, significantly below the growth in underlying cost drivers such as population and consumer prices. Policy changes intended to limit the growth in spending include reforming social assistance and the Ontario Student Assistance Program (OSAP), transforming developmental services, and modernizing youth justice services.

Assuming the government’s policy changes successfully result in on-going cost savings, the FAO projects that other spending will grow by an average rate of 2.8 per cent annually over the outlook. However, if the policy changes are unsuccessful and lead to a rebound in spending beyond 2023-24, other program spending will increase at a slightly faster pace, averaging 2.9 per cent per year.

### Infrastructure Spending

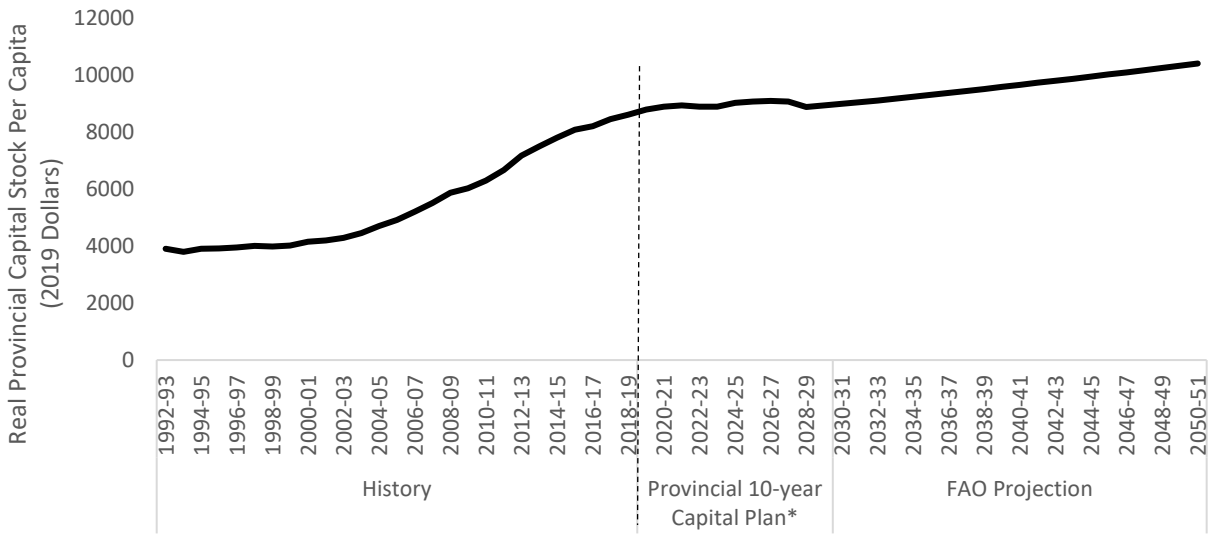
Based on the government’s capital expenditure plan, the Province expects to invest \$144 billion in public sector infrastructure over the next 10 years.<sup>49</sup> However, these planned capital investments will only be sufficient to maintain the real per capita stock of provincial infrastructure<sup>50</sup> at approximately its current level. In contrast, the real per capita stock of provincial infrastructure increased by almost 50 per cent over the previous 10-year period from 2008-09 to 2018-19.

Beyond the government’s 10-year capital plan, the FAO projects capital spending based on key demand factors for public sector infrastructure, including population growth, price inflation and economic growth. Based on the FAO’s long-term projection, Ontario’s real per capita stock of provincial infrastructure will rise modestly over the remaining 20 years of the long-term projection. Steady on-going investments in provincial infrastructure will contribute to additional government borrowing over the outlook.

<sup>49</sup> See [2019 Ontario Economic Outlook and Fiscal Review](#), Page 10.

<sup>50</sup> This is the dollar value of provincial infrastructure per Ontarian after adjusting for inflation.

## Provincial capital stock per Ontarian projected to increase slowly



Source: Ontario Economic Outlook and Fiscal Review, Statistics Canada and FAO. Pre-2010 values are derived from CANSIM table: 36-10-0096-01.

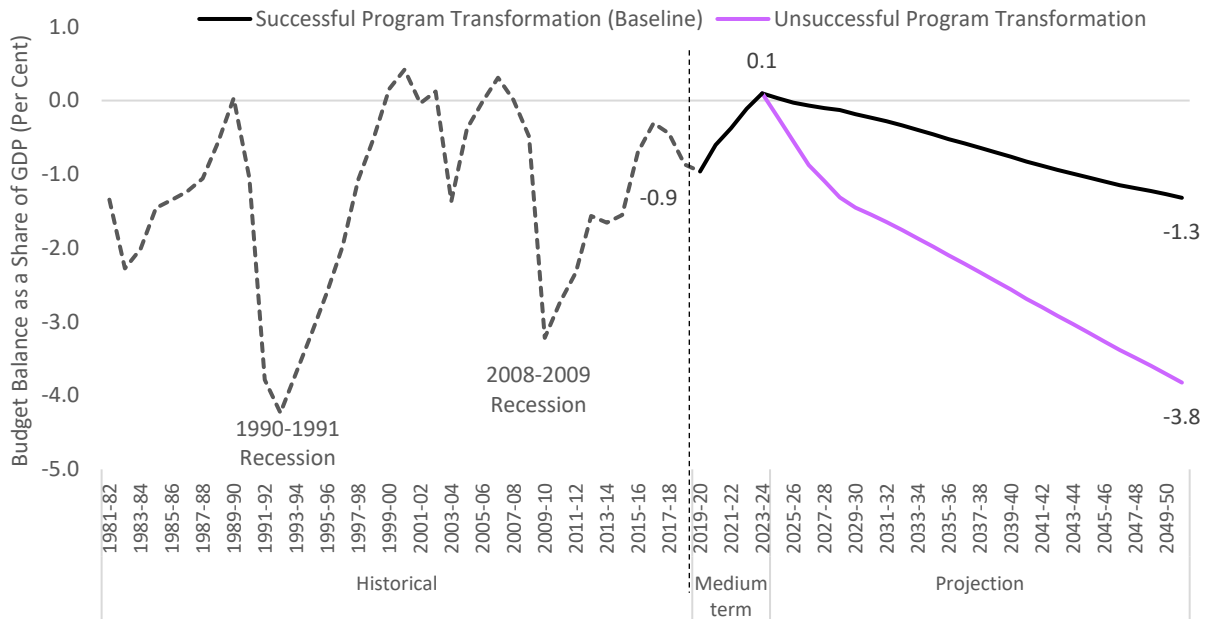
\* As of the 2019 Ontario Economic Outlook and Fiscal Review.

