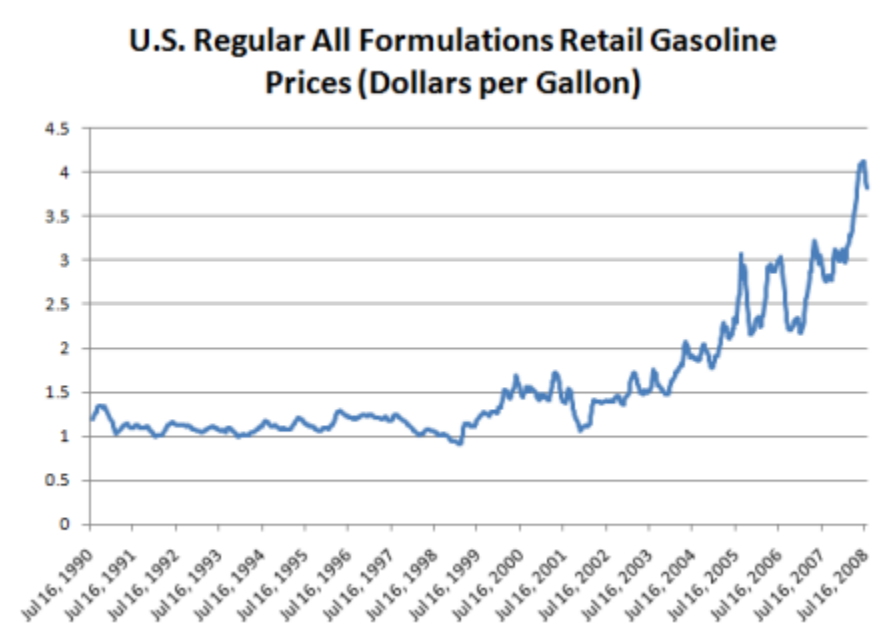


GASOLINE PRICES, CONSUMERS, AND THE ECONOMY

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The current gasoline prices are likely to have a large impact on consumer spending but a much smaller impact on the amount of gasoline purchased. Instead, the effect is likely to be felt in other areas of spending (e.g., vacations, entertainment, electronics, or eating out).

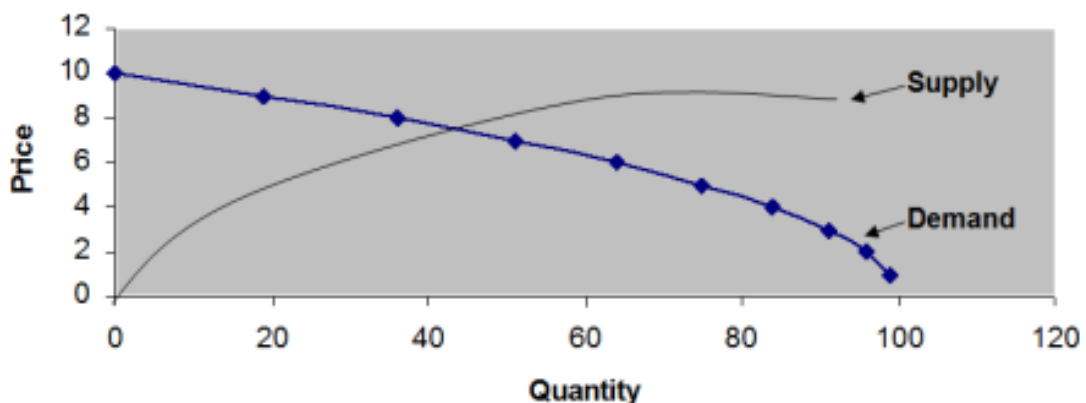


Source: U.S. Department of Energy

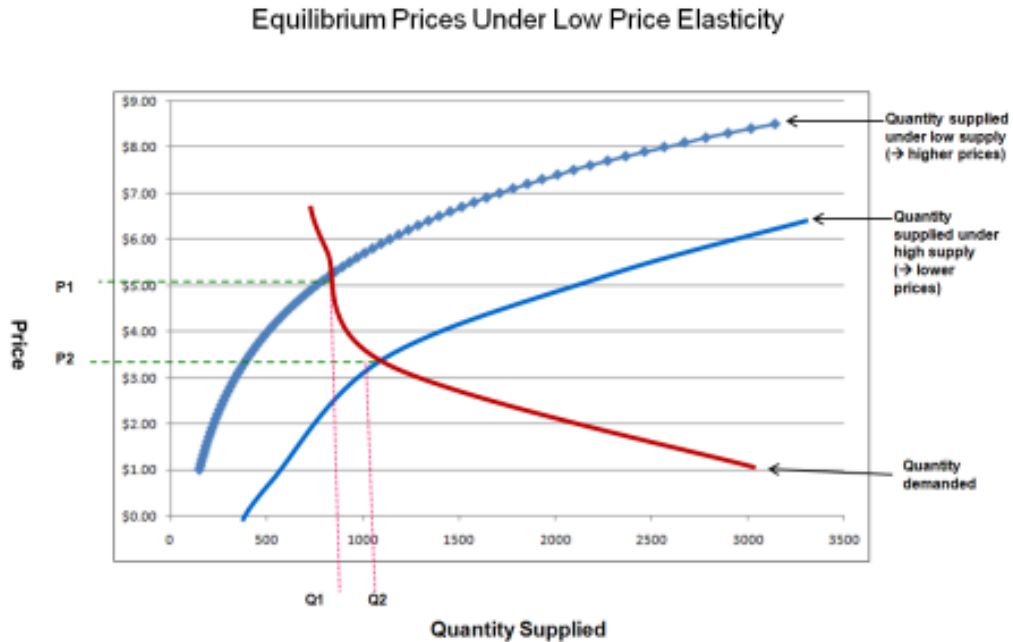
Economists generally talk about the “price elasticity” of certain products and will often predict that a one percent increase in the price of a product will result in a, say, two percent decrease consumption or “quantity demanded.”

The idea of this declining consumption can be explained in terms of the traditional concepts of “supply” and “demand.”

Supply and Demand Curves



Short term demand for gasoline, however, appears to be relatively “inelastic”—that is, when prices change, there is relatively little change in the quantity demanded. This is why, when the world supply of petroleum changes, very a very large change in price is usually needed to bring supply and demand into balance. Supply and demand chart under inelastic demand looks more like this:



NOTE: The numbers in this chart are fictional and used only for illustration purposes. They do NOT represent observed market response.

The red curve represents consumer demand, staying constant during the higher and lower supply conditions. The top blue curve represents the quantity supplied at a given price when supply is low. Because the supply is low, suppliers will want more to supply a given quantity than is the case for conditions of high supply (the lower blue curve) where a greater quantity can be had a given price. Note that because the demand is relatively inelastic, the percentage the market price increases (on the vertical axis) is much greater than the percentage by which the quantity supplied is reduced (on the horizontal axis).

As indicated, a very large increase in price is needed to reduce quantity demanded a small amount.

In the United States, in the short run, it appears relatively difficult to reduce gasoline consumption. It is possible to eliminate “driving vacations” from one’s plans. It is also possible to buy automobiles with a better gas mileage, but most people are not ready to trade in their cars in the short run. The strong economy during the late 1990s encouraged a lot of people to buy low gas mileage cars with which they are now stuck. 14% of respondents to a survey by the NPD Group reported plans to buy a more fuel efficient car in the coming year. Americans do not tend to resort much to car pooling or public transportation, at least in the short run, in response to gas prices. Although a study by the NPD Group found that 28% of consumers buy less gasoline than usual at the moment, it is less clear how much

consumption is actually reduced--and, by implication, 72% of consumers have not reduced their gasoline purchases.

Research by Dr. Gerard Tellis at the University of Southern California suggests that, for many branded products, the price elasticity is approximately -2.0. This means that when prices increase by one percent, the quantity demanded for the respective branded product will tend to decline by twice as much—two percent. The elasticity is, however, much lower for the product category, as opposed to the branded product. For example, the price elasticity is much greater (more negative) for Snickers than for candy bars in general. Since there are few immediately available direct substitutes for gasoline, the elasticity tends to be low.

Because it is difficult to reduce spending on gasoline, the effects of price increases are often shifted to other economic sectors. Some economists estimate that for every one cent increase in the price of gas, spending in other areas will decline by one billion dollars. This figure does not appear to be based on recent empirical data, but it is clear that gasoline prices significantly affect consumer spending. In 2007, Wal-Mart estimated that the then current higher gasoline prices take away \$7.00 per week from an average family budget. Since then, this figure has certainly increased significantly. The problem is compounded by the so-called “Multiplier Effect,” whereby money is re-spent as it makes its way through the economy. (E.g., restaurant workers buy movie tickets and studios in turn hire actors and staff, who in turn spend their money, giving income to others who in turn spend....) Because a large part of the cost of oil goes abroad, there is less opportunity for multiplication within the U.S. economy.

It may be speculated that there is some price threshold at which, once it is reached, consumers will dramatically consumption. In the 1970s, U.S. cereal manufacturers were afraid to approach such a threshold, which had been predicted from market research at \$2.00. Unlike today’s gasoline consumers, however, the 1970s cereal shoppers had a choice to switch to other brands that had not yet followed suit. Many places in California, however, this threshold has already been reached without a strong apparent drop. Should prices reach \$3.00, that may well be a significant shifting point, but there is no clear evidence to show this.