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On

Pumping up Prices: The Strategic Petroleum Reserve and Record Gas Prices

Before the

Select Subcommittee on Energy Independence and Global Warming
United States House of Representative

April 24, 2008

Mr. Chairman and Members of the Committee,

My name is Dr. Mark Cooper. I am Director of Research at the Consumer Federation of America.[1] I greatly appreciate the opportunity to testify yet again on the problem of rising gasoline prices. I commend the committee for examining this important issue from a somewhat different perspective. We estimate that over the past six years household expenditures on gasoline and motor oil have doubled, rising by more than $1200. In a national poll we conducted earlier this month we found that 73 percent of respondent are greatly concerned about rising gasoline prices and 60 percent of respondents are greatly concerned bout mid-East imports. Thus, the pocketbook and national security implications of our nation's "addiction to oil" are "top of mind for consumers."

The Committee has posed four questions as the framework for this hearing and I will answer them in order. The answer to the first question is lengthy, since it provides the context for the answers to the subsequent questions.

[1] The Consumer Federation of America is an advocacy, research, education and service organization established in 1968. CFA has as its members some 300 nonprofit organizations from throughout the nation with a combined membership exceeding 50 million people. As an advocacy group, CFA works to advance pro-consumer policy on a variety of issues before Congress, the White House, federal and state regulatory agencies, state legislatures, and the courts.

1. What is driving escalating gas and oil Prices? How high might prices climb during the summer driving season?

Current high gas and oil prices are the result of a long term combination of an international crude oil cartel and a tight domestic refining oligopoly both of which have systematically under-invested in production capacity. By failing to expand production capacity to meet demand and provide a reasonable reserve in an industry with very low supply and demand elasticities that is prone to accidents and disruptions, the markets became tight and volatile. It is certainly true that tight global crude oil markets push up the price of gasoline, but it is also true that tight refinery market in the U.S. also pushes up the price of gasoline and, even pulls up the price of crude. These two domestic effects do not receive a great deal of attention. But they are important.

While crude oil is the largest component of the cost of gasoline, there have been months over the past five years when the domestic spread (the amount the domestic and refining account for in the pump price) has been over $1 gallon (see Attachment 1).

The tug of war between OPEC and the domestic refining industry over the extraction of consumer surplus has become so blatant that even *Wall Street Journal* and the Energy Information administration have commented on it. The U.S. gasoline market accounts for about one quarter of all the gasoline consumed in the world and one-eighth of the entire refined petroleum product. Thus, it is by far the single largest product market in the oil sector. As gasoline prices rise, OPEC receives the signal that the market will support higher prices. As refiner margins rise, OPEC, which is a rent seeking cartel, pushes for higher crude prices to recapture 'its' share of the available rents.

Things have gotten so bad in the U.S. gasoline market that even the Energy Information Administration, in one of its weekly reports recognized that the tight U.S. gasoline market may be "pulling up" the price of crude. "In other words, if U.S. gasoline markets are tight, they may 'pull up' crude oil prices to a degree, given that tight downstream capacity makes each gallon of product produced that much more valuable, increasing the value of the crude used to produce the refined product."[2]

A *Wall Street Journal* story made a similar point.

> Two years ago when gasoline prices in the U.S. surged to the then-lofty level of $2 a gallon, the Organization of Petroleum Exporting Countries sprang into action, seeking to provide relief by pledging to boost oil production.
>
> Now with gasoline topping an average of $3.20 a gallon nationwide, OPEC officials say they see no reason to open the oil spigot.

[2] Energy Information Administration, *This Week in Petroleum,* May 3, 2006, p. 2

> OPEC's new attitude reflects a tug of war in the global oil patch over how the profits from a barrel of oil are divided up between the world's producers – which develop oil deposits and pump oil and its refiners – who process it into fuels like gasoline.
>
> In recent years, the balance in the world's oil-supply system has shifted, giving the refining industry more power and more profit…
>
> Privately, OPEC members are irked that U.S. refining margins – the profit refiners make in turning crude into gasoline and other products – have soared in recent months…
>
> OPEC officials say that if they pump more oil and depress world oil prices, U.S. gasoline prices might remain high, and the result would be even wider refining margins. In essence, OPEC would be putting more money into the pockets of refiners while its own revenue would be hurt by declining crude prices.[3]

OPEC's response to rising crude oil prices continues to be to point the finger back at the consuming nations. "Chakib Kheilil, the president of the global cartel, who is also the Algerian Energy Minister, said: "There are big pressures on OPEC and some consuming nations would like to present OPEC as being behind current high prices. But the truth is the current prices are linked to US economic problems as well as to the value of the dollar."[4]

Speculation has also played an increasing role in driving up the price of crude oil and gasoline. On April 29, 2006, the *New York Times* ran a front-page article under the headline "Trading Frenzy Adds to Jump in Price of Oil."[5] The *Times* article opens with a brief paragraph on the conditions in the physical market but then devotes about 36 column inches to the proposition that financial markets are adding to the price increase.