## Budget Balance and Debt Outlook

Over the next three decades, more moderate revenue growth combined with spending pressures will present challenges for the province’s fiscal position. Under both the baseline projection and the alternative scenario, overall government spending will exceed revenues, leading to increasingly large budget deficits over the outlook. However, the path of Ontario’s future debt burden depends dramatically on the success of the government’s program spending reforms.

In the FAO’s baseline outlook, the budget is projected to gradually deteriorate from a balanced position in 2023-24 to a deficit of 1.3 per cent of GDP by 2050-51. In contrast, under the unsuccessful program transformation scenario, the deterioration in the budget would be much more dramatic with a deficit of 3.8 per cent of GDP by 2050-51. Historically, Ontario has experienced deficits of this magnitude only during recessions.

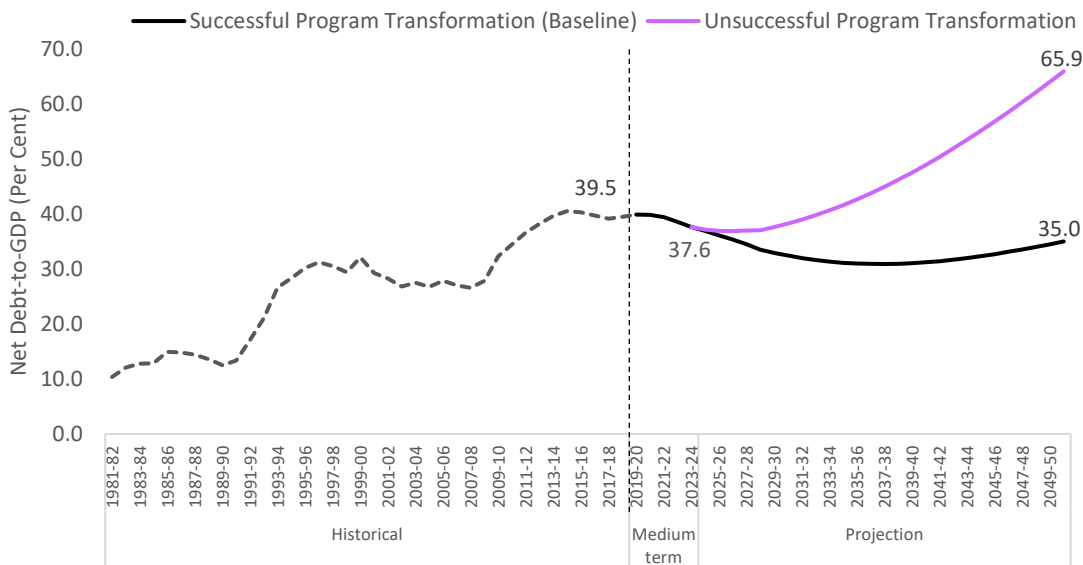
## Budget deficit projected to deteriorate over the outlook



Source: Ontario Public Accounts and Budgets, Statistics Canada and FAO.

In the baseline outlook, Ontario’s net debt-to-GDP ratio is projected to reach 35.0 per cent by 2050-51, below the current ratio of 39.5 per cent. In sharp contrast, under the unsuccessful program transformation scenario, rapidly rising deficits would push Ontario’s debt-to-GDP ratio to 65.9 per cent by 2050-51.

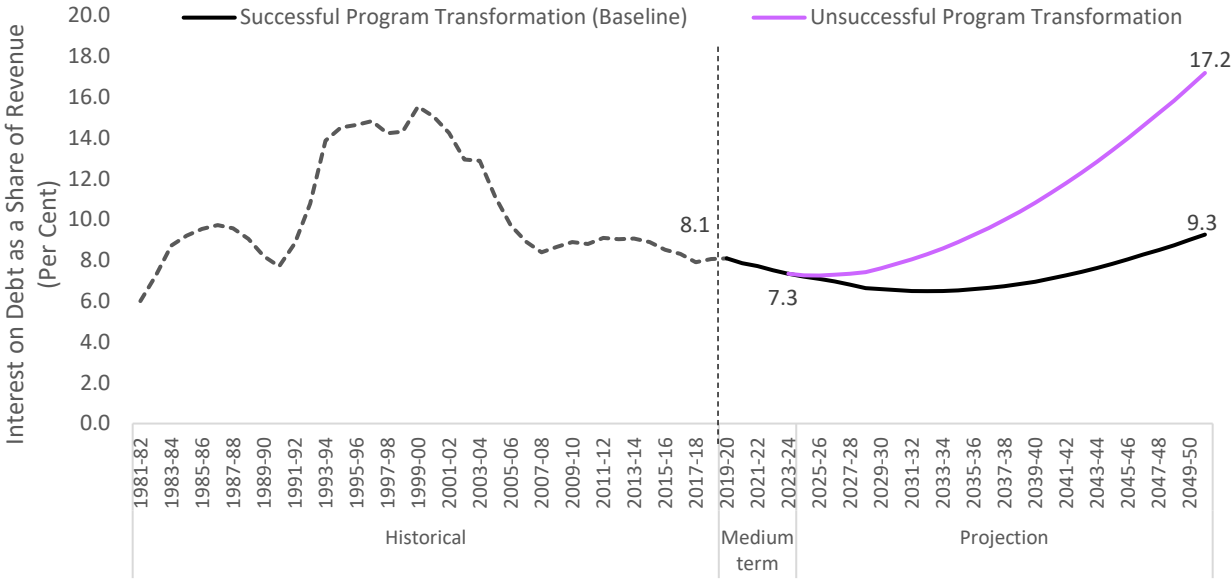
## Debt-to-GDP could rise dramatically depending on success of government’s current program changes



Source: Ontario Public Accounts and Budgets, Statistics Canada and FAO.

