



First Quarter 2020
January – March

Gasoline and Diesel Prices Drop Significantly in the First Quarter Following a Sharp Decline in Crude Prices

A global crude price war and a significant decrease in global demand led crude prices to a seventeen-year low in the first quarter of 2020.

The outbreak of COVID-19 in early 2020 has led to a severe decrease in demand for petroleum products, as governments around the world urged people to socially isolate in order to slow the virus's spread. In March, OPEC and a group of non-OPEC countries, including Russia, met to discuss crude production cuts in an attempt to boost crude prices, which had been in steady decline since the beginning of the year. The talks failed, ending a partnership that had been in place since 2016, with both parties vowing to increase crude production in a bid to gain market share. Consequently, crude supply has far outweighed demand in the first quarter, driving crude prices to a seventeen-year low.

Demand for gasoline dropped significantly by the end of the first quarter as the Canadian government urged Canadians to stay home and stop the spread of COVID-19. By the end of March, Canadian gasoline prices dropped to lows not seen since December 2008.

The drop in demand for diesel fuel has not been as severe as experienced with gasoline, as supply modes continue to remain open between Canada and the U.S. during the pandemic. By the end of March, diesel prices in Canada had dropped to lows not experienced since October 2016. **Figures 1 & 2** show the historical movement of retail gasoline and diesel prices in Canada, along with their component prices.

The price of Brent crude (a global benchmark) peaked at 69.58 \$US/BBL in early January, following the U.S. assassination of a powerful Iranian general and precipitated a steady price decline through the remainder of the quarter. As COVID-19 spread around the world, consequent worries over falling crude oil demand brought the price of Brent to a low of 51.90 \$US/BBL by the beginning of March. Following the failed OPEC/Russia talks on crude production cuts, Brent continued its fall, ending the quarter at 20.60 \$US/BBL, 69.35% below the end of the last quarter. The key North American WTI benchmark saw a similar pattern, peaking at 63.27 \$US/BBL in early January before steadily declining to 46.75 \$US/BBL by the beginning of March, and then declining to 20.50 \$US/BBL by the end of the quarter, 66.60% below the end of the previous quarter. Brent's premium to WTI contracted over the quarter, falling to just 0.11 \$US/BBL from 5.85 \$US/BBL at the end of the previous quarter.

Figure 1: Canadian Average Regular Gasoline and Component Prices

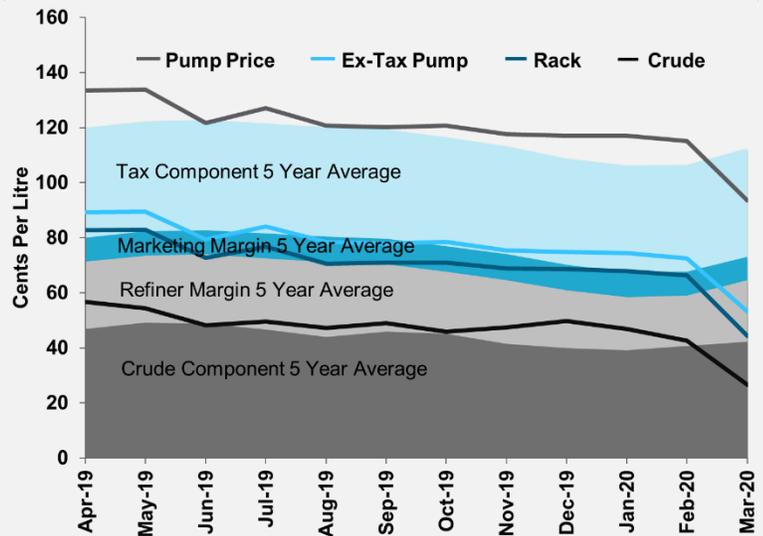
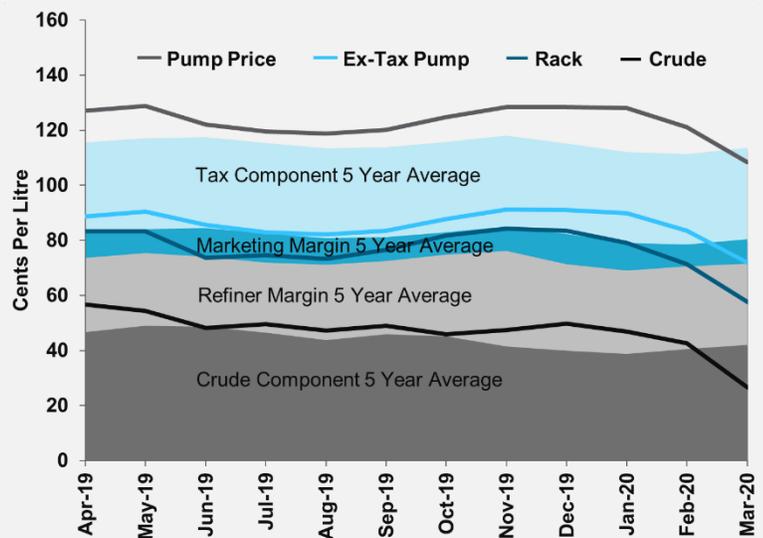


