



Oil and Natural Gas Prices: Global Commodities/Global Price Influences

JUST THE

FACTS

As the northern hemisphere heads into the winter heating months – as well as a holiday season with a pent-up demand for travel – families and businesses are experiencing an uptick in prices for oil, gasoline and natural gas. These fuels have already increased in price in the United States, with even greater sticker shock expected in other parts of the world.

The fact is that oil and natural gas are global commodities, and the cost for those products is driven by similar global factors extending far beyond the efforts of producers to exploring for and develop those products. Here's more:

Global Oil Production and OPEC

One of the most significant factors in determining global oil supply is the levels of production established by the Organization of the Petroleum Exporting Countries (OPEC), which sets production targets for its members. At the end of 2018, OPEC members controlled about 72% of total world proved oil reserves, and accounted for 41% of total world crude oil production. While the 15 OPEC countries have often acted to coordinate production since the bloc was established in 1960, individual members sometimes act independently to increase levels. The influence of OPEC's actions on global supply cannot be overstated, however.

Geopolitical and Weather Factors

A second broad factor impacting oil supply is the geopolitical events and severe weather that can create uncertainty about future supply or demand and lead to higher volatility in prices. The COVID pandemic of 2020 is a significant recent example of a global event that first disrupted demand, followed by a more recent delay in increasing supply. Producers around the world took action to stem financial losses in early 2020 when total miles driven nosedived by reducing production, which hit independent producers particularly hard. As demand for oil has increased, the inelasticity of oil production - tied to the time and capital-intensive process of drilling new wells and bringing additional supplies to market - translates into the shortterm volatility in prices being experienced now.

While the U.S. has dramatically increased its production in the past decade, other parts of the world receive oil from countries subject to political upheaval or regions that have faced oil production disruptions because of political events. Venezuela, Libya and countries in the Middle East are examples of nations that have experienced volatility impacting oil production.

Finally, weather can have a significant role in the supply of crude oil. Hurricanes Ida and Nicholas caused refinery problems along the U.S. Gulf Coast in 2021, and unusual cold weather in West Texas in February 2021 disrupted production in the Permian Basin. Hurricanes in the Gulf of Mexico can affect oil production and refinery operations in the Gulf region.



Similar Factors at Work With Natural Gas

Supply and demand forces apply similarly to worldwide natural gas prices, which have been trending higher in recent months. The lowprice gas environment in the U.S., experienced to varying degrees over the past decade, is not immune to this development, leading some consumers and businesses to question the longevity of the shale gas boom.

In a broad sense, there are three primary supplyside factors that drive prices, including the amount of natural gas production, the levels of natural gas in storage and volumes of natural gas imports and exports. There are also three major factors affecting prices in the demand side, including variations in winter and summer weather, level of economic growth and the availability and prices of other fuels.

As with oil commodities, the single most important driver in natural gas prices since early 2020 was the onset of the global COVID-19 pandemic, which drove Henry Hub natural gas prices to \$1.60/MMBtu in March, their lowest level in 25 years. Prices started the year low due to a mild winter, then remained there as demand plummeted. The average price over the full year was just \$2.05/MMBtu.

Predictably, producers able to survive years of low prices were now forced to cut production and service companies had to retreat as drilling activity came to a near-halt.

The global recovery from COVID in 2021 subsequently and steadily increased demand, with the November 2021 NYMEX contract price set at \$5.47/MMBtu, a level exacerbated by the prediction of a cold winter, continuing infrastructure challenges and demand-driven liquefied natural gas exports to countries paying even higher prices. While the Energy Information Administration and other independent analysts expect prices to remain high this winter, their predictions anticipate an increase in production and seasonal reductions in demand in the spring will bring prices closer to \$3.50-\$3.75/MMBtu.



The Facts:

The basic forces of supply and demand play the dominant role in determining global energy prices. At the same time, the negative impacts of poor policies, regulatory overreach and resistance to new infrastructure on energy economics in the U.S. cannot be ignored. Pennsylvania and other energy-producing states in the Appalachian Basin are capable of meeting an increased demand for natural gas in the northeast, but are forced to battle opposition to projects that will safely deliver affordable energy to families and businesses in those states.



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