In the baseline projection, Ontario’s debt interest payments rise only modestly over the outlook, reaching 9.3 cents for every dollar of revenue by 2050-51. With the dramatically higher debt burden in the unsuccessful program transformation scenario, Ontario’s debt interest payments would rise much more sharply, accounting for more than 17 cents of every dollar of revenue by 2050-51.

**Debt interest as a share of revenue could more than double by 2050**



Source: Ontario Public Accounts and Budgets, and FAO.

While there is considerable uncertainty associated with Ontario’s future economic and fiscal performance, the current government’s actions over the next several years are likely to have a significant impact on the long-term fiscal outlook for the province.

If the government’s program reforms for health care, education and social services deliver permanent efficiencies and cost savings, Ontario’s long-term fiscal position would improve.

If instead the government relies on temporary cost-cutting measures that do not deliver permanent savings, Ontario’s long-term fiscal outlook would be challenging and likely require significant future policy changes.

**Comparison with the FAO’s 2017 Long-term Budget Outlook**

The following section compares the current long-term projections for Ontario’s budget balance and net debt with projections from the FAO’s 2017 Long-term Budget Outlook (LTBO) report.<sup>51</sup> In general, the current updated fiscal projections are consistent with the projections from the FAO’s 2017 report.

**Current baseline projection corresponds to fiscal adjustment scenario from 2017 LTBO**

In the 2017 LTBO, the FAO projected that a fiscal adjustment (that is a revenue increase or spending reduction) of at least 0.5 per cent of GDP, or approximately \$4 billion, would be required to maintain Ontario’s net debt-to-GDP ratio below 40 per cent over the projection. Under this fiscal adjustment

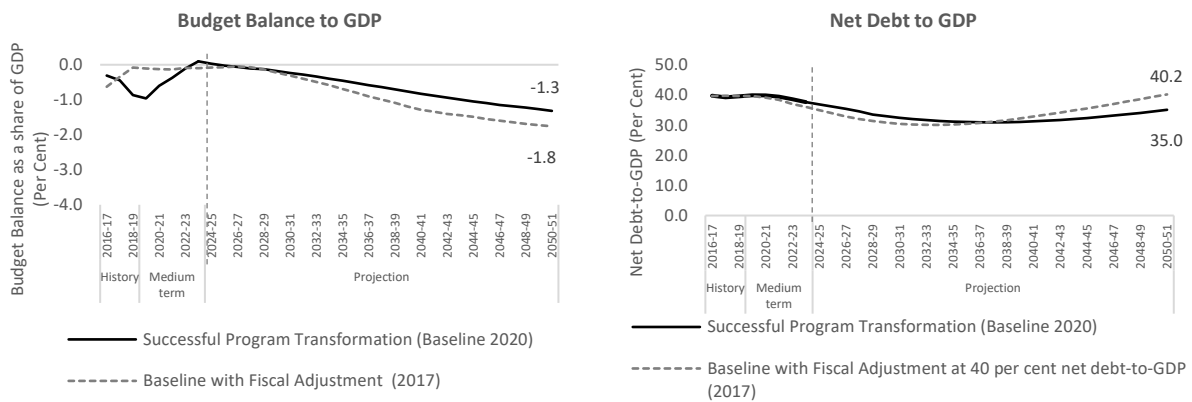
<sup>51</sup> See [Long-Term Budget Outlook 2017](#), FAO, Fall 2017.



scenario, Ontario’s budget deficit was still projected to rise steadily over the projection, reaching 1.8 per cent of GDP by 2050-51.

If the government’s current medium-term plan is successful, a somewhat larger fiscal adjustment than estimated in the 2017 LTBO would be achieved. Specifically, under the FAO’s current baseline projection, the budget deficit would reach 1.3 per cent of GDP by 2050-51, a smaller deficit than projected under the fiscal adjustment scenario from the 2017 LTBO. Similarly, under the current baseline projection, Ontario’s net debt-to-GDP ratio would reach 35 per cent by 2050-51, lower than the approximately 40 per cent projected in the 2017 LTBO.

### Comparison of current baseline projection with the fiscal adjustment scenario from the 2017 LTBO



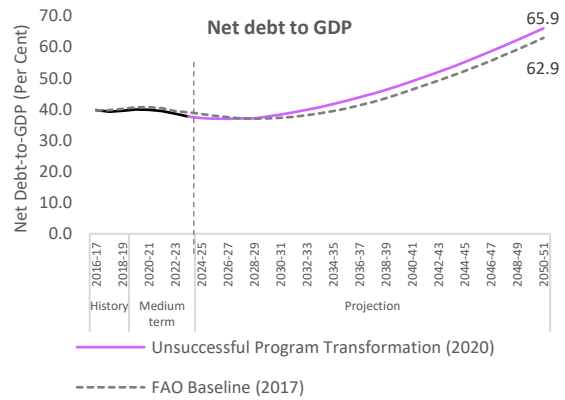
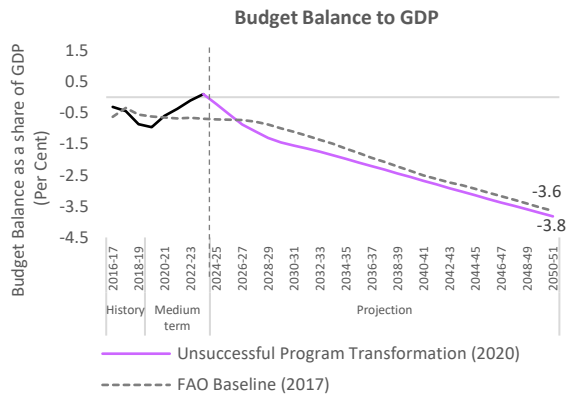
Source: Ontario Public Accounts and Budgets, Statistics Canada and FAO.

### Current alternative scenario corresponds to 2017 LTBO’s baseline projection

Under the 2017 LTBO’s baseline projection, increasingly large budget deficits were forecast, reaching 3.6 per cent of GDP by 2050-51. Rising deficits in the 2017 LTBO’s baseline projection resulted in a significant jump in the net debt-to-GDP ratio, which reached nearly 63 per cent by 2050-51.

In the current alternative scenario, the government fails to find significant spending efficiencies resulting in a period of sharp increases to program spending to address built-up demand for additional public services. Under this scenario, Ontario’s budget balance reaches 3.8 per cent of GDP by 2050-51, generally consistent with the 2017 LTBO’s baseline projection. Sharply higher deficits push Ontario’s net debt to GDP ratio to 65.9 per cent by 2050-51 in the current alternative projection, slightly above the baseline projection from the 2017 LTBO.

## Comparison of current alternative projection with 2017 LTBO's baseline forecast



Source: Ontario Public Accounts and Budgets, Statistics Canada and FAO.

# Appendix A1: Economic Projection Summary

Average Growth (Per Cent)	Historical		Projection				
	1992-2019*	2001-2019	2020-2023**	2024-2030	2031-2040	2041-2050	2020-2040
<b>Nominal GDP</b>							
FAO Base Case			3.6	3.9	3.9	3.9	3.8
Consensus*** Average	4.1	3.6	3.9	3.8	3.9	-	3.9
Ontario Finance****			3.9	4.0	4.0	-	4.0
<b>GDP Deflator</b>							
FAO Base Case			1.8	1.9	1.9	1.9	1.9
Consensus Average	1.6	1.8	2.0	1.9	1.8	-	1.9
Ontario Finance			1.7	2.0	2.0	-	1.9
<b>Real GDP</b>							
FAO Base Case			1.7	1.9	2.0	2.0	1.9
Consensus Average	2.5	1.8	1.9	1.9	2.0	-	2.0
Ontario Finance			2.2	2.0	2.0	-	2.1
<b>Labour Force</b>							
FAO Base Case			1.0	0.9	0.9	0.9	0.9
Consensus Average	1.3	1.3	1.3	1.0	0.9	-	1.0
Ontario Finance			1.0	0.8	0.8	-	0.8
<b>Labour Productivity</b>							
FAO Base Case			0.5	1.0	1.1	1.1	0.9
Consensus Average	1.1	0.7	0.6	1.0	1.1	-	1.0
Ontario Finance			1.0	1.2	1.2	-	1.2
<b>Employment</b>							
FAO Base Case			0.9	0.9	0.9	0.9	0.9
Consensus Average	1.4	1.3	1.3	0.9	0.9	-	1.0
Ontario Finance			1.2	0.8	0.8	-	0.9
<b>Unemployment Rate</b>							
FAO Base Case			5.8	5.9	5.8	5.7	5.8
Consensus Average	7.5	6.9	5.4	5.5	5.7	-	5.6
Ontario Finance			6.3	5.9	5.6	-	5.8
<b>Population</b>							
FAO Base Case			1.6	1.1	1.0	1.0	1.2
Consensus Average	1.2	1.2	1.3	1.2	1.0	-	1.1
Ontario Finance			1.2	1.1	0.9	-	1.0
<b>Consumer Price Index</b>							
FAO Base Case			2.0	2.0	2.0	2.0	2.0
Consensus Average	1.9	2.0	2.0	2.0	2.0	-	2.0
Ontario Finance			2.0	2.0	2.0	-	2.0

Source: Statistics Canada and FAO.

\* Reflects the period since the Bank of Canada began inflation targeting.

\*\* Reflects the FAO's economic projection from the 2019 Fall Economic and Budget Outlook.

\*\*\* Consensus includes forecasts from the University of Toronto's Policy and Economic Analysis Program and the Conference Board of Canada.

\*\*\*\* Ontario Finance numbers are based on [Ontario's Long-term Report on the Economy](#), Ontario Ministry of Finance, 2017. These growth rates are based on the 2016-40 period.

# Appendix A2: Fiscal Projection Details

Component (per cent of GDP)	Actual (Average)		Projection (Average)			
	1989-90 to 2018-19	2019-20 to 2023-24	2024-25 to 2030-31	2031-32 to 2040-41	2041-42 to 2050-51	2019-20 to 2050-51
Total Revenue	16.9	17.3	16.9	16.8	16.6	16.8
Tax Revenue	12.2	11.9	11.6	11.6	11.6	11.6
Personal Income Tax	4.3	4.1	4.0	4.2	4.3	4.2
Corporations Tax	1.6	1.8	1.8	1.7	1.6	1.7
Harmonized Sales Tax	2.9	3.1	3.2	3.2	3.1	3.2
Other Tax Revenue	3.4	2.8	2.6	2.5	2.5	2.6
Transfer Revenue	2.4	2.9	2.8	2.7	2.6	2.7
Other Revenue	2.3	2.6	2.5	2.5	2.4	2.5
<b>Successful Program Transformation (Baseline)</b>						
Total Expense	18.2	17.7	17.0	17.3	17.7	17.4
Program Expense	16.4	16.3	15.9	16.2	16.3	16.2
Health	6.2	6.9	7.0	7.8	8.5	7.7
Education	3.4	3.2	2.9	2.9	2.8	2.9
Other Program Expense	7.6	6.3	5.9	5.5	5.0	5.6
Public Debt Interest	1.8	1.3	1.2	1.1	1.4	1.2
Surplus (Deficit)	-1.3	-0.4	-0.1	-0.5	-1.1	-0.6
Net Debt	30.0	39.1	34.5	31.2	33.0	33.7
<b>Unsuccessful Program Transformation</b>						
Total Expense	18.2	17.7	17.9	18.9	19.9	18.8
Program Expense	16.4	16.3	16.7	17.3	17.5	17.1
Health	6.2	6.9	7.5	8.6	9.4	8.3
Education	3.4	3.2	3.1	3.1	3.0	3.1
Other Program Expense	7.6	6.3	6.0	5.7	5.2	5.7
Public Debt Interest	1.8	1.3	1.3	1.6	2.4	1.7
Surplus (Deficit)	-1.3	-0.4	-1.0	-2.2	-3.3	-2.0
Net Debt	30.0	39.1	37.3	43.5	57.9	45.9

Source: Ontario Public Accounts and Budgets, Statistics Canada and FAO.

