



OLR RESEARCH REPORT

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DIFFERENCE IN GASOLINE AND HOME HEATING OIL PRICES

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You asked why the price of home heating oil is often higher than gasoline, even though taxes are imposed on gasoline that are not applied to heating oil. (This report revises and updates OLR Report [2008-R-0331](#).)

SUMMARY

Home heating oil and gasoline pricing are complex processes, the taxes imposed on gasoline that are not imposed on heating oil are just one factor in determining the cost.

Even though heating oil and gasoline are both distilled from crude oil, they are two different products. As different products, they have different (1) distribution systems and (2) supply and demands. This results in pricing differences. For example, heating oil is used predominately in the Northeast, while gasoline is used nationwide. As a regional and seasonal product, heating oil may cost more than gasoline.

Since both gasoline and heating oil are made from crude oil, its price is still the primary determining factor for both products' price. There is a correlation in the rise and fall of crude oil prices and gasoline and heating oil prices.

DISTRIBUTION SYSTEM

Crude oil is distilled to make many different products, including gasoline and heating oil. There is a different refinement and delivery process for each product. As such, varying natural disasters or international events may affect one product's price but not the other.

Refinement Process

Crude oil has a mixture of many hydrocarbon types. Oil refining separates these into useful substances. Different hydrocarbons have differing boiling points, so they can be separated through distillation. This is what happens when oil is refined; the crude oil is heated and the different hydrocarbons are pulled out by their differing vaporization temperatures. Even after the distillation process, the products still need to undergo chemical processing before they are ready for use. Since there are differing steps in the refinement process, the costs to make the products are also different.

Delivery

Large gasoline companies, unlike heating oil companies, generally control the product from oil extraction to the pump. This means the same company will extract, refine, transport, and distribute the gasoline. This vertical integration allows the company to maximize profits and sometimes sell at a break-even or at a loss to keep sales up.

SUPPLY AND DEMAND

Gasoline and heating oil serve different functions. Gasoline is primarily used to fuel automobiles and heating oil is used to heat homes.

Additionally, gasoline is a fuel that is used throughout year, while heating oil is mainly used during the winter months. As such, the demand for heating oil is more seasonal than gasoline. Even though gasoline demands are generally higher in the summer, the demand is less seasonal than heating oil, which is almost exclusively in the winter. The demand for heating oil is also tied to the climate, with higher demand and more consumption during colder winters.

Heating oil is used predominately in the Northeast, while gasoline use is nationwide. Thus, a seasonal and regional product's price may be higher than a year-round and national product due to supply and demand.

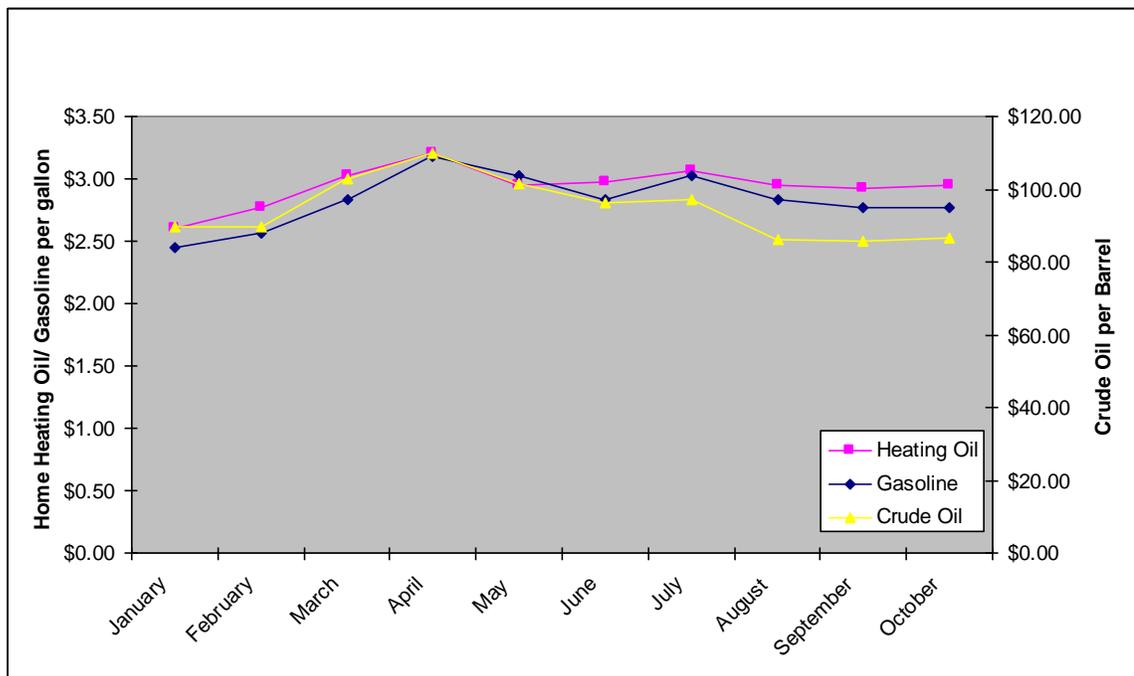
2011 CRUDE OIL, HEATING OIL, AND GASOLINE PRICES

The spot price of Cushing, Oklahoma crude oil was \$89.58 per barrel in January, according to the federal Energy Information Administration (EIA) of the Department of Energy. It reached a high water mark in April when it was being sold at \$110.04 per barrel and a low in September of \$85.61 per barrel. The yearly average to date is \$87.77 per barrel.

In 2011, the New York harbor heating oil spot price ranged from \$2.60 to \$3.20. The yearly average to date is \$2.94 per gallon. The New York harbor conventional gasoline regular spot price ranged from \$2.45 to \$3.18. The yearly average to date is \$2.83 per gallon.

Chart 1 shows that the heating oil and gasoline prices correlate with crude oil prices.

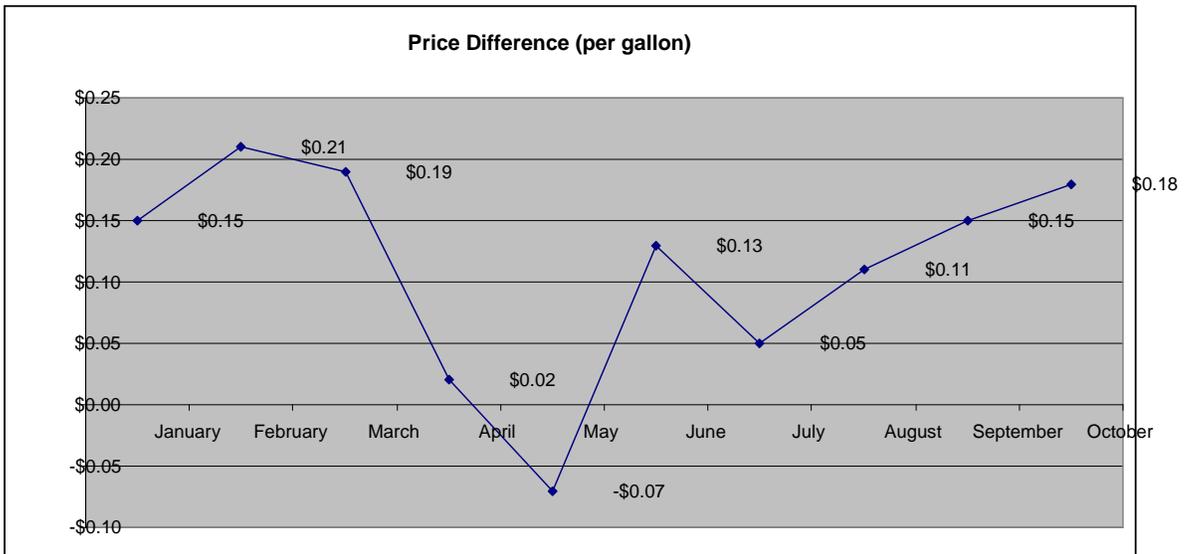
Chart 1: 2011 Crude Oil, Heating Oil, and Gasoline Prices



Source: Energy Information Administration, Department of Energy.

Chart 2 shows that in 2011, except for May, heating oil was more expensive than gasoline. On average, it was \$0.11 per gallon more expensive.

Chart 2: 2011 Price Difference in New York harbor spot Heating Oil and Gas Prices



Source: Energy Information Administration, Department of Energy.

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