



Retail Gasoline Prices fell in the Second Quarter 2017, Contrary to Typical Seasonal Price Movement.

After reaching a twenty-month high early in the quarter, retail gasoline prices fell over the remainder of the quarter, following lower crude prices and lower refining margins. As is typical of seasonal patterns, diesel prices fell over the quarter reaching a six-month low in June.

The decision by the Organization of Petroleum Exporting Countries (OPEC) in May to extend crude oil production targets had little effect, as investors reacted to increased U.S. crude production and growing global crude inventories. Consequently, crude prices fell over the quarter, reaching a six-month low in June.

Strong North American refinery production led to higher gasoline inventories, and when accompanied by lower than expected gasoline demand, led to the lowest second quarter average refining margin in four years. These softer markets for crude and wholesale refined product resulted in decreased prices for both gasoline and diesel. **Figures 1&2** show the historical movement of retail gasoline and diesel prices in Canada along with their component prices.

North American crude production remained high and pushed crude oil inventories further above historical norms. Consequently, both WTI and Brent, key North American and International crude benchmarks respectively, fell over the quarter. WTI fell 4.54 \$US/BBL, ending the quarter at 46.03 \$US/BBL, or 9.0 percent lower than the end of the previous quarter. Similarly Brent fell 5.02 \$US/BBL, ending the quarter at 47.50 \$US/BBL, or 9.6 percent lower than the end of the previous quarter. Brent's premium to WTI narrowed marginally in the second quarter, averaging 1.99 \$US/BBL, and was driven primarily by the disparity in International and U.S. crude production rates.

Similarly, Western Canadian Select (WCS), a heavy Western Canadian benchmark, ended June down 9.8 percent. The WCS discount to WTI shrunk in April and then remained relatively flat over the remainder of May and June, averaging 9.94 \$US/BBL over the quarter, and finishing 1.63 \$US/BBL lower than the previous quarter. Strong demand for Canadian crude in the U.S. and a prolonged transportation bottleneck helped narrow the discount over this time.

Figure 1: Canadian Average Regular Gasoline and Component Prices

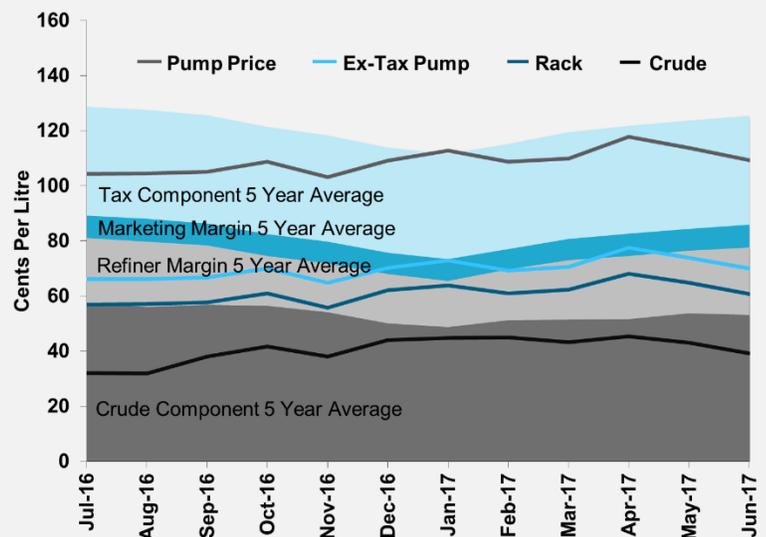
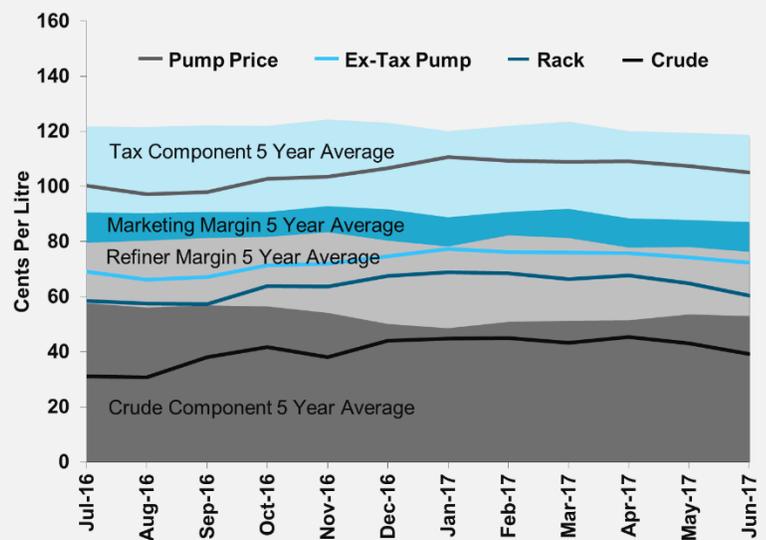


