FEDERAL TRADE COMMISSION

REPORT ON SPRING/SUMMER 2006 NATIONWIDE GASOLINE PRICE INCREASES

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On April 25, 2006, President Bush, speaking at the Renewable Fuels Summit in Washington, DC, directed "the Department of Justice to work with the FTC and the Energy Department to conduct inquiries into illegal manipulation or cheating related to [then-] current gasoline prices."[1] As the President recognized in his remarks, the Federal Trade Commission ("FTC" or "Commission") was, at that time, investigating the increases in gasoline prices that occurred following Hurricane Katrina. The FTC's post-Katrina investigation included an intensive examination of whether refiners and other market participants had manipulated, or tried to manipulate, gasoline prices.[2] In a report delivered to Congress in May 2006,[3] the FTC reported that its staff found no evidence of manipulation, and that it found limited instances of "price gouging"—as defined by Congress in the relevant appropriations statute[4]—by gasoline wholesalers and retailers.[5] In general, the FTC concluded that "the conduct of firms in response

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[1] President George W. Bush, *Remarks to the Renewable Fuels Summit 2006* (Apr. 25, 2006), *available at* http://www.whitehouse.gov/news/releases/2006/04/20060425.html. The higher gasoline prices that occurred during the spring and summer of 2006 also raised concern from Congress and the public. *See* Steven Mufson and Shailagh Murray, *Profits, Prices Spur Oil Outrage*, WASHINGTON POST, Apr. 28, 2006, Page A01.
See also Debate Continues in Congress About Fixing Big Oil, transcript, THE ONLINE NEWSHOUR, aired on May 2, 2006, *available at* http://www.pbs.org/newshour/bb/politics/jan-june06/gas_05-02.html.

[2] "Price manipulation" is not a defined legal or economic term. As used in the Commission's May 2006 report, the term "price manipulation" included (1) all transactions and practices that are prohibited by the antitrust laws (including the Federal Trade Commission Act) and (2) all other transactions and practices, irrespective of their legality under the antitrust laws, that tend to increase prices relative to costs and to reduce output.

[3] FEDERAL TRADE COMM'N, INVESTIGATION OF GASOLINE PRICE MANIPULATION AND POST-KATRINA GASOLINE PRICE INCREASES (2006), *available at* http://www.ftc.gov/reports/060518PublicGasolinePricesInvestigationReportFinal.pdf ("FTC HURRICANE REPORT").

[4] Section 632 of the Science, State, Justice, Commerce, and Related Agencies Appropriations Act of 2006, Pub. L. No. 109-108, § 632, 119 Stat. 2290 (Nov. 22, 2005). The statute mandating the post-Katrina pricing investigation effectively defined price gouging, for purposes of the investigation, as an average price of gasoline available for sale to the public following the hurricane that exceeded its average price in the area for the month before the hurricane, unless the increase was substantially attributable to additional costs in connection with the production, transportation, delivery, and sale of gasoline in that area or to national or international market trends.

[5] Once geographic locations of sales and channels of distribution were taken into account, however, individual

to the supply shocks caused by the hurricanes was consistent with competition."[6]

In response to the President's April 2006 directive, and building upon the findings of the FTC's post-Katrina investigation, staff of the Commission worked with the Department of Justice, with assistance from the Department of Energy's Energy Information Administration ("EIA"), to conduct an economic analysis and investigation of the national average gasoline price increases that began during the spring of 2006 and continued through the summer. In particular, staff performed financial and economic analyses of crude oil and gasoline price data, as well as data on the costs of other key components of finished gasoline, for the relevant time period.[7] Staff also interviewed refiner personnel, reviewed key documents prepared in the ordinary course of business, and examined production statistics reported to EIA. Using this information, staff identified six factors that appear to explain the national average price increases that occurred during the spring and summer of 2006, and then quantified the price impact of each of those six factors. At the same time, Commission staff continued their surveillance of industry activities at a more localized level, for example by monitoring gasoline and diesel fuel price movements in 20 wholesale regions and approximately 360 retail areas across the nation, and initiating law enforcement investigations in response to abnormal local or regional pricing episodes as they were identified.[8]

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firms' price increases appeared comparable to local market trends in almost every instance.

[6] FTC HURRICANE REPORT at ix.

[7] This investigation of national average gasoline price increases did not require definition of a relevant product or geographic market for purposes of antitrust analysis. Accordingly, this report does not conclude or imply that a national market for gasoline exists for antitrust purposes, and it does not make determinations of whether specific market conditions in the United States or local areas within the United States are conducive to activities that violate the antitrust laws.

