



Third Quarter 2019  
July – September

## After Rising Early in the Quarter, Gasoline Prices Reached a Seven Month Low by September, While Diesel Prices Remained Flat

**Gasoline refining margins contracted in the latter part of the quarter bringing pump prices to a seven month low, while diesel pump prices fell only marginally through third quarter as pump price components remained level.**

Global crude prices saw considerable price volatility in the third quarter as U.S. and China trade tensions remained volatile throughout the period, raising concerns over economic growth and the effects on global crude demand. In addition, heightened geopolitical risk following a mid-September drone bombing in Saudi Arabia saw roughly five percent of global crude production brought offline.

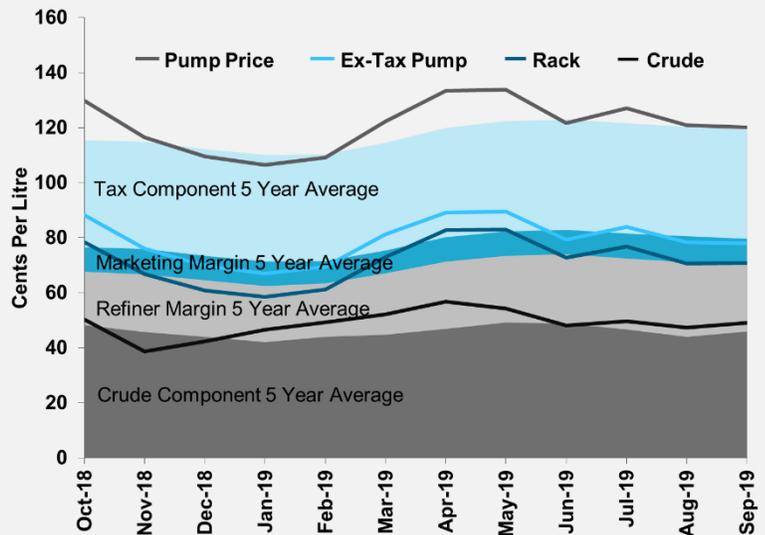
Canadian retail gasoline prices ended the quarter about fourteen cents per litre lower than last year, on lower crude prices and refining margins. North American gasoline demand this past summer started out slower than last year, which may have contributed to ample gasoline inventories this past quarter, helping to keep refining margins lower.

Signs of a slowing economy may be evident in lower year over year diesel fuel demand. Although IMO 2020 regulations (set to come into effect in January) are expected to increase the demand for low sulphur fuel, lower domestic demand may have mitigated upward pressure on diesel retail prices. **Figures 1 & 2** show the historical movement of retail gasoline and diesel prices in Canada along with their component prices.

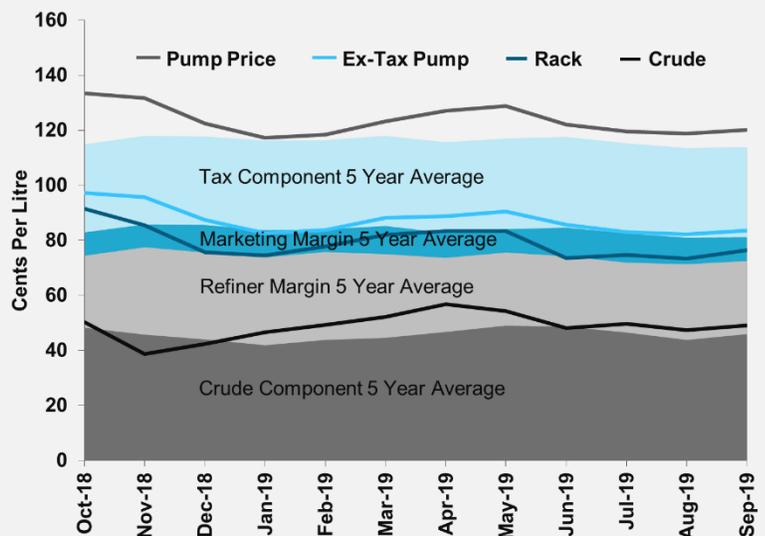
Fears of reduced global crude demand on signs of a slowing global economy outweighed geopolitically-driven supply threats, resulting in lower crude prices over the quarter. While the Brent crude global benchmark topped 68.72 \$US/BBL right after the Saudi Arabia drone attacks, it ended the quarter at \$60.12, 7.6 percent lower than the previous quarter. The key North American WTI benchmark saw similar movement, peaking at 63.00 \$US/BBL, before ending the quarter at \$54.08, 7.9 percent below the end of the previous quarter. Brent's premium to WTI contracted in the third quarter as greater global geopolitical risk pressured Brent prices lower. Conversely, increased Permian pipeline capacity to the Gulf Coast reduced inventories at Cushing Oklahoma (the North American price point for WTI), pushing WTI prices higher. Consequently, the Brent premium to WTI narrowed to as low as 2.90 \$US/BBL in mid-August before expanding to 6.04 \$US/BBL by the quarter's end, 0.4 \$US/BBL below the end of last quarter.