Figure 2: Canadian Average Diesel and Component Prices



Gasoline and Diesel Market Overview

As is typical of spring, North American refineries performed more frequent maintenance and changed-over to summer gasoline blends; these blends are more expensive to produce, and generally apply upward pressure to wholesale gasoline prices at this time of year. While Canadian gasoline refining margins averaged roughly four cents per litre higher than the previous quarter, margins fell throughout the second quarter, and were roughly five cents per litre below the refining margins from this time last year. Combined with falling crude input costs, this lowered the average wholesale and retail prices in May and June, which is unusual during the approach of the summer driving season.

Figure 3: Canadian Average Gasoline and Diesel Price Components for 2nd Quarter 2017



Regionally, there remains a marked contrast in wholesale gasoline prices between western coastal regions and the rest of Canada. West Coast rack prices averaged nearly fourteen cents per litre higher than the rest of the country, largely attributable to refinery issues on the U.S. West Coast and the region's difficulties sourcing supply from elsewhere.

Additionally, Newfoundland's retail prices were lowered considerably this past quarter by the provincial government's decision to scale back provincial fuel taxes that were among the highest in the country.

The shrinking crude input costs and refining margins also contributed to falling diesel prices this past quarter. Typically, refining margins for diesel decline in the spring and summer as demand for heating fuel tapers off. Average retail diesel prices were slower to respond to falling wholesale prices, causing diesel retail margins to rise to nearly twelve cents per litre, a seventeen-month high.

Diesel rack prices fell most in the Central and Western regions of the country, dropping nearly nine cents per litre over the quarter. Diesel rack prices were lowest in the Atlantic Provinces, averaging five cents per litre below the Canadian average. (Figure 3)

Market Outlook for the Next Quarter

For gasoline, the summer driving season typically represents the highest demand period of the year, and as a result gasoline prices typically remain higher until the latter part of the third quarter when demand tapers and supply constraints ease. In the absence of any major shifts in crude prices, retail gasoline prices will likely remain near current levels before falling marginally in September.

Due to diesel's relationship to heating fuel, demand for diesel fuel in Canada characteristically follows an opposite cycle to that of gasoline, with demand tapering in the summer months and peaking in the winter months. Therefore, we expect to see further decline in Canada's average diesel price in the early summer months. Central and Western Canada may be an exception, where diesel demand may be affected by the stronger economic performance expected in the coming months. It is likely that the Canadian average diesel price will rise in the latter part of the summer and into the fall, as the winter heating season approaches.

Trends in Gasoline Consumption and Motor Fuel Taxes per Vehicle

The number of gasoline-powered registered vehicles increased over the last decade, rising nearly 23 percent from 2005 to 2016, yet fuel consumption in Canada rose only 16.3 percent over the same period, indicating that either the vehicle fleet has become more fuel efficient or consumers have been driving less.

As **Figure 4** illustrates, fuel consumption per registered vehicle in Canada decreased from 2005 to 2014 before that trend reversed. The steep drop in Canadian fuel prices that began in 2015 seems to have affected Canadian consumption habits – perhaps through the purchase of less fuel efficient vehicles or perhaps a decision to drive more often.

By province, British Columbia and Quebec have consistently consumed less fuel per registered vehicle over the last decade, and those amounts dropped well below other provinces during the last five years (**Figure 5**), while Prince Edward Island has consistently consumed the most gasoline per registered vehicle. Despite nearly all provinces showing an increase in the annual per vehicle consumption rates of gasoline over the last two years, most provinces are still consuming less per vehicle than a decade ago.

