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Hot Profits and Global Warming: How Oil Companies Hurt Consumers and the Environment

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In just the first six months of 2006, the five largest oil companies in America posted $59.4 billion in profits. Since President Bush took office in 2001, oil prices have gone up more than 260 percent, and the big five oil companies recorded $375 billion in *profits*. Investigations show that a portion of these record earnings are fueled by market manipulation, made possible by recent mergers and weak regulatory oversight. While the record prices families are paying for energy are feeding the companies' windfall, Americans are not getting any bang for their buck, as oil companies refuse to adequately invest in sustainable resources necessary to end our addiction to oil. Since January 2005, the top five oil companies have spent $112 billion buying back stock and paying out dividends—as much as the companies spent on capital investment (and that capital investment clearly is lacking, as evidenced by corrosion problems with BP's Alaska pipeline).

Public Citizen has identified fundamental problems of how the current era of record oil company profits fails to deliver adequate economic or environmental results:

- The high prices we are now paying are simply feeding oil company profits and are not being invested in sustainable energy solutions. Since January 2005, the largest five oil companies—ExxonMobil, BP, Shell, ChevronTexaco and ConocoPhillips—spent $112 billion buying back their own stock and paying dividends, and have an extra $59.5 billion in cash, while their investment in renewable energy pales in comparison. For example, BP, the so-called renewable energy leader, in 2005 posted $38.4 billion in stock buybacks, dividend payments and cash, but plans to invest two percent of that amount on solar, wind, natural gas and hydrogen energy.

- Under the current market framework, oil companies aren't making the investments necessary to solve our addiction to oil and never will. With $1 trillion in assets tied up in extracting, refining and marketing oil, their business model will squeeze the last cent of profit out of that sunk capital for as long as possible. The oil industry's significant presence on Capitol Hill ensures that the government does not threaten their monopoly over energy supply through funding of alternatives to oil. For example, energy legislation signed by President Bush in August 2005 provides $5 billion in new financial subsidies to oil companies.

- Other countries often feature higher gas prices than the U.S., but that is because they impose higher taxes on gasoline than we do. For example, the average federal, state and local gas taxes in the United States are 38 cents/gallon, compared to $3.92/gallon in France; $4.10/gallon in Germany; and $4.40/gallon in the United Kingdom.[1] These high taxes are not only a disincentive to drive, but generate the revenue the countries need to help subsidize mass transit and other sustainable energy investments to actively provide citizens with alternatives to driving.

- High prices resulting in record profits are not dampening demand, because energy consumption is *inelastic*, meaning most families have little leeway in altering their driving habits in response to price increases. This summer's motor gasoline demand is up between 1.6 and 1.9 percent from last summer, despite the record price increases.[2]

- America's addiction to oil is a major source of greenhouse gas emissions that cause global warming. Forty-four percent of America's world-leading carbon dioxide emissions are from the burning of petroleum products.[3] These emissions would be significantly reduced with investment in sustainable energy.

- High prices are having a detrimental impact on the economy and national security. Imported oil represents one-third of America's trade deficit,[4] slows economic growth, adds to inflationary pressures and creates financial hardship for families and businesses. America's addiction to oil enriches not only oil companies, but non-democratic nations that are often hostile to U.S. interests. In our frenzied pursuit to secure sources of oil abroad, we often prioritize oil company rights over human rights, as demonstrated in the deferential treatment the Bush Administration shows towards Kazakhstan despite that country's abysmal human rights record.

- While some of their profit clearly stems from the global increase in the price of petroleum, oil companies are also exploiting their huge market control and lax regulatory oversight to price-gouge Americans. For example, in June 2006, the U.S. Commodity Futures Trading Commission (CFTC) brought charges against BP for manipulating the entire U.S. propane market. Investigations are expanding into manipulation of crude oil and gasoline futures markets, and "many trading firms had received CFTC demands for information, suggesting that the investigation went beyond BP."[5]

- In just the last few years, mergers between giant oil companies—such as Exxon and Mobil, Chevron and Texaco, Conoco and Phillips—have resulted in just a few companies controlling a significant amount of America's gasoline, squelching competition. In 1993, the largest five oil refiners controlled one-third of the American market, while the largest 10 had 55.6 percent. By 2005, as a result of all the mergers, the largest five now control

[1] www.eia.doe.gov/emeu/international/oilprice.html
[2] www.eia.doe.gov/oil_gas/petroleum/data_publications/weekly_petroleum_status_report/wpsr.html
[3] www.eia.doe.gov/environment.html
[4] www.bea.gov/bea/di/home/trade.htm
[5] John R. Wilke, Ann Davis and Chip Cummins, "BP Woes Deepen With New Probe," *The Wall Street Journal*, August 29, 2006

55 percent of the market, and the largest 10 dominate 81.4 percent. This concentration has led to skyrocketing profit margins.

- Increasingly, gasoline futures influence the price of crude oil, so the concentration of U.S. refining assets is influencing world oil prices.

- Energy trading markets where prices for energy are set were recently deregulated, providing additional opportunities for oil companies, hedge funds and investment banks to price-gouge consumers.

- Oil companies, hedge funds and investment banks are abusing their control over pipelines, storage facilities and terminals, exploiting the proprietary data that operating the facilities provides, further helping them manipulate oil and gas trading markets.

Congress can follow Public Citizen's five-point plan to reform America's energy markets, combat global warming and promote sustainable alternatives to our addiction to oil:

1. Implement a windfall profits tax; repeal all existing oil company tax breaks; close loopholes allowing oil companies to escape paying adequate royalties; and dedicate the new revenues to financing clean energy, energy efficiency and mass transit.
2. Strengthen antitrust laws by empowering the Federal Trade Commission to crack down on unilateral withholding and other anti-competitive actions by oil companies.
3. Establish a Strategic Refining Reserve to be financed by a windfall profits tax on oil companies that would complement America's Strategic Petroleum Reserve.
4. Re-regulate energy trading exchanges to restore transparency and impose firewalls to stop energy traders from speculating on information gleaned from the companies' affiliates.
5. Improve fuel economy standards to reduce gasoline demand.

Recent Mergers Create Uncompetitive Markets

Although the U.S. is the third largest oil producing nation in the world[6]—producing more oil than Iran, Kuwait and Qatar *combined*—we consume 25% of the world's oil every day, forcing us to import oil.

