Why Do Gasoline Prices Fluctuate?

Retail gasoline prices are mainly affected by crude oil prices and the level of gasoline supply relative to demand. Strong and increasing demand for gasoline and other petroleum products in the United States and the rest of the world at times places intense pressure on available supplies. Even when crude oil prices are stable, gasoline prices fluctuate due to seasonal demand and local retail station competition. Gasoline prices can change rapidly if something disrupts the supply of crude oil or if there are problems at refineries or with delivery pipelines.

Seasonal Demand for Gasoline

Retail gasoline prices tend to gradually rise in the spring and peak in late summer when people drive more, and then drop in the winter. Good weather and vacations cause U.S. summer gasoline demand to average about 5% higher than during the rest of the year. Gasoline formulations and specifications also change seasonally. Environmental regulations require that gasoline sold in the summer be less prone to evaporate during warmer weather. This means that refiners must replace cheaper but more evaporative gasoline components with less evaporate but more expensive components. If crude oil prices do not change, gasoline prices typically increase by 10-20 cents per gallon from January to the summer months.
Crude Oil Supply and Prices

Crude oil prices are determined by worldwide supply and demand. Events in crude oil markets that caused spikes in crude oil prices were a major factor in all but one of the five major run-ups in gasoline prices between 1992 and 1997.

Oil Crises Lead to Higher Prices

Rapid gasoline price increases occurred in response to crude oil shortages caused by the Arab oil embargo in 1973, the Iranian revolution in 1978, the Iran/Iraq war in 1980, and the Persian Gulf War in 1990. The cost of crude oil has been the main contributor to recent increases in gasoline prices.

Crude Oil Prices Reached Record Levels in 2008

World crude oil prices reached record levels in 2008 as a result of high worldwide oil demand relative to supply. Other factors contributing to higher crude oil prices include political events and conflicts in some major oil producing regions, as well as other factors such as the declining value of the U.S. dollar (the currency at which crude oil is traded globally).

The Influence of OPEC on World Oil Prices

The Organization of the Petroleum Exporting Countries (OPEC) has significant influence on world oil prices, because its members produce over 40% of the world’s crude oil and have more than two-thirds of the world’s estimated crude oil reserves. OPEC members are also the only countries that have “spare production capacity” and the ability to bring more oil into production relatively quickly. Since it was organized in 1960, OPEC has tried to keep world oil prices at a target level by setting production levels for its members.

Gasoline Supply and Demand Imbalances

Gasoline Stocks Are the Cushion Between Major Short-Term Supply and Demand Imbalances
Gasoline prices tend to increase as the available supply of gasoline grows smaller relative to real or expected demand or consumption.

**Gasoline Inventories Provide a Cushion**

The supply of gasoline is a function of crude oil supply and refining, imports of refined gasoline, and gasoline inventories (stocks). Stocks are the cushion between major short-term supply and demand imbalances, and their levels can have a significant impact on gasoline prices.

If refinery or pipeline problems and/or reductions in imports cause supplies to decline unexpectedly, gasoline inventories (stocks) may drop rapidly. This drop in inventories may cause wholesalers to bid higher for available supply over concern that future supplies may not be adequate.

Imbalances have also occurred when a region has changed from one fuel type to another (for example, to cleaner-burning gasoline) as refiners, distributors, and marketers adjust to the new product.

**Seasonal and Annual Variation in Supply and Price**

Gasoline may be less expensive in one summer when supplies are plentiful compared with another summer when they are not. Prices for all commodities fluctuate, but gasoline prices are generally more volatile than prices of other things people buy. For
example, consumers generally have options to substitute between food products when prices change, but most do not have that option for fueling their vehicles.