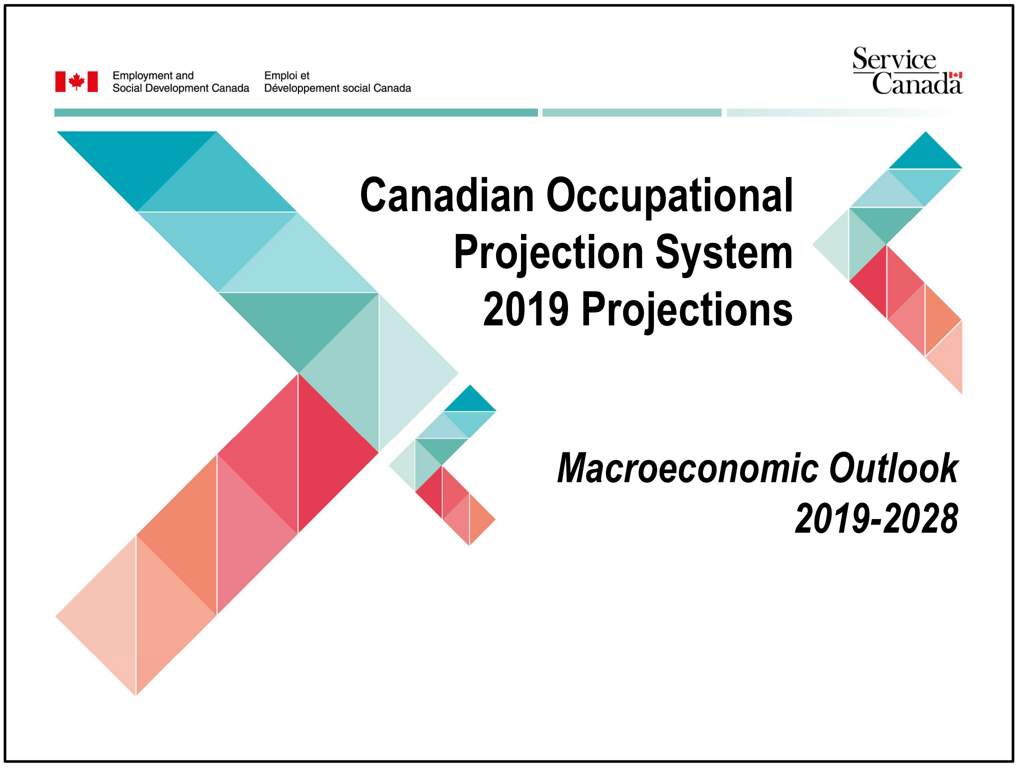


NOTE: The current COPS projections were completed in 2019, well before the 2020 COVID-19 outbreak that resulted in exceptional and abrupt economic and labour market disruptions in Canada as well as abroad. However, the focus of the COPS projections is on long-term trends in industrial and occupational labour markets, not on short-term developments. At the moment, these long-term trends are not expected to be affected markedly by the COVID-19 outbreak as its impacts are generally foreseen to be temporary.

Outline

- Demographics, Labour Force and Potential GDP
- External and Domestic Drivers of Aggregate Demand
- Composition of Growth in Aggregate Demand

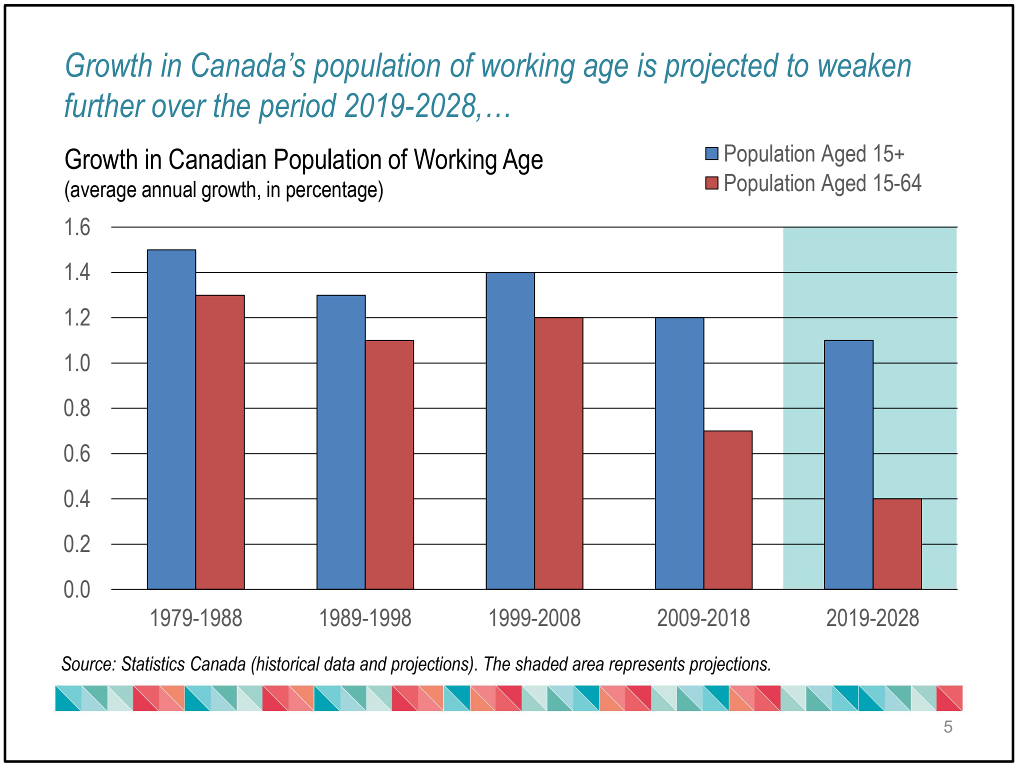
Introduction

The occupational projections prepared under the Canadian Occupational Projection System (COPS) require the production of a macroeconomic outlook to determine the future long-term trends in overall employment growth and in the distribution of employment across industries and occupations.

This document presents the macroeconomic outlook that underlies the 2019 COPS projections. This outlook was developed in collaboration with the Conference Board of Canada based on information available as of Spring 2019.

The future long-term trends in Canada's economic growth will be heavily influenced by demographic developments, namely slower population growth and population aging. Such demographic changes, which cannot be avoided, are projected to have a major influence in the long-term evolution of Canada's labour force, employment, and economic potential.

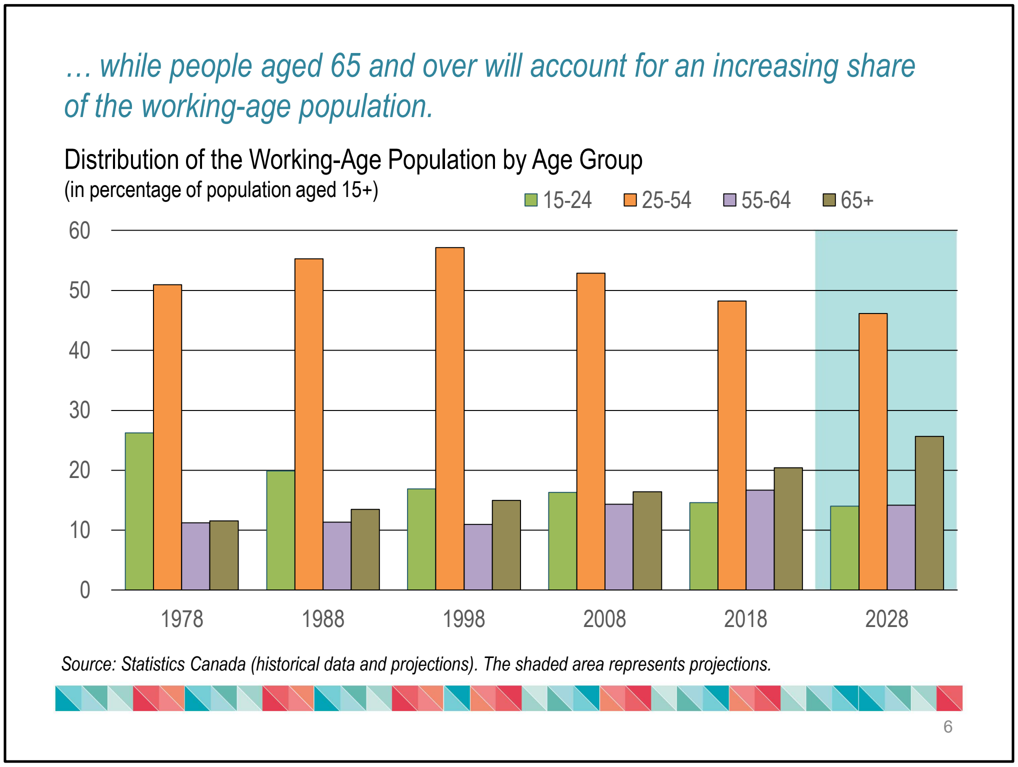
Demographics, Labour Force and Potential GDP



- The pace of growth in the working-age population (15 and over) is projected to keep slowing over the period 2019-2028, particularly among those aged 15-64.

- Growth in population aged 15 and over is projected to average 1.1% annually, down from 1.2% over the period 2009-2018 and 1.4% over the period 1999-2008. This slowdown reflects a decline in the natural increase of the population (births minus deaths) attributable to a low fertility rate and a rise in deaths due to population aging. The projected increase in life expectancy and in the number of immigrants will not be quite enough to offset the growth deceleration of the working-age population.

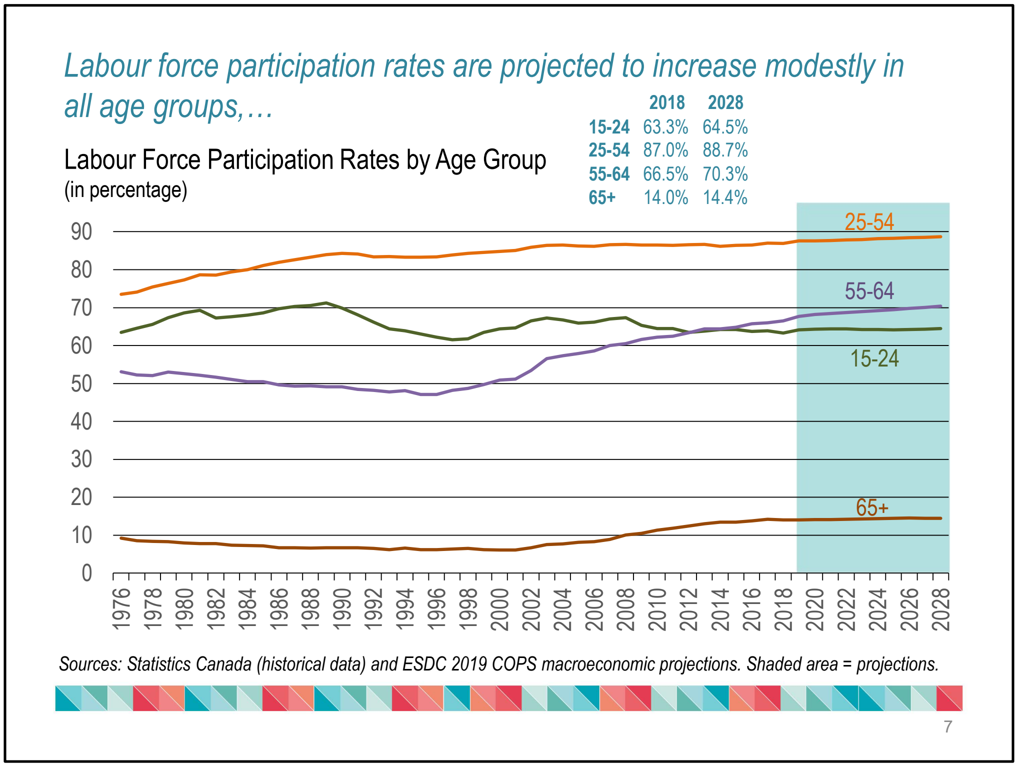
- The slowdown is projected to be even more pronounced for those aged 15-64 due to the aging of baby-boomers (born between 1946 and 1965) who have started turning 65 in 2011. As baby-boomers represent Canada's largest generation in history, this will reduce population growth in the 15-64 age group to an average of 0.4% annually over the projection period, down from 0.7% over the period 2009-2018 and 1.2% over the period 1999-2008.



