

NOTES FROM THE DISMAL SCIENCE

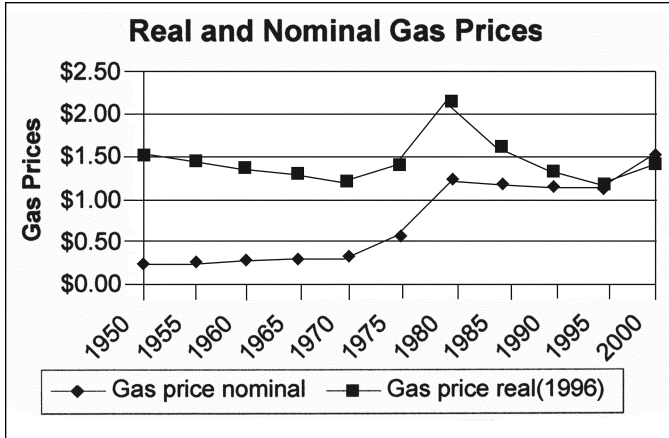
Sherman Folland

Gas Prices: What's Real and What's Not?

It is a good bet that most baby boomers did not realize what inflation really was until they experienced the 1970s, the OPEC oil embargo, giant interest rates, and the like. We learned the difference between real (inflation adjusted) prices and nominal (listed on the pump) prices. Still, whether you are a baby boomer or not, you may be surprised to see how much inflation during the past 50 years blurs our perspective on present day gas prices. Is \$2.00 at the pump too much? A historic high? Or is gas “cheap” as suggested in a recent on-line issue of *Slate* magazine?

The historical trend in nominal gasoline prices is compared to the inflation-adjusted, real price trend in the accompanying chart. The price index used to measure general inflation in the making of this chart is calculated with 1996 as the base year. Real gas prices peaked in 1981, not in 2004. Our “horror” at the pump looks pretty mild from this perspective; the real price of gas in 2000 was about the same as it was in 1950.

Suppose one starts from the Midwest August 2004 average price and compares it with these trends. The Department of Energy documentation reports this price to have been



\$1.86 per gallon; adjusting for inflation (putting it on the same basis as the real prices in the figure) the August Midwest real price was \$1.63. As I already suggested, this is only a little higher than the real price in 1950, which was \$1.54 a gallon. A few years later, in 1958, I was watching Fess Parker play Davy Crockett on a black and white TV, while my Dad was buying gas for a real price of \$1.41, paying a pump price of 30 cents per gallon.

The real price continued to decline until 1972, the eve of the OPEC oil embargo, to an incredibly low \$1.14. It jumped the next year, seemingly just overnight, to \$1.41, and from there on meandered erratically up to a peak in 1981 of \$2.21 (unleaded prices are used from 1976). If we had to pay the equivalent at the pump today, that would be over \$2.50 per gallon. But, lo and behold, real gas prices again declined and continued down through the eighties and nineties, a relatively unheralded contributor to the economic rebound started in the Reagan years.

The big news in oil, for the past 25 years, has been war news, especially war in the Middle East. We will agree that oil should not be the reason for making war; as James Woolsey, former CIA director, has long argued, the backbone of our strategic policies should be first to reduce our dependence on foreign oil. Bush senior headed into the Gulf War, however,

amid much talk in the press about oil. I remember the pattern of crude oil futures prices then. A *future* on Wall Street is a contract to take delivery at a specified price on a specified date in the future. These prices reflect what experts think the price of oil will be a month, six months or year or more into the future. As the war approached, futures on crude oil rose sharply, and that is natural. What was eerie is that the day after the bombing war started in January 1991, Americans were glued to their TV sets watching the amazing “smart” bombs and precise munitions of our arsenal go to work. What they probably weren’t watching was that futures on oil dropped precipitously that same day. It was as if the Wall Street experts had been just as impressed with these fireworks as the TV audience at large, a quick win seemed attainable. I think that is eerie, though there are other words for it.

Do war and oil go hand in hand today? This is certainly true, and causality runs in both directions. The United States imports between 50 to 60 percent of the oil we use, and about 10 to 15 percent of the oil we use comes from the Persian Gulf. This is big, to lose proportionately this much gasoline would mean the equivalent throughout economic life of each household not driving for one to two months out of the year. But, it is small enough (again, see Woolsey) so that we could eliminate our dependence on Persian Gulf oil by conservation. I am no expert to understand which if any military interests we can justify in the region were oil considerations to be eliminated, but surely eliminating oil considerations would make us more clear-headed about our foreign policy decisions.

Can we and should we conserve on oil consumption? You have all been made aware, either through direct experience or through reading, of the high price of gas in Europe, but it might be entertaining to see what the current numbers are. The table below reports recent nominal prices for a gallon of gas in various countries. I should emphasize that all of these prices have been converted to U.S. dollars per U.S. gallon. These are average pump prices for February 2004.

<i>Country</i>	<i>\$ per U.S. Gallon</i>
United States	1.646
Canada	2.183
France	4.808
Japan	3.308
United Kingdom	5.315
Germany	5.137
Spain	3.727
Italy	5.084

The most fundamental and reliable idea in economics is the demand curve, the idea that people will purchase less, all things being equal, if the price is higher. How much less? That is a common study for statistical research. The high prices in these countries, it is a good bet, reduce driving, support public transportation, and, over decades, induce a spontaneous rearrangement of housing and travel patterns.

As working professionals, economists generally don't see taxes as either too high or too low per se. Their questions focus on which ones should be raised, which ones lowered, and when. I remember clearly, however, that any politician who promoted higher taxes got ridiculed and discarded in the polls—remember Mondale? And, the same applies to any politician promoting any energy tax—remember the BTU Tax Proposal? I suspect, however, that there are substantial gains to be gotten from energy conservation, both for our foreign policy position and for our environment.

For example, the market for driving is a flawed market in economic theory. Each of us, when we drive to work or to go shopping, imposes a cost on others who are driving, we call this an external cost, a harmful side effect of our driving because we contribute to traffic congestion and to exhaust fumes. The Europeans, who impose high gas taxes, at the same time pride themselves on their public transportation systems. My family and I spent a year in Germany sans auto; we liked the trolleys and trains there, but I didn't fully realize how much I liked them until I got back in my car in Detroit traffic.

Regarding the exhaust fumes, autos clearly play a part in the emissions of carbon into the atmosphere, a category of air pollution that has been growing is carbon emissions in the transportation sector of the economy. Policy proposals for stricter emission standards in auto manufacture and proposals for hydrogen-powered cars are complex and detailed issues, beyond my present scope. We can say at least that increased gas prices are likely to curb emissions through less driving.

A fair question to ask me, since I raised the issue, is: What is going to happen to the price of gas in 2005? First of all, the Department of Energy forecast (as of August 2004) is that gasoline prices in 2005 will attain a nominal average centering around \$1.87 per gallon. Me? I think it depends on political interests and progress or lack of it in Iraq. But, consider this. Are gas prices really too high? Aren't they instead far too low? To be sure, raising pump prices with higher taxes invokes the need for a program to offset the hardship done to people extraordinarily dependent on driving and/or who have little money to cope. However, the problems continue to grow. Congestion has sharply increased across the United States since the 1980s, our traffic patterns and housing development patterns are often incoherent, carbon emissions continue to increase from our transportation system, while other developed countries can already boast of improved everyday well being through paying those higher gas prices. The trouble is, I don't see how we can get there from here.