# Methodology

## Health Care Spending

The FAO's long-term projection for health care spending reflects core demand factors.

- **Demographics:** Ontario's aging population will put increasing pressure on health care spending, as the large baby boom cohort begins to require significantly more health care services. According to the Canadian Institute for Health Information, the annual per capita health care cost for an average 50-year-old is \$3,600. This increases to \$5,800 for an average 60-year-old and to \$18,000 for an average 80-year-old.<sup>52</sup>
- **Higher Prices for Health Care Services:** Consumer price inflation is expected to average 2.0 per cent over the projection. Since health care delivery is more labour intensive than other sectors of the economy, health care prices typically rise at a faster pace than overall consumer prices.
- **Health Care Enrichment:** Enrichment is the change in health care spending not accounted for by population growth, aging or price inflation. In addition to demographic factors, the demand for health services can also increase due to the introduction of new technologies, rising incomes, and the underlying health of the population, among other factors.<sup>53</sup>

## Baseline Projection and Alternative Scenario Assumptions

**Successful Program Transformation (Baseline):** Health care spending is consistent with the government's medium-term spending plan over the 2019-20 to 2023-24 period.<sup>54</sup> Beginning in 2024-25, health care spending grows in-line with underlying demand drivers and the average historical pace of health care enrichment at 0.9 per cent.

**Unsuccessful Program Transformation:** Under the alternative scenario, the government's medium-term spending plan does not fully address the demand for health care services, leading to pent-up spending pressures. To address the resulting spending pressure, the FAO assumes a catch-up period from 2024-25 to 2028-29, which raises health spending growth over these years to an average annual rate of 7.2 per cent. The 7.2 per cent growth rate reflects spending growth of 5.2 per cent due to core demand drivers plus an assumed higher pace of average enrichment at 2 per cent. The additional enrichment of 2 per cent is modestly lower compared to the enrichment observed over similar historical periods.

Over the rest of the projection, health spending grows at an average annual rate of 4.9 per cent, reflecting core demand drivers and an average historical enrichment rate of 0.9 per cent. The five-year period of catch-up spending (from 2024-25 to 2028-29) raises average projected health spending over the 2024-25 to 2050-51 period by 0.4 per cent per year.

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<sup>52</sup> National Health Expenditure Trends, 1975 to 2019: Data Tables, Canadian Institute for Health Information, 2019.

<sup>53</sup> For example, if a new drug becomes available, health care enrichment would capture the expansion of the Ontario Drug Benefit Program to cover the increase in per capita prescription costs. See chapter 4 of the Ontario Ministry of Finance's [Toward 2025: Assessing Ontario's Long-Term Outlook](#) for a discussion of this topic.

<sup>54</sup> The government's spending plan is based on updated program spending by sector from the 2019 Fall Economic Statement combined with program spending growth assumed in the 2019 Ontario Budget for 2022-23 and 2023-24.

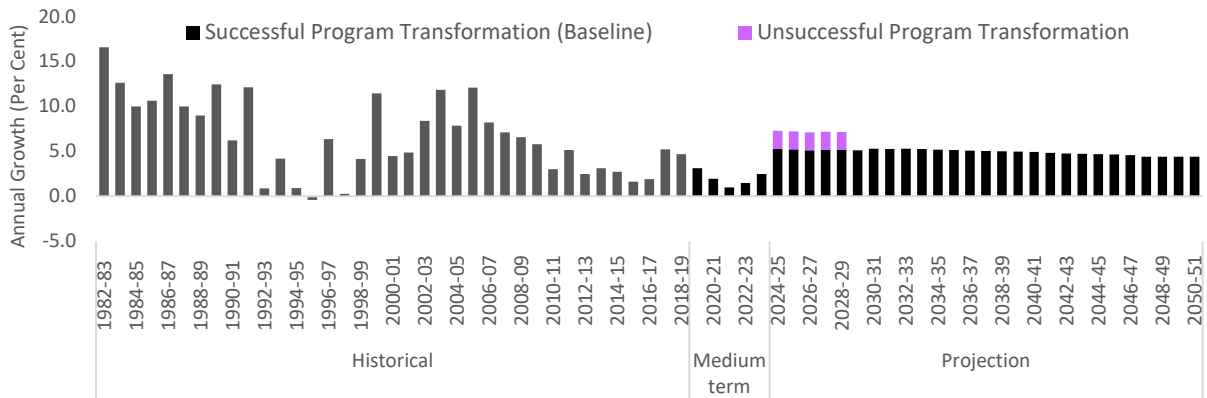
## Components of the Health Care Spending Projection

(Average Growth, Per Cent)	Historical 1994-95 to 2018-19	Medium Term 2019-20 to 2023-24	Successful Fiscal Transformation (Baseline) 2024-25 to 2050-51	Unsuccessful Fiscal Transformation 2024-25 to 2050-51
Health Inflation	2.2	2.2	2.2	2.2
Population Growth	1.2	1.6	1.0	1.0
Population Aging	0.7	0.8	0.8	0.8
Enrichment	0.9	-2.6	0.9	0.9
Catch-up spending	-	-	-	0.4
<b>Total</b>	<b>5.0</b>	<b>2.0</b>	<b>4.9</b>	<b>5.3</b>

Note: Numbers may not add due to rounding.

