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Fourth Quarter 2020
October - December

Canadian Retail Fuel Prices Rose Marginally in the Fourth Quarter as Crude Prices Reached a 10-Month High

Crude prices strengthened in the Fourth Quarter on positive vaccine news, indicating that the impact from the COVID-19 pandemic will lessen, and that global economies and demand for petroleum products are likely to return to normal.

The effects of the COVID-19 pandemic on refined product demand in 2020 has been significant. However, the announcement of viable vaccines in October and subsequent initial roll-out of the vaccines at the end of the quarter brought support to global crude prices. It signifies a shift in the pandemic and the beginning of a return for refined product demand to pre-pandemic levels. Additionally, the Organization of the Petroleum Exporting Countries (OPEC) and an allied group of oil-producing countries (OPEC+) brought further strength to crude prices as the group reached a new agreement on lower crude production limits for 2021. This agreement is likely to bring relative stability to crude markets and refined petroleum product prices over the next year.

North American gasoline demand remains below levels from a year ago due to the pandemic, and fell further heading into the winter driving season. Consequently, gasoline refining margins are below their previous five-year average, tempering any increases to retail gasoline prices from rising crude prices. Canadian retail gasoline prices ended the year 10.3 cents per litre below the end of the previous year.

Figure 1: Canadian Average Regular Gasoline and Component Prices

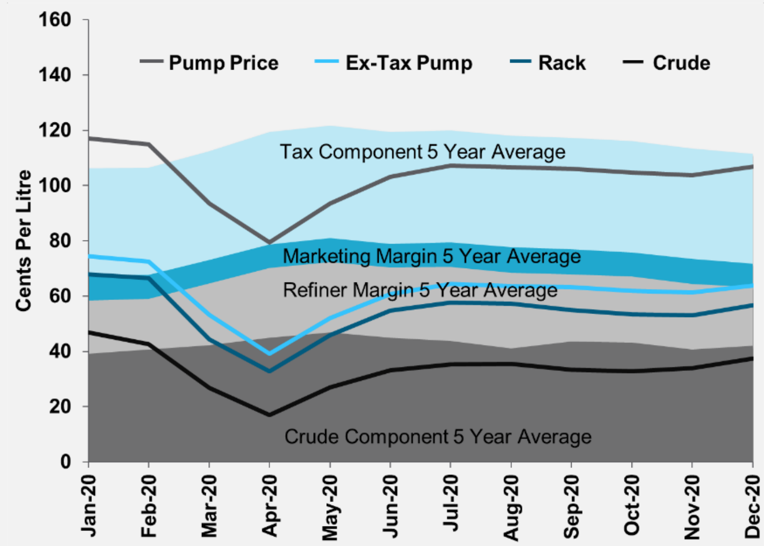
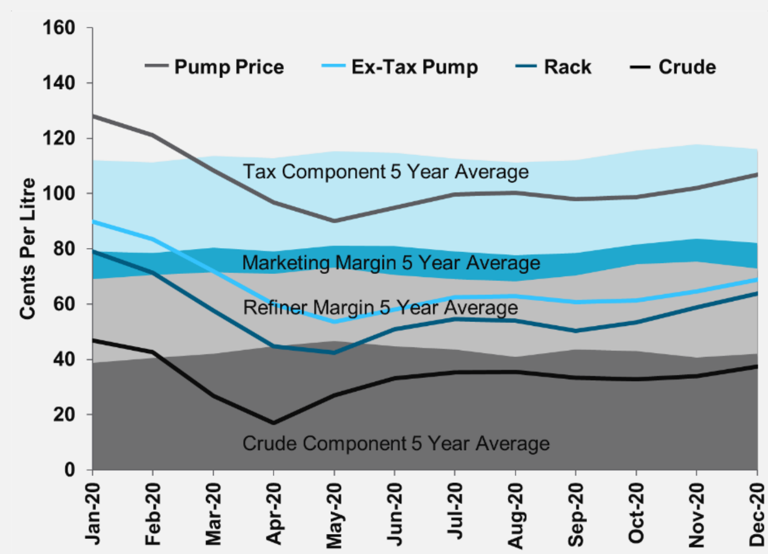