> "A global economic boom, sharply higher demand, extraordinarily tight supplies and domestic instability in many of the world's top oil-producing countries – in that environment higher oil prices were inevitable.
>
> But crude oil is not merely a physical commodity . . . . It has also become a valuable financial asset, bought and sold in electronic exchanges by traders around the world. And they, too, have helped push prices higher…
>
> "Gold prices do not go up because jewelers need more gold, they go up because gold is an investment," said Roger Diwan, a partner with PFC Energy, a Washington-based consultant. "The same has happened to oil…"
>
> "It is the case," complained BP's chief executive, Lord Browne, "that the price of oil has gone up while nothing has changed physically."[6]

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[3] Bhusahn Behree and Ana Campoy, "Why OPEC Idles as Gas Prices Reach New Higher: Cartel Balmes Refiners, Cites Flush Oil Supplies, Tug of War Over Profits," *Wall Street Journal*, May 25, 2007.
[4] Suzy Jagger, "Oil Prices Could Stay as High as $110 a Barrel this Year, says OPEC," *Timesonline*, March 24, 2008.
[5] Jad Mouawad & Heather Timmons, *Trading Frenzy Adds to Jump in Price of Oil*, N.Y. TIMES, Apr. 29, 2006, at A-1.
[6] *Id.*

Three key factors serve to drive the price spiral higher: volume, volatility and risk. The structure and availability of markets plays a role in allowing the volumes to increase.

> Changes in the way oil is traded have contributed their part as well. On Nymex, oil contracts held mostly by hedge funds – essentially private investment vehicles for the wealthy and institutions, run by traders who share risk and reward with their partners – rose above one billion barrels this month, twice the amount held five years ago.
>
> Beyond that, trading has also increased outside official exchanges, including swaps or over-the-counter trades conducted directly between, say, a bank and an airline. . . .
>
> Such trading is a 24-hour business. And more sophisticated electronic technology allows more money to pour into oil, quicker than ever before, from anywhere in the world. [7]

The influx of new money is sustained by movements of different institutions and individuals into the market. "Everybody is jumping into commodities and there is a log of cash chasing oil," said Philip K. Verleger Jr., a consultant and former senior advisor on energy policy at the Treasury Department."[8] Attachments 2 and 3 show that the amount of trading in commodities has quintupled in the past five years (which is coincident with the explosion of prices) and that energy commodities are driving that increase in trading.

This fundamental observation had been offered a couple of years earlier in a front page *Wall Street Journal* article entitled, "Oil Brings Surge in Speculators Betting on Prices: Large Investors Playing Ongoing Rise is Increasing Demand and Price Itself:"[9]

> Oil has become a speculator's paradise. Surging energy prices have attracted a horde of investors – and their feverish betting on rising prices has itself contributed to the climb.
>
> These investors have driven up volume on commodities' exchanges and prompted a large push among Wall Street banks and brokerage firms . . . . to beef up energy-trading capabilities. As the action has picked up in the past year, those profiting include large, well-known hedge funds, an emerging group of high-rollers, as well as descendants of once-highflying energy-trading shops such as Enron Corp.[10]

The notion is that the continual influx of money represents too much money chasing too few goods. By mid-2006, the Permanent Subcommittee on Investigations of the U.S.

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[7] *Id.*
[8] *Id.*
[9] Gregory Zuckerman & Henry Sender, *Oil Brings in Speculators Betting on Prices – Large Investors Playing Ongoing Rise is Increasing Demand and Price Itself*, WALL ST. J., Aug. 24, 2004, at. A-1.
[10] *Id.*

Senate had concluded that the estimates of a speculative premium on oil had risen to $25 dollars per barrel, or about one third of the world price.[11]

The most recent run up in crude prices has triggered similar concerns about the impact of financial speculation and trading on prices.

> "Oil is the new gold," said James Burkhard, director of global oil market analysis at the Cambridge Energy Research Associates consulting firm. "Oil has some intrinsic value, and that value remains even if the dollar depreciates."
>
> For weeks now, oil industry analysts have watched in amazement as oil's price kept climbing, even though government statistics showed that the country had ample supplies of oil and gasoline on hand. Gloomy news about the economy should have pulled oil down, because demand for petroleum usually slumps in a recession. But the bull market barely shrugged.
>
> "If you look at the run-up we've had for the last $20 or so, there's no other explanation for it," said Michael Lynch, president of the Strategic Energy & Economic Research consulting firm. "You have days when there's absolutely no news - except the dollar going down - and oil will still go up $3."
>
> **Role of big investors**
>
> The role of big investors in this year's price spike infuriates some consumer advocates. Investors such as hedge funds may view oil as nothing more than a financial asset, but to the rest of the country, it's fuel. The mercantile exchange didn't even start selling crude oil futures - the most common form of oil investment - until 1983.
>
> "We're taking a financial instrument that barely existed 20 years ago and allowing it to drive a stake through the heart of our economy," said Judy Dugan, research director for the Foundation for Taxpayer and Consumer Rights.
>
> Sooner or later, analysts say, the fundamental issues of oil supply and demand should bring down oil prices.[12]