Sixty percent of the oil consumed in America is used as fuel for cars and trucks. Ten percent is for residential home heating oil, with the remainder largely used for various industrial and agricultural processes (only 1.2% is to fuel electric power).[7]

Persian Gulf OPEC nations supply only 10.6 percent of America's oil. Other OPEC nations—such as Indonesia, Nigeria and Venezuela—supply 14.7 percent, and non-OPEC nations such as

[6] www.eia.doe.gov/emeu/international/oilproduction.html
[7] *Adjusted Sales of Distillate Fuel Oil by End Use in the U.S., 2004*, http://tonto.eia.doe.gov/dnav/pet/pet_cons_821dsta_dcu_nus_a.htm

Canada, Mexico, Norway and England provide 36.8 percent of our oil and gas needs. 37.9 percent of our oil is drilled here at home.[8]

So while OPEC member nations clearly have a significant presence, a corporate cartel should also concern policymakers. Consider that ExxonMobil, ChevronTexaco, ConocoPhillips, BP and Shell produce 10 million barrels of oil a day—more than the combined exports of Saudi Arabia and Qatar.

We're Not in Kansas Anymore

In 2005, Wall Street investment bank Goldman Sachs and private equity firm Kelso & Co. bought a 112,000 barrels/day oil refinery in Kansas, demonstrating how major energy traders are now acquiring hard energy assets.

According to the U.S. Government Accountability Office, over 2,600 mergers have been approved in the U.S. petroleum industry since the 1990s. In just the last few years, mergers between giant oil companies—such as Exxon and Mobil, Chevron and Texaco, Conoco and Phillips—have resulted in just a few companies controlling a significant amount of America's gasoline, squelching competition. And the mergers continue unabated as the big just keep getting bigger. In August 2005, ChevronTexaco acquired Unocal; ConocoPhillips acquired Burlington Resources in December 2005; and in June 2006, Anadarko Petroleum announced it was simultaneously acquiring Kerr-McGee and Western Gas Resources.

Consumers are paying more at the pump *than they would if they had access to competitive markets*, and five oil companies are reaping the largest profits in history. Since 2001, the six largest oil refining companies operating in America—ExxonMobil, ConocoPhillips, ChevronTexaco, Valero, Shell and BP—have recorded $384 billion in profits.[9] While of course America's tremendous appetite for gasoline plays a role, uncompetitive practices by oil corporations are a cause—more so than OPEC or environmental laws—of high gasoline prices around the country.

Energy Legislation

Faced with these facts, Congress and the White House instead recently passed energy legislation that does nothing to address any of the fundamental problems plaguing America's energy policies. In August 2005, President Bush signed HR 6 into law, the "comprehensive" energy bill, even though the only "comprehensive" aspect of the legislation is the $5 billion in subsidies to oil companies.[10] A possible explanation for why Congress and the President would bestow these subsidies on oil companies are the $61.6 million in campaign contributions by the oil industry to Congress and the White House since 2001, with 81% of that total going to Republicans.[11] In addition, the oil industry has spent $275 million lobbying Congress and the executive branch over that same time period.[12]

[8] http://tonto.eia.doe.gov/dnav/pet/pet_move_impcus_a2_nus_ep00_im0_mbblpd_a.htm
[9] Through the second quarter of 2006.
[10] www.citizen.org/cmep/energy_enviro_nuclear/electricity/energybill/2005/articles.cfm?ID=13980
[11] www.opensecrets.org/industries/indus.asp?Ind=E01
[12] www.opensecrets.org/lobbyists/indusclient.asp?code=E01&year=2005

Environmental Rules

Environmental regulations are not restricting oil drilling in the United States. An Interior Department study concludes that federal leasing restrictions—in the form of wilderness designations and other leasing restrictions—completely block drilling of only 15.5% of the oil in the five major U.S. production basins on 104 million acres stretching from Montana to New Mexico. While only 15.5% is totally off-limits, 57% of America's oil reserves on federal land are fully available for drilling, with the remaining 27.5% featuring partial limitations on drilling.[13] This report contradicts industry claims that environmental laws are squelching production.

Price Manipulation

The consolidation of downstream assets—particularly refineries—plays a big role in determining the price of a gallon of gas. Recent mergers have resulted in dangerously concentrated levels of ownership over U.S. oil refining.

Wielding Influence

The oil industry has various associations in Washington D.C. to supplement their individual lobbying operations. The biggest is the American Petroleum Institute, whose mission statement pledges "to enhance industry unity and effectiveness in its advocacy." API spent $105 million last year running ads and lobbying government at the federal and local level.

In 1993, the five largest U.S. oil refining companies controlled 34.5 percent of domestic oil refinery capacity; the top ten companies controlled 55.6 percent. By 2005, the top five—ConocoPhillips, Valero, ExxonMobil, Shell and BP—controlled 55 percent and the top ten refiners controlled 81.4 percent. As a result of all of these recent mergers, the largest five oil refiners today control as much capacity as the largest 10 did a decade ago. This dramatic increase in the control of just the top five companies makes it easier for oil companies to manipulate gasoline by intentionally withholding supplies in order to drive up prices. Because most of the largest companies are also vertically integrated, they enjoy significant market share in oil drilling and retail sales.

ExxonMobil's new CEO told *The Wall Street Journal* that even though American fuel consumption will continue growing for the next decade, his company has no plans to build new refineries:

> *Exxon Mobil Corp. says it believes that, by 2030, hybrid gasoline-and-electric cars and light trucks will account for nearly 30% of new-vehicle sales in the U.S. and Canada. That surge is part of a broader shift toward fuel efficiency that Exxon thinks will cause fuel consumption by North American cars and light trucks to peak around 2020—and then start to fall. "For that reason, we wouldn't build a grassroots refinery" in the U.S., Rex Tillerson, Exxon's chairman and chief executive, said in a recent interview. Exxon has continued to expand the capacity of its existing refineries. But building a new refinery from scratch, Exxon believes, would be bad for long-term business.*[14]

ExxonMobil and other oil companies are not building new refineries because it is in their financial self interest to keep refining margins as tight as possible, as that translates into bigger profits.

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[13] *Scientific Inventory of Onshore Federal Lands' Oil and Gas Resources and Reserves and the Extent and Nature of Restrictions or Impediments to Their Development*, BLM/WO/GI-03/002+3100, January 2003, www.doi.gov/news/030116a.htm; www.blm.gov/nhp/spotlight/epca/EPCA_fact_sheet_draft06.htm

[14] Jeffrey Ball, "As Gasoline Prices Soar, Americans Resist Major Cuts in Consumption," May 1, 2006.

