

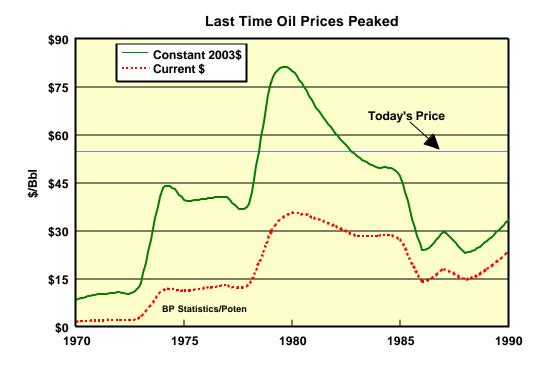
\$100+ Per Barrel Crude: April Fool?

April 1, 2005

Goldman Sachs did a gutsy thing: they stuck their neck out. They have publicly commented that the upper range of their price forecast might spike at \$105 per barrel. A similar \$100 per barrel forecast was made in the aftermath of the price hikes accompanying the Iranian Revolution in the late 1970s. It didn't happen then, but will it happen now?

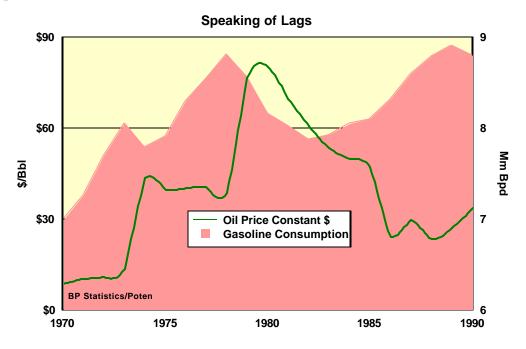
To be fair, the forecast is not without foundation. The forecast is based on what would happen if there is continued growth in oil demand in the United States and China plus other Asian nations commensurate with the past, coupled with limited potential growth in non-OPEC sources in the near term, and an apparent lack of any significant surplus production capacity within OPEC. With or without supply disruptions, the market will remain tight. The only way to loosen the market is to cut consumption. With Americans still the gas guzzlers of the planet, what will it take for them to cut their gasoline purchases. It is obvious that Americans are having no problem paying \$2 to \$3 per gallon of gasoline. Goldman Sachs feels that, under these circumstances, it'll take \$4 or more per gallon for Americans to reconsider the type of automobile they purchase and reassess their driving habits. From this, Goldman Sachs backs into their \$105 per barrel forecast.

The chart on the next page shows the historical price of oil in terms of constant dollars. As high as \$55 per barrel is, we are not at the same level we were at in the early 1980s when prices hit, in terms of today's dollars, \$80 per barrel. Parenthetically, the chart also shows the erosion of the purchasing power of the dollar by about 50% since 1980!



How Did Americans React Back Then?

The following chart shows total gasoline consumption from 1970 to 1990. There was a significant lag between a change in oil prices and a change in gasoline consumption.

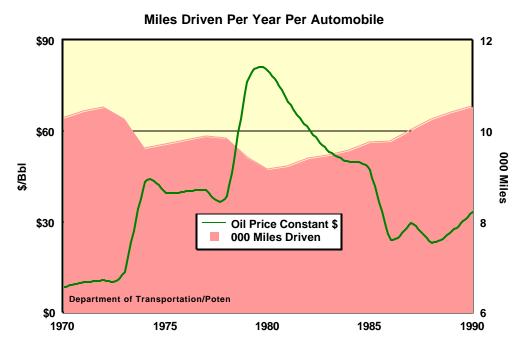


Americans endured a decade of oil price increases of unprecedented magnitude before there was any real reduction in gasoline consumption. And when

they did cut back on gasoline consumption, they continued to do so after the price of oil began to fall. Gasoline consumption then turned the corner with oil prices still in free fall.

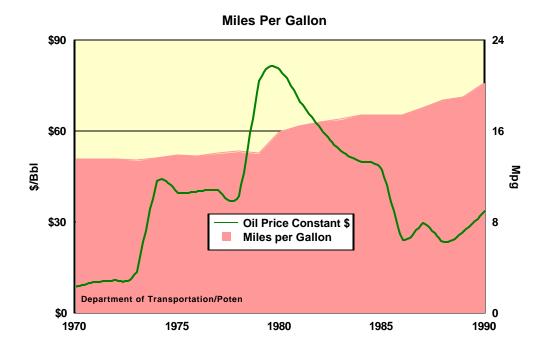
What Can We Conclude?

Americans don't seem to know a thing about Economics 101– they violate all the rules! They buy more as prices climb and buy less when prices fall. Who can predict such irrational behavior? But when they did react, it was noticeable. The following chart shows miles driven per year per automobile.



Here we see the classic economical reaction to high oil prices—Americans reduced miles driven per year by about 10% through a combination of car pooling, thinking twice about 30 separate trips to the shopping mall, and driving to nearby rather than faraway summer vacation spots.

The chart on the following page shows the change in fuel mileage for the American automobile fleet. The energy crisis of the late 1970s and early 1980s was a boon for European and Japanese automobile imports into the United States as Americans switched from gas guzzlers to gas savers. Eventually, U.S. automobile manufacturers took notice and began manufacturing more fuel-efficient automobiles.



So What's in Store?

If the past is prelude to the future, oil prices will have to escalate much further from present levels and stay there for an appreciable span of time before Americans make a meaningful change in driving habits and automobile purchases. On the margin there will be some consideration to driving less and buying hybrids over SUVs and Hummers. Unfortunately sales of automobiles versus light trucks, which include pickups, vans, and SUVs, have been increasingly skewed to lower mileage light trucks. Light trucks made up 20% of combined automobile and light truck sales in 1976, climbed to 33% in 1990, 48% in 2000, and 53% in 2003. Thus there is embedded within the U.S. automobile population a high proportion of vehicles not known for gasoline efficiency. This is going to take a long time to work out of the system even if hybrid sales were to balloon.

Considering China's determination to enter the automobile age and the penchant of Americans to drag their feet when responding to higher gasoline prices, we cannot see any meaningful diminution of gasoline demand. With that in mind, we cannot seriously argue against the Goldman Sachs' contention that much higher oil prices may be in the cards. But high oil prices risk a tumbling of global economic activity that took place in the late 1970s and early 1980s. If the global economy takes a downward turn, oil consumption will fall dragging oil prices and tanker rates along with it. But \$55 per barrel oil won't do it. Keep on truckin'!