The upward pressure that speculation puts on prices is not limited to crude, but applies to the whole energy complex and recent months have seen sharp increases in gasoline prices despite weakening fundamentals.

> Nymex gasoline futures have been rising, following oil, despite growing supplies of both commodities. Blame the falling dollar, which has made dollar-denominated oil contracts irresistible to foreign investors and to any investors looking for a safe haven for their money during a turbulent time in the stock market.

[11] Permanent subcommittee on Investigations, Committee on Homeland Security and Governmental Affaires, United States Senate, *The Role of Market Speculation in Rising Oil and Gas Prices: A Need to Put the Cop Back on The Beat,* June 27, 2006.
[12] David R. Baker, "Blame the Dollar for High Gas Prices," *San Francisco Chronicle,* Mark 18, 2008.

> This buying by investors has pushed oil futures to a series of records in recent weeks, and the rest of the energy complex -- which includes gasoline futures -- has followed.
>
> Unfortunately, consumers pay for this investment frenzy in the form of higher pump prices. And despite mounting evidence that Americans are cutting back on their gasoline habit -- and may cut back even more drastically as gas gets more expensive -- it may be some time before prices start responding to lower demand.[13]

While the crude cartel and the domestic refinery oligopoly drive up the rents collected from consumers, they have neglected the production side. There is little if any spare capacity in the global crude oil market. There is a disastrous shortfall in domestic refinery capacity. (see Attachment 4). The refinery shortfall has doubled to over 3 million barrels per day since the early 1990s.

Growing global demand certainly has played a role in triggering the price spiral of recent years, but in a well-functioning market, steadily growing demand would not cause such a powerful upward surge in prices and a huge increase in volatility (see Attachment 5). It is the failure on the supply-side to invest, mergers resulting in highly concentrated markets, and barriers to entry that have allowed the cartel and the oligopoly to profit at the expense of the public. Speculation magnifies the upward spiral.

2. How is continuing to fill the Strategic Petroleum reserve impacting already high oil gas and diesel prides?

In the broad context of my analysis of the cause of high prices, SPR fill has little if any impact on prices. Putting less than 100,000 barrels per day into the SPR, in a global crude market of 85 million barrels will have little if any impact on prices.

3. How could temporarily suspending the fill of the Strategic Petroleum Reserve affect the price of oil, gasoline and diesel fuel? How could a temporary suspension of the filling or releasing oil from the SPR affect speculation in oil markets?

I do not believe that SPR fill has a significant impact on prices. I do not think that SPR draw down would have a significant affect on prices except under very special circumstances. If the draw down was in response to a specific, short term conditions, a rapid response to fill any shortfall might calm markets, but at its current size, the SPR could never provide a credible, mid-term threat to prevent price increases.

4. What policy changes should be considered to more effectively fill the SPR in the future?

[13] John Wilen, "If people are driving less, why are gas prices rising?," *South Florida Sun-Sentinel.com*, March 18, 2008.

The strategic petroleum policy of the United States is a shambles. With growing demand and a declining ability to produce or refine oil domestically, relative to demand, the U.S. has experienced an explosion of imports. As we become more vulnerable to global shocks, one would think that we would increase our reserves and inventories to give us a buffer against disruptions. As we learned during Hurricane Katrina, that is not the case. The same strategic behavior that has tightened the refinery market has slashed inventories. Since 1990, our stocks of crude oil have declined by 40 percent; from about 200 days of net imports to about 120 (see Attachment 6). Our inventories of gasoline have declined even more over that period, from seven or eight days of supply (above minimum operating levels) to three or four (see Attachment 7). Does anyone believe that the world oil market has become 40 percent more secure in the past twenty years? I doubt it, but we have reduced our strategic insulation against supply shocks by at least 40 percent.

We have a strategic crude oil reserve that we refuse to use to alleviate economic pressures on consumers and the economy. We have not seriously increased the target size of the reserve in a couple of decades, even though our usage has increased substantially and our oil imports have doubled. We refused to fill the reserve when oil was inexpensive and we won't slow down filling it when oil is at record high levels. I do not believe that the amount of oil we put into the reserve on any given day has a significant impact on the price, but the price we pay has an impact on the budget.