Figure 2: Canadian Average Diesel and Component Prices



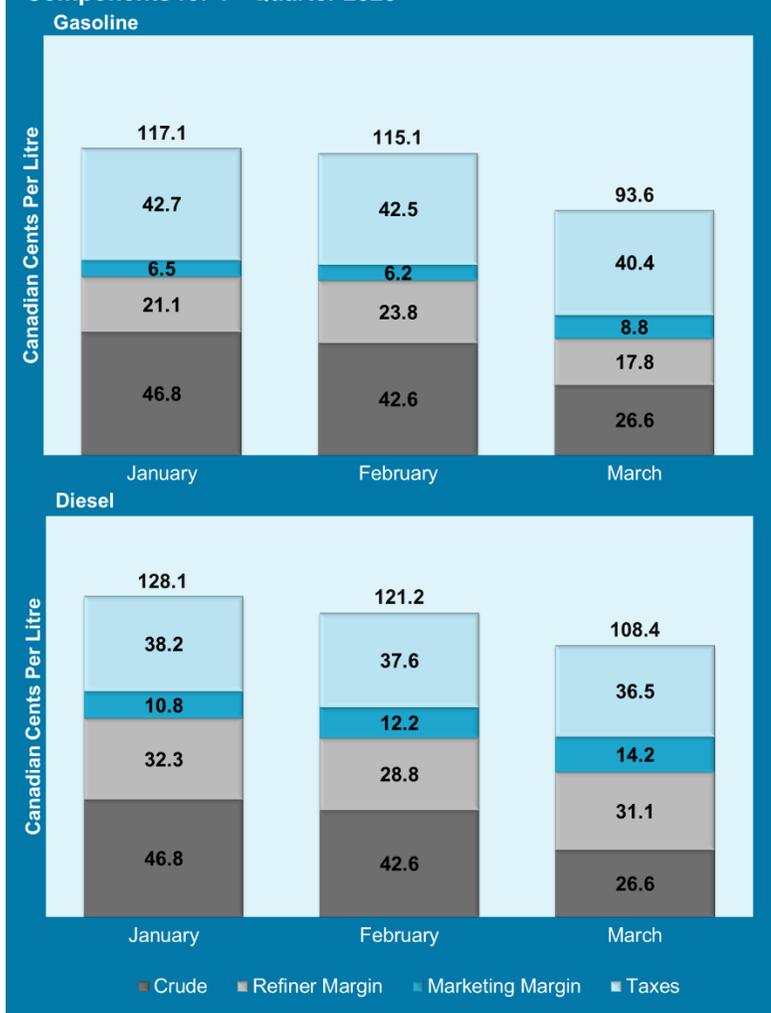
The spread between WTI and the Western Canadian Select (WCS) heavy crude benchmark shrank over the quarter as each benchmark saw a significant drop in value. The heavy/light crude differential fell over 10 \$US/BBL from the beginning of the quarter, ending at 13.57 \$US/BBL.

Gasoline and Diesel Market Overview

Gasoline refining margins lengthened in February as crude prices decreased at a faster pace than wholesale gasoline prices. As consumers stayed home in efforts to reduce the spread of COVID-19, gasoline demand dropped substantially in March. Consequently, wholesale gasoline prices fell significantly, reaching the lowest monthly average in four years in March. By the end of March, drivers were witnessing retail gasoline prices not experienced since December of 2008.

The regional disparity in wholesale gasoline prices peaked in February when West Coast wholesale gasoline prices reached over twenty-three cents per litre above the rest of Canada and remained over twenty-one cents in March. The West Coast has limited alternate supply options due to geographical isolation from the rest of the country and is consequently prone to price spikes.