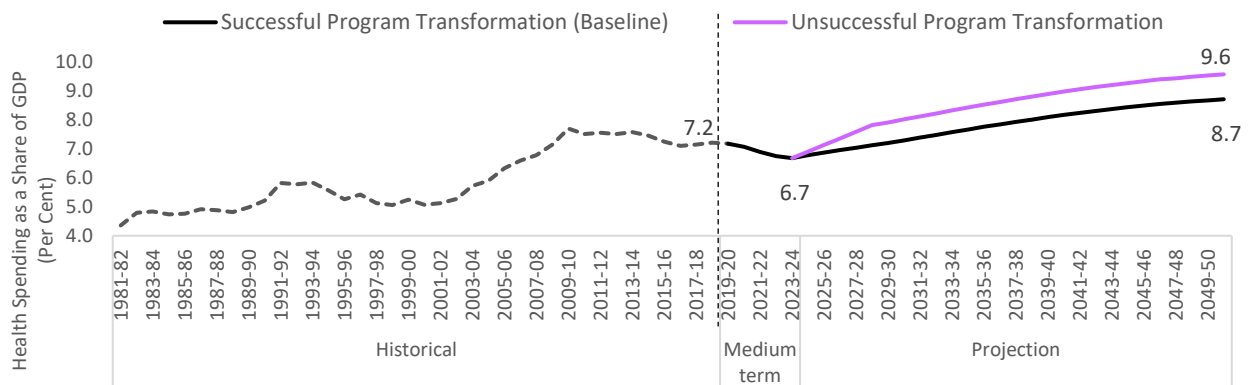
Source: Ontario Public Accounts and Budgets, Statistics Canada, Canadian Institute for Health Information and FAO.

## Historical and projected annual spending growth in health



Source: Ontario Public Accounts and Budgets, and FAO.

## Health spending under the FAO's alternative program spending scenarios



Source: Ontario Public Accounts and Budgets, Statistics Canada and FAO.

## Education Spending

The FAO's long-term projection for education spending reflects core demand factors.

- **Demographics:** The school-age population in Ontario is projected to increase at an average pace of 0.9 per cent per year over the outlook, compared to 0.4 per cent average annual increases over history. The faster pace of growth of the school-age population will place upward pressure on education spending.
- **Inflation:** Consumer price inflation is expected to average 2.0 per cent per year over the projection.
- **Education Enrichment:** Education enrichment is the change in education spending not accounted for by school-age population growth or inflation.

### Baseline Projection and Alternative Scenario Assumptions

**Successful Program Transformation (Baseline):** Education spending reflects the government's medium-term spending plan over the 2019-20 to 2023-24 period, after which the FAO assumes education spending will grow in-line with cost drivers and at the long-term historical enrichment average of 0.7 per cent.

**Unsuccessful Program Transformation:** Under the alternative scenario, the medium-term spending plan leads to a build-up of spending pressure. To address the resulting spending pressure, the FAO assumes a three-year catch-up period from 2024-25 to 2026-27, raising education spending growth over these years to an average annual rate of 5.5 per cent. The 5.5 per cent growth rate reflects spending growth of 3.5 per cent due to core demand drivers plus an assumed higher pace of average enrichment at 2 per cent. The additional enrichment of 2 per cent is modestly lower compared to the enrichment observed over similar historical periods.

Over the rest of the projection, education spending is projected to grow at an average annual growth rate of 3.7 per cent, in-line with demand drivers and historical enrichment of 0.7 per cent per year. The higher spending growth during the three-year catch-up period raises the projected growth in education spending by 0.2 per cent per year over the 2024-25 to 2050-51 period.

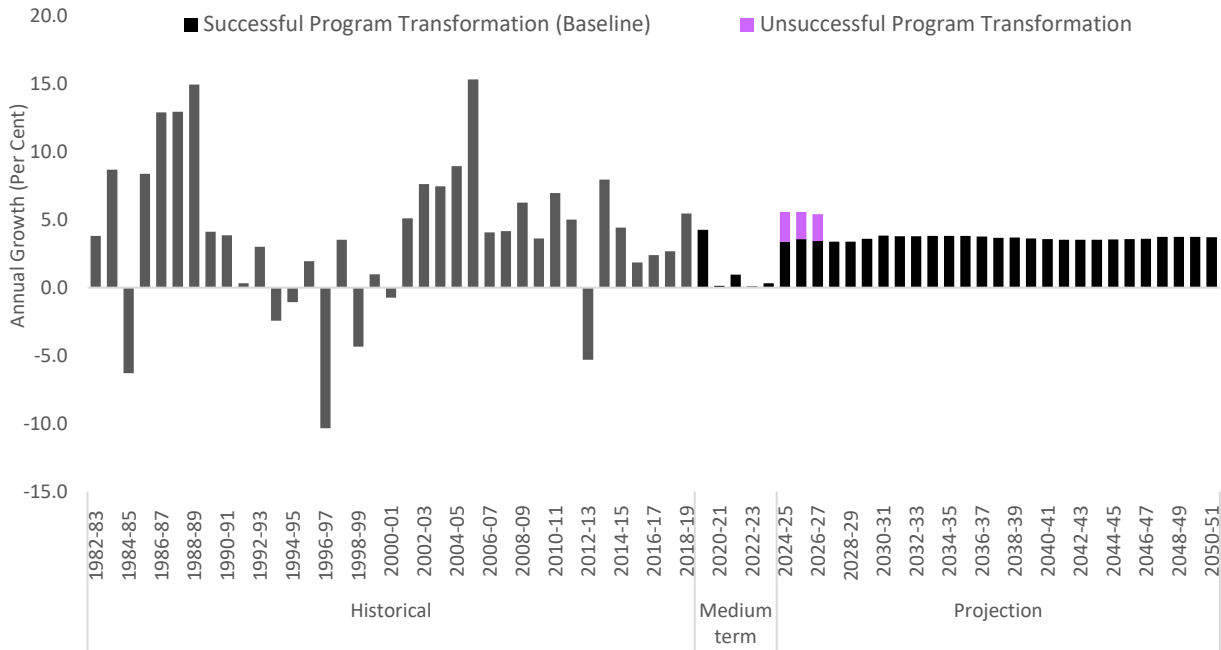
### Components of the K-12 Education Spending Projection