Margins for U.S. oil refiners have been at record highs. In 1999, U.S. oil refiners enjoyed a 18.9 cent margin for every gallon refined from crude oil. By 2005, they posted a 48.8 cent margin for every gallon of gasoline refined, a 158 percent jump.[15] That forced *The Wall Street Journal* to conclude that "the U.S. market is especially lucrative, sometimes earning its refiners $20 or more on every barrel of crude oil they refine."[16]

As a result of this strategy of keeping refining capacity tight, energy traders in New York are pushing the price of gasoline higher, and then trading the price of crude oil up to *follow* gasoline:

> *"Last time, Mother Nature intervened in the market [in the form of Hurricane Katrina]," [Larry] Goldstein [president of New York-based Petroleum Industry Research Foundation] said. "This time, prices are being driven by market forces," **with gasoline pulling crude and other forms of fuel higher**, he says.*[17]

Since gasoline futures are a more localized market than crude oil, it is easier for oil companies, hedge funds and investment banks to manipulate gasoline markets. Now that crude oil trading often follows the gasoline markets, the ability of these traders to exploit America's underregulated futures markets raises concerns that consumers are being price-gouged.

In April 2006, U.S. commercial inventories of crude oil surpassed 347 million barrels—the highest level since May 1998.[18] Despite this record domestic surplus, energy traders continue to push the price of crude oil up.

Al Gore Invents a Truly Terrible Idea

Following the release of his critically-acclaimed documentary An Inconvenient Truth, former Vice-President Al Gore told an audience in June 2006: *I personally believe—I've long argued this and know it's not feasible—but I think we should substitute a new source of revenue for the payroll tax and have basically a CO2 tax that would be revenue-neutral.*

So what's the problem with imposing a tax on "bad" energy consumption and replacing it with a cut in payroll taxes? First, it relies on the premise that demand will drop in response to higher prices and that the market will quickly provide alternatives to consumers. But as the current skyrocketing prices show, the only way for demand to drop is if prices get punitively high to cause a recession. Economic stagnation will guarantee reduced energy use. But at what cost to society? Relying on markets (prices) alone will not efficiently result in energy conservation or guarantee the quick emergence of oil alternatives. Oil company profits aren't being invested in clean energy or mass transit, and Gore's carbon tax wouldn't fund them either, as the proceeds will be needed to shore up Social Security.

Second, it would bankrupt Social Security before America's ends its addiction to oil. Why? Let's assume that Gore's plan to impose huge new taxes on "bad" energy consumption achieves the desired result: consumption of oil and other bad energy declines. That means the revenue generated by taxing bad energy will decline over time, too. But Gore was replacing payroll taxes that fund Social Security with this new carbon tax. But how will we continue to fund Social Security (which has its own looming financial problems decades in the future) with a tax that, by design, will become ineffective at raising money over time?

Third, tens of millions of Americans not in the workforce—like seniors—don't pay payroll taxes. It will become quite expensive to try and design a rebate system for them.

Fourth, raising consumption taxes would destroy what's left of the American middle-class and create financial hardship among the poor, as the economy would be jolted by the rising prices that the tax would create for goods and services across the board.

[15] *Refiner Sales Prices and Refiner Margins for Selected Petroleum Products, 1989-2005,* www.eia.doe.gov/emeu/aer/pdf/pages/sec5_53.pdf
[16] Steve LeVine and Patrick Barta, "Giant New Oil Refinery in India Shows Forces Roiling Industry," August 29, 2006.
[17] Bhushan Bahree, "Oil Prices Show No Sign of Slowing," *The Wall Street Journal*, April 10, 2006.
[18] http://tonto.eia.doe.gov/dnav/pet/hist/mcestus1m.htm

The U.S. Federal Trade Commission found evidence of anti-competitive practices in its March 2001 *Midwest Gasoline Price Investigation*:[19]

> *An executive of [one] company made clear that he would rather sell less gasoline and earn a higher margin on each gallon sold than sell more gasoline and earn a lower margin. Another employee of this firm raised concerns about oversupplying the market and thereby reducing the high market prices. A decision to limit supply does not violate the antitrust laws, absent some agreement among firms. Firms that withheld or delayed shipping additional supply in the face of a price spike did not violate the antitrust laws. In each instance, the firms chose strategies they thought would maximize their profits.*

Although federal investigators found ample evidence of oil companies intentionally withholding supplies from the market in the summer of 2000, the government has not taken any action to prevent recurrence.

A congressional investigation uncovered internal memos written by major oil companies operating in the U.S. discussing their successful strategies to maximize profits by forcing independent refineries out of business, resulting in tighter refinery capacity. From 1995-2004, 97 percent of the more than 929,000 barrels of oil per day of capacity that has been shut down were owned by smaller, independent refiners.[20] Were this capacity to be in operation today, refiners could use it to better meet today's reformulated gasoline blend needs.

Bush Not Warming to the Facts

In June 2006, President Bush was asked "Do you agree with the premise that global warming is a real and significant threat to the planet that requires action?"

Bush replied, "There's a debate over whether it's manmade or naturally caused." www.whitehouse.gov/news/releases/2006/06/20060626-2.html

Bush is wrong. In 2005, Republican Sherwood Boehlert, Chairman of the House of Representatives Committee on Science, requested that the National Research Council of the National Academies convene America's top scientists to settle the global warming debate once and for all.

Earlier this year, the National Research Council answered with its report, *Surface Temperature Reconstructions for the Last 2,000 Years*. www.nap.edu/catalog/11676.html

The report concludes that, "It can be said with a high level of confidence that global mean surface temperature was higher during the last few decades of the 20th century than during any comparable period during the preceding four centuries," and that there are "multiple lines of evidence supporting the conclusion that climatic warming is occurring in response to human activities."

Solutions

- Strengthen antitrust enforcement to limit the ability of oil companies to engage in anti-competitive behavior by giving the FTC more authority to crack down on unilateral withholding. In addition, Congress should consider the merits of a Strategic Refinery Reserve (SRR), to complement the successful Strategic Petroleum Reserve. Such an SRR could be built and operated by the Department of Energy, and the refined products produced at the facility could be placed in reserve to be released in times of natural disasters or price spikes. An SRR would prove useful in diminishing the ability of oil companies to engage in unilateral withholding, as the SRR could be used to release supplies to satisfy the needs of consumers, thereby lowering prices.

[19] www.ftc.gov/os/2001/03/mwgasrpt.htm
[20] Energy Information Administration Form EIA-820, *Annual Refinery Report*.

FTC Not Adequately Protecting Consumers

The Federal Trade Commission has contributed to the problem by allowing too many mergers and taking a stance too permissive to anti-competitive practices, as evidenced by the conclusions in its most recent investigation, for example, finding evidence of price-gouging by oil companies but explaining it away as profit maximization strategies and opposing federal price-gouging statutes.[21] This stands in stark contrast to the May 2004 conclusions reached by a U.S. Government Accountability Office report[22] which found that recent mergers in the oil industry have directly led to higher prices. It is important to note that this GAO report severely *underestimates* the impact mergers have on prices because their price analysis *stops* in 2000—before the mergers that created ChevronTexaco-Unocal, ConocoPhillips-Burlington Resources, and Valero-Ultramar/Diamond Shamrock-Premcor.

The FTC consistently allows refining capacity to be controlled by fewer hands, allowing companies to keep most of their refining assets when they merge, as a recent overview of FTC-approved mergers demonstrates.

The major condition demanded by the FTC for approval of the August 2002 ConocoPhillips merger was that the company had to sell two of its refineries—representing less than four percent of its capacity. Phillips was required only to sell a Utah refinery, and Conoco had to sell a Colorado refinery. But even with this forced sale, ConocoPhillips remains the largest domestic refiner, controlling refineries with capacity of more than 2.2 million barrels of oil per day, or 13 percent of America's entire capacity. And the FTC allowed ConocoPhillips to purchase Premcor's 300,000 barrels/day Illinois refinery in 2004.

Nuclear Power Not An Answer

Critics concerned about America's need to import 60 percent of our oil to meet daily demand sometimes obfuscate the issue by promoting nuclear power as a path towards energy independence. Ignoring the fact that nuclear power cannot exist without billions of dollars in annual direct and indirect subsidies, or the safety and security concerns associated with the operation of nuclear reactors in America's communities, or the hundreds of tons of highly radioactive waste the facilities produce, let's just focus on one simple fact: oil accounts for only 1.2 percent of America's electricity production. Having taxpayers subsidize the construction and operation of a new fleet of nuclear power plants will not change America's addiction to oil.

As a condition of the 1999 merger creating ExxonMobil, Exxon had to sell some of its gas retail stations in the Northeast U.S. and a single oil refinery in California. Valero Energy, the nation's fifth largest owner of oil refineries, purchased these assets. The inadequacy of the forced divestiture mandated by the FTC was compounded by the fact that the assets were simply transferred to another large oil company, ensuring that the consolidation of the largest companies remained high.

The sale of the Golden Eagle refinery was ordered by the FTC as a condition of Valero's purchase of Ultramar Diamond Shamrock in 2001. Just as with ExxonMobil and ChevronTexaco, Valero sold the refinery, along with 70 retail gas stations, to another large company, Tesoro. But while the FTC forced Valero to sell one of its four California refineries, the agency allowed the company to purchase Orion Refining's only refinery in July 2003, and then approved Valero's purchase of the U.S. oil refinery company Premcor. This acquisition of

[21] www.ftc.gov/reports/060518PublicGasolinePricesInvestigationReportFinal.pdf
[22] *Effects of Mergers and Market Concentration in the U.S. Petroleum Industry*, GAO-04-96, www.gao.gov/new.items/d0496.pdf

Orion's Louisiana refinery and Premcor defeats the original intent of the FTC's order for Valero to divest one of its California refineries.

Solutions

- Congress must legislate tougher merger guidelines to prevent the kind of consolidation permitted by the FTC over the last few years.

Energy Trading Abuses Require Stronger Oversight

Two regulatory lapses are enabling anti-competitive practices in energy trading markets where prices of energy are set. First, energy companies, investment banks and hedge funds are exploiting poorly regulated energy trading markets to manipulate energy prices. Second, energy traders are speculating on information gleaned from their own company's energy infrastructure affiliates, a type of legal "insider trading."

Congress deregulated energy trading markets during last-minute legislative maneuvering on behalf of Enron by former Texas GOP Senator Phil Gramm, whose wife Wendy served on Enron's board of directors at the time, in the lame-duck Congress two days after the Supreme Court ruled in *Bush v Gore*. As Public Citizen pointed out back in 2001,[23] this law allowed energy traders to conduct business outside the regulatory jurisdiction of federal authorities by using so-called Over-the-Counter (OTC) derivatives exchanges. As a result of this deregulation law, trading in lightly-regulated exchanges like NYMEX is declining as more capital flees to the completely unregulated OTC markets.

Hedging Political Bets

As the meteoritic growth of hedge funds in energy markets continues, so does the industry's presence on Capitol Hill. The Managed Funds Association has been around for a few years, and its political action committee has doled out $185,800 in campaign contributions to members of congress since 2003 (with 53 percent going to Republicans). MFA—which recently put former Democratic Sen. John Breaux (now a Patton Boggs lobbyist) on its Board—operates out of the offices of the lobbying firm Smith Bucklin. In addition, MFA has an extensive lobbyist payroll, including: Patton Boggs' Don Moorehead (former GOP Chief Counsel to the Senate Finance Committee); the duo of Peter Rich (former GOP House Energy Committee staffer and husband of a former senior counsel to the House Committee on Financial Services) and Mitchell Feuer (former Democratic staffer on the Senate Banking Committee); and Sullivan & Cromwell's Kenneth Raisler (former general counsel of the CFTC).

James Chanos, president of the hedge fund Kynikos Associates, has teamed up with other hedge fund directors to form the Coalition of Private Investment Companies to influence Congress. Their first order of business was to hire former congressional staffers: Andrew Lowenthal (former Democratic Senate Banking Committee aide) and Lendell Porterfield (former aide to Senate Banking Committee Chairman Richard Shelby).