We do not have strategic refinery or product reserves, when, in fact, lack of refinery capacity and extremely sparse product inventories have been important drivers of price increases in recent years. You will recall that in the wake of Hurricane Katrina our European allies helped us fill our short term needs with products, not crude oil. Many of those nations have strategic product reserves (or mandatory stockpiling requirements for the private sector). As nations that have long been dependent on imports, they have learned they need such reserves. We have only recently become dependent on imports for the majority of our supply, so we are only learning what it means. Unfortunately, we are not learning very quickly.

The long term solution to our oil addiction lies in reducing our consumption and increasing the supply of alternative transportation fuels. Congress took a big step in that direction last year when it enacted the Energy Independence and Security Act. That is a long term step in the right direction, but it is no excuse not to fix strategic petroleum policy. If the Energy Security and Independence Act achieves all of its goals, a decade and a half from now the U.S. will still be using over twenty million barrels per day of oil and importing about ten million barrels per day. We will still have a major national oil security problem and need a more aggressive strategic policy. Strategic petroleum policy needs to be dramatically improved in three areas – crude, refineries and product.

We used to call for a larger strategic petroleum reserve -- the bigger the better -- but after watching the federal government refuse to use the reserve when it might have helped, I am convinced we need a separate economic petroleum reserve created with the express intent of alleviating the economic burden on the economy and households during emergencies.

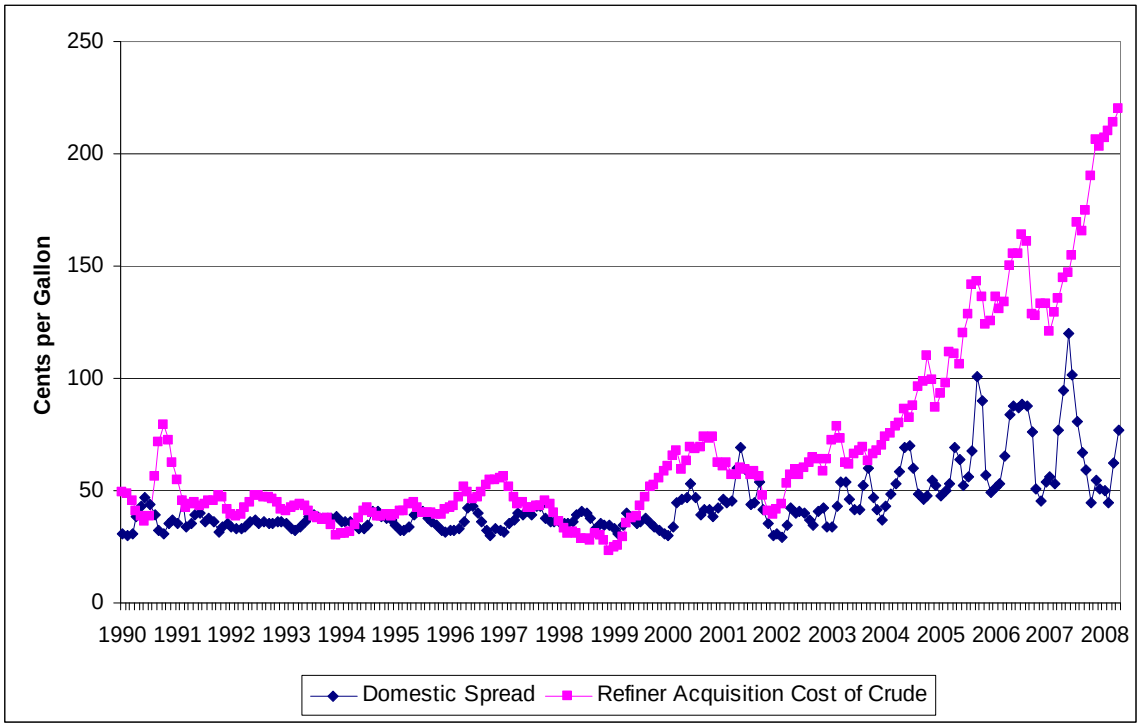
Crude oil will not do much good without the ability to refine it. We consume about one-fifth more product than we can produce in the U.S. The oil industry has failed to add sufficient capacity to keep up with demand, preferring a tight market that allows them to raise prices. The industry has dramatically reduced the available inventories to meet demand. The industry calls it "just-in-time" delivery, but in the petroleum sector where supply and demand are extremely inelastic, "just-in-time" means never there when you really need it. We need a strategic product reserve perhaps, a mix of public sector stockpiles and mandatory private reserves.

President Bush offered the oil industry military bases on which to build new refineries, but they turned him down. Representatives Dingell and Stupak had a bill to build government refineries that would supply the military during normal times but could divert the output to civilian uses during emergencies.

