

Impact of Oil Price on Demand

By William R. Edwards*

In reality, we can recognize peaks and valleys only after the fact. For example, looking back we can see the “dot com” bubble, or spike, that occurred in the year 2000. The NASDAQ, currently at 1400, reached a price level of 5000 that will probably not be seen again for decades, if ever. Similarly, due to the recent rapid price decline, we can now look back at the oil price bubble, or spike. Between early 2007 and late 2008 the WTI futures price rose from \$50 to \$150 and then returned to \$50. This brief duration of high prices appears more like a spike than a bubble.

The brief duration of the spike gives us an unusual opportunity to learn something of the lag time that exists between a change in price and the resulting impact on demand. While no rigorous study of the lag time is possible because of the dynamic nature of the various economic factors at work, we can get some sense of this element by comparing the demand data with the price performance. This comparison is shown in the adjacent graph.

Probably the most surprising observation is that the demand curve peaked out in January 2007, about the same time that the price curve started its dramatic upward move. Since prices had risen over the previous three years by a factor of two, it is reasonable to conclude that the drop in demand that began in 2007 was the result of a price increase that began three years earlier. While by no means exact, the assignment of a two-year lag time seems reasonable. Thus the current level of demand, now down 5% year over year, may see another 5% drop as the impact of the 2008 spike makes its impact completely felt. Thus, even if the price stabilizes at the current level, we may see a continuation of demand decline for another two years.

Actually, the demand decline could be even more prolonged and deeper than the suggested 10% since actions that will not be reversed have been taken in anticipation of permanently higher prices. However, this demand decline may be offset to a degree by a further lowering of the price. It is by no means certain that oil prices will stabilize at current levels. In fact, the 25-year price profile suggests that the price may return to the \$10-20 range that existed in the 90's. This would correspond to a \$25-50 range in current dollars. This additional lowering in price suggests that the demand decline could be reversed in a few years, but it is unlikely to turn around quickly.

To put the current fall in demand in perspective, it should be noted that the entire increase in demand over the past decade has been erased in the past two years. The current “conventional wisdom” believes that the price of oil is directly related to demand. Therefore, if demand has returned to the level of the year 2000, should we expect prices to return to the level in 2000, as well, when prices were well below \$20/B?

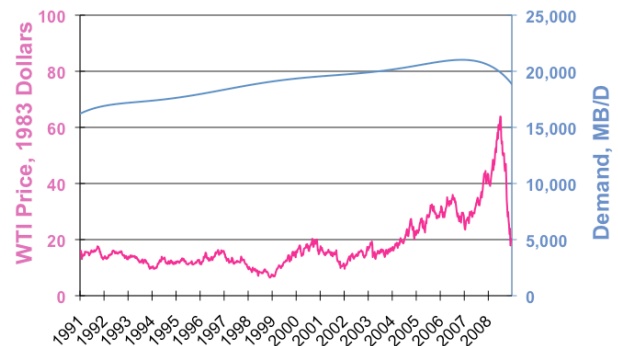
How should OPEC view this disturbing assessment? There is no question that a drop in demand will force upon OPEC a drop in production. Like it or not, supply cannot exceed demand. But will the organization assign reduced quotas so that the pain is spread among all the members, or will most of the burden fall on the Saudis? It does not matter at all when OPEC announces new quota assignments, production will be curtailed by the crude purchasers with or without OPEC's blessing on the cuts. If OPEC delays assigning new quotas, only Saudi Arabia will suffer from the delay. And if the member countries do not abide by the new quotas, only the Saudis will suffer from that lack of cooperation.

Contrary to popular opinion and deep-seated notions, OPEC-announced cuts and quotas have nothing to do with the price. Under the pricing system that OPEC has accepted for the past twenty-three years, the speculative market sets the price. With the speculators' enthusiasm for oil having disappeared, hopes for a return to high prices will disappear as well. Therefore, the only help OPEC will get from the speculators for the foreseeable future is a further downward pressure on the price.

Has the recent oil price spike been a major contributor to the world's current economic problems? It has been claimed by OPEC officials that this is not the case since there was no impact on demand when prices rose. The data presented here suggest that this reasoning was not correct. Demand had suffered, indeed. It was just not recognized. Therefore, it is reasonable to conclude that the oil price spike could, indeed, be partly to blame for the worldwide recession.

This is just another indication of the need for a new pricing system that creates a stable price.

WTI Price (constant dollars) and U.S. Demand



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