A recent bipartisan U.S. Senate investigation summed up the problems with this unregulated energy trading speculation:

> *The large purchases of crude oil futures contracts by speculators have, in effect, created an additional demand for oil, driving up the price of oil to be delivered in the future in the same manner that additional demand for the immediate delivery of a physical barrel of oil drives up the price on the spot market…Several analysts have estimated that speculative purchases of oil futures have added as much as $20–$25 per barrel to the*

[23] *Blind Faith: How Deregulation and Enron's Influence Over Government Looted Billions from Americans,* www.citizen.org/documents/Blind_Faith.pdf

> *current price of crude oil…large speculative buying or selling of futures contracts can distort the market signals regarding supply and demand in the physical market or lead to excessive price volatility, either of which can cause a cascade of consequences detrimental to the overall economy…At the same time that there has been a huge influx of speculative dollars in energy commodities, the CFTC's ability to monitor the nature, extent, and effect of this speculation has been diminishing. Most significantly, there has been an explosion of trading of U.S. energy commodities on exchanges that are not regulated by the CFTC…in contrast to trades conducted on the NYMEX, traders on unregulated OTC electronic exchanges are not required to keep records or file Large Trader Reports with the CFTC, and these trades are exempt from routine CFTC oversights. In contrast to trades conducted on regulated futures exchanges, there is no limit on the number of contracts a speculator may hold on an unregulated OTC electronic exchange, no monitoring of trading by the exchange itself, and no reporting of the amount of outstanding contracts ("open interest") at the end of each day.* [24]

Although Enron no longer has a presence in these markets, its legacy of removing government watchdogs from protecting the public unfortunately remains the law of the land. As a result, oil companies, investment banks and hedge funds are exploiting the lack of government oversight to price-gouge consumers and make billions of dollars in profits.

These energy traders boast how they're price-gouging Americans, as a recent *Associated Press* article makes clear: energy "traders who profited enormously on the supply crunch following Hurricane Katrina cashed out of the market ahead of the long weekend. 'There are traders who made so much money this week, they won't have to punch another ticket for the rest of this year,' said Addison Armstrong, manager of exchange-traded markets for TFS Energy Futures."[25]

There is near-unanimous agreement among industry analysts that speculation is driving up oil and natural gas prices. Representative of these analyses is a May 2006 Citigroup report on the monthly average value of speculative positions in American commodity markets, which found that the value of speculative positions in oil and natural gas stood at $60 billion, forcing Citigroup to conclude that "we believe the hike in speculative positions has been a key driver for the latest surge in commodity prices."[26]

Natural gas markets are also victimized by these unregulated trading markets. Public Citizen has testified before Congress on this issue,[27] and a March 2006 report by four state attorneys general concludes that "natural gas commodity markets have exhibited erratic behavior and a massive increase in trading that contributes to both volatility and the upward trend in prices."[28]

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[24] *The Role Of Market Speculation In Rising Oil And Gas Prices: A Need To Put The Cop Back On The Beat,* Staff Report prepared by the Permanent Subcommittee on Investigations of the Committee on Homeland Security and Governmental Affairs of the U.S. Senate, June 27, 2006
http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=109_cong_senate_committee_prints&docid=f:28640.pdf

[25] September 2, 2005.

[26] *The Role Of Market Speculation In Rising Oil And Gas Prices: A Need To Put The Cop Back On The Beat,* Staff Report prepared by the Permanent Subcommittee on Investigations of the Committee on Homeland Security and Governmental Affairs of the U.S. Senate, June 27, 2006

[27] www.citizen.org/documents/Natural%20Gas%20Testimony.pdf

[28] *The Role of Supply, Demand and Financial Commodity Markets in the Natural Gas Price Spiral,* www.ago.mo.gov/pdf/NaturalGasReport.pdf

While most industry analysts agree that the rise in speculation is fueling higher prices, there is one notable outlier: the federal government. In a widely dismissed report, the CFTC recently concluded that there was "no evidence of a link between price changes and MMT [managed money trader] positions" in the natural gas markets and "a significantly negative relationship between MMT positions and prices changes…in the crude oil market."[29]

The CFTC study (and similar one performed by NYMEX) is flawed for numerous reasons, including the fact that the role of hedge funds and other speculators on long-term trading was *not* included in the analysis. The *New York Times* reported that "many traders have scoffed at the studies, saying that they focused only on certain months, missing price run-ups."[30]

The ability of federal regulators to investigate market manipulation allegations even on the lightly-regulated exchanges like NYMEX is difficult, let alone the unregulated OTC market. For example, as of August 2006, the Department of Justice is still investigating allegations of gasoline futures manipulation that occurred *on a single day in 2002*.[31] If it takes the DOJ four years to investigate a single day's worth of market manipulation, clearly energy traders intent on price-gouging the public don't have much to fear.

That said, there have been some settlements for manipulation by large oil companies. In January 2006, the CFTC issued a civil penalty against Shell Oil for "non-competitive transactions" in U.S. crude oil futures markets.[32] In March 2005, a Shell subsidiary agreed to pay $4 million to settle allegations it provided false information during a federal investigation into market manipulation.[33] In August 2004, a Shell Oil subsidiary agreed to pay $7.8 million to settle allegations of energy market manipulation.[34] In July 2004, Shell agreed to pay $30 million to settle allegations it manipulated natural gas prices.[35] In June 2006, the CFTC brought civil charges against BP for allegedly manipulating the entire U.S. propane market.[36] In September 2003, BP agreed to pay NYMEX $2.5 million to settle allegations the company engaged in improper crude oil trading, and in July 2003, BP agreed to pay $3 million to settle allegations it manipulated energy markets.[37]

The June 2006 CFTC civil complaint against BP for manipulating the entire U.S. propane market alleges that BP's energy traders used the company's huge position in oil production, refining, pipelines (BP owns all or part of a dozen or so major pipelines) and storage facilities to allow them to exploit information about energy moving through BP's infrastructure to manipulate the market:

> *…investigators are examining, among other things, whether BP used information about its own pipelines and storage tanks at a key oil-delivery point in Cushing, Okla., to*

[29] www.cftc.gov/files/opa/press05/opacftc-managed-money-trader-study.pdf
[30] Alexei Barrionuevo and Simon Romero, "Energy Trading, Without a Certain 'E'," January 15, 2006.
[31] John R. Wilke, Ann Davis and Chip Cummins, "BP Woes Deepen with New Probe," *The Wall Street Journal*, August 29, 2006
[32] www.cftc.gov/opa/enf06/opa5150-06.htm
[33] www.ferc.gov/press-room/press-releases/2005/2005-1/03-03-05.asp
[34] www.ferc.gov/whats-new/comm-meet/072804/E-60.pdf
[35] www.cftc.gov/opa/enf04/opa4964-04.htm
[36] www.cftc.gov/opa/enf06/opa5193-06.htm
[37] http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10414789

> *influence crude-oil price benchmarks that are set each day and influence billions of dollars of transactions.*[38]

Indeed, financial firms like hedge funds and investment banks that normally wouldn't bother purchasing low-profit investments like oil and gasoline storage have been snapping up ownership and/or leasing rights to these facilities mainly for the wealth of information that controlling energy infrastructure assets provides to help one's energy traders manipulate trading markets. For example, according to *The Trader Monthly*, just one Morgan Stanley trader was able to earn as much as $25 million and "helped the bank dominate the heating oil market by locking up New Jersey storage-tank farms adjacent to New York Harbor." The publication also revealed that legendary trader T. Boone Pickens earned as much as $1.5 billion in 2005, for a rate of return exceeding 700 percent, which the editors believe "is the largest one-year sum ever earned."