Figure 4: Canadian Gasoline Consumption per Vehicle versus Canada Average Pump Price, 2005-2016

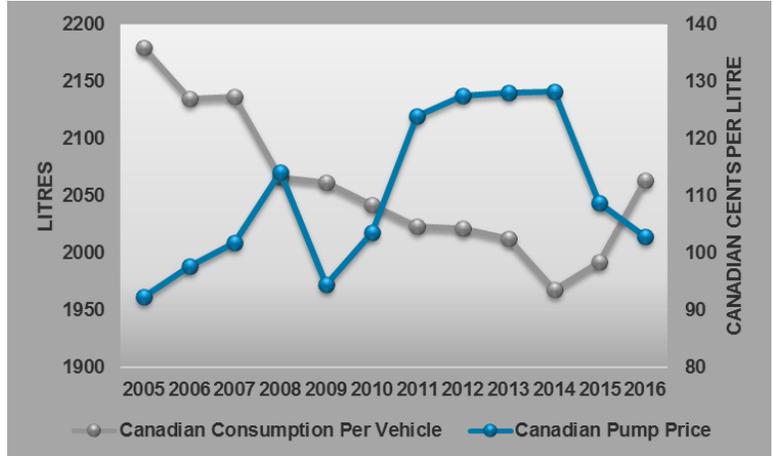
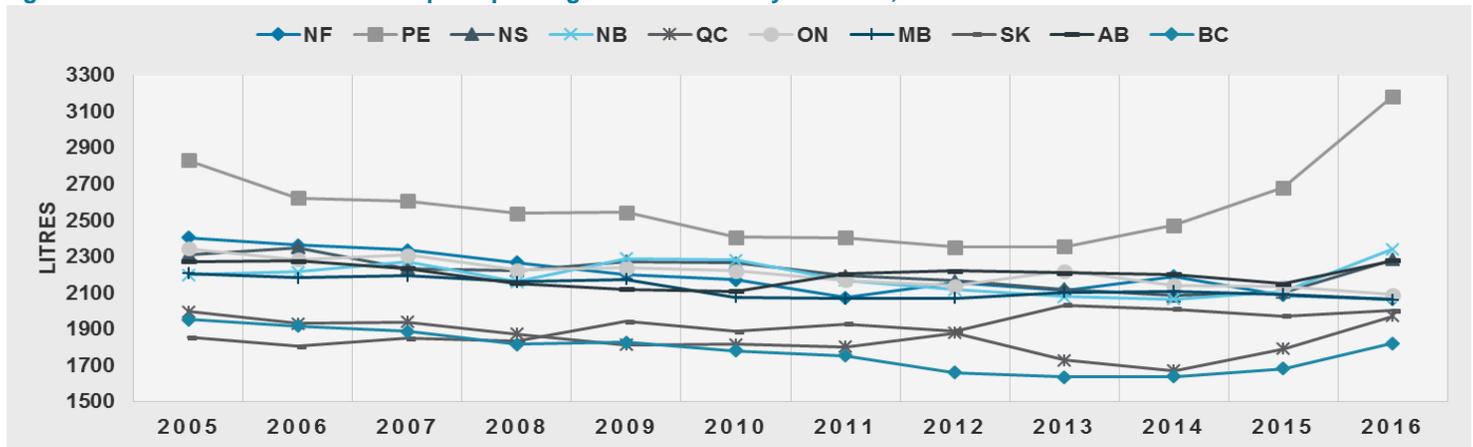


Figure 5: Canadian Gasoline Consumption per Registered Vehicle by Province, 2005-2016