Figure 2: Canadian Average Diesel and Component Prices



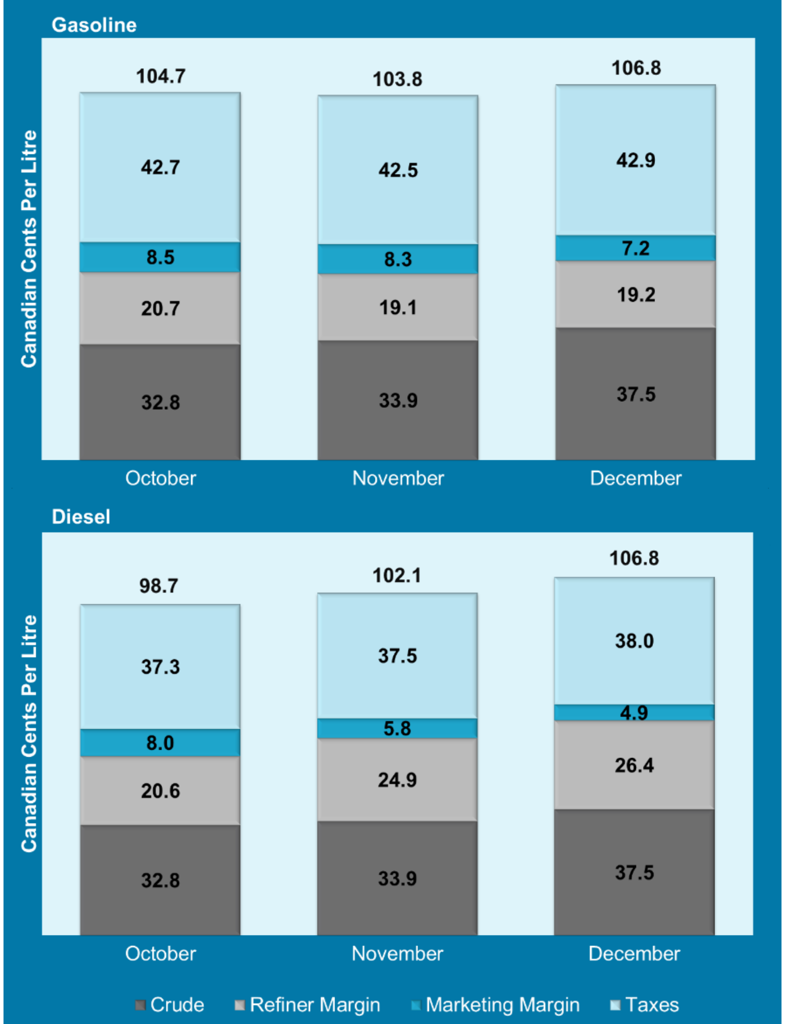
Canadian diesel refining margins rose during the second half of 2020, reaching an eight-month high in December. Although North American distillate demand fell in the spring along with other refined products, its fall was not nearly as sharp as gasoline due to sustained demand from long-haul trucking. Diesel demand may have found additional strength in the latter half of 2020 upon increased home heating use in Eastern Canada and increased crude oil production in Western Canada. However, North American stocks of distillates remain well above seasonal norms, countering upward price pressure. Fourth-quarter distillate refining margins were 8.3 cents per litre below the five-year average, and retail prices ended the year 21.7 cents per litre below the end of the previous year. **Figures 1 & 2** show the historical movement of retail gasoline and diesel prices in Canada, along with their component prices.

Crude prices increased in the fourth-quarter on positive vaccine news and the OPEC+ agreement to decrease crude production limits. The group indicated its commitment to keep crude oil markets balanced as global markets recover from the COVID-19 pandemic. The price of Brent crude (a global benchmark) rose to 51.51 $US/BBL by the end of December, 26.8 percent above the end of the previous quarter. Similarly, the WTI benchmark increased to 48.44 $US/BBL by the end of December, 21.3 percent above the previous quarter's finish. Both benchmarks reached price levels not seen since before crude's collapse in early-March. Brent's premium to WTI remained low, averaging 2.16 $US/BBL over the quarter. The low spread developed in 2020 as North American crude production dropped during the onset of the pandemic and remained below pre-pandemic levels.

The heavy/light crude oil price spread between WTI and Western Canadian Select (WCS) increased in the fourth quarter. The Alberta Energy Regulator reports that November crude production reached an eight-month high, with oil sands production reaching its highest level in 2020. Canadian crude production will likely continue to expand as the Alberta Government removed crude production curtailments in December. Higher crude production could lead to more pipeline congestion, and ultimately a higher heavy oil discount. The heavy/light spread ended the quarter at 15.13 $US/BBL, up 4.48 $US/BBL from the previous quarter.

Gasoline and Diesel Market Overview

Figure 3: Canadian Average Gasoline and Diesel Price Components for 4th Quarter 2020



Gasoline refining margins were down in the fourth quarter from the previous quarter as seasonal demand declined. Lower refining margins were countered by rising crude prices, meaning retail gasoline retail prices ended the quarter marginally higher - 0.8 cents per litre above the end of the third quarter.