[8] The FTC staff monitoring team uses an econometric model developed by Commission economists to identify unusual movements in gasoline and diesel fuel prices at both the wholesale and retail levels in comparison to the historical price relationships among cities. Augmenting these efforts are careful examinations by staff of the most current information from the field to seek leads on possible unlawful conduct, including all U.S. Department of

As discussed in more detail below, the evidence indicates that about 75% of the spring and summer 2006 national average gasoline price increases stemmed from the seasonal effects of the summer driving season, increases in the price of crude oil (the primary raw material for gasoline), and increases in the price of ethanol (an essential component of cleaner-burning gasoline blends). The evidence further indicates that the remaining 25% of the price increases stemmed from declines in the production of gasoline—due to refiners' transition to ethanol from other widely used blending components, persistent refinery damage related to Hurricanes Katrina and Rita (which struck the U.S. Gulf Coast in August and September of 2005, respectively), and other refinery outages caused by unexpected events and required maintenance—coupled with increased demand. Although staff cannot definitively rule out all other contributing factors, these six factors adequately explain the 2006 price increases. Further, our targeted examination of major refinery outages revealed no evidence that refiners conspired to restrict supply or otherwise violated the antitrust laws. We therefore conclude that further investigation of the nationwide 2006 gasoline price spike is not warranted at this time. FTC staff will continue, however, to monitor petroleum industry activities and gasoline prices in local and regional areas throughout the United States in its ongoing efforts to identify and challenge any anticompetitive conduct that may have occurred or may arise in the future.

Section I of this report provides background information on the price increases that prompted the present analysis, as well as a summary of findings from previous Commission investigations into the causes of gasoline price spikes. Section II identifies six factors that contributed to the national average price increases during spring and summer of 2006, while Section III estimates the quantitative price impact of each. Finally, Section IV concludes that the

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Energy Gasoline Hotline complaints and similar information received through the FTC's Consumer Response Center and provided to the FTC by state and local officials and members of Congress, as well as documents and information collected in our ongoing merger reviews.

six identified factors, in confluence, adequately explain the 2006 price increases.

I. Background

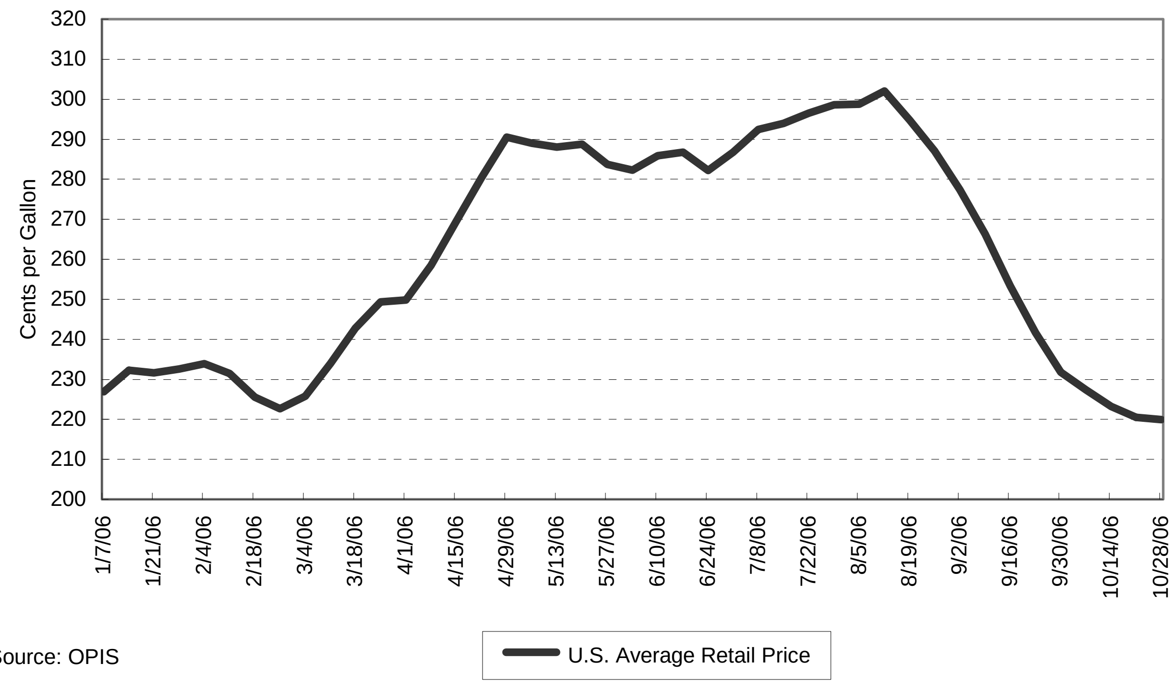
During the spring and summer of 2006, consumers nationwide felt the sting of dramatically rising gasoline prices. At their height, prices reached levels comparable to prices in the aftermath of Hurricanes Katrina and Rita in 2005. Although the effects varied across regions and gasoline specifications, the entire country, and many parts of the world,[9] experienced large price increases.