In the electric utility industry it is routine practice to have reserve margin requirements as a cushion against unforeseen events. While the oil system is not as demanding as the electricity network, it is certainly as important and prone to disruptive events. Raising the cost of operating the system to build in a responsible margin of safety will save consumer substantial cost in the long run. We need to think creatively of ways to climb out of the hole we have dug for ourselves over the past two decades.

Attachment 1:

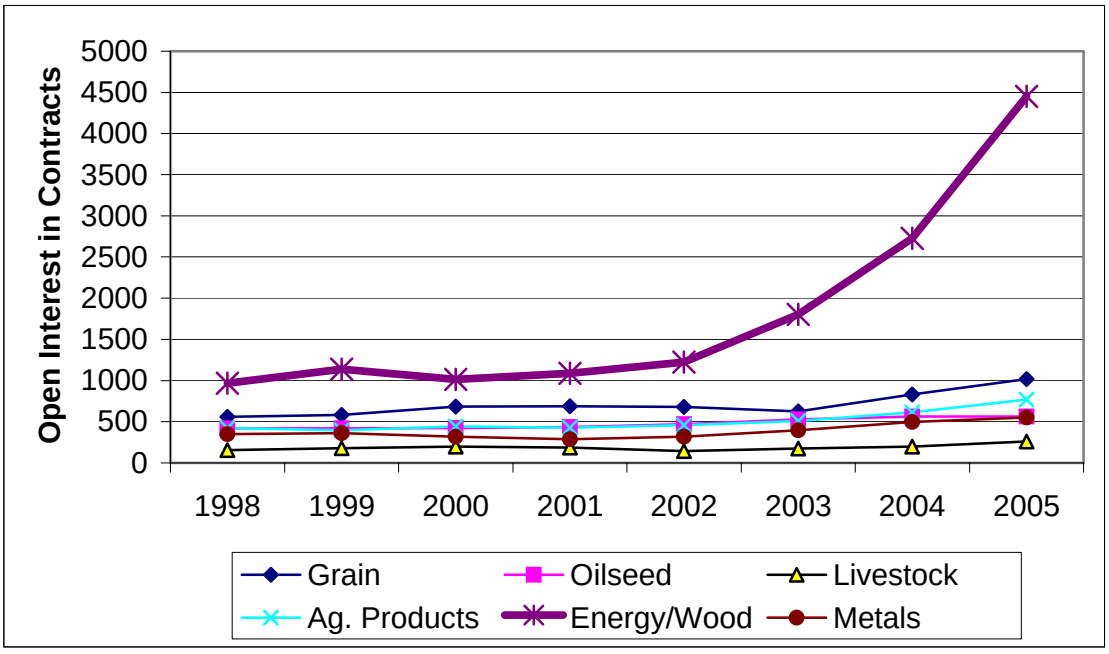
Record Gasoline Prices are the Result of Increases in Crude Oil Prices and the Domestic Spread (pump price minus crude oil and taxes)



Source: Energy Information Administration, Database available at www.eia.doe.gov

Attachment 2:

Trading Of Non-Financial Instruments (Average Month-end Open Interest)



Source: Commodity Future Trading Commission, Annual Reports: Futures Statistics by Major Commodity Group.

Attachment 3:

Trading has quintupled Since 2002

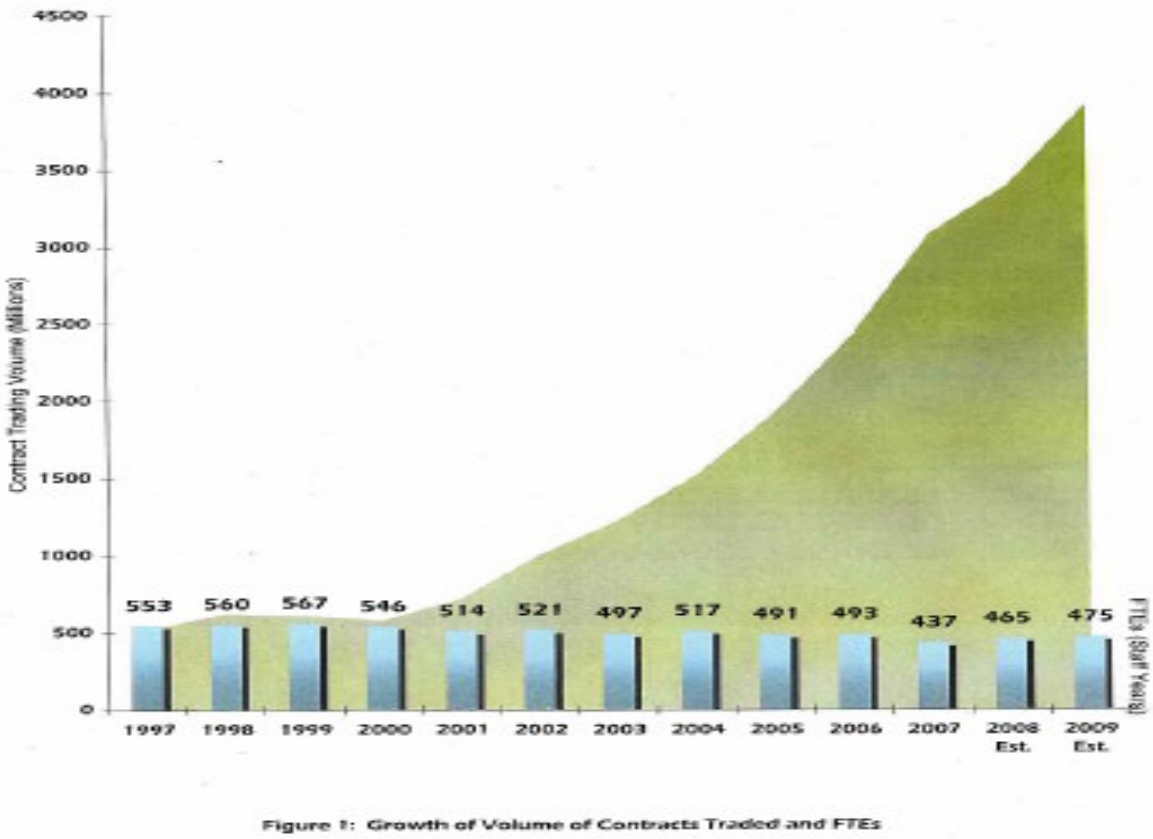
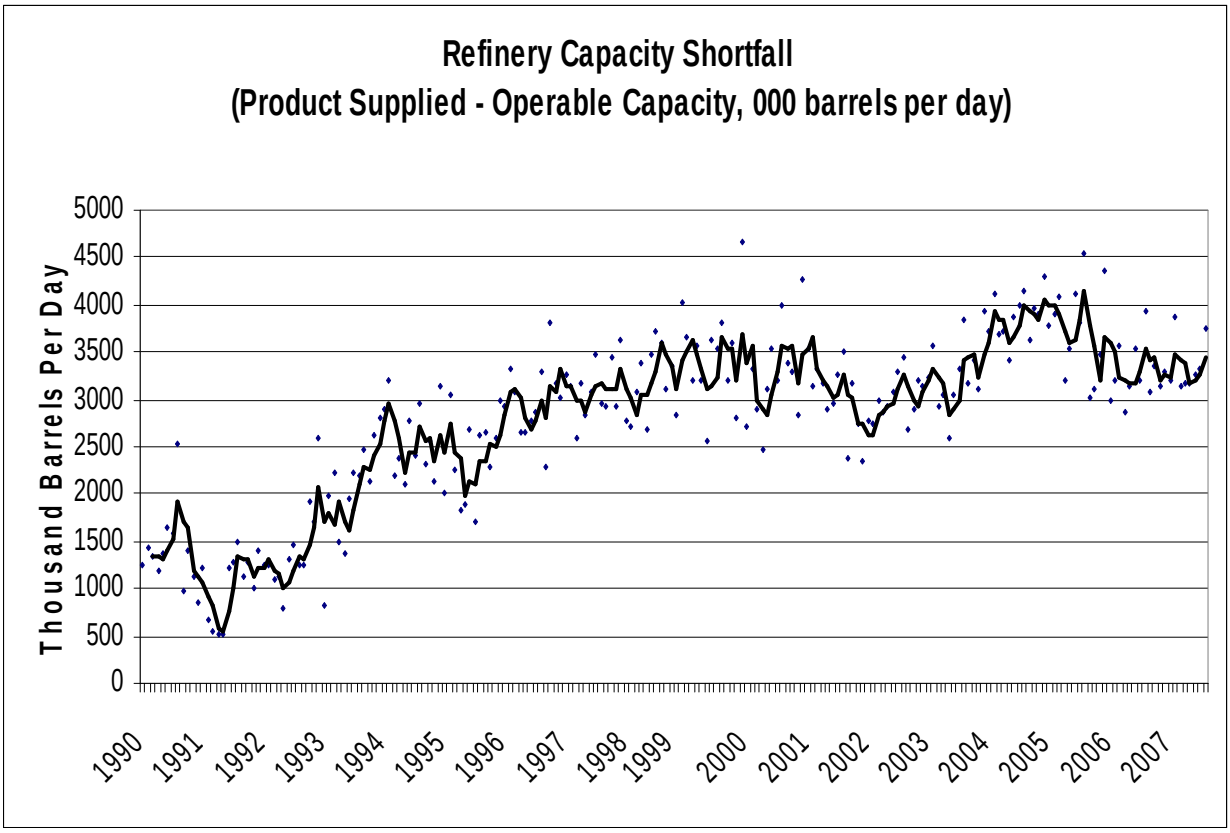


Figure 1: Growth of Volume of Contracts Traded and FTEs

Source: Commodity Futures Trading Commission, FY 2009 President's Budget and Performance Plan, available at
http://www.cftc.gov/stellent/groups/public/@aboutcftc/documents/file/2009budgetperf.pdf

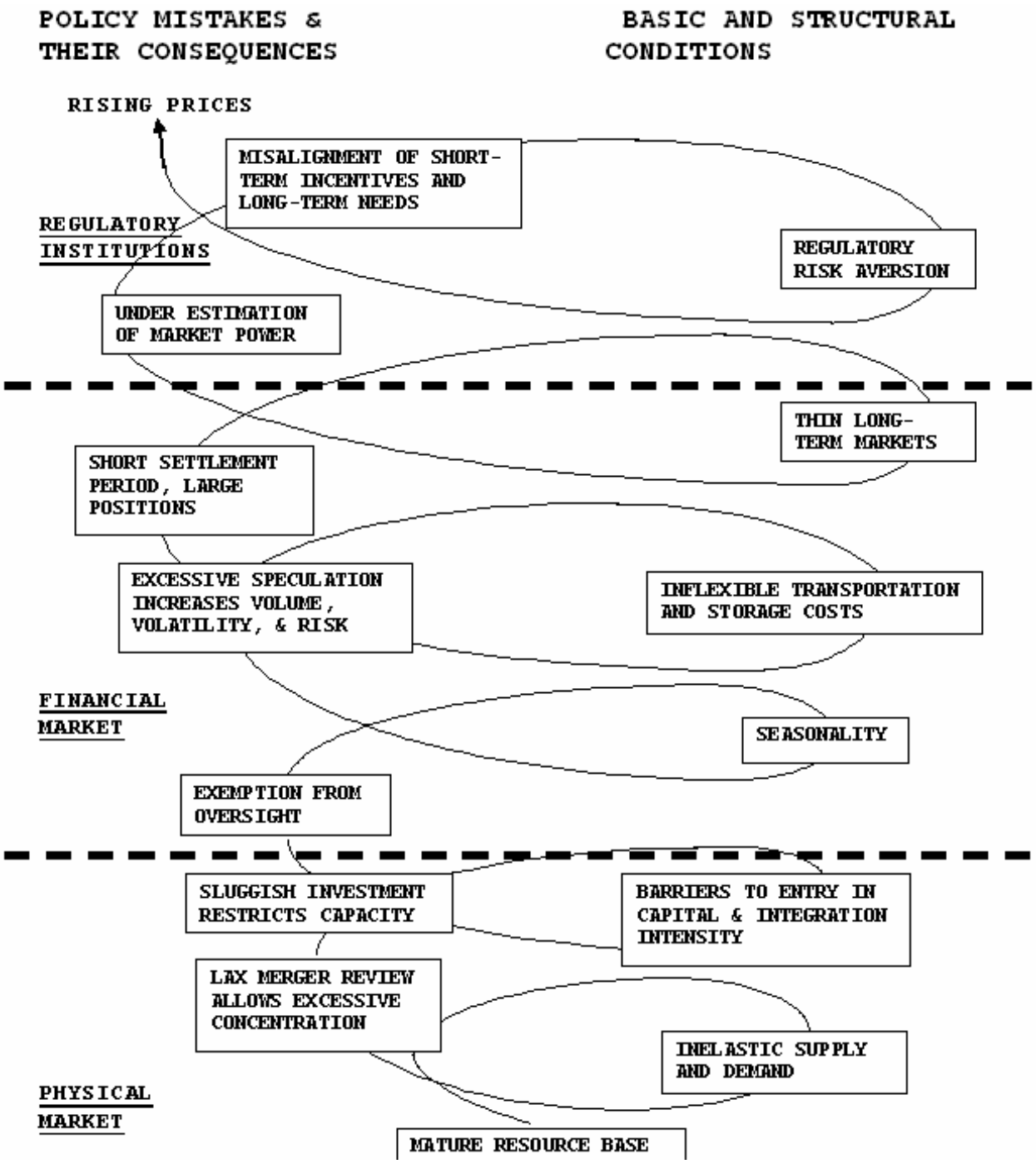
Attachment 4:
The Refinery Shortfall has Doubled Since the Early 1990s