Solutions

- Re-regulate energy trading markets by subjecting OTC electronic exchanges to full compliance under the Commodity Exchange Act. Public Citizen has long supported such efforts, but the latest legislative effort was rejected by the Senate by a vote of 55-44 in June 2003.[39] In addition, regulations must be strengthened over existing lightly-regulated exchanges like NYMEX.

- Impose legally-binding firewalls to limit energy traders from speculating on information gleaned from the company's energy infrastructure affiliates or other such insider information, while at the same time allowing legitimate hedging operations.

- Congress must authorize the FTC and DOJ to place greater emphasis on evaluating anti-competitive practices that arise out of the nexus between control over hard assets like energy infrastructure and a firm's energy trading operations. For example, BP's control over at least 30 percent of the available crude oil storage capacity at Cushing apparently provides it with enough market share to unduly influence energy trading. Incorporating energy trading operations into anti-trust analysis must become standard practice for federal regulatory and enforcement agencies to force more divestiture of assets in order to protect consumers from abuses.

- The CFTC has a troublesome streak of "revolving door" appointments and hiring which may further hamper the ability of the agency to effectively regulate the energy trading industry. In August 2004, CFTC chairman James Newsome left the commission to accept a $1 million yearly salary as president of NYMEX, the world's largest energy futures marketplace. Just weeks later, Scott Parsons, the CFTC's chief operating officer, resigned to become executive vice-president for government affairs at the Managed Funds Association, a hedge-fund industry group that figures prominently in energy derivatives markets. Such prominent defections hamper the CFTC's ability to protect consumers. As a result, a revolving door moratorium must be established to limit CFTC decision makers from leaving the agency to go to entities under its regulatory jurisdiction for at least two years.

[38] John R. Wilke, Ann Davis and Chip Cummins, "BP Woes Deepen with New Probe," *The Wall Street Journal*, August 29, 2006
[39] www.senate.gov/legislative/LIS/roll_call_lists/roll_call_vote_cfm.cfm?congress=108&session=1&vote=00218

Tax Oil Company Profits to Save the Environment

Apologists for record oil company profits argue that the companies need and deserve record windfalls to provide the necessary market incentive to invest more money into increased energy production.

Billions for Investors But Not for Sustainable Energy

	Profit Since 2005	Amount Spent on Stock Buybacks & Dividends Since 2005	Cash on Hand as of July 2006
ExxonMobil	$ 54,890,000,000	$ 38,083,000,000	$ 32,113,000,000
Shell	$ 38,076,000,000	$ 23,622,000,000	$ 11,774,000,000
BP	$ 31,332,000,000	$ 33,533,000,000	$ 4,852,000,000
ChevronTexaco	$ 22,448,000,000	$ 11,585,000,000	$ 10,080,000,000
ConocoPhillips	$ 22,020,000,000	$ 5,079,000,000	$ 654,000,000
	$ 168,766,000,000	$ 111,902,000,000	$ 59,473,000,000

Public Citizen's analysis of oil company profits and their investments show that they are spending unprecedented sums on benefits for their shareholders in the form of stock buybacks and dividend payments and not adequately investing in sustainable energy that is necessary to end America's addiction to oil.

So what have oil companies been doing with their record profits? A Public Citizen analysis shows that their combined profits, share buybacks, dividend payments and cash on hand exceeds the amount the companies spend on capital investment. Since January 2005, the big five oil companies have posted $169 billion in after-tax profits, spent $112 billion buying back stock and paying dividends, and still have an extra $59.5 billion in cash. This not only represents a huge transfer of wealth from consumers to oil company investors, but shows that oil companies are squandering opportunities to use their record profits to make investments that will end America's addiction to oil. The companies spent $112 billion on capital investment over this same time period.

With nearly $1 trillion of combined assets tied up in extracting, refining and marketing petroleum and natural gas, the big five oil companies' entire business model is designed to squeeze every last cent of profit out of their monopoly control over fossil fuels. They simply will not make significant investments in anything else until their monopoly control over oil is spent.

And this monopoly control translates into unprecedented profits. When communicating to the general public and lawmakers, oil companies downplay these record earnings by calculating profits differently than they do when they speak to Wall Street and shareholders. Conversing with lawmakers and the general public, the oil industry highlights the small profit margins (typically around 8 to 10 percent) that measuring net income as a share of total revenues produces.

But that's not the calculation ExxonMobil and other energy companies use when talking to investors and Wall Street. For example, here's an excerpt from the company's 2005 annual

report: "ExxonMobil believes that return on average capital employed (ROCE) is the most relevant metric for measuring financial performance in a capital-intensive business such as" petroleum.[40]

ExxonMobil's 2005 10-k shows that that the company's global operations enjoyed a 30.9 percent rate of return on average capital employed. And the company's rate of profit in the U.S. was even higher: domestic drilling provided a 46 percent rate of return on average capital employed, while domestic refining returned 58.8 percent.[41] The company is making its biggest profit margins off the U.S. market.

House Speaker J. Dennis Hastert recently scolded the industry for its profits, saying "It is time to invest in America…we expect oil companies to do their part to help ease the pain American families are feeling from high energy prices."[42]

But only one company—Citgo—has bothered to heed Hastert's call. The company, a U.S. subsidiary of the Venezuelan state oil company, has dedicated tens of millions of dollars to deliver discounted heating oil for low income American families.

ExxonMobil's Fuzzy Math

In a recent newspaper ad meant to deflect criticism of its record profits, the company claimed that "last year, ExxonMobil earned about $36 billion, but incurred $99 billion in taxes worldwide."