- More baby-boomers will be entering in the 65+ age group over the projection period, boosting population growth in the older age group relative to the younger age groups.

- As a result, the 65+ age group will account for an increasing share of the working-age population. By 2028, those aged 65+ are projected to represent 26% of the working-age population, up from 21% in 2018 and 16% in 2008. In comparison, those aged 55 to 64 are projected to account for 14% of the working-age population in 2028.

- This means that 40% of the labour force source population will be aged 55 and over by 2028, compared to 37% in 2018 and 31% in 2008.



- Participation rates are projected to edge up in all age groups over the period 2019-2028, with the largest increase among the 55-64 years old.

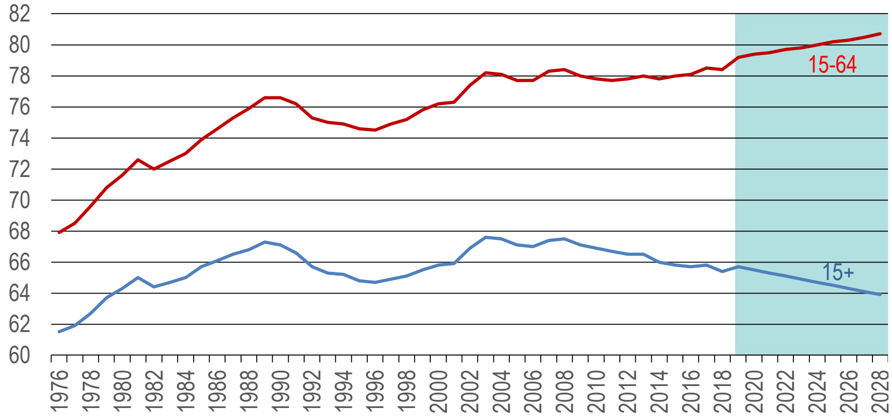
- Labour market attachment is also projected to increase among those aged 25-54, albeit to a lesser extent than their older counterparts, partly reflecting a leveling out of women's participation rate in the prime age group and slower growth in the average level of education.

- After having been negatively affected by the 2008-2009 recession, the participation rate in the 15-24 age group straightened modestly starting in 2013-2014, reflecting more favourable labour market conditions for youths as the residual effects of the recession gradually disappeared. While the participation rate in this age group is projected to increase somewhat further in 2019, labour market attachment among youths is expected to remain essentially stagnant thereafter, partly due to the rising trend in post-secondary school enrollment and the leveling off in the share of students in the labour force.

- In the older age groups of 55-64 and 65+, the participation rates are expected to continue to increase as new cohorts tend to retire at a later age than previous cohorts, partly because they are more educated and in better health. The pace of increase in their participation rates is, however, projected to slow with the gradual fading of intergenerational differences.

… but the lower labour force attachment of older individuals will continue to pull down the overall labour force participation rate (15+).

Overall Labour Force Participation Rate (15+ and 15-64)
(in percentage)



Sources: Statistics Canada (historical data) and ESDC 2019 COPS macroeconomic projections. Shaded area = projections.

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- Despite the projected increases in the participation rate among all age groups, the overall participation rate of the population aged 15 and over is expected to keep declining during the period 2019-2028 as a result of population aging.

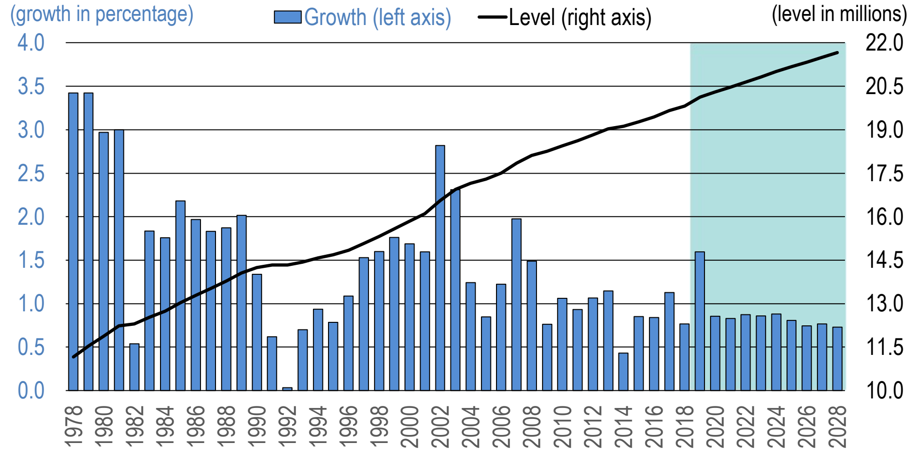
- Indeed, the shift in the age composition of the working-age population towards the lower attachment group of 65+ is projected to push further down the overall participation rate by 1.5 percentage points, from 65.4% in 2018 to 63.9% in 2028 (the proportion of people with low participation rates will continue to increase, while the proportion of people with high participation rates will continue to decrease, lowering the average participation rate further in the working-age population of 15+).

- In contrast, the participation rate for those aged 15-64 is expected to keep increasing over the projection period, up by 2.3 percentage points, from 78.4% in 2018 to 80.7% in 2028. While labour force participation is also expected to increase somewhat further among those aged 65+, their participation rate will remain much lower relative to the other age groups, standing at 14.4% by 2028 (see previous chart).

Population aging and slower growth in the population of working-age will continue to constrain growth in the labour force.

Average annual growth:
2009-2018: +0.9%
2019-2028: +0.9%

Total Labour Force



Sources: Statistics Canada (historical data) and ESDC 2019 COPS macroeconomic projections. Shaded area = projections.

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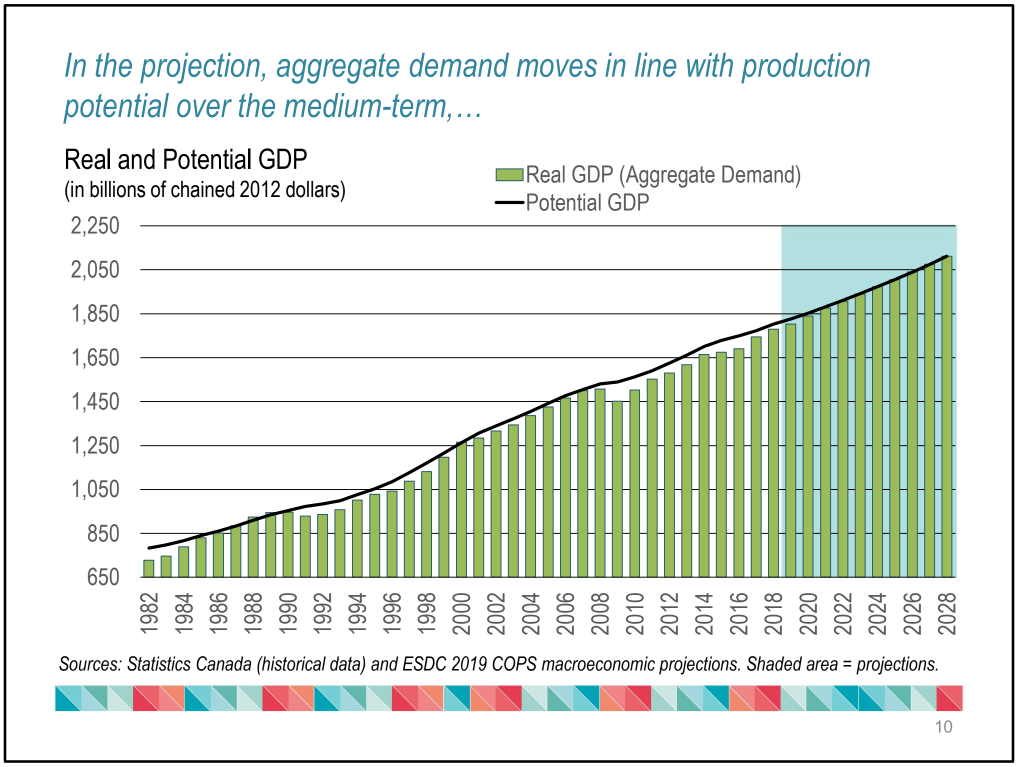
- The total number of people in the labour force is the product of the working-age population and the overall participation rate:

  (Labour Force 15+ = Population 15+ x Participation Rate 15+)

- Slower growth projected in the working-age population and further declines anticipated in the overall participation rate will continue to limit labour force growth over the period 2019-2028.

- Indeed, while the number of people entering the labour market will continue to exceed the number of people leaving the labour force, the gap is expected to remain relatively small over the projection period, largely due to the additional number of baby-boomers who will retire from the labour market.

- Although labour force growth is projected to be particularly strong in 2019 at 1.6%, it is expected to average 0.8% annually for the rest of the projection period (2020-2028), compared to 0.9% over the period 2009-2018.



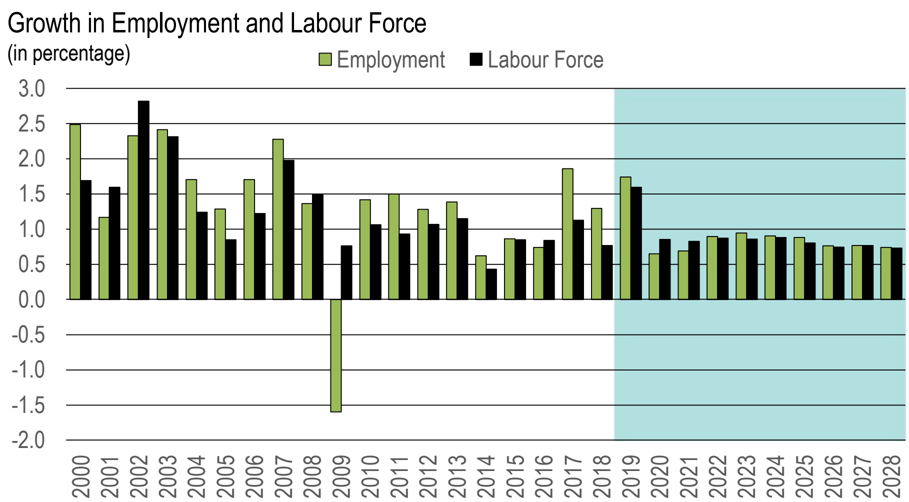
- In the long-term, aggregate demand is determined by potential GDP, which is the level of activity the economy can reach when all factors of production are fully and efficiently utilized.
    - Potential output is a function of the size of the labour force, the level of fixed capital, and total factor productivity.

- Over the period 2003-2007, growth in aggregate demand outpaced growth in potential output, creating some pressures in the labour market and lowering the unemployment rate significantly. Thereafter, the economy went into recession and aggregate demand fell below potential output, leading to a negative output gap.

- The economic recovery that followed the recession of 2008-2009 led to a gradual closure of the output gap over the period 2010-2018, with the exception of 2015-2016 when growth in aggregate demand weakened as a result of major investment cutbacks from the energy sector due to the sharp decline in crude oil prices.

- It is estimated that a small negative output gap still existed in 2018. Growth in aggregate demand is expected to exceed growth in potential output during the first half of the projection period, allowing the Canadian economy to fully close the output gap and return to potential GDP by 2024. Thereafter, aggregate demand moves in line with potential GDP.

... allowing employment to increase in line with labour force growth and the unemployment rate to remain relatively low.



Sources: Statistics Canada (historical data) and ESDC 2019 COPS macroeconomic projections. Shaded area = projections.

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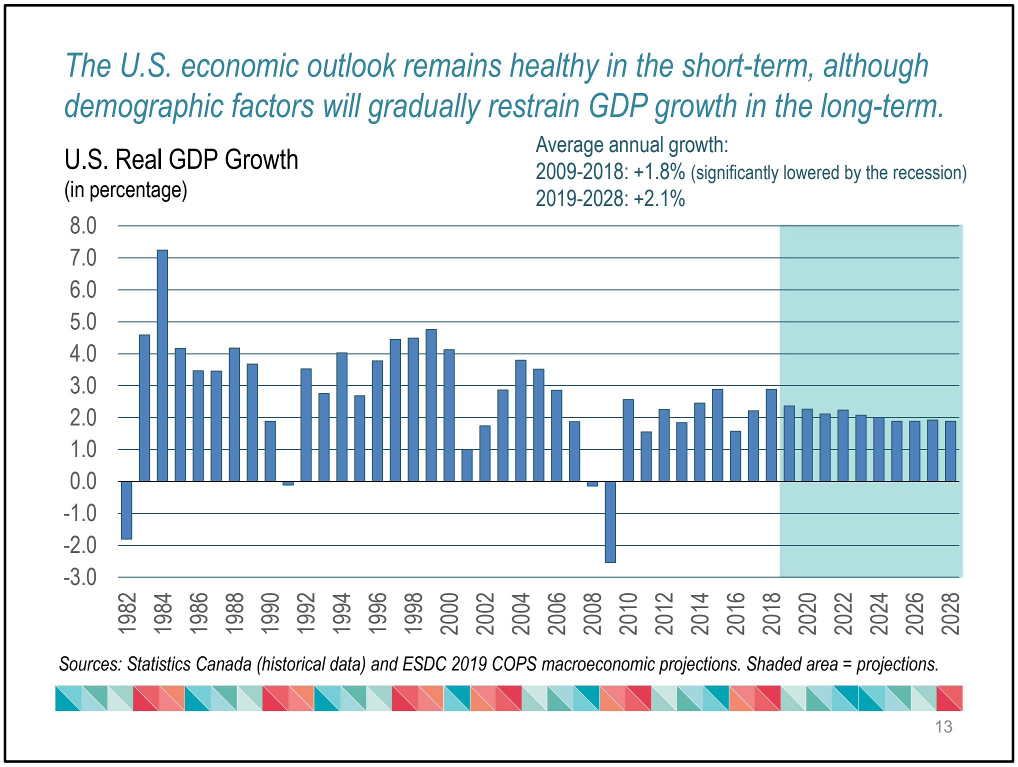
- In 2017 and 2018, employment growth largely exceeded labour force growth, pushing the unemployment rate to historical lows. This situation is projected to persist in 2019.
- Starting in 2020, however, employment growth will become increasingly constrained by slower growth in the labour force resulting from demographic pressures on labour supply, particularly population aging.
- In addition to restraining labour force growth, massive retirements of baby-boomers from the labour market will continue to generate job vacancies and absorb a significant number of unemployed people, contributing to maintain the unemployment rate low.
- The resulting pace of growth in employment is projected to be 1.7% in 2019 and average 0.8% annually for the rest of the projection period (2020-2028), compared to 0.9% over the period 2009-2018.

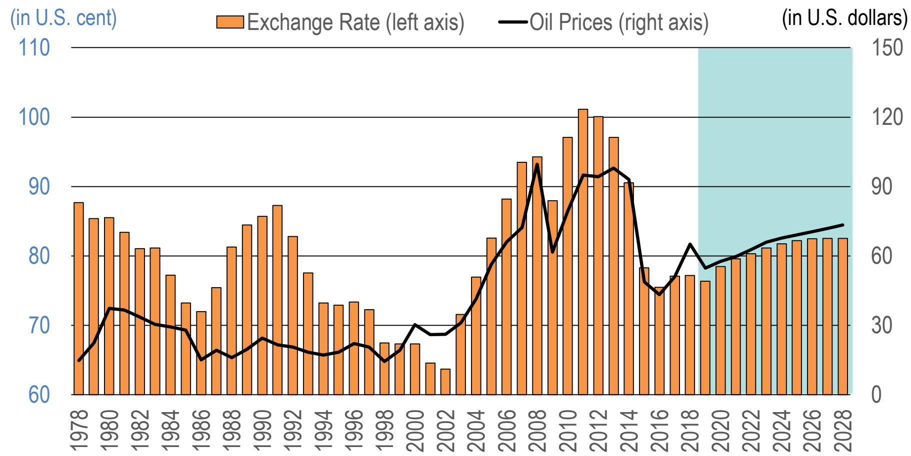
External and Domestic Drivers of Aggregate Demand



- Real GDP growth in the United States accelerated significantly in recent years and labour markets have reached full-employment levels. The economic outlook remains healthy in the short-term, although GDP is expected to grow at a more sustainable pace, primarily reflecting slower growth in business investment, but also weaker increases in consumer spending and exports. The rapid fading of the stimulus impacts from the 2018 tax cuts, past increases in interest rates, surging fiscal deficits, lower business and consumer confidence, trade tensions with China and other countries, weaker global economic growth, and concerns linked to the Brexit saga are the main factors responsible for a more tenuous U.S. outlook over the short-term.
- Over the medium- to long-term, the impacts of demographic changes on domestic demand and potential output are expected to intensify, restraining economic growth further in the United States. Indeed, growth in the labour force will gradually weaken due to slower growth in the working-age population and massive retirements of baby-boomers.
- The most important impact on aggregate demand should be felt on household consumption and residential investment. The pace of growth in household consumption is projected to weaken as an increasing number of people will be entering their high-savings pre-retirement years. At the same time, slower population growth should lead to a gradual decline in the pace of household formation, and therefore, weaker increases in residential investment. Population aging and growing fiscal deficits are also expected to put pressures on public finances, limiting the capacity of the U.S. federal government to stimulate economic growth.
- The resulting pace of growth in U.S. real GDP is projected to average 2.1% annually over the period 2019-2028, compared to 1.8% for the period 2009-2018 and 2.2% for the period 2010-2018 (i.e. when excluding the recession year of 2009).

The projected level of the Canadian dollar relative to the U.S. dollar is partly supported by the modest recovery anticipated in world oil prices.

Canada-U.S. Exchange Rate and World Oil Prices



Sources: Statistics Canada (historical data) and ESDC 2019 COPS macroeconomic projections. Shaded area = projections.

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- Since the early 2000s, the movement in the value of the Canadian dollar against the U.S dollar largely reflected fluctuations in world prices for commodities, particularly oil prices.

- The rapid decline in world oil prices in 2014-2015 has resulted in a steep depreciation of the Canadian dollar relative to the U.S. dollar. Oil prices reached a bottom in 2016 and have since partially recovered, but excess supply continues to constrain prices.

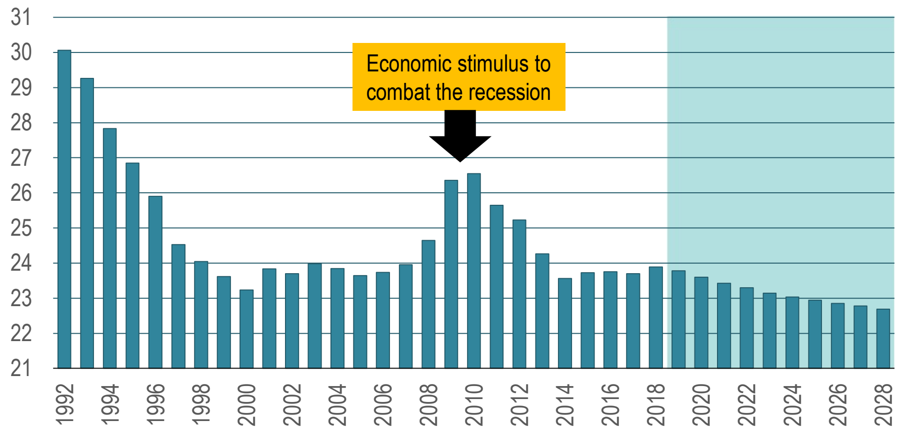
- In 2016, interest rates in Canada were raised for the first time in nearly seven years. They were increased again in 2017 and 2018 in response to faster than anticipated economic growth, diminishing excess capacity and inflationary pressures. Although no increase in interest rates is anticipated in 2019, the Bank of Canada could resume raising interest rates over the coming years if the tightening of the labour market translates into inflationary pressures on wages and the prices of goods and services.

- With the gradual tightening of the monetary policy and the modest recovery anticipated in crude oil prices, the Canadian dollar is projected to appreciate slowly over the projection period and reach around 0.83 U.S. dollar by 2028.

- On average, the projected value of the Canadian dollar for the period 2019-2028 remains significantly below the value recorded in the previous ten years (0.81 versus 0.88 U.S. dollar).

Increasing pressures on public finances are expected to restrain growth in government spending over the projection period.

Canada's Government Spending as a Share of Total Real GDP
(in percentage) (includes government expenditures and investment)



Sources: Statistics Canada (historical data) and ESDC 2019 COPS macroeconomic projections. Shaded area = projections.

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- After increasing rapidly in 2009 and 2010 due to the implementation of large stimulus packages to combat the recession, the share of government spending in total GDP fell back from 2011 to 2014, reflecting the federal and provincial governments' decision to curtail growth in program spending in an attempt to return to fiscal balance.

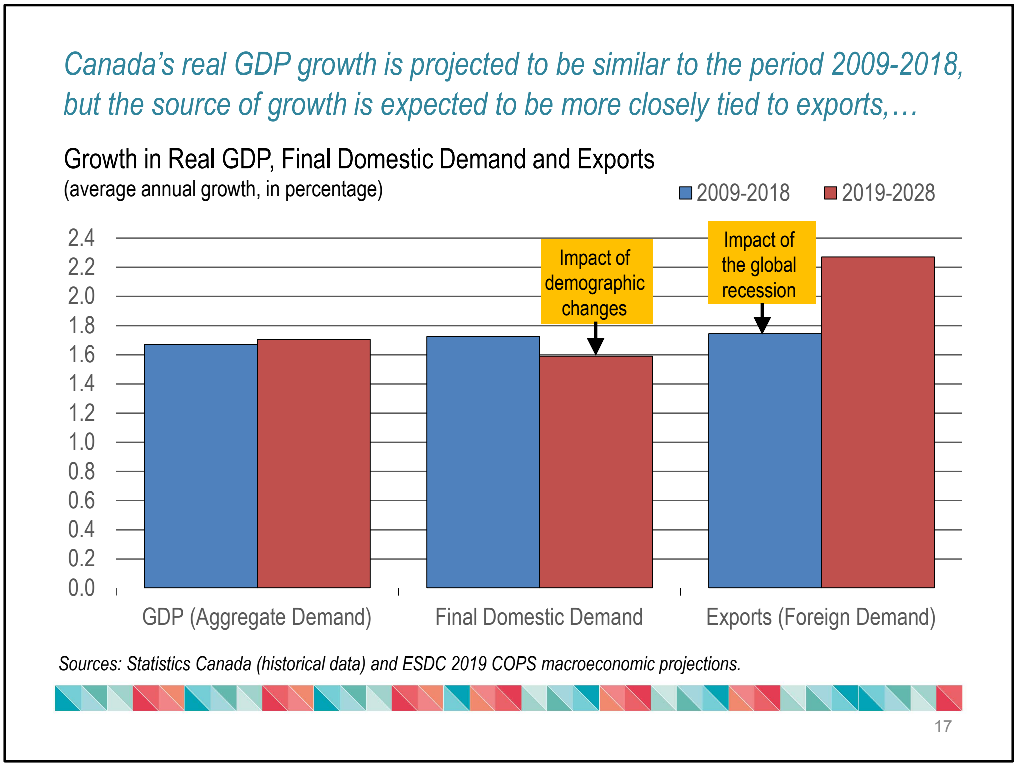
- With the federal and many provincial governments committed to increase infrastructure spending, public investment grew significantly in 2017-2018, posting its largest gain since the 2009-2010 stimulus package. This factor, combined with stronger growth in government expenditures on goods and services, has contributed to maintain the share of government spending in total GDP relatively stable over the past four years. Indeed, the recent ramp-up in public spending was also accompanied by faster economic growth in 2017-2018, leaving the ratio essentially unchanged relative to 2015-2016.

- However, starting in 2019, the share of government spending in total GDP is expected to decline gradually as a result of deficit reduction efforts, especially at the provincial level, restraining the impact of the public sector on economic growth.

- Over the longer term, demographic changes will constrain employment and real GDP growth in Canada, which in turn will reduce growth in government revenues, thus limiting the capacity of governments to increase expenditures.

Composition of Growth in Aggregate Demand

Aggregate Demand = Real GDP = Final Domestic Demand + (Exports - Imports)
= Final Domestic Demand + Net Exports



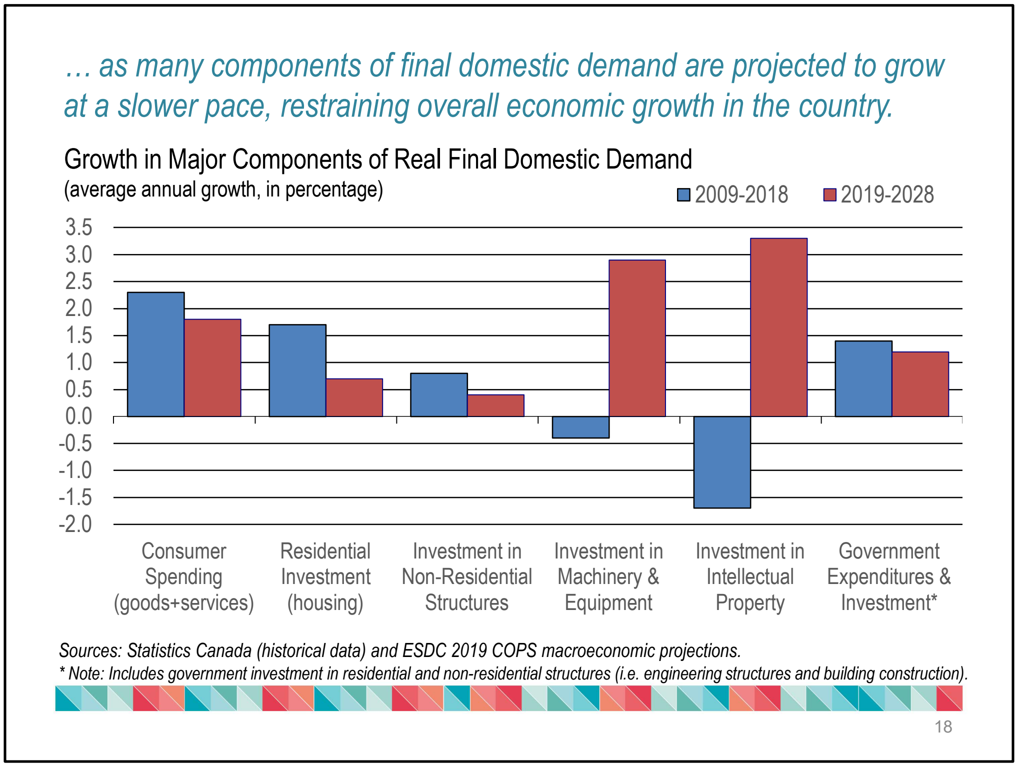
- The faster pace of growth projected in exports over the period 2019-2028 is expected to be accompanied by slower growth in final domestic demand. The resulting growth rate in Canada's real GDP is projected to average 1.7% annually, a pace similar to the period 2009-2018.

EXPORTS:

- The average pace of growth recorded in Canadian exports over the period 2009-2018 was substantially lowered by the weakness in foreign demand brought by the global recession of 2008-2009. Canadian exports plunged by 13% in 2009, before increasing at an average annual rate of 3.5% from 2010 to 2018. The resulting pace of growth for the full period 2009-2018 was 1.7% annually, while it is projected to average 2.3% over the period 2019-2028.
- Encouraging fundamentals such as additional demand from the United States, the relatively low value of the Canadian dollar and greater diversification on global markets are expected to contribute positively to Canada's export sector over the projection period. However, challenges such as slower global economic growth, capacity constraints and threats of greater protectionism are also expected to restrain export activity. Nevertheless, the resulting pace of growth in exports is projected to outpace growth in the overall economy over the next ten years, increasing the share of exports in total GDP.

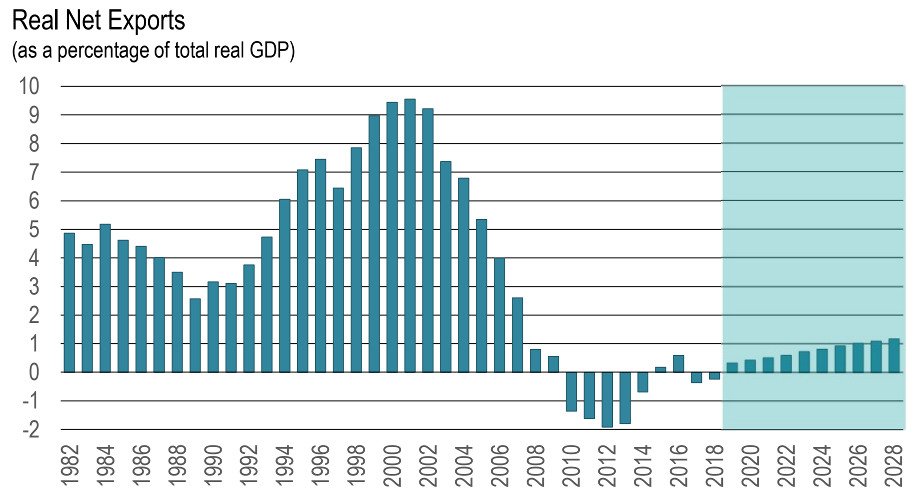
FINAL DOMESTIC DEMAND:

- The pace of growth in final domestic demand is projected to weaken over the period 2019-2028, as changing demographics is expected to restrain growth in consumer spending and residential investment and put additional pressures on public finance. Growth in non-residential investment is also projected to slow, primarily reflecting a weaker outlook for investment in engineering structures from the resources extraction industries. However, investment in machinery and equipment (M&E) and intellectual property products (such as software and research and development) is projected to straighten markedly in response to rapid technological innovations and demographic pressures on labour supply.



- Many components of final domestic demand are projected to grow at a slower pace over the period 2019-2028, lowering growth in final domestic demand relative to the period 2009-2018.
- Weaker growth anticipated in consumer spending is primarily attributable to demographic changes. Slower growth in the working-age population (15 years and over) is expected to constrain employment growth, while the aging of the population will result in massive retirements of baby-boomers from the labour market. These two factors are expected to restrain growth in disposable income and, as a result, growth in consumer spending. High household debt levels and potential increases in interest rates are also expected to weigh on consumer spending, particularly for big-ticket items. Consumption growth is projected to slow for most categories of goods and services.
- Growth in residential investment is also projected to weaken. The recent cooling of the housing market, a gradual decline in household formation, a shift in the composition of housing starts towards multi-family homes, and eventual increases in mortgage rates are expected to restrain growth in new home construction, renovation spending and ownership transfer costs (associated with the resale of existing houses). The slower pace of growth projected in non-residential investment primarily reflects anaemic growth in investment related to engineering structures from the resources extraction industries in response to a tepid outlook for crude oil prices. In contrast, growth in non-residential building investment is expected to accelerate, partly in response to high industrial capacity utilization rates, low office vacancy rates in the Toronto and Vancouver areas, and robust demand for warehouse space due to the growing adoption of e-commerce. After experiencing negative growth in the past ten years due to the 2008-2009 recession and the 2014-2015 fall in crude oil prices, investment in machinery and equipment and intellectual property products (mineral exploration, research and development, software) is expected to straighten markedly, driven by rapid technological innovations, demographic pressures on labour supply and the need to increase productivity.
- Deficit reduction efforts, particularly in the provinces, and additional pressures on public finances due to demographic changes are expected to restrain growth in government expenditures and investment over the projection period.

Net exports are expected to improve modestly over the projection period, contributing positively to the increase in Canada's economic activity.



Sources: Statistics Canada (historical data) and ESDC 2019 COPS macroeconomic projections. Shaded area = projections.

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- As growth in real exports is projected to exceed growth in real imports, Canada's trade balance is improving modestly over the projection period, contributing positively to the increase in overall economic activity. The small trade deficit recorded in 2017-2018 is expected to turn into a small surplus in 2019, and this surplus is projected to grow marginally, reaching 1.2% of total real GDP in 2028.
- The projected improvement in net exports is primarily attributable to a competitive Canadian dollar and additional growth in foreign demand, particularly from the United States, which should allow the export sector to post faster gains over the period 2019-2028 (see page 17). The replacement of NAFTA by the Canada-United States-Mexico Agreement (CUSMA) and the recent removal of steel and aluminum tariffs between Canada and the United States are positive developments as they are expected to reduce uncertainty and avert major disruptions to trade flows across North America. The signing of the Comprehensive Economic Trade Agreement (CETA) with the European Union will also help Canada's trade sector to benefit from greater trade diversification. However, the short-term outlook for exports is sill subject to some uncertainty: there is no date set for the CUSMA ratification and Canada's diplomatic relations with China remain tense. In the longer term, gains in Canadian exports will become increasingly constrained by the gradual slowdown anticipated in U.S. economic growth, as demographic changes are expected to restrain the pace of growth in domestic demand and potential output in Canada's largest trading partner (see page 13).
- Growth in imports is projected to slow marginally over the period 2019-2028, reflecting the relatively low value of the Canadian dollar and the weaker pace of growth anticipated in final domestic demand. With population aging, Canadians are expected to consume more services and slightly fewer goods. Since services tend to have a lower import content, this compositional change in consumer demand is expected to restrain import activity somewhat. Inversely, the significant straightening anticipated in business investment in machinery and equipment (M&E) is expected to account for a significant share of the total increase in imports over the projection period, since industrial machinery and electronic equipment tend to have a high import content.

Conclusion

Changes in external and domestic drivers of aggregate demand are projected to lead to changes in the pace of growth of industrial output and employment, which in turn will affect occupational labour demand over the period 2019-2028.

See presentation titled: Industrial Outlook 2019-2028