(Average Growth, Per Cent)	Historical 1994-95 to 2018-19	Medium Term 2019-20 to 2023-24	Successful Fiscal Transformation (Baseline) 2024-25 to 2050-51	Unsuccessful Fiscal Transformation 2024-25 to 2050-51
Inflation	1.9	2.0	2.0	2.0
School-Age Population Growth	0.4	0.8	0.9	0.9
Enrichment	0.7	-1.7	0.7	0.7
Catch-up Spending	-	-	-	0.2
<b>Total</b>	<b>3.0</b>	<b>1.1</b>	<b>3.6</b>	<b>3.9</b>

Note: Numbers may not add due to rounding.

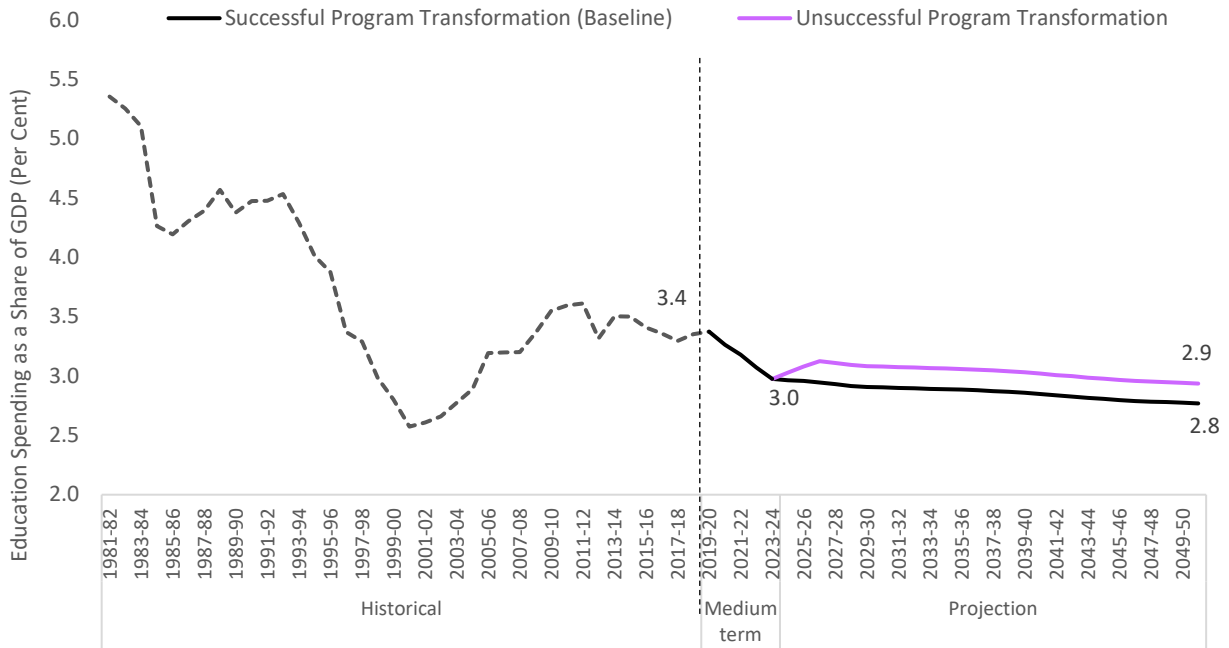
Source: Ontario Public Accounts and Budgets, Statistics Canada and FAO.

## Historical and projected annual spending growth in education



Source: Ontario Public Accounts and Budgets, and FAO.

## Education spending under the FAO's alternative program spending scenarios



Source: Ontario Public Accounts and Budgets, Statistics Canada and FAO.



## All Other Program Spending

All other program spending includes post-secondary education, justice, children and youth services, and several other program areas. Over the long term, the FAO projection for other spending is based on core demand factors.

- **Demographics:** In the 2020s, the echo boom cohort will have graduated from post-secondary education, contributing to slower growth of other program spending. In the 2030s, the children of the echo boom begin post-secondary education, leading to a moderate increase in other program spending growth.
- **Inflation:** Consumer price inflation is expected to average 2.0 per cent over the projection.
- **Other Program Enrichment:** Other program enrichment is the change in other spending not accounted for by population growth or inflation.

### Baseline Projection and Alternative Scenario Assumptions

**Successful Program Transformation (Baseline):** The FAO adopts the government’s medium-term spending plan for all other sectors over the 2019-20 to 2023-24 period. Beyond the government’s spending plan, the FAO assumes an enrichment of 0.1 per cent per year. The enrichment rate reflects Ontario’s historical experience.

**Unsuccessful Program Transformation:** Under the alternative scenario, the medium-term spending plan leads to a build-up of spending pressure. To address the resulting spending pressure, the FAO assumes a three-year catch-up period from 2024-25 to 2026-27, raising all other program spending growth over these years to an average annual rate of 3.6 per cent. The 3.6 per cent growth rate reflects spending growth of 3.5 per cent due to core demand drivers plus an assumed higher pace of average enrichment at 1 per cent. The additional enrichment of 1 per cent is modestly lower compared to the enrichment observed over similar historical periods.

Over the rest of the projection, all other spending is projected to grow at an average annual growth rate of 3.0 per cent, in-line with demand drivers and historical enrichment of 0.1 per cent per year. The higher spending growth during the three-year catch-up period raises the projected growth in all other spending by 0.1 per cent per year over the 2024-25 to 2050-51 period.

