

# WHY ARE OIL PRICES SO HIGH?

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My August 2005 forecast called for oil to moderate to \$50/bbl by the end of 2007, whereas this forecast calls for oil to be above \$60/bbl by that time. Right after the release of the August forecast, hurricanes Katrina and Rita threw the oil market into turmoil after almost 10% of domestic capacity was knocked offline at one point. The post-Katrina rise in oil can be explained by this disruption in domestic supply which happened in the face of a global resurgence in the *net* demand for oil, i.e. an increase in consumption in excess of production for a given country .

My analysis showed that it was China and the US clashing for the last barrel of available oil, not India, which was putting only marginal pressure on the price of oil. However, it makes for a good copy if you lump India and China together into one argument! I have also detailed previously the reason oil got to the \$50/bbl level, what made it go above \$60/bbl, and what determines the price of gasoline at the pump. These arguments are scattered all over my previous reports so I've summarized them into one simple diagram below.

The **figure A** on the next page displays the price of oil when it was above \$70/bbl in early May. In 2002, the price of oil was \$25/bbl. The marginal, as well as the dominant, price setting producer in the oil market is OPEC whose member countries, especially Saudi Arabia, import most of their merchandise from Europe. These payments are made in euros whereas income from oil contracts is generated in dollars. As the dollar started to decline against the Euro in early 2003, to maintain the same purchasing power the OPEC was forced to raise the price of oil in dollars. This cur-

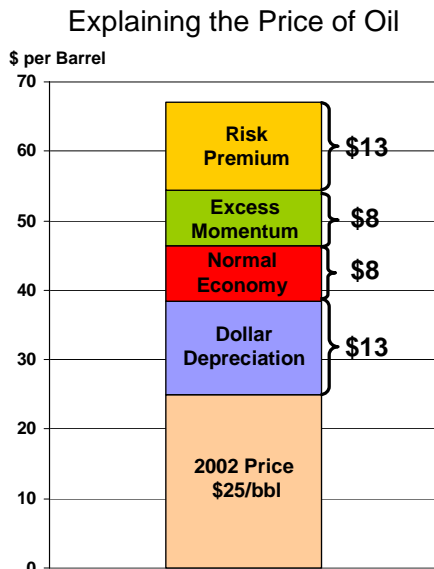
rency dynamic, *ceteris paribus*, implies that oil should be about \$13 higher, or \$38/bbl, at the prevailing exchange rate.

The next "Normal Economy" box shows the rise in prices due to a strengthening economy that demands more oil. I estimated it to be \$8/bbl based on the U.S. economy's position in the business cycle in 2002 and where it should stand once the recovery is in full swing. Technically, economic growth was positive in 2002 but job growth and investment spending were still negative. Normalcy in this respect was probably achieved by mid-2004. Why this date? Because the FED started to hike rates in June of 2004 and their action signaled that "excess" momentum was beginning to build in the economy. Assuming that 3.0% is a neutral rate of growth, the U.S. economy has refused to drop below 3.6%. I have estimated that this excess momentum accounts for an additional \$8/bbl in the price of oil—pushing it to \$55/bbl. Anything above this price is considered risk a premium and makes for volatility in the market either from supply disruptions (hurricanes, pipeline disruptions in Nigeria) or geopolitical tensions (the war of words with Iran is getting very ugly these days).

One cannot easily separate these two risk premium components as they keep changing based on events beyond the realm of economics. This very uncertainty brings in hedge funds and other speculators who thrive on volatility to make "excess" returns for their investors. These players, nevertheless, play a vital part in equilibrating the market. However, they become partially responsible for some of the misery at the pump, as shown in the right-hand panel of figure A. More than half the cost of

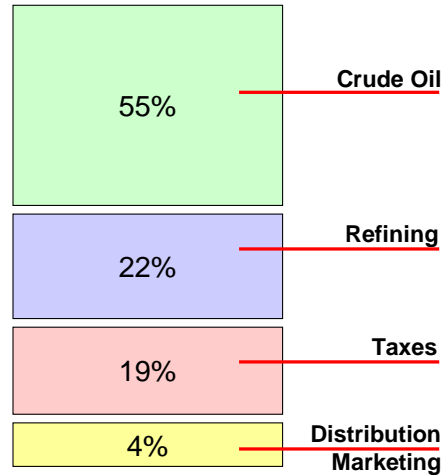
**Figure A**

**Oil Price – Why We Pay as Much as We Do**



Source: EFC Calculations

**What You Pay at the Pump**



Source: Department of Energy, US Energy Information Agency

gasoline at the pump is the cost of crude followed by the cost of refining. Given the current average gasoline price of almost \$3/gallon, and using the rule of thumb that a barrel of oil produces 42 gallons of gasoline, it implies a price of \$70/bbl, not far from where the future price is hovering these days. If the gasoline price in your area is above \$3, then it has to do with regional supply constraints. Additionally, EPA-mandated summer gasoline blends require Ethanol be trucked in from the Midwest, thus creating bottlenecks in the local gasoline supply. President Bush's proposal to temporarily suspend these mandates will work in this respect but won't affect the base price of gasoline. That level, simply put, depends on the imbalance between global demand and the supply of crude oil.

Now, let's see what the situation looks like closer to home in terms of the demand and supply of oil. **Table 1** shows that 63% of oil consumed in the U.S. in 2004 was imported. Of the four largest suppliers only one country was from the Middle East. Both Saudi Arabia and Venezuela supply the same amount of oil to the U.S. but for U.S.-based oil companies, it is Venezuela that is more important. In my November 2005 report, I explained how Venezuelan buyers add to the froth in the South Florida housing market. Every barb Pat Robertson aims at Hugo Chavez, drawing a vitriolic response, may not send the oil market into a tizzy but it certainly helps the housing market as the fleeing Venezuela middle class settles in

Miami. The recent cooling of the housing market in South Florida has more to do with changing tastes for beachfront property after the last hurricane season rather than the lack of new ultra-socialist pronouncements from Chavez.

Conservation will be an important force in reducing the dependence on imported oil.

**Figure B** shows the drop in the consumption of gasoline as prices peaked after Katrina and Rita due to supply disruptions. People became more efficient in their trip planning and the resultant drop in consumption brought down the price of gasoline from its peak value in September. If the prices remain consistently high they may think about changing other aspects of their lifestyle. However, the conservation force will be potent only if gasoline consistently stays around \$3 a gallon for the coming years, not the knee-jerk response we see whenever there is a change to summer-blend gasoline that causes gas prices to spike during peak driving season. The price of a barrel of oil is not expected to fall below \$50/bbl for a while so don't expect gasoline to drop under \$2.50 a gallon that easily. Believe me, it's still not high enough to cause major behavioral changes.

One important factor keeping oil prices high over the next few years, apart from tensions with Iran and insurgency disruptions to the delivery of Iraqi crude, is limited commercial extraction from proven reserves in countries like Venezuela. This is not because oil companies don't want to extract more or that they fear further supply would depress prices (not by much anyway). Rather, there are serious impediments to the division of profits between the countries that own the oil reserves and the companies that must sink in the capital to extract them. For example, Venezuela now demands almost 92% royalty on every barrel of extracted oil, making that op-

eration financially infeasible for a publicly traded company's shareholders. Yes, a nationalized oil company could operate under these conditions but I doubt Venezuela has enough resources or international credit lines to do it alone. Perhaps Chavez's good friend Castro can loan him the needed finance, say by

sending Cuban cigars that command a premium in the world market. I doubt even "excess" cigars lying around in Cuba could afford one oil-drill bit!

Oil companies were burned badly in the 80's when oil was this high and they spent money like drunken sailors to explore new sources. As oil prices collapsed in 1985 and remained low in the 90's, so did the desire to undertake exploration risk. Now, the strategy is to partner with a government or, better yet, get the backing of an international agency like the World Bank to finance exploration and development. This means that not much is going on or will be going on in the near future. Basically, oil companies are now trading exploration risk for political risk, which they feel they can manage better. Why on earth they think this is a manageable risk is beyond me.

The unfortunate consequence is that not much new supply will come on the market in the next decade. New extraction technologies will keep output from peaking in places like Norway, the North Sea and

**Table 1**

**A Snapshot of the U.S. Oil Market in 2004**

Total Consumption (Mbd)	Imports (Mbd)	Domestic Production (Mbd)
20.52	12.9	7.24

Source of Imports	Imports (Mbd) *	Producer's Output (Mbd) **
Canada	2.14 (16.6%)	3.09 (3.8%)
Mexico	1.67 (12.9%)	3.82 (4.9%)
Saudi Arabia	1.56 (12.1%)	10.58 (13.1%)
Venezuela	1.55 (12.0%)	2.98 (4.0%)
Nigeria	1.14 (8.8%)	2.51 (3.2%)
Iraq	0.66 (5.1%)	2.03 (2.5%)
Algeria	0.45 (3.5%)	1.93 (2.1%)
United Kingdom	0.38 (2.9%)	2.03 (2.5%)
Other Countries	3.35 (25.9%)	-

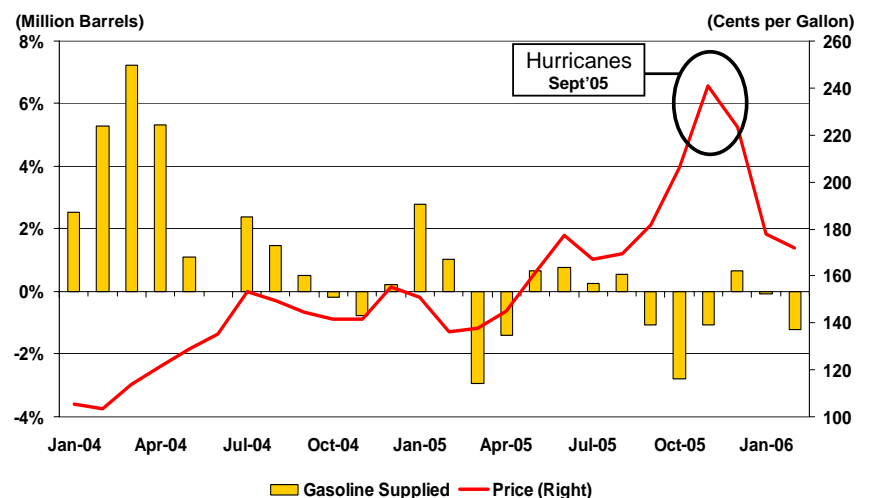
\* of U.S. imports, \*\* % of world production, Mbd – Million barrels/day

Source: BP Statistical Review of World Energy June 2005, US Energy Information Agency

Saudi Arabia but will not be used in developing new fields. Simply put, the willingness to take risk is not there anymore. It looks to me as if the famous Texan Cowboy spirit of taking outlandish gambles has now been replaced by Wall Street suits who like to play it safe. Oil sector coffers are overflowing with cash that will be spent on share repurchases and paying dividends. Sometimes too much financial discipline is a bad thing, especially in the oil industry!

**Figure B**

**U.S. Gasoline Usage and Gasoline Retail Price**



Source: Department of Energy, US Energy Information Agency