The Alberta government appears to have found a balance between provincial crude production limits and crude inventories: the spread between WTI and the Western Canadian Select (WCS) heavy crude benchmark ended the quarter just modestly lower from the previous

**Figure 1: Canadian Average Regular Gasoline and Component Prices**



**Figure 2: Canadian Average Diesel and Component Prices**

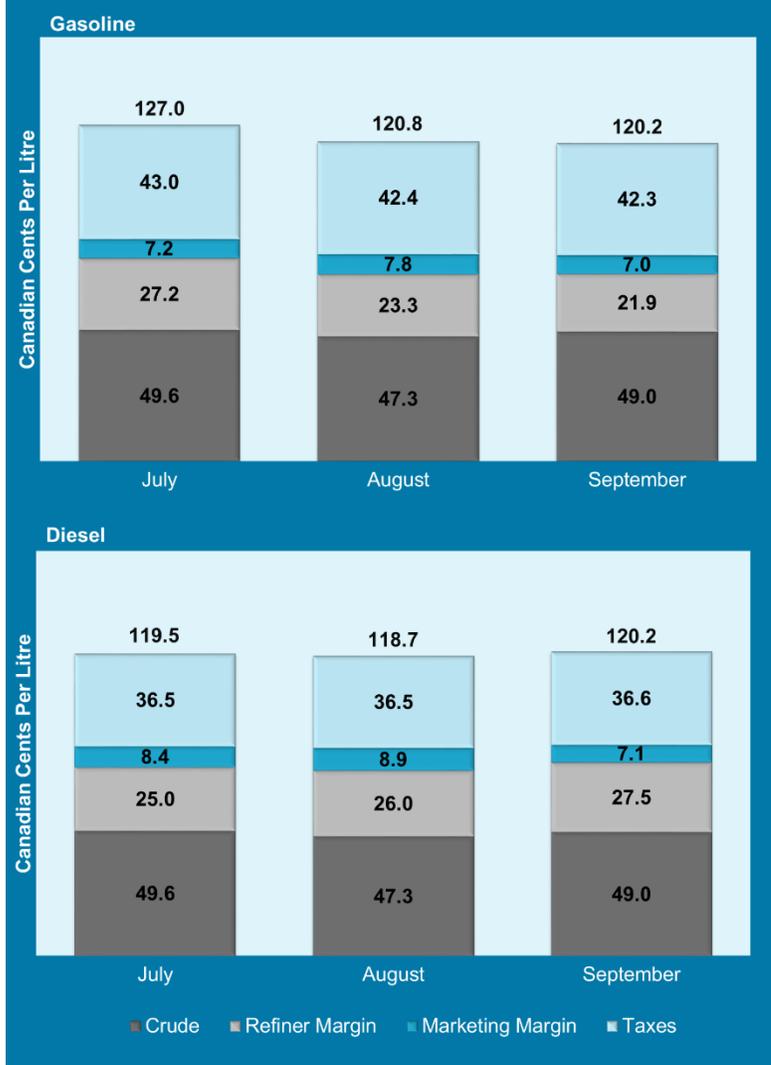


quarter. After finishing the previous quarter at 13.50 \$US/BBL, the heavy/light crude differential saw some fluctuations over the third quarter but ended at 12.72 \$US/BBL, just 0.8 \$US/BBL lower.