Figure 1 depicts the basic phenomenon addressed in this report. It shows the U.S. average retail price of regular gasoline for all formulations from January 1, 2006, to October 31, 2006. From a monthly average price of $2.28 per gallon during February, prices rose to $2.89 per gallon by the beginning of May.[10] After declining slightly in May and June, prices started to rise again in July, and reached a peak of $3.02 per gallon in the second week of August before beginning a steep decline to $2.18 by the end of October. Over the period May 1 to September 1, the average price per gallon of regular gasoline was $2.90.

[9] For example, retail prices in European countries increased as well, ranging from $0.84 per gallon (average prices in Germany increased from $5.69-$6.53) to $1.00 per gallon (average prices in the Netherlands increased from $6.17-$7.17). Similarly, spot prices in Rotterdam, Netherlands, increased $0.55 per gallon, from $1.48-$2.03. Spot prices reflect the price paid "on the spot" in transactions involving thousands of barrels of gasoline. These transactions often occur in ports such as Rotterdam. Retail prices are typically higher than spot prices because spot prices do not include federal, state, and local gasoline taxes and because those purchasing gasoline in a spot market still must distribute the gasoline to retail locations.

[10] Prices are based on the national average weekly retail price of regular unleaded gasoline (including taxes), as reported by the Oil Price Information Service ("OPIS").

Figure 1: U.S. Average Weekly Retail Gasoline Prices
Regular Grade (Includes Tax) January 1 - October 31, 2006



Source: OPIS

Within this overall average, there was, of course, variation over time, among regions, and across formulations of gasoline. Some of this variation, such as the price spike in PADD V[11] in the spring and price increases in the Pacific Northwest in the summer, was large enough to prompt separate studies by the FTC and state and local authorities.[12] Yet, the size, duration, and geographic scope of the national average price increases of 2006 were particularly striking.

[11] Petroleum Administration for Defense Districts ("PADD") are geographic districts delineated during World War II and still used by the EIA as a basis for data collection. PADD I covers the East Coast, PADD II the Midwest, PADD III the Gulf Coast, PADD IV the Rocky Mountains, and PADD V the West Coast, including Alaska and Hawaii.

[12] The California Energy Commission has studied the PADD V episode. *See* CALIFORNIA ENERGY COMM'N, SPRING 2006 PETROLEUM FUELS PRICE SPIKE, CEC-600-2006-012 (Aug. 2006) ("CEC STUDY 2006"). Similarly, following up on observations of anomalous pricing patterns affecting multiple cities in the Pacific Northwest over the past year, including summer 2006 and into early 2007, FTC staff currently is examining bulk supply and demand conditions and practices for gasoline and diesel in that region. *See* Statement of Michael Salinger, Director, Bureau of Econ., Federal Trade Comm'n, before the Joint Economic Committee, U.S. Congress (May 23, 2007), *available at* http://www.ftc.gov/os/testimony/070523PetroleumIndustryConsolidation.pdf. In addition, as part of its continuing law enforcement interaction with the states, through the National Association of Attorneys General, the Commission sponsored a federal/state law enforcement conference in September 2006 to explore competition issues in petroleum markets.

Staff's analysis reported here identifies and quantifies the factors underlying the $0.62 price increase that occurred between February 2006, when prices averaged $2.28, and the summer driving season of May through August, during which prices averaged $2.90.[13]

The FTC has investigated previous gasoline and diesel price spikes. These past investigations generally have focused on price anomalies that were either local or regional or did not endure as long as the 2006 spike.[14] Most recently, the Commission studied the increase in prices after Hurricanes Katrina and Rita.[15] The hurricanes had a nