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Fuel Focus

Understanding Gasoline Markets in Canada and Economic Drivers Influencing Prices

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National Overview

Canadian Retail Gasoline Prices Continue to Fall Slowly

For the week ending December 2, 2011, Canadian average retail gasoline prices decreased from the previous week by 1 cent per litre to \$1.19 per litre. Since the last report two weeks ago, average Canadian retail pump prices decreased by nearly 4 cents per litre.

Diesel fuel prices decreased by 2 cents per litre from last week to \$1.33 per litre. Furnace oil prices declined marginally by 0.3 cent per litre from the previous week and averaged \$1.17 per litre.

Average retail pump prices in Canada decrease reflected the decline in North American wholesale gasoline prices and slightly lower world crude oil prices.

Recent Developments

- Increased Oil Storage at Cushing: According to the U.S. Energy Information Administration crude oil storage capacity at Cushing, Oklahoma, the delivery point for the U.S. benchmark contract rose to 55 million bbls at the end of September from 48 million in March. The increase in capacity at Cushing, combined with a drop in stockpiles over the summer months, saw capacity utilization at the key storage hub tumble to just 53 per cent at the end of September from 86 per cent in March. Limited capacity at Cushing earlier this year was seen as one of the key reasons for the record discount of benchmark U.S. crude prices versus international London-based Brent. The so-called Brent-WTI (West Texas Intermediate) spread, measuring the difference between the two benchmarks, hit a record above \$28 a bbl earlier this year, having historically traded in a narrow \$1-\$2 band. Over the past five weeks the Brent-WTI spread has narrowed sharply to stand at around \$11 a bbl on November 29, 2011. (Source: Daily Oil **Bulletin**)
- Oil Production from Libya: Restoration of oil production in Libya is on a far faster track than initially anticipated, according to the latest International Energy Agency's Oil Market Report. Crude oil supplies rose from an average of 75 thousand barrels per day (kb/d) in September to around 350 kb/d in October and 500 kb/d in early November. Libya's production in 2010, before the conflict started, was around 1.6 million barrels per day (mb/d) and exports were around 1.3 mb/d. These levels are not expected to return until 2013. (Source: International Energy Agency)





Figure 2: Weekly Regular Gasoline Prices



	Week of:	Change from:		
¢/L	2011-11-29	Previous Week	Last Year	
Gasoline	119.2	-1.0	+10.4	
Diesel	132.5	-1.6	+22.9	
Furnace Oil	116.5	-0.3	+23.8	

Changes in Fuel Prices

Source: NRCan

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Retail Gasoline Overview

For the period ending November 29, 2011, the **four-week average** regular gasoline pump price in selected cities across Canada was \$1.21 per litre, a decrease of less than 2 cents per litre compared to the price in the previous report of November 18, 2011. Compared to the same period in 2010, the average Canadian pump price is nearly 13 cents per litre higher.

The **four-week average** crude component was 67 cents per litre, an increase of 1 cent compared to two weeks ago. Crude oil prices are more than 16 cent per litre higher compared to the same time last year.

Retail gasoline prices in most Western centres— Vancouver to Winnipeg—decreased by 3 cents per litre when compared to the previous report and ranged from \$1.06 to \$1.31 per litre. Prices in Eastern cities— Toronto to \$t. John's—decreased by less than 2 cents per litre and ranged from \$1.18 to \$1.32 per litre.

At the national level, refining and marketing costs and margins registered a decrease of 1 cent per litre to 17 cents per litre. This is a decrease of 3 cents per litre compared to the same time last year.



Figure 3: Regular Gasoline Pump Prices in Selected Cities Four-Week Average (November 8 to 29, 2011)

How Petroleum Product Prices are Determined

Price is the equalizer than ensures supply always meets demand. If demand exceeds supply, prices will rise until either new supplies are attracted to the market or demand is dampened so that equilibrium is achieved. If supply exceeds demand, prices will drop until the market is in balance. Because of the ability to move product to the market where the highest price is found, most petroleum product prices are similar from market to market. For example, if the rack price for gasoline was lower in Toronto than it was in Buffalo, refiners in Toronto would choose to ship their product to Buffalo to sell at the higher price, as long as the cost of transporting it to Buffalo was less than the price difference. This would increase the supply in Buffalo and lead to a price decrease until the two markets were in balance. Generally, the difference in wholesale prices between two markets can be attributed to the cost of transportation between those two markets.

When all the factors that can influence prices - supply/demand, crude oil costs, distribution costs, federal and provincial taxes and local market conditions - all come together, retail prices, and to a lesser degree wholesale prices, can vary significantly between markets. For more information, please consult Fuel Focus *How Prices are Determined* at: http://www.nrcan.gc.ca/energy/sources/petroleum-crude-prices/1130







Wholesale Gasoline Prices

Wholesale gasoline prices, compared to the previous week, continued to decline in some centres for the **week of November 24, 2011**. Overall, price changes ranged from a decrease of nearly 2 cents per litre to an increase of almost 3 cents per litre.

Wholesale gasoline prices in Eastern markets, in both Canada and the United States, ranged from a decrease of 2 cents per litre to an increase of 3 cents per litre, compared to the previous week, ending the period in the 74 to 78 cents per litre range.

Wholesale gasoline price changes in Western centres ranged from a decrease of 2 cent per litre to an increase of 2 cents per litre and ended the period between 72 and 77 cents per litre.

In the last four weeks, wholesale price changes in both Canadian and American selected centres ranged from an increase of less than 1 cent per litre to a decrease of 6 cents per litre.



Figure 4: Wholesale Gasoline Prices Rack Terminal Prices for Selected Canadian and American Cities Ending November 24, 2011

Sources: NRCan, Bloomberg Oil Buyers Guide

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Gasoline Refining and Marketing Margins

Four-week rolling averages are used for gasoline refining and marketing margins.

Refining margins continue to move downward in all selected centres. The downward trend reflects the decrease in demand for gasoline with adequate supply in the distribution system. These reductions reflect the fact that crude oil prices have not decrease as significantly as wholesale gasoline prices. Overall, marketing margins hovered around 7 cents per litre. Marketing margins for the five centres ranged from a low of 7 cents per litre in to a high of 8 cents per litre.

Marketing margins have to cover the costs associated with operating an outlet and generate a profit for the station owner. Most of the costs of operating an outlet are fixed and do not decline with lower gasoline prices.



Figure 5: Gasoline Refining and Marketing Margins Four-Week Rolling Average Ending November 29, 2011

Source: NRCan







Crude Oil Overview

WTI – Brent Price Gap Narrows

For the week ending November 25, 2011, prices for the three marker crudes averaged between $$638/m^3$ and $$704/m^3$, (US\$97 to US\$107 per barrel). Compared to the previous week prices fluctuated between an increase of $$4/m^3$ for Edmonton Par to a decrease of nearly $$6/m^3$ for Brent. The price gap between the WTI and Brent crude oil has narrowed to US\$10 per barrel for the week ending November 25, 2011. The downward pressure on Brent prices means that Eastern Canadian refiners are paying less for their crude oil, which in turn is eventually reflected in retail pump prices.

World crude oil prices fluctuated in a narrow range for the week ending November 25, 2011, mainly due to precarious events adding volatility to the oil markets. Tensions in Middle-East oil producing countries, such as announced further sanctions on Iran from a few Western countries, contributed to a geopolitical premium on world crude oil prices.

Tensions over the Iranian nuclear program are raising concerns over crude oil supply constraints should the European Union countries succeed in an embargo on Iranian oil. With European crude oil inventories at a multi-years low, the risk is that even a small disruption in the petroleum refining chain could cause spikes in prices.



Figure 6: Crude Oil Price Comparisons

Changes in Crude Oil Prices

Crude Oil Types	Week Ending: 2011-11-25		Change From:			
			Previous Week		Last Year	
	\$Can/ m ³	\$US/ bbl	\$Can/ m ³	\$US/ bbl	\$Can/ m³	\$US/ bbl
Edmonton Par	647.87	98.68	+4.00	-1.46	+147.07	+20.34
WTI	637.81	97.22	-0.39	-2.05	+109.18	+14.68
Brent	703.57	107.25	-5.68	-3.07	+164.59	+23.09

Source: NRCan

North Dakota's Oil Production

North Dakota's oil production averaged over 460 thousand barrels per day (bbl/d) in September 2011, more than four and one-half times its September 2005 level. Although the State's oil production growth slowed during the first few months of 2011, more favorable weather conditions helped operators significantly boost output in June, July, August, and September. North Dakota currently trails only Texas, Alaska, and California among oil-producing States.

The early-2011 slowdown in the State's oil production growth was due in large part to an especially severe winter and spring flooding that hampered exploration and development activity. Through May, monthly increases averaged just over 1%, well below the average monthly production growth of about 3% in 2010.

Production increases in North Dakota are mainly associated with accelerating horizontal drilling programs in the Bakken shale formation situated in the northwest portion of the State (and extending into Montana and portions of Canada). By combining horizontal wells and hydraulic fracturing (the same technologies used to significantly boost the Nation's shale gas production), operators increased North Dakota's Bakken oil production from less than 3 thousand bbl/d in 2005 to over 230 thousand bbl/d in 2010.

Source: IEA, <u>http://www.eia.gov/todayine</u> <u>nergy/detail.cfm?id=4010</u>