But the sharp-eyed Robert S. McIntyre, director of Citizens for Tax Justice (www.ctj.org), looked through the company's financial statements and discovered that "three-quarters of the $99 billion that ExxonMobil's ad claims it paid in total taxes were actually gasoline taxes and similar foreign levies that were paid by its customers (and that didn't come out of profits)."

At least ExxonMobil's public relations folks have a promising career ahead of them writing fiction.

With other oil companies failing to take action to protect America's middle- and low-income families from the high energy prices that fuel their profits, Public Citizen supports a Windfall Profits Tax. Proceeds would be used to finance important investments: funding rebates for homeowners to upgrade their insulation, replace drafty windows and trade in their old appliances for more energy efficient ones; and encouraging consumers to buy more fuel efficient, hybrid or alternative fuel cars. And such a tax on oil companies could also be directed to state and local governments to fully fund public transportation and other structural "smart growth" infrastructure. For example, in 2004 (the last year for which data is available), federal, state and local governments spent a combined $24.4 billion in subsidies for public transit systems.[43] Dedicating just 15 percent of the $171 billion that the big five oil companies had in cash, stock buybacks and dividend payments to fund mass transit would double the current level of public funding.

Naysayers argue that the Windfall Profits Tax didn't work the last time it was tried. The Windfall Profits Tax of 1980-88 was ineffective not because of the tax itself, but because oil prices fell shortly after enactment of the tax due to global events unrelated to U.S. tax policy. Congress enacted the Windfall Profits Tax in 1980 after U.S. oil company profits surged following the Iranian Revolution and the resulting Iran-Iraq war, which caused oil prices to

[40] www.exxonmobil.com/corporate/files/corporate/sar_2005.pdf, page 19.
[41] www.sec.gov/Archives/edgar/data/34088/000119312506040951/d10k.htm
[42] Carl Hulse, "Republicans Ask Oil Industry for Help with Fuel Prices," *The New York Times*, October 26, 2005.
[43] www.apta.com/research/stats/factbook/

increase from $14/barrel in 1979 to $35/barrel by January 1981. But after 1981, crude oil prices steadily decreased until completely bottoming out in 1986-87 as demand slackened and as other oil producing countries increased their output. As the value of the commodity subject to tax fell, the effectiveness of the tax was diminished.

But that was then. *The Wall Street Journal* recently concluded that "a crash looks unlikely now, both because supplies remain tight and because of the large volumes of money that investors are pouring into oil markets."[44]

In addition to a Windfall Profits Tax, Congress needs to reform the royalty system imposed on companies drilling for oil and natural gas on public land. One-third of the oil and natural gas produced in the United States comes from land owned by the taxpayers, but royalty payments by oil companies have not been keeping up with the explosion in energy prices and profits enjoyed by the industry. A recent investigation[45] concluded that while energy "prices nearly doubled from 2001 to 2005, the $5.15 billion in gas royalties for 2005 was less than the $5.35 billion in 2001. When oil and gas are combined, royalties were about $8 billion in 2005, almost the same as in 2001." Taxpayers must be fairly compensated for allowing oil companies the privilege of extracting resources from federally-owned land.

Public Citizen also recommends repealing <u>all</u> federal subsidies currently enjoyed by the oil industry and transferring those expenditures to renewable energy, energy efficiency and mass transit. Public Citizen estimates that the oil industry receives 65 percent of all federal government energy tax breaks and government spending programs, estimated at as much as $10 billion annually, including:[46]

- Excess of percentage over cost depletion.
- Credit for enhanced oil recovery costs.
- Expensing of exploration and development costs.
- Exception from passive loss limitation for working interests in oil and gas properties.
- Last in, first out accounting for vertically integrated oil companies.
- Department of Energy spending programs.

Some states are addressing higher gasoline prices by suspending gas taxes. Public Citizen does not support such a move, as it not only fails to address the underlying market problems causing higher prices, but reduces revenues that states need to help finance solutions such as mass transit.

Raise Fuel Economy Standards to Lower Oil Consumption, Reduce Global Warming, Save Money at the Pump and Improve National Security

Due to increasing numbers of gas-guzzling SUVs on America's roads and the absence of meaningful increases in government-set fuel economy standards, America's average vehicle fuel

[44] Bhushan Bahree and Ann Davis, "Oil Settles Above $70 a Barrel, Despite Inventories at 8-year High," April 18, 2006.
[45] Edmund L. Andrews, "As Profits Soar, Companies Pay U.S. Less for Gas Rights," *The New York Times*, January 23, 2006.
[46] Based on data contained in *Inventory of Major Federal Energy Programs and Status of Policy Recommendations*, The U.S. Government Accountability Office, GAO-05-379, June 2005, www.gao.gov/new.items/d05379.pdf

economy is lower today than a decade ago, forcing our less-efficient vehicles to use more gasoline and therefore increasing our need to import oil.

The Environmental Protection Agency found that the average fuel economy of 2006 vehicles is 21 miles per gallon (mpg), compared to 22.1 mpg in 1988.[47] This drop is attributable in part to the fact that automobile fuel economy standards have not increased since 1985, and light truck standards are only about 5 mpg higher than they were 25 years ago. This has allowed the manufacturers to allocate efficiency improvements over the last 20 years to larger engines, faster starts and heavier vehicles. And sales of fuel inefficient SUVs and pickups have exploded: in 1987, 28 percent of new vehicles sold were light trucks, compared to 50 percent in 2005. Only now with $3-plus gasoline prices are SUV sales slowing down.

The auto and oil industry have fought tooth and nail against increases in fuel economy standards. From 1995 to 2002, their efforts in Congress resulted in zero appropriations for agency work, and now the agency gets only about a million and a half dollars a year, preventing it from doing research to demonstrate large increases are feasible.

Thus, the National Highway Traffic Safety Administration isn't doing enough under the Energy Policy Act to enact the maximum feasible fuel economy increase and is constrained by administration and congressional politics from applying any pressure to challenge manufacturers to do better.

Fighting Fuel Economy

One reason why fuel economy standards haven't been increased in 20 years is because of the continued resistance by some in the auto industry, particularly General Motors and Ford. Since 2001, these companies' PACs and executives have made $4.5 million in campaign contributions to federal candidates, with two-thirds of that total going to Republicans. Combined with the Alliance of Automobile Manufacturers, the companies have spent an additional $98.5 million lobbying Congress and the executive branch over that same time period.