Source: Energy Information Administration, Database available at www.eia.doe.gov

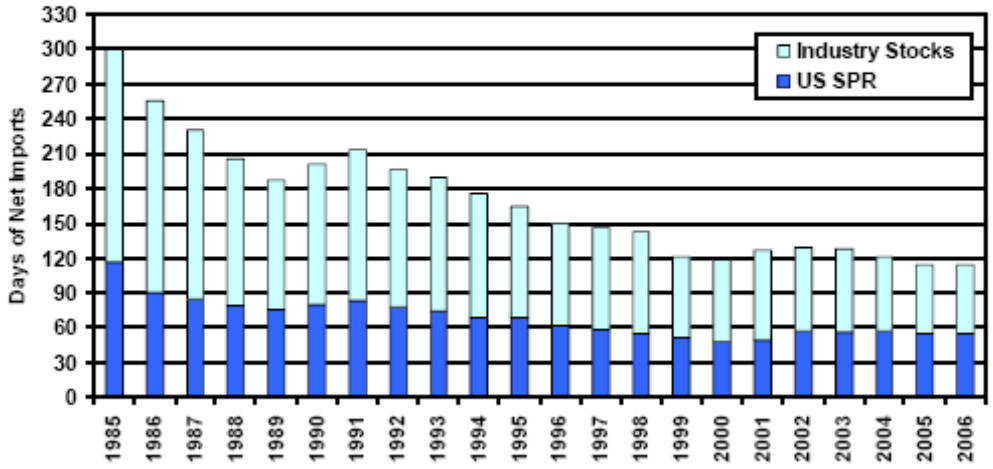
Attachment 5

Physical, Financial and Regulatory Factors in the Explosive Spiral of Energy Prices



Attachment 6:

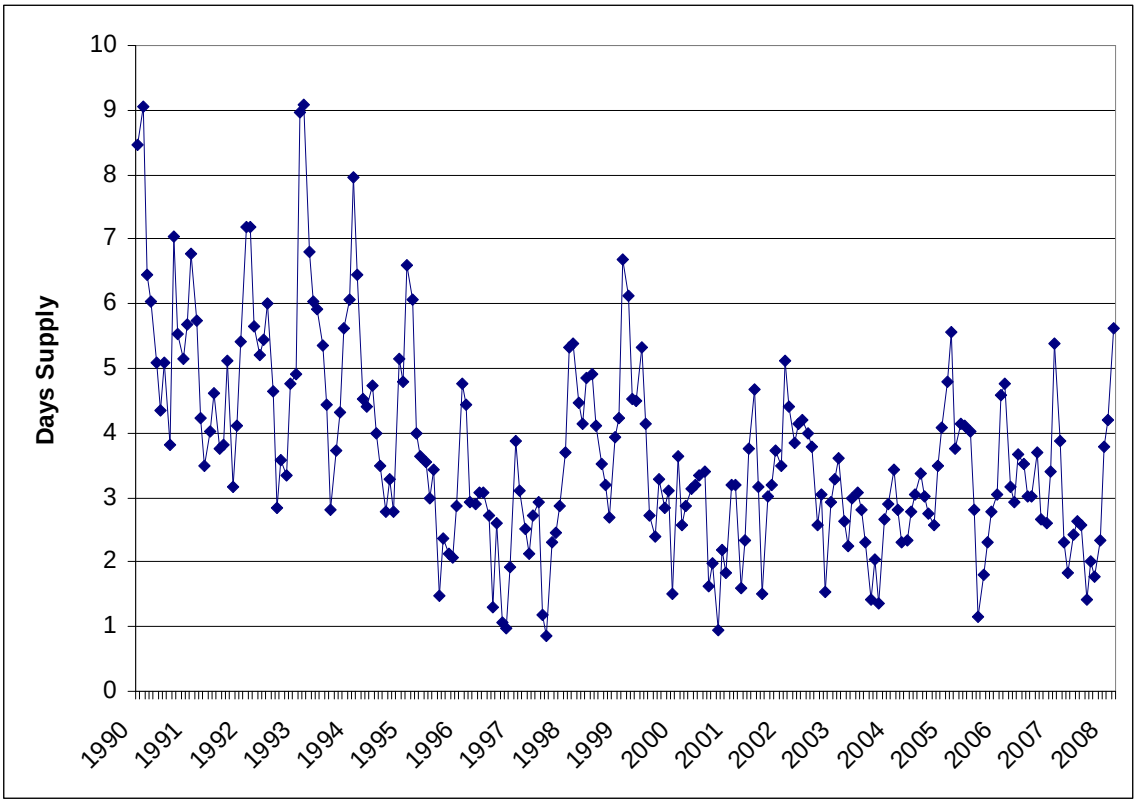
U.S. Crude Oil Stocks



Source: U.S. Department of Energy, *Strategic Petroleum Reserve Annual Report for Calendar Year 2006,* p. 30

Attachment 7:

Gasoline Inventories have Plummeted compared to Demand
(Das Supply above Minimum Operating Inventories)



Source: Energy Information Administration, Database available at www.eia.doe.gov