## Gasoline and Diesel Market Overview

Lower year over year gasoline demand early in the summer may have led to falling gasoline refining margins throughout the remainder of the quarter, bringing gasoline retail prices down to a seven-month low by September. Lower crude prices compared to the previous quarter as well as the lower refining margins were the main contributors to lower gasoline prices this past quarter.

**Figure 3: Canadian Average Gasoline and Diesel Price Components for 3<sup>rd</sup> Quarter 2019**



Regionally, wholesale prices on Canada’s West Coast were driven higher by U.S. west coast refinery issues in the latter part of the quarter. With limited alternate supply options due to geographical isolation from the rest of the country, this region is prone to price spikes. Average West Coast wholesale gasoline prices expanded to nearly twenty cents per litre higher than in western interior provinces, and nearly twenty-three cents per litre above those along the East Coast in September.

Demand for diesel exports from North America was strong this past quarter, contributing to marginally higher diesel refining margins over the third quarter, despite less domestic demand. However, lower crude prices compared to the previous quarter led to lower diesel retail prices.

West Coast diesel wholesale prices averaged higher than the rest of the country throughout the quarter, averaging roughly four cents per litre above the rest of Canada. However, unlike gasoline prices in the region, refinery issues south of the border seemed to have a far less effect on diesel prices. Alternatively, Ontario diesel wholesale prices have averaged the lowest in Canada throughout 2019, an indication of supply outpacing demand in the region. (Figure 3)

## Next Quarter Market Outlook

Gasoline prices are expected to decrease in the coming months as demand tapers off and gasoline inventories remain strong. In addition, refineries will switch to a winter fuel blend, which is less costly to produce. Regionally, the relatively higher West Coast prices experienced late in the quarter will likely taper as U.S. refineries return from maintenance.

Diesel prices will likely see some upward movement in the coming months as the winter heating season begins and as IMO 2020 approaches, bringing an increase in global demand for low sulphur fuel. In addition, the unexpected closure of the Philadelphia refinery earlier this year, previously the largest refinery complex along the Eastern seaboard, has removed a considerable amount of distillate production from the North American East Coast.

The East Coast is heavily reliant on distillate fuel for household and commercial heating. Distillate prices in that region may therefore be prone to price spikes in the next quarter and into the winter as fuel suppliers contend with strong distillate demand.

# Petroleum Pump Price Regulation in Canada

High pump prices often increase the frequency of demands for petroleum pump price regulation, in order to provide relief at the pumps. Poor understanding of what affects the price at the pump can lead to speculation that retail fuel markets are not competitive enough, and that only government intervention can provide relief. In this section of the report, we explore pump price regulatory systems that currently exist in Canada, and how effective those regulations are.

There are four main components that determine the price at the pump. (Figure 4) One is the price of crude, which is largely determined globally, and generally responds to changes in global crude supplies. Factors such as geopolitical concerns can drive up crude prices because of the potential threat to global supplies. Conversely, trade tensions can drive down crude prices because of the threat to global demand. U.S. shale crude production has also weakened OPEC’s ability to maintain higher prices. As a component of the pump price, changes in crude prices can affect retail pump prices, however, due to their global nature, local governments are not able to control.

The next main component of the pump price is the refining margin, also referred to as the crack spread. Together, the crude price plus the refiner margin determine the wholesale (rack) price. Wholesale prices are more localized in nature and can swing upwards or downwards dependent on local supply conditions. A ruptured pipeline or unexpected refinery outage can push local wholesale prices upwards. However, without any local supply issues, wholesale prices tend to even out geographically due to arbitrage trading and move upwards or downwards based on seasonal demand patterns.

Any government intervention at the wholesale level could lead to arbitrage trading opportunities which could in turn affect the availability of product within a regulated region. Too low a regulated price could lead to buying opportunities from outside the region leading to localized product shortages, while too high a price could lead buyers to import products at a lower price rather than purchase locally.

The next component in the pump price is the retail marketing margin, also referred to as the retail mark-up. Together the crude price plus the refiner margin and the retail margin determine the ex-tax pump price – the price that the consumer pays before any taxes are added. In Canada, this ex-tax pump price is effectively what governments have regulated.

Pump price regulation exists in Quebec and all the Atlantic provinces. In Quebec, there is a price floor, in New Brunswick and Newfoundland there is a price ceiling, and Nova Scotia and Prince Edward Island both have a price ceiling and floor in their regulations. So how has pump regulation affected prices in those provinces?

In Quebec, a “price floor” regulation exists, the aim of which is to protect retailers from dominant marketers selling petroleum below cost. However, this type of regulation can prohibit the exit of inefficient marketers leading to lower average sales per site. For retailers to cover operating costs with lower fuel sales, pump prices must be higher. There is evidence this is the case in Quebec, where the average annual station throughput (sales) was 3.09 million litres compared to the national average of 3.73 million litres (or of Ontario at 4.83 million litres) in 2018. In addition, the number of retail outlets per 10,000 population totaled 3.65 in 2018 in Quebec compared to 3.22 for the Canada average, or 2.27 in Ontario (2018 National Retail Petroleum Site Census).

Prices in New Brunswick are regulated by establishing a maximum price that retailers may not exceed. Its “price ceiling” structure aims to protect the consumer from high prices and price volatility. Gasoline prices for the past three years (for select cities in New Brunswick) show prices to be very similar to

Figure 4: Pump Price Component Model

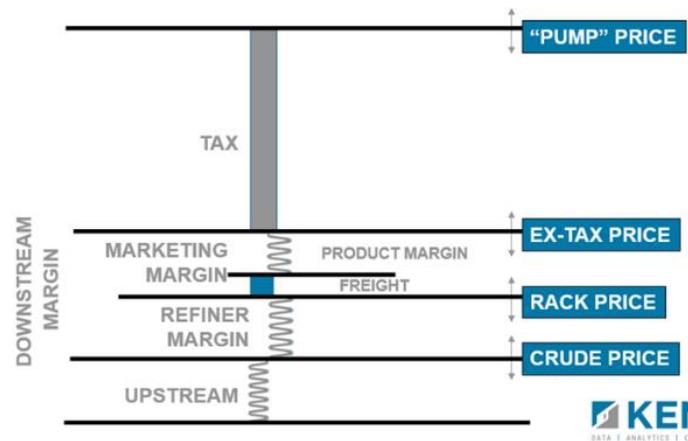
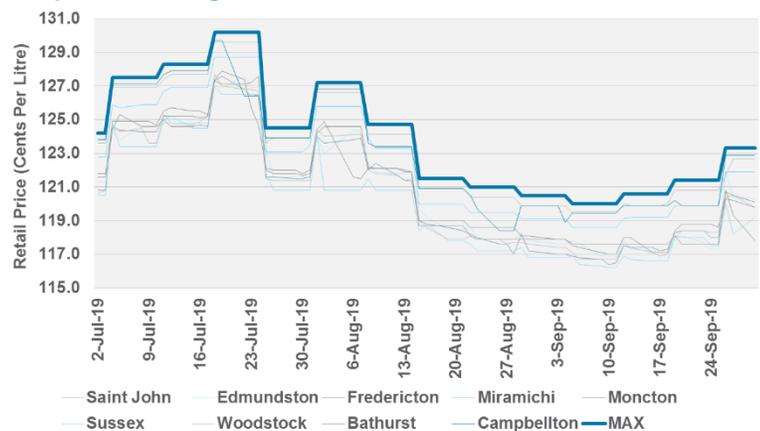


Figure 5: Select New Brunswick Markets, Daily Retail Gasoline Price Comparison to Regulated Maximum Price – Quarter 3, 2019

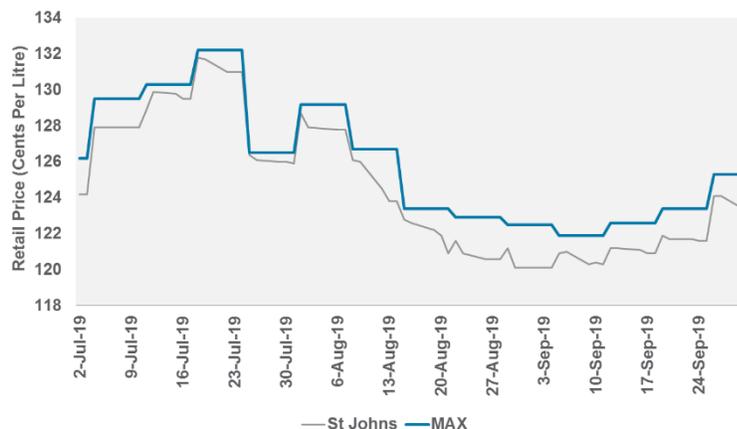


unregulated markets. In addition, average retail prices in all major New Brunswick cities stayed below the maximum regulated price in the past quarter (see **Figure 5**) and only once in one New Brunswick market within the last three years. This suggests that should pump price regulations had not existed in that time, pump prices would likely not have behaved any differently.