Figure 3: Canadian Average Gasoline and Diesel Price Components for 1st Quarter 2020



International crude prices fell more substantially in March compared to North American benchmarks: Quebec and the East Coast are reliant on crude oil imports, and consequently, gasoline refining margins ended the quarter above the end of the previous quarter in these areas, while central and Prairie provinces saw gasoline refining margins contract by the end of the quarter.

The drop in diesel prices was not as significant as gasoline since trucking fuel demand remained strong well into March. As crude prices fell in March, wholesale diesel prices fell less dramatically, and diesel refining margins expanded. Additionally, retail diesel prices fell less than wholesale prices, expanding diesel marketing margins in the first quarter. By March, retail diesel margins were almost twice as high as the end of the previous quarter.

Diesel wholesale prices fell in all regions of the country in the first quarter; however, the drop in diesel prices in the Prairie provinces was higher compared to other areas of the country. The Prairie province's economy is highly reliant on crude oil production. The dramatic decrease in Canadian crude prices this past quarter has had a more significant effect on diesel demand in the region, lowering wholesale diesel prices by a higher amount in the past quarter. (Figure 3)

Next Quarter Market Outlook

Crude price volatility will likely remain high going into the second quarter as uncertainty remains around the expected duration of

the COVID-19 pandemic. Although OPEC and other countries have agreed to crude production cuts in April, uncertainty remains as to how much of an effect this will have on global crude inventory amounts. Crude markets will likely remain oversupplied in the second quarter, keeping crude prices depressed and gasoline and diesel prices low.

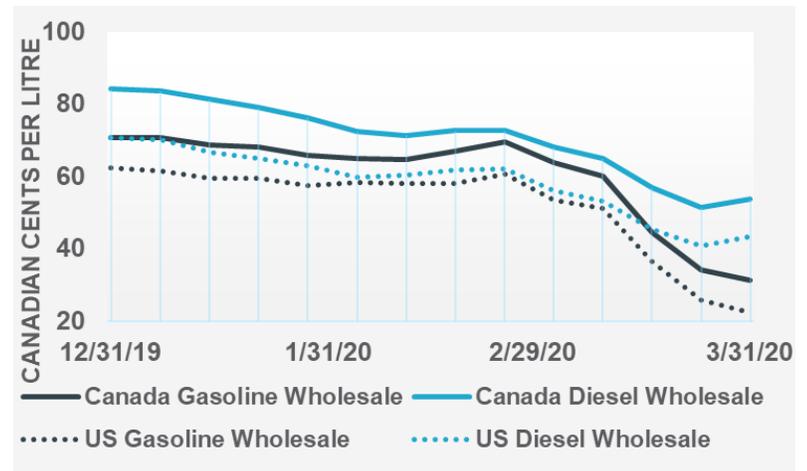
Normal seasonal patterns would suggest that gasoline demand would pick up in the next quarter while diesel demand would decline; we will likely see a continuation of a reversal of these trends, however. Diesel prices will likely remain higher than gasoline prices in the next quarter as supply chains remain open, and as consumers are urged to stay home. Higher carbon taxes, due to take effect in April, will increase gasoline and diesel prices, but will likely go unnoticed as prices remain at multi-year lows. Additionally, gasoline's switch to summer blended fuel, a more expensive fuel blend designed to reduce evaporative emissions, may be delayed this year and also likely go unnoticed due to low gasoline prices.

A Canadian Perspective on Petroleum Markets amid COVID-19

Canadian petroleum prices experienced an unprecedented decline in the first quarter of 2020. Canadian average wholesale gasoline and diesel prices decreased 55.9 percent and 36.2 percent, respectively, from the end of the previous quarter. Based on an average of select American cities bordering Canada, U.S. wholesale gasoline and diesel prices show a similar decrease during the first quarter of 2020, declining 64.3 percent and 38.4 percent, respectively. **Figure 4** illustrates that wholesale prices between Canada and the U.S. closely followed each other as borders between Canada and the U.S remain open for trade during the pandemic.

By the end of the first quarter, the Canada average gasoline pump price reached a low of 77.7 per litre, down 41.2 cents from the end of the previous quarter. Most of the decrease was attributable to lower refining margins for gasoline (down 7.6 cents per litre) and lower crude prices (down 31.7 cents per litre). Refining margins for diesel fuel were marginally higher by the end of the quarter, however, up 0.2 cents per litre. The majority of the decline in diesel prices over the quarter (down 29.9 cents per litre) was, therefore, attributable to declining crude prices.