Perhaps if they spent less money on politics and more money investing in the fuel efficient cars that American consumers are now flocking to Toyota and Honda to buy, Ford and GM wouldn't be in such a financial hole.

Some who oppose improving fuel economy standards claim that raising them will result in American job losses. But how many jobs are being lost from sustained high energy prices caused in part by the failure to stem America's growing oil demand? Recent announcements by GM and Ford to cut 60,000 North American jobs can be directly tied to the companies' loss of market share due to over-investment in SUVs and other fuel-guzzling vehicles, which turn around a fast and sizeable profit but do not sell well in these times of three-dollar-a-gallon gas prices. Some foreign manufacturers invested in more fuel-efficient vehicles and paved the way for a future of improved fuel economy with hybrid vehicles, while Detroit manufacturers' sales continue to shrink.

Opponents of increasing fuel economy standards often erroneously claim that improving standards makes cars lighter and less safe. The truth is that safety research over decades shows that the quality of vehicle design—not weight—is the best indicator of safety. Increasing fuel

[47] *Light-Duty Automotive Technology and Fuel Economy Trends: 1975 Through 2006*, July 2006, www.epa.gov/OMS/fetrends.htm

economy standards would improve safety by reducing the impact of the heaviest behemoths on the road, while saving consumers money and reducing oil consumption.

Solutions

- Billions of gallons of oil would be saved if significant fuel economy increases were mandated. Improving fuel economy standards for passenger vehicles from 27.5 to 40 mpg, and for light trucks (including SUVs and vans) from 22.2 to 27.5 mpg by 2015 (for a combined fleet average of 34 miles per gallon) would reduce our gasoline consumption by one-third.

- The administration, however, has responded to the current crisis with nonchalance, recently increasing fuel economy for light trucks by a meager 1.8 mpg by 2011 and implementing a size-based system that could actually *increase* oil consumption. Under the new scheme, the larger the vehicle the less fuel economy it must achieve, thus encouraging manufacturers to continue making gas-guzzling vehicles but also providing an incentive to upsize smaller vehicles to qualify for less stringent standards. The House and Senate are currently considering legislation that, problematically, would mimic the scheme for light trucks in the program for automobile fuel economy. Such legislation will likely be debated in September in both the House and Senate.

Conclusion

This era of high energy prices and record oil company profits isn't a simple case of supply and demand, as the evidence indicates that consolidation of energy infrastructure assets, combined with weak or non-existent regulatory oversight of energy trading markets, provides opportunity for energy companies and financial institutions to price-gouge Americans. It would be one thing if these huge profits were actually being devoted to funding the technologies and sustainable energy investments necessary to ease our nation's addiction to oil. But, sadly, they are not. Instead, since last year, oil companies have spent $112 billion buying back their own stock and paying out dividends to shareholders, while allocating just pennies in comparison to clean energy alternatives. As a result, our consumption of fossil fuels continues to grow, and the impacts of global warming take their toll on our environment.

Since the oil companies appear intent on squandering this opportunity, Congress must take the lead in taking the necessary steps to combat global warming and protecting consumers. By implementing a new income tax on oil companies and revoking their existing tax loopholes, the federal government can raise the billions of dollars it will need to adequately fund mass transit, energy efficiency programs and renewable energy. Implementing strong fuel economy standards will provide Americans with more efficient cars, and we'll use less oil as a result. And holding energy companies and financial firms accountable for exploiting their monopoly control over our energy infrastructure to make windfall profits while working families suffer under higher prices must be a centerpiece of reform.

Table 1.

In 2005, ExxonMobil's U.S. Operations Outpaced Rest of Company

	2001	2002	2003	2004	2005
All ExxonMobil Operations					
Net income	$ 15,320,000,000	$ 11,460,000,000	$ 21,510,000,000	$ 25,330,000,000	$ 36,130,000,000
Average Capital Employed	88,000,000,000	$ 88,342,000,000	$ 95,373,000,000	$ 107,339,000,000	$ 116,961,000,000
Return on Capital, Companywide	17.4%	13.0%	22.6%	23.6%	30.9%
US Oil Production Only					
Net income	3,933,000,000	$ 2,524,000,000	$ 3,905,000,000	$ 4,948,000,000	$ 6,200,000,000
Average Capital Employed	12,952,000,000	$ 13,264,000,000	$ 13,508,000,000	$ 13,355,000,000	$ 13,491,000,000
Return on Capital, US Oil Production Only	30.4%	19.0%	28.9%	37.0%	46.0%
US Oil Refining Only					
Net income	1,924,000,000	$ 693,000,000	$ 1,348,000,000	$ 2,186,000,000	$ 3,911,000,000
Average Capital Employed	7,711,000,000	$ 8,060,000,000	$ 8,090,000,000	$ 7,632,000,000	$ 6,650,000,000
Return on Capital, US Oil Refining Only	25.0%	8.6%	16.7%	28.6%	58.8%

SOURCE: Compiled by Public Citizen's Energy Program <www.citizen.org> from ExxonMobil's 10-k's filed with the SEC

Table 2.

Mergers Concentrate the U.S. Oil Refinery Industry: Changes in Control of Market Share 1993 to 2005

1993		2005	
Company	Market Share	Company	Market Share
Chevron	9.1%	ConocoPhillips-Tosco-Burlington Resources	12.8%
Exxon	6.6%	Valero-Ultramar-Diamond Shamrock-Orion Refining-Premcor-TPI	12.6%
Amoco	6.5%	ExxonMobil-Chalmette	11.7%
Texaco-Star Enterprise	6.2%	Shell-Motiva-Equilon-Pennzoil-Quaker State-Deer Park	9.3%
Mobil	6.0%	BP	8.5%
Top 5 in 1993	**34.5%**	**Top 5 in 2005**	**54.8%**
Shell	4.9%	ChevronTexaco-Unocal	5.8%
BP	4.4%	Sunoco	5.7%
Citgo (PDV)/Lyondell	4.2%	Marathon	5.6%
Arco/Lyondell	3.8%	Citgo-PDV	5.0%
Marathon	3.8%	Koch-Flint Hills	4.5%
Top 10 in 1993	**55.6%**	**Top 10 in 2005**	**81.4%**

Note: Lyondell refinery capacity in 1993 is equally split between two of its equity partners at the time, Citgo and Arco.

SOURCE: Compiled by Public Citizen's Energy Program <www.citizen.org/cmep> from corporate annual reports and U.S. Energy Information Administration data.