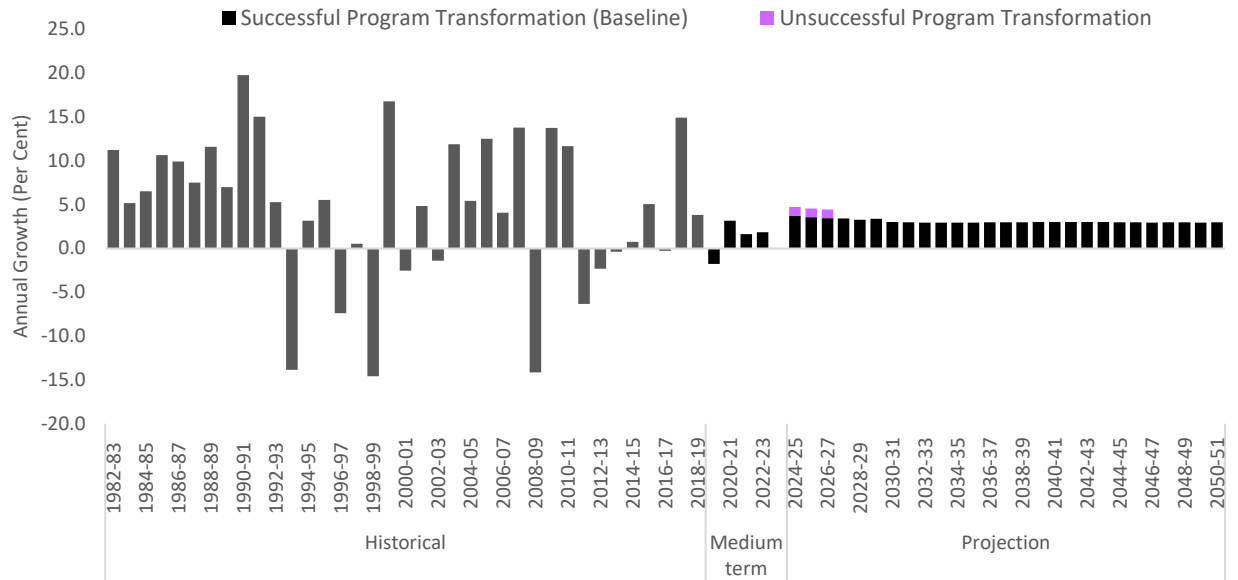
### Components of the All Other Program Spending Projection

(Average Growth, Per Cent)	Historical 1994-95 to 2018-19	Medium Term 2019-20 to 2023-24	Successful Fiscal Transformation (Baseline) 2024-25 to 2050-51	Unsuccessful Fiscal Transformation 2024-25 to 2050-51
Inflation	1.9	2.0	2.0	2.0
Population Growth	1.2	1.6	1.0	1.0
Enrichment	-0.1	-2.6	0.1	0.1
Catch-up Spending	-			0.1
<b>Total</b>	<b>3.0</b>	<b>1.0</b>	<b>3.1</b>	<b>3.2</b>

Note: Numbers may not add due to rounding.

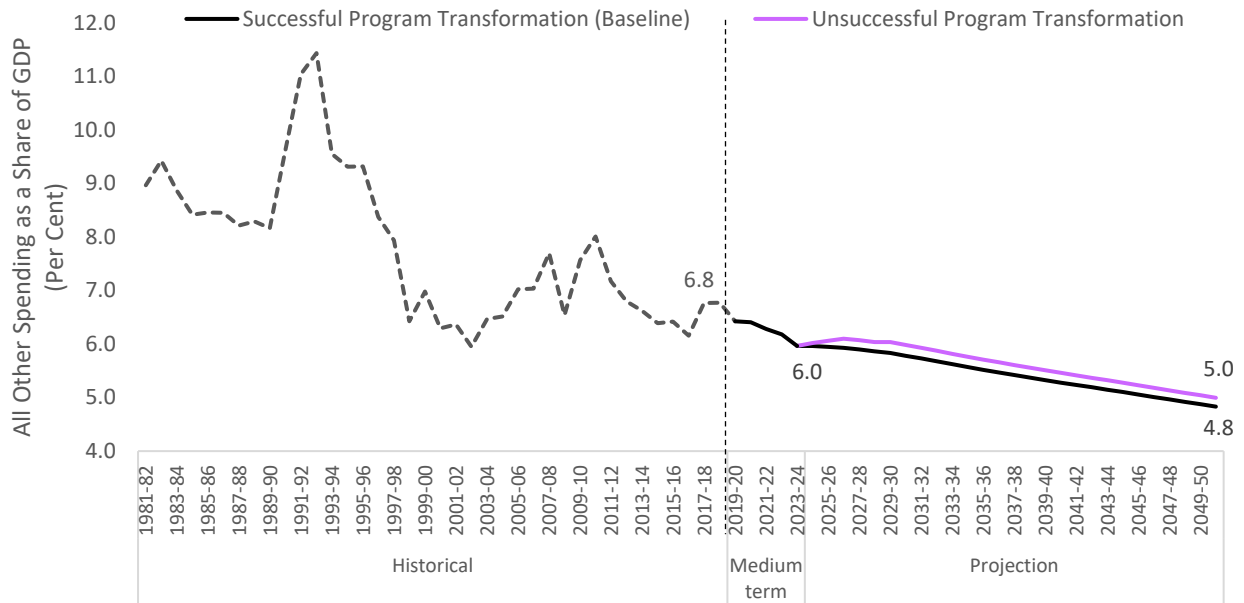
Source: Ontario Public Accounts and Budgets, and FAO.

## Historical and projected annual spending growth in all other spending



Source: Ontario Public Accounts and Budgets, and FAO.

## All other program spending trajectory under alternate fiscal scenario



Source: Ontario Public Accounts and Budgets, Statistics Canada and FAO.





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