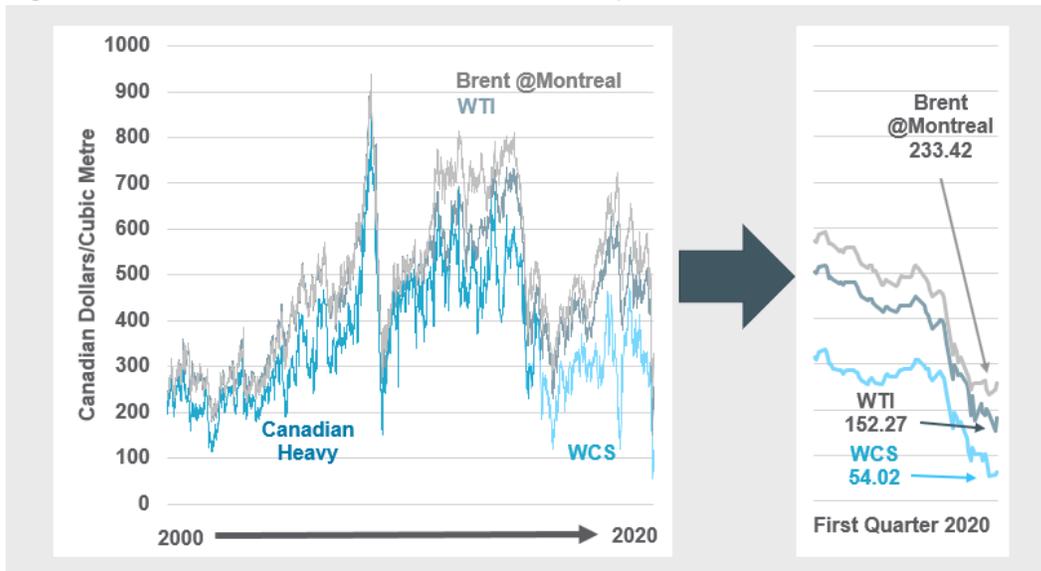
Figure 4: Wholesale Prices in Canada and the U.S.; 1st Quarter 2020



Source: Kent Group, Convenience Store Decisions

Figure 5 shows that crude oil benchmark prices dropped significantly over the last quarter, with a sharp decline in March. Both West Texas intermediate (WTI), a U.S. crude benchmark for conventional light oil, and Western Canadian Select (WCS), a heavy crude blend produced in Canada, reached lows in March never experienced in the last twenty years. In late March, Brent crude dropped to its lowest price since September 2003. Brent is a global crude oil benchmark, and is used significantly in eastern Canadian refineries.

Figure 5: Historical Crude Benchmarks, 20-Year Comparison to 1st Quarter 2020



In 2019, Canada exported nearly 218 million cubic metres of crude and refined petroleum, valued at approximately 90.3 billion Canadian dollars (Canadian International Merchandise Trade Database). 91.5 percent of those exports went to the U.S. There has been a negative impact on Canada's balance of trade with the U.S. with the sharp drop in the price of these exports, and a

consequent decline in the dollar's value against the U.S. dollar. The weak dollar will likely remain so until Canadian crude and refined product prices recover.

As **Figure 4** shows, Canadian petroleum prices follow American prices when adjusted for exchange rates: when not adjusted, Canadian wholesale petroleum prices have not fallen as much as U.S. prices. In March, the value of the Canadian dollar has fallen from 74.9 to 70.5 Canadian cents per the U.S. dollar. Without the devaluation of the Canadian dollar in March, wholesale gasoline prices would have been approximately nearly 3 cents per litre lower, and diesel would have been just over four cents lower.

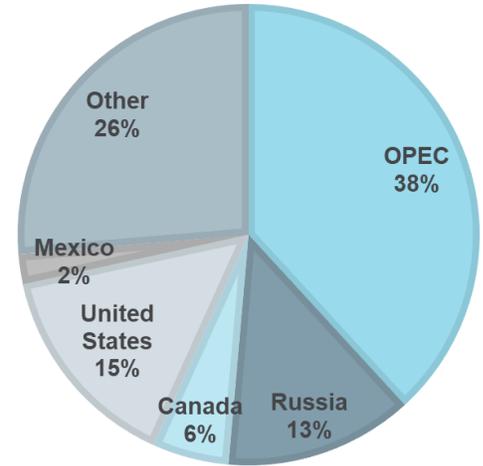
Is COVID-19 to blame for the significant drop in crude prices experienced around the world? The answer is partially yes. A substantial decrease in the demand for petroleum products has led to a significant increase in crude oil inventories. Refiners have reacted by reducing crude runs and shifting yields to favour diesel production, whose demand has not fallen as sharply as gasoline and jet fuel. Lower refining

activity leads to greater crude inventories. Canada is no exception: Canadian crude runs fell to 69.9 percent of refinery capacity by the end of March, down from nearly 90 percent near the beginning of the month (Canadian Energy Regulator). As well, the North Atlantic refinery in Newfoundland was the first North American refinery to close upon lower demand as a result of COVID-19. There will likely be further production cuts while demand remains low, not only in Canada but around the world.