In Newfoundland, pump prices do appear to be affected by regulation: in many markets, prices appear to follow a distinctive pattern that mirrors the regulated price schedule. In St. John's for example, prices typically rise on the day of the regulated price change (up to or very near the maximum price), then taper off through the remainder of the week, only to rise once again when the maximum regulated price changes. (**Figure 6**) In this case, it appears that fuel marketers use the regulated price change as a price signal, deviating from a lower market-derived price to a higher statutory price. It is likely that should regulated prices not exist, St John's pump prices might not behave this way such that average prices might be lower.

Other markets in Newfoundland appear to follow the regulated price schedule sticking close to, if not exactly, to the maximum regulated price. In the past year for example, the retail price in markets such as Gander, Labrador City, Corner Brook and Grand Falls averaged just over one-tenth of a cent below the maximum set price. For these smaller municipalities, consumers are benefiting from controlled prices and volatility, although at the expense of fuel marketers who must absorb the effects of underlying fluctuating wholesale prices. In turn, this can discourage investment in those same markets leading to fewer retail outlets.

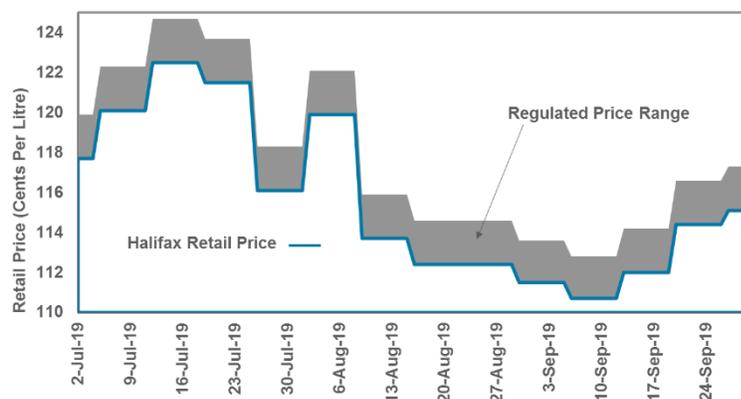
**Figure 6: St. John's, Newfoundland, Daily Retail Gasoline Price Comparison to Regulated Maximum Price – Quarter 3, 2019**



In Nova Scotia where both a price ceiling and price floor exists, the regulated price schedule. In most markets however, the price appears to sit at or very near the regulated *minimum* price. (**Figure 7**) This suggests that the regulated price range likely does not reflect where prices would be, should the market be unregulated. Hence, consumers have likely benefitted from stable prices in the market, but at the expense of lower prices. Fuel marketers by contrast have likely benefitted from higher retail margins as a result of the price floor.

pump prices within most markets appear to move in sync with changes to

**Figure 7: Halifax, Nova Scotia, Daily Retail Gasoline Price Comparison to Regulated Price Range – Quarter 3, 2019**



Like Nova Scotia, Prince Edward Island has both a price ceiling and price floor. The effect on retail prices in Charlottetown has been similar to those observed in Nova Scotia markets: Retail prices appear to mirror those of the regulated price *minimum*, providing price stability to consumers at the expense of lower prices.

Fuel price regulations are generally structured to mimic competitive, unregulated market dynamics while seeking to limit or control one or more variables. As with any regulation however, the stated objectives are not always consistent with the outcomes. While consumers in price-regulated provinces appear to have experienced less volatility at the pump, this has been at the expense of higher pump prices in most instances. If the objective of these price regulations was to lower pump prices, there appears to be little evidence this has been achieved. An alternative to retail petroleum price regulation might be to simply inform consumers about fuel markets: to whom a dollar's purchase of gasoline goes, and what are the underlying reasons for pump price fluctuations.