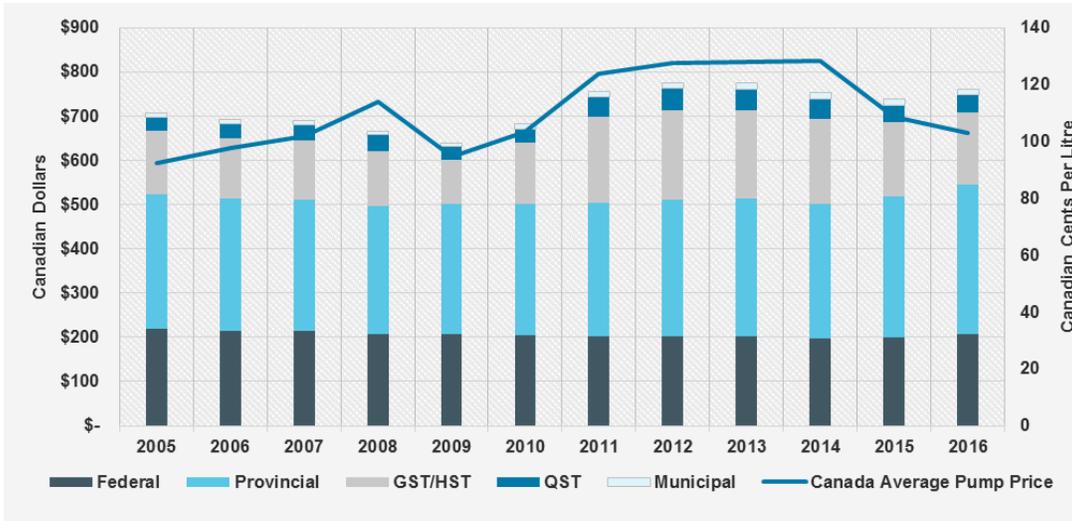
The Canadian average retail price in 2016 was 102.8 cents per litre, meaning the average driver spent roughly \$2,100 on fuel per vehicle, and the largest component of that cost was related to motor fuel taxes. The average amount of motor fuel taxes paid in 2016 was \$761 per vehicle, or roughly 36 percent of total fuel costs, and represents an increase of \$54 per vehicle since 2005 (or 8 percent). Within motor fuel taxes there is a fixed component that is applied on a cent per litre basis (and this generally includes the federal excise tax, provincial and sometimes municipal fuel taxes), and a variable component that is applied on a percentage basis and would be affected by increases or decreases in the price at the pump (this would include GST/HST and QST in Quebec).

Generally, the largest component of motor fuel taxes is the provincial fuel tax. Provincial fuel taxes have steadily grown over the last decade from a national average of \$306 per vehicle in 2005 to \$340 in 2016, and because this is a fixed-rate tax, any changes to pump prices have had no effect on this amount. Any changes to the provincial amount are solely attributable to changes in the actual tax rate, as most Canadian provinces increased their provincial fuel taxes over the last decade, with the exception of Saskatchewan, Ontario, Nova Scotia, and Prince Edward Island.

The Federal excise tax made up the next largest portion of motor fuel taxes at \$206 per vehicle in 2016; this tax currently is applied at 10 cents per litre for gasoline and has not changed since 1995. The annualized federal fuel tax applied per vehicle has dropped slightly over the last decade, which is a direct result of decreased consumption per vehicle over that time.

GST/HST accounted for an average of \$161 of motor fuel taxes per vehicle in 2016. This is up nearly \$20 per vehicle since 2005, and since GST/HST is calculated as a percentage of the base product price plus other federal and provincial excise taxes, this amount can be

Figure 6: Canadian Gasoline Taxes versus Canada Average Pump Price, 2005-2016



affected by changes in pump prices, changes in the GST/HST rate, or changes to the other motor fuel tax rates.

Other taxes such as municipal fuel taxes are present in a limited number of cities such as Vancouver, Victoria, and Montreal. (Figure 6)

A comparison of provinces (Figure 7) shows a wide range of motor fuel taxation amounts per vehicle; Alberta was the least expensive province to drive a vehicle in 2016, costing drivers only \$560 per vehicle in motor fuel taxes, while Newfoundland was the most

expensive at nearly \$1,500 in motor fuel taxes per vehicle. All provinces, with the exception of New Brunswick, had increased tax cost per vehicle since 2005, with Newfoundland showing the largest increase – roughly \$550 per vehicle or 60 percent over that time. However, Newfoundland has recently provided some tax relief to residents by lowering the provincial fuel tax in June of 2017, and is scheduled to lower those taxes again at the end of 2017.

In 2017, Alberta (through a carbon tax) and Ontario (through cap-and-trade) introduced carbon pricing initiatives that have the effect of increasing pump prices and the cost per vehicle for drivers. These changes cost somewhere in the range of 4.5 to 5.0 cents per litre for gasoline in those provinces. When this amount is applied to gasoline consumption in Alberta and Ontario it has the effect of increasing annual driving costs by roughly \$100 per vehicle in those provinces. Quebec and British Columbia had already introduced similar carbon pricing legislation, and other provinces are likely to follow, in order to comply with the recently introduced federal carbon pricing plan.

Figure 7: Canadian Provincial Gasoline Taxes per Vehicle by Province, 2005&2016