Western Canadian gasoline rack prices saw little change from the end of the third quarter, while Central and Eastern Canadian rack prices climbed relatively. Most of the disparity in price movement was due to differences in crude sources. Eastern Canada is reliant on crude imports, which experienced higher prices in the fourth quarter, while Western Canada utilizes heavy Canadian crude that was impacted by the growing heavy/light price spread.

Retail diesel prices were up in the fourth quarter, reaching a nine-month high, following rising diesel refining margins and increased crude prices. Refining margins expanded as a result of increased seasonal demand and increased industrial demand as the economy began to show signs of recovery.

Regionally, wholesale diesel prices expanded in Western Prairie provinces more so than other regions of the country in the fourth quarter. Western Canadian wholesale diesel prices ended the quarter nearly six cents per litre above Eastern Canada. (**Figure 3**)

Next Quarter Market Outlook

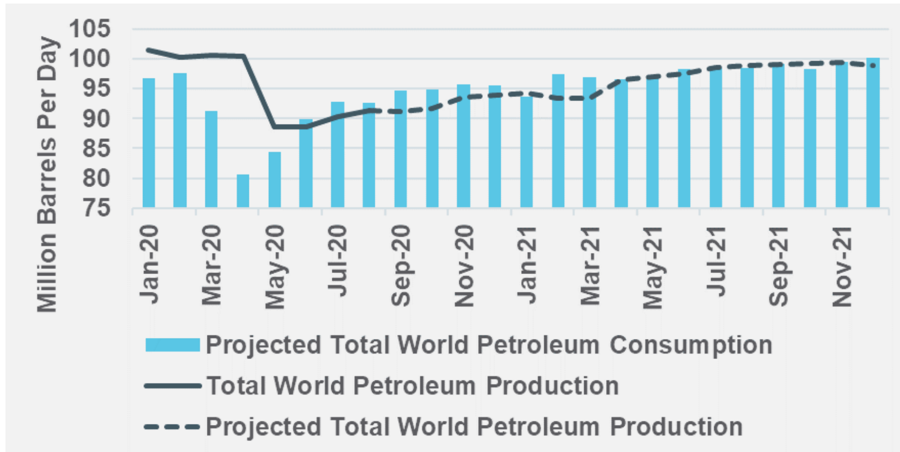
Looking ahead to 2021, the demand for refined petroleum products will likely remain below typical seasonal levels for some time, particularly as many parts of the country contend with a second wave of COVID-19 outbreak and increased lockdown measures. Similar to the first lockdown in 2020, gasoline demand will likely be disproportionately impacted. Seasonal heating demand and demand from the shipment of goods will likely sustain diesel demand by comparison.

As spring approaches, some upward pressure on gasoline refining margins may develop as refiners begin building inventories in anticipation of the summer driving season and the expectation of a relative easing in lockdown measures as the vaccine roll-out expands to more of the population. Diesel refining margins may also see some expansion due to the product's correlation with economic activity. Diesel fuel demand will likely expand in 2021 as gross domestic product growth rates return to positive numbers. Consequently, refined product prices will likely increase the further we get into 2021.

2020 Factors Affecting Fuel Prices: A Year In Review

When 2020 began, few could have predicted the extraordinary year that transpired and the unprecedented impact on petroleum demand and fuel prices. Attempts to contain the COVID-19 pandemic profoundly impacted global fuel demand, which is expected to finish 8.9 percent below the previous year (EIA). As petroleum demand fell rapidly between March and May, production dwarfed consumption, leading to expanding inventories and a dramatic fall in petroleum prices. (**Figure 4**) In April, Canadian crude prices bottomed out at 13.0 cents per litre, a 21-year low. Retail gasoline prices fell to 75.2 cents per litre in March, a 12-year low, and diesel fell to 87.9 cents per litre in May, representing a four-year low. As the year progressed, demand for petroleum products began to climb as lockdown measures eased; however, it remained well below 2019 levels for most products. With lower crude oil production and lower refinery activity during the second half of the year, markets began to balance, leading to some recovery and price stability for refined petroleum products.