Drastically reduced demand from COVID-19 was only one reason why crude prices have decreased: increased supply of crude into global markets further added to a surge in inventories. As COVID-19 was first discovered and spread in January and February, crude prices decreased. But crude prices began a sharper decrease in early March following a meeting by the Organization of the Petroleum Exporting Countries (OPEC) and a group of 11 non-OPEC countries (led by the Russian Federation) who failed to agree to further crude production cuts in response to COVID-19. The group, referred to as OPEC+, had been collaborating since December 2016 to set crude production limits following a crude price collapse in 2015. That downturn was related to a crude supply glut resulting from increased U.S. crude shale production.

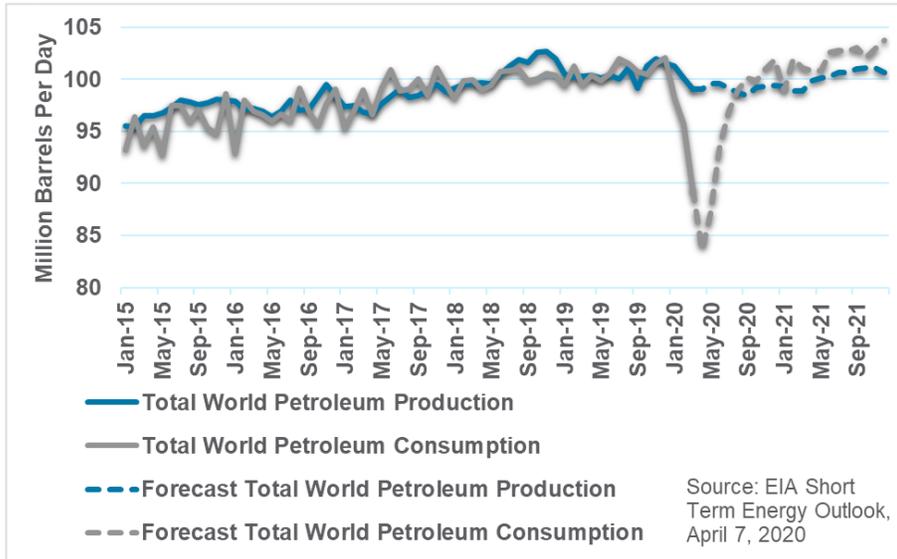
Without an agreement reached in March, April crude production was expected to increase by as much as four million barrels per day. Refer to **Figure 6** for total crude production share by select countries in 2019 when total world crude oil production was 82.3 million barrels per day. With crude prices falling to multi-year lows, OPEC+ met again on April 12th, and this time agreed to crude production limits. Production limits are set to begin in May at 9.7 million barrels a day, much more than the 1.5 million barrel a day cut proposed in the initial meeting in March.

Figure 6: Total World Crude Oil Production, 2019



Source: EIA

Figure 7: Total World Petroleum Production and Consumption, 2015-2021



Is it enough to balance crude oil markets? According to the U.S. Energy Information Administration's (EIA's) latest Short Term Energy Outlook (STEO) in April, total world petroleum consumption in March was over 12 million barrels a day less than it was at the end of 2019 and could fall a further 6 million barrels a day in April, see **Figure 7**. In all likelihood, crude oil markets will remain unbalanced for the remainder of the year.

So what does this mean for Canadian petroleum prices? If crude prices remain depressed, Canadian and U.S. oil production will likely decline upon lower investment. This will aid with OPEC+ crude oil production cuts, set to remain in place until the spring of 2022 (although at lower levels) in rebalancing the market. It is unclear how long the COVID-19 virus will keep economies shut down and with that, the demand for petroleum products to remain low. As long as crude prices and demand

remain lower, Canadian finished petroleum prices will also remain low. We are living in unprecedented times, and many lessons can be learned from this pandemic to avoid future extreme market imbalances and a price collapse such as that experienced this past quarter.