



## More thought on oil economics

Posted by [Heading Out](#) on July 18, 2005 - 4:43am

Through the wonders of modern technology you can actually track the current positions of the cars in the North American Solar Challenge by [GPS](#) and see where they are in almost real time. What with that, and the new Harry Potter . . .

Actually I would like to continue the dialogue that Econbrowser started, and which continues both [there](#) and in comments there and here. I am helped a little in this by an article in today's [St Louis Post Dispatch](#), to which I will refer in a bit.

Rather however, this time, responding to specific comments Econbrowser has made, I would like to review the history of oil production to emphasize three points, which may clarify the issue. If I appear to oversimplify, please feel free to help us out in this debate, but I want to talk about the reasons for the Texas Railroad Commission and OPEC; that oil companies drill with your money not theirs; and that, once a well starts producing, owners will keep it going even if they lose money. (and along the way try and answer JimBobRay on the open thread).

When oil first came on the market there was not enough to go around, and prices were attractive enough to encourage many people to sink oilwells and get on the bandwagon. The first Texas oil well began production in 1866, but it was not until Spindletop was brought in during 1901 the price of oil fell to \$0.34 a barrel. This led the Texas legislature eventually, since oil flowed in pipelines, to declare pipelines common carriers and to give jurisdiction over them to the Texas Railroad Commission [in 1917](#). This responsibility rapidly grew to include "the conservation of oil and gas, forbidding waste," (1919). This gradually gave the commission increasing power over the oil industry and in 1927

First voluntary proration in Texas is accomplished by limitation of production to a figure below the capacity to produce, and attended by a distribution of allowable production among the operators in the Yates Field. By agreement of the operators with the blessings of the Railroad Commission.

Gradually this proration went from being voluntary to being ordered by the Commission and in 1930

Railroad Commission issues first Statewide Proration Order with effective date of August 27, 1930 to limit the production of the state to 750,000 barrels per day. This order represents a cut in the production from previous year of some 50,000 barrels, and is based on the reasonable market demand formula.

From then on the Commission controlled production to ensure that it met demand while allowing keeping the price at a level that made it profitable for the oil industry to pump the oil.

However to steal a quote from Kenneth Deffeyes book "Hubbert's Peak" (via [Green Car Congress](#)

Hubbert's prediction was fully confirmed in the spring of 1971. The announcement was made publicly, but it was almost an encoded message. The San Francisco Chronicle contained this one-sentence item: "The Texas Railroad Commission announced a 100 percent allowable [i.e., produce full out] for next month." I went home and said, "Old Hubbert was right."

With Texas, and every other state, producing at full capacity from 1971 onward, the United States had no way to increase production in an emergency. During the first Middle East oil crisis in 1967, it was possible to open up the valves in Ward and Winkler Counties in west Texas and partially make up for lost imports. Since 1971, we have been dependent on OPEC.

And of course OPEC, had the same purpose. From "*The End of Oil*" by Paul Roberts

"On September 14, 1960, Venezuela persuaded Iran, Iraq, Kuwait and Saudi Arabia to form the Organization of Petroleum Exporting Countries, or OPEC, a political entity that would bring new meaning to the idea of oil as a political commodity â€" and in the process utterly reshape the world political order. No longer would the major oil companies dictate the price of oil. Over the course of the 1960's OPEC â€" which eventually included Algeria, Indonesia, Libya, Nigeria, Qatar and the tiny United Arab Emirates â€" began collectively raising the price of oil and forcing the majors â€" to take back some of the burden of adjustment."

They discovered their power in 1973 when

First OPEC unilaterally raised oil prices by another 70% to \$5.11. Next, in response to the 1973 Arab-Israeli war, OPEC's Arab members embargoed oil shipments to the United States and the Netherlands. . . . .the West could only sit and watch as oil prices more than quadrupled to well over \$20 a barrel.

But in those days OPEC also got greedy, not recognizing at the time that there were other producers, demand could be reduced and other fuel sources could be developed. And so by 1986 world oil demand had fallen by 5 mbd.

Roberts goes on to describe how Saudi Arabia then went on to get control by OPEC, first by cutting its own production from 10 mbd in 1980 to 2.5 mbd in 1985, and when this did not work, then flooding the world market with oil.

This had several effects, one of which was to stop almost all research into alternate fuels, since there was, in the short term, no longer any need of them.

And since then, until the last year, OPEC controlled production from their members, and to a large degree, also the world price of oil. But now, in the same way as happened to Texas, OPEC members can sensibly produce flat out and the quotas set are being over-ridden without any meaningful action.

Thus we have the major producers in the past making decisions about oil production and price for reasons that extended beyond just the immediate need to make money.

To move on to the second point. Which is that, in many cases, the oil companies drill with other folks money, rather than their own. What is not commonly discussed is the risky nature of the oil business. Even in the North Sea the current success rate for a well is only about 1 in 8, while in America it used to be 1 in 15, and may well now be worse. Thus, from the time (mentioned yesterday) that Howard Hughes Senior charged folk \$30,000 per well to rent his drills, the industry has had a habit of using other folks money to drill with, rather than their own. Consider for example, the story from today's [Post Dispatch](#)

If oil producers need inspiration, they need look no further than Ben Webster and his Deep Rock Energy LLC.

On March 16, 2002, Webster made Illinois' biggest oil find in decades. The company partnered with Ceja Corp., based in Tulsa, Okla., and drilled Warren No. 1, a \$1.6 million wildcat that went 3,900 feet vertically and about 250 feet sideways under Forbes State Park.

Briefly, it was the biggest producing oil well in the lower 48 states at about 3,800 barrels a day. It made Webster a celebrity in his hometown of Salem, Ill. So far, the well and others drilled in the same field have produced more than 1.5 million barrels. It has benefited not only Webster and his family but 140 royalty owners, including the state.

But the story contains within it the answer to JimBobRay.

Today, though oil is still being pumped from the Oblong Field, which began producing in 1908, Illinois' total annual production stands at just over 10 million barrels. That's less than 1 percent of the U.S. total.

Most wells in Illinois are known as stripper wells, run by mom-and-pop operators that produce about 2.5 barrels a day. Only a few produce more than 1,000 barrels a day.

Many oilwells cost over a million dollars to drill, and most of the existing oilfields have lost pressure so that they can only now be pumped to produce these low numbers. At these low rates the well can continue to provide this amount of oil for decades, at the bottom end of the production curve. There is no longer the higher reservoir pressures that made the oilfields self producing, but the lower volumes can be sustained much longer.

And the final point is another quote from the same article:

Two crashes devastated the petroleum industry. In 1986, oil prices tumbled to \$11 from \$26.50 a barrel. In December 1998, the price bottomed out at \$8.64 a barrel - below the cost to produce it.

Still, many companies continued operating at a loss, because they didn't want to lose their leases, labor and equipment.

"It's unbelievable what this industry went through," said Richard Straeter, president of

Illinois operations for Enid, Okla.-based Continental Resources Inc., one of the region's biggest producers. "Numbers had to be reduced so drastically that office staff had to go out in the field."

Many small producers and oil field service companies fell behind and eventually went out of business.

It is a very good article and well worth the read as it explains what has happened and is happening in the Illinois Oil Basin, and pointing out some of the problems that the industry is facing, as well as the riches.

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