Figure 4: World Petroleum Consumption and Production, 2020-2021

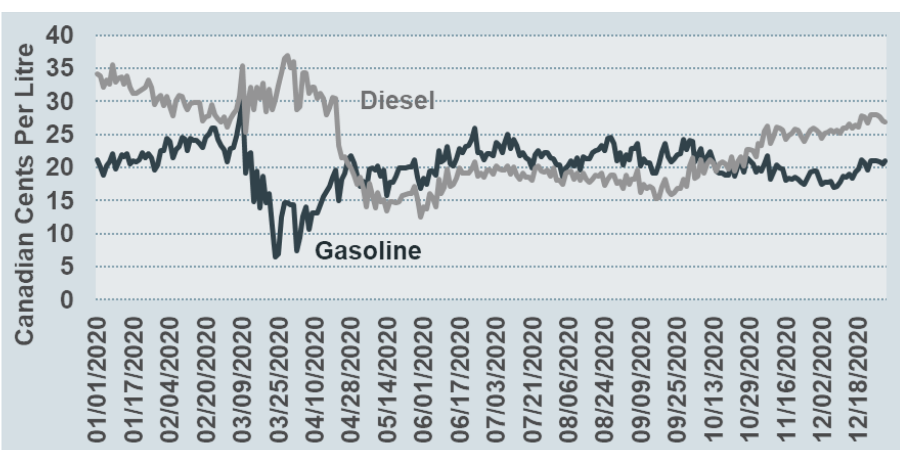


Source: U.S. Energy Informatio Administration, Short-term Energy Outlook, January 2021

Since 2016, when crude prices crashed amid a global crude supply glut, OPEC and a group of allies worked together to set crude oil production limits in an attempt to balance crude markets. When lockdown measures first came into effect in March of this year, petroleum consumption dropped dramatically, and the group's attempts to work together were largely unsuccessful. Instead of curbing crude production, the group's members increased output in an attempt to win market share. The result was an oversupply of crude oil. At Cushing, Oklahoma (the key supply hub for pricing the WTI benchmark), inventories reached 83 percent of total storage capacity by the end of April. As inventories rose and threatened to surpass storage capacity, an unprecedented event followed: negative crude price futures. On the last trading day before the April contract expiry, limited storage options and buyers caused many contract holders to pay buyers to close contracts, and consequently, WTI front-month futures prices reached negative territory. Although other crude oil benchmark prices did not turn negative, many benchmarks reached multi-year lows, and this event led to a significant decrease in refined petroleum prices for months afterward.

OPEC quickly changed direction in April, agreeing to a historic 10 million barrel a day crude production cut. In addition, lower crude prices led to lower crude production from from other oil-producing nations, including Canada and the U.S. By May, Canadian crude oil production fell to 3.53 million barrels a day, far below the 4.51 million barrels a day produced in December 2019 (Statistics Canada). Similarly, U.S. crude production fell to 9.7 million barrels a day in August after its peak of 13.1 million barrels a day in March (EIA). Although both countries have since increased crude production, it remains well below pre-pandemic levels. In December, OPEC+ agreed to further crude production limits, and has vowed to balance crude production levels moving forward. Consequently, after the extreme price volatility experienced in the spring, crude prices have stabilized, rising moderately since June.

Figure 5: Daily Gasoline and Diesel Refining Margins, 2020



Source: Kent Daily Pump Price Survey (DPPS)

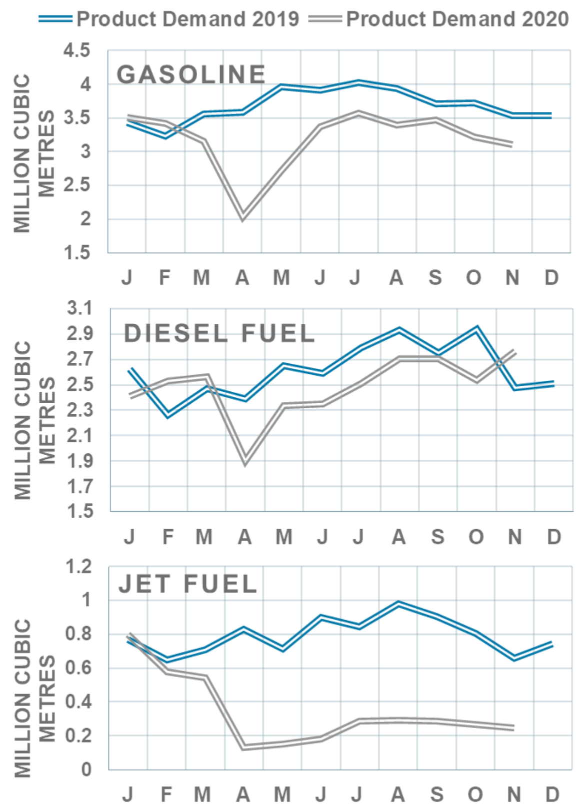
In addition to crude price volatility, refining margins experienced volatility in the spring leading to atypical seasonal price patterns. Springtime is when gasoline demand typically picks up, and consequently, wholesale gasoline prices climb as refining margins expand. As (**Figure 5**) shows, gasoline margins fell sharply when lockdown measures first came into effect in March, falling to as low as 6.4 cents per litre near the end of March. In contrast, diesel refining margins rose, reaching 36.9 cents per litre at the end of March, a time when diesel refining margins are typically falling as the home heating season winds down. Stay at home measured reduced gasoline demand while trucking demand was sustained, leading to the abnormal demand and price trends.

Figure 6 shows the demand for gasoline, diesel and jet fuel in Canada, the three primary refined petroleum products. During peak lockdowns in April, gasoline demand fell 43.1 percent from a year ago, coinciding with low refining margins and low retail prices. As lockdown measures eased, gasoline demand picked up, and with that, refining margins began to climb. As **Figure 6** illustrates, gasoline demand never recovered to 2019 levels, and consequently, refining margins during the second half of 2020 remained well below the previous five-year average. 2020 retail gasoline prices averaged 103.1 cents per litre in 2020, 17.8 cents per litre below 2019.

Figure 6 also shows that demand for diesel outpaced 2019 when the pandemic first hit, causing refining margins to expand well above seasonal norms. During April, when peak lockdown measures were in effect, diesel demand fell less than gasoline, down 20.3 percent from the previous year. Advanced release data from Statistics Canada indicates diesel demand in November has started to outpace that of 2019. Consequently, diesel refining margins have expanded throughout the second half of the year, but remain below the previous five-year average, a likely consequence of higher relative North American inventories. 2020 retail diesel prices averaged 103.8 cents per litre in 2020, 19.3 cents per litre below 2019.

In addition, **Figure 6** illustrates the effect of lockdown measures and travel restrictions on jet fuel demand. When measures first came into effect during April, jet fuel demand fell 84.4 percent from the previous year, and showed little sign of recovery during the remainder of the year. Many refineries attempted to shift jet fuel production to diesel to address demand disparity.

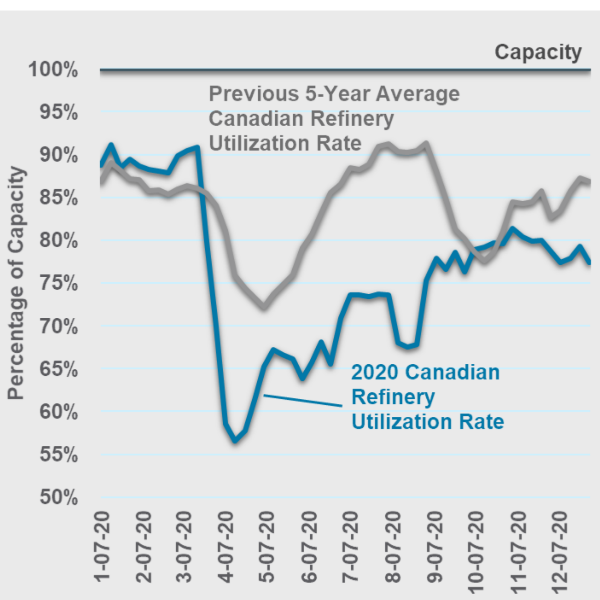
Figure 6: Canadian Demand by Product, 2019 Versus 2020



Source: Statistics Canada, Table #25-10-0076-01

Figure 7 shows refinery activity typically drops in the spring and fall, coinciding with refinery maintenance schedules. However, in April, refinery activity fell to a monthly average of 56.6 percent of capacity, far below the typical spring maintenance levels over the last five years. Refinery activity in Canada averaged well below the previous five-year average for most of 2020, as production followed demand. Not only have refiners had to adjust production lower in 2020, but refiners have also had to adjust product yields where possible to match unusual and unexpected demand trends. During the first 11 months of 2020, diesel fuel demand fell 5.4 percent, compared to gasoline demand which fell 13.9 percent, and jet fuel demand which fell 57.2 percent from 2019. Consequently, production at Canadian refineries was adjusted accordingly: gasoline production was down 13.0 percent, diesel down 3.4 percent, and jet fuel down 54.6 percent (Statistics Canada).

Figure 7: Canadian Refinery Utilization Rates 2020



Source: Canada Energy Regulator, Weekly Crude Run Report

In looking ahead to 2021, a second wave of the pandemic has led to increased lockdown measures in many parts of the country, and early signs show that demand for refined products is likely to remain relatively low during the first half of 2021. OPEC+ appears committed to adjusting crude production to match demand, and refineries are likely to continue to run at reduced capacity until demand returns to more normal levels. As **Figure 4** shows, global petroleum production is expected to match consumption by the latter part of 2021; consequently, we will likely experience only moderate increases in retail prices with less price volatility when compared to 2020.

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