

The COVID-19 Effect on GDP

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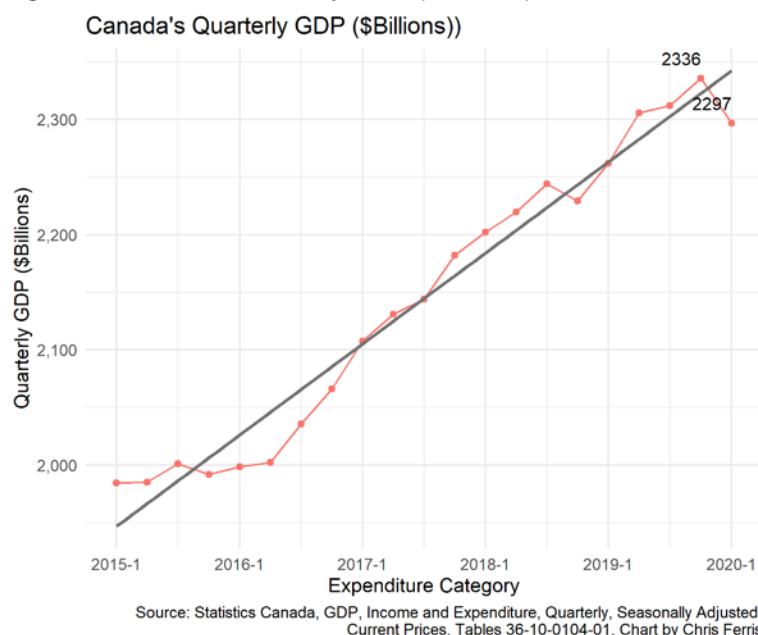
Bottom Line

Statistics Canada released its 2020-Q1 and March 2020 GDP estimates for Canada on May 29, 2020. In Q12020, GDP for all industries were down 2.1 per cent quarter over quarter. In March, the GDP for all industries was down 7.2 per cent month over month.

The March decline was driven by the COVID-19 pandemic, with service-producing industries falling in greatest numbers. Goods-producing industries held-up better than service producing industries in the early days of the COVID-19 lockdowns. The two worst GDP declines month/month were: **arts, culture and recreation industries which fell by 41.3 per cent, while accommodation and food services fell by 36.9 per cent.** Only utilities managed to eke out a small month/month gain of 0.4 per cent.

Using the employment and GDP relationship, we estimated a range of -14% to -34% for Canada's April/March percentage change in GDP. Given Statistics Canada's published April/March decline in Canada's employment of approximately 11%, we can calculate a ratio of these percentage changes and apply them to the Manitoba situation. We can then form an **estimated range GDP decline of -13% to -31% for Manitoba over the same period (April/March).**

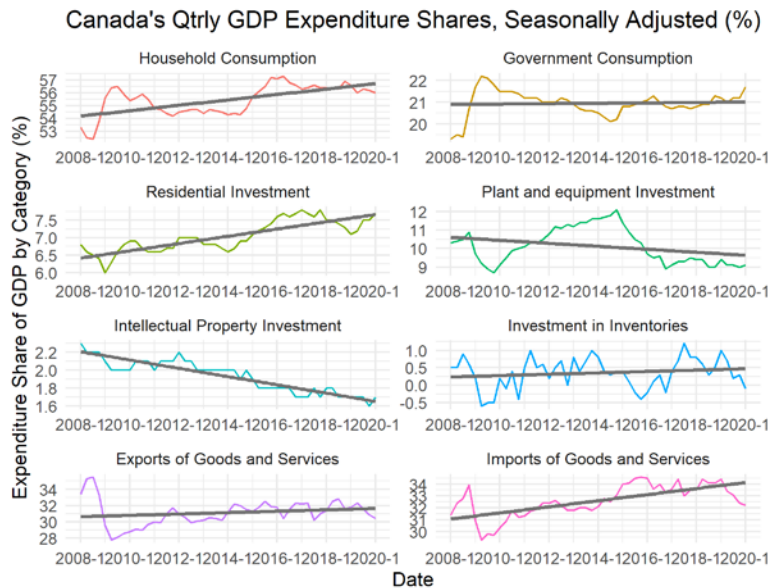
Figure 1: Canada's Quarterly GDP (\$Billions)



We saw a bounce back in both Manitoba (+2.3%) and Canada's (+1.8%) employment figures in the [May](#) timeframe, according to Statistics Canada's data release on Friday June 5, 2020. We expect that Canada's GDP will see a bounce back as well: between -3 and 7 %. Manitoba between -4 and 9 %. So long as we keep COVID-19 reasonably contained, we have a chance at keeping employment and GDP growing.

Canada's Quarterly GDP by Expenditure Categories

Figure 2: Canada's Quarterly GDP Expenditure Shares, Seasonally Adjusted (%)



Source: Statistics Canada, GDP, Income and Expenditure, Quarterly Seasonally Adjusted, Current Prices, Tables 36-10-0104-01, Chart by Chris Ferris

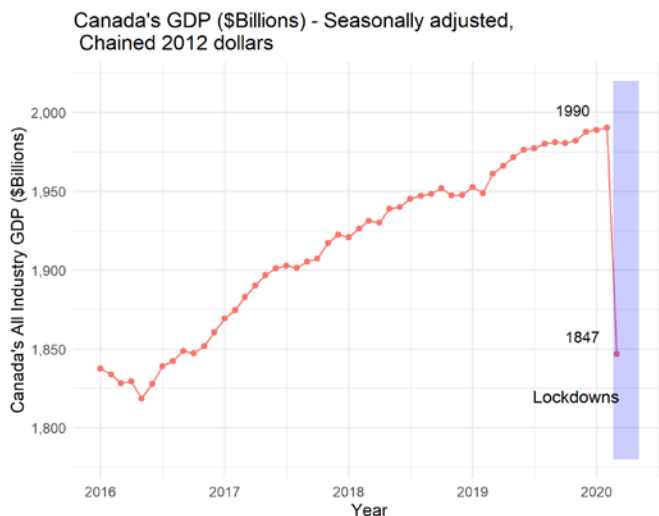
On May 29, 2020, Statistics Canada released GDP, income and expenditure for the first quarter of 2020. Real GDP fell 2.1 per cent in 2020-Q1 vs 2019-Q4 (**Figure 1**). Beginning in March 2020, COVID-19 led to the drop in household spending and the closure of businesses.

Household expenditures and government consumption represent the largest shares of GDP (**Figure 2**).¹ The decline reflects measures to contain the COVID-19 pandemic, including closures, border shutdowns and travel restrictions.

The quarterly data gives us some sense of the economy's broad evolution, but to understand the depths of the COVID-19 pandemic downturn, we need to look at the timelier monthly data.

Canada's March 2020 GDP by Industry

Figure 3: Canada's Monthly GDP (\$Billions)



Source: Statistics Canada, GDP by Industry, Monthly, Seasonally Adjusted Chained 2012 dollars, Tables 36-10-0434-01, Chart by Chris Ferris

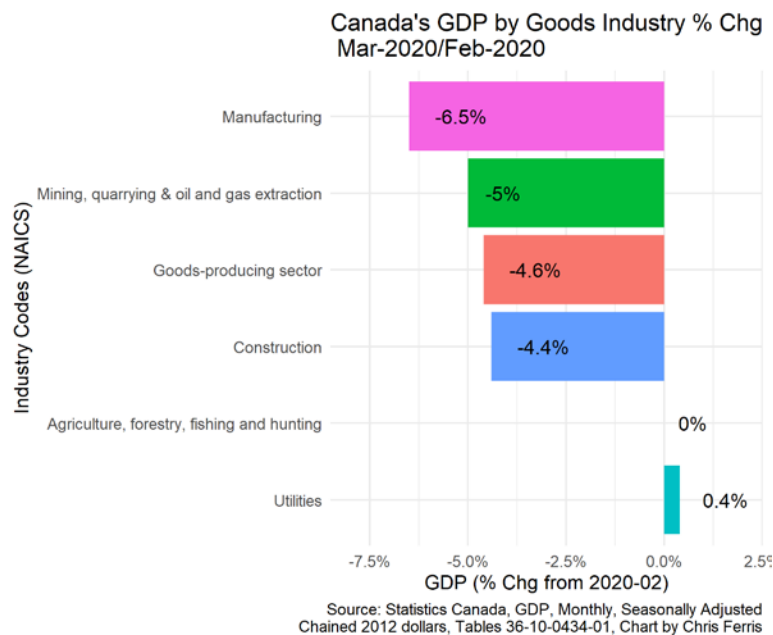
Statistics Canada also released Canada's monthly GDP by Industry for March 2020 on May 29, 2020.

Canada's GDP in March fell 7.2 per cent month over month (Figure 3). The industries producing services fell 8.1 per cent, while those industries producing goods fell 4.6 per cent in March.

¹ While exports and imports represent a large share of GDP, Net Exports = Exports – Imports represent a lower share of GDP.

Only part of the March data included the lockdowns. The April 2020 numbers will be down even further from the February numbers. This is because the lockdowns were in place for the entire month of April. **May should begin to see some improvements, since lockdowns began easing in early May.**

Figure 4: Canada's GDP by Goods Industries (% Chg.) Mar-2020/Feb-2020

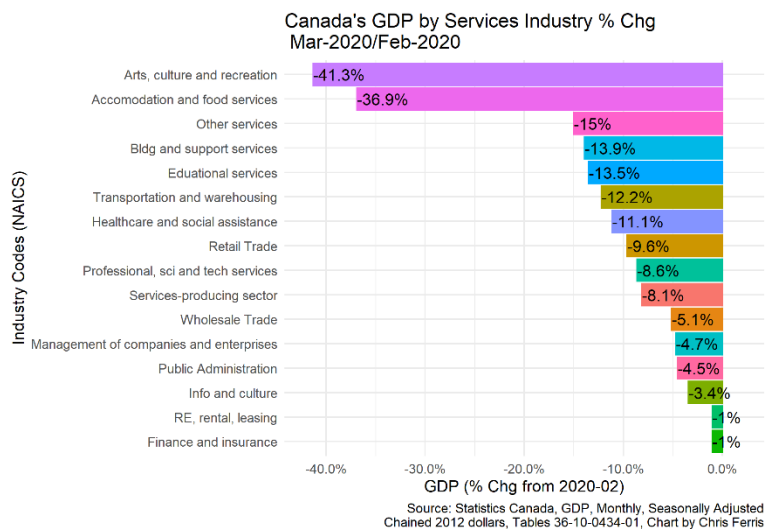


We looked at Canada's monthly GDP at the two-digit NAICS level to gain broad sense of changes by industry.

None of the goods-producing industries saw a month/month decline greater than the total industry average decline of 7.2 per cent.

- **Manufacturing** declined 6.5 per cent,
- **Mining, quarrying, & oil and gas extraction** declined 5 per cent,
- **Construction** fell 4.4 per cent,
- **Agriculture, forestry, fishing, and hunting** was unchanged, and
- **Utilities** managed to post a modest gain of 0.4 per cent.

Figure 5: Canada's GDP by Services Industries (% Chg.) Mar-2020/Feb-2020



For Canada, all 15 services-producing industries saw a month-over-month decline. Nine of those industries declined more than the industry average decline of 7.2 per cent.

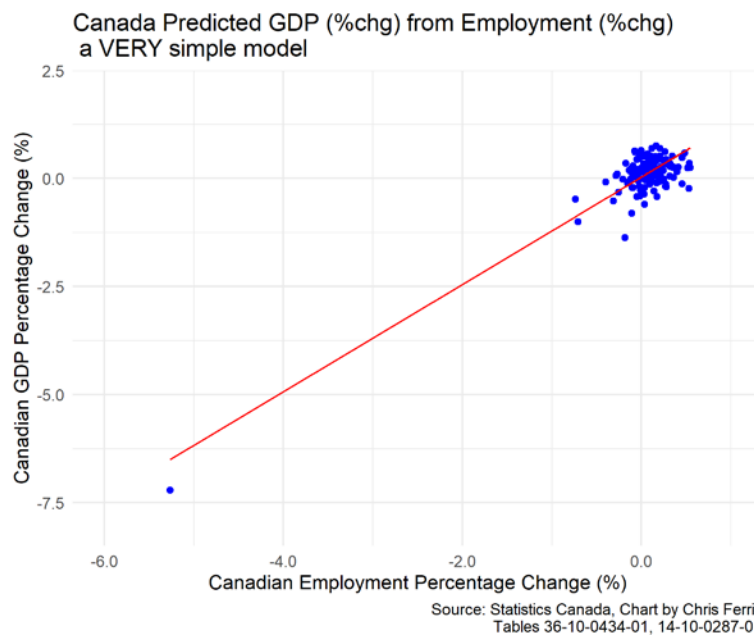
In March, the percentage change month-over-month were 1.5 times or the all industries average for the following industries:

- **Arts, entertainment, and recreation industries** declined 41.3 per cent,
- **Accommodation and food services industries** declined 36.9 per cent,
- **Other services** declined 15 per cent,

- **Building and support services** declined 13.9 per cent,
- **Educational services** declined 13.5 per cent, and
- **Transportation and warehousing** fell 12.2 percent.

Developing a Simple Forecast for GDP using Employment

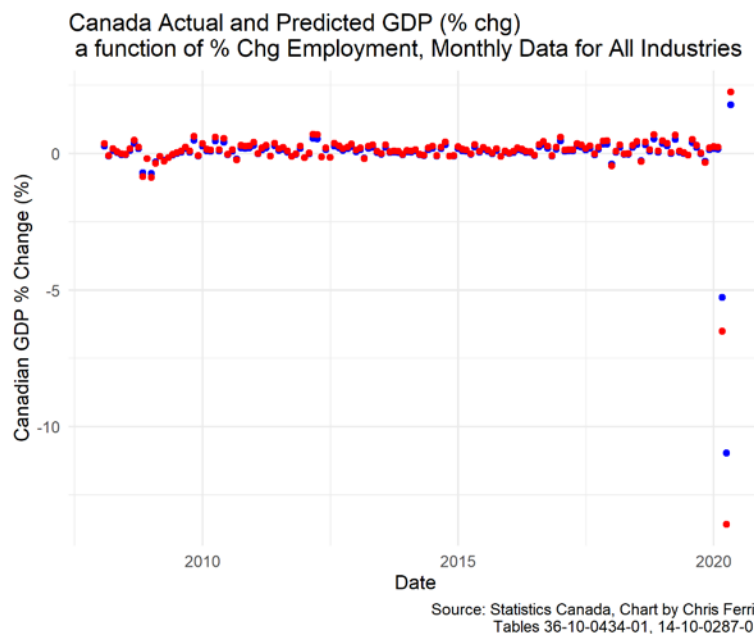
Figure 6: Model: GDP % Change as a function of Employment % change



Since Canada’s employment data is released before its GDP data, we can use the employment data to form a simple one-step-ahead forecast for GDP.

We used the seasonally adjusted, all-industry data, for Canada, both sexes, and those 15+ for employment. For GDP, we used the all-industry data, for Canada, seasonally adjusted, chained 2012 dollars. The data set covers January 2008 to now.

Figure 7: Canada Actual and Predicted GDP % change by Month (%)



We estimated a model using the percentage changes in Canadian GDP and employment (**Figure 6**, and **Figure 7**). Our model is a cousin of [Okun’s Law](#), using employment rather than unemployment.

Using the estimated value of the intercept, employment coefficient, and the April 2020 employment percentage change for Canada, we formed a back-of-the-envelope estimate of GDP percentage change for April 2020.

The estimate would be about 23.6 per cent below the February 2020 GDP level of \$1,990 billion (see **Table 1**). Due to the high-level of uncertainty due to COVID-19 we generated a range +/- 10% around -23.6 per cent. We then divided each of these percentages by the change in Canadian employment Apr/Mar of 11 per cent to form a ratio. We then multiplied these ratios by Manitoba's April/Mar decline in employment (10 per cent) to get a -12 per cent to a -31 per cent range for Manitoba's GDP decline in April vs Mar.

Table 1: An Estimated Range for the percentage change in Manitoba's GDP for April 2020

Category	CAN % Change in Employment Apr/Mar (%)	CAN % change in GDP Apr/Mar – Forecast (%)	Ratio	MB % change in employment Apr/Mar (%)	MB % change in GDP Apr/Mar – Forecast (%)
High	-10.97	-33.58	3.06	-10.05	-30.76
Average	-10.97	-23.58	2.15	-10.05	-21.60
Low	-10.97	-13.58	1.24	-10.05	-12.44

In summary, from Statistics Canada's Labour Force Survey data, we know that Manitoba's April employment declined 10 per cent from its level in March.² We expect that Manitoba's April GDP would then decline between 12 per cent and 31 per cent; centered on a 22 per cent decline.

Given that today's May 2020 labour force data showed a 1.8 per cent month/month increase in Canada's employment. We also saw a 2.3 per cent month/month increase in Manitoba's employment. We expect to see an increase in May 2020 GDP month/month as a result:

- Canada to range between -3 and 7 per cent month over month,
- Manitoba to range between -4 and 9 per cent month over month.

The uncertainty due to COVID-19 disruption makes estimating GDP particularly difficult. **Given that the May employment numbers are up, we are cautiously optimistic. We will be watching the June and July employment numbers to see if they hold up. Keeping COVID-19 reasonably contained will be important to employment and GDP growth.**

² This is subject to data revision by Statistics Canada.

EDW Contacts for Assistance or Inquiries:

- **For Winnipeg businesses looking for help accessing government programs, please reach out to our Yes! Winnipeg Team** through our [Help us help you form](#) if you are not sure who to contact on the Y!W team.
- For general inquires please email wpginfo@edwinnipeg.com.
- For Marketing & Communications Inquiries, please email marketingandbranding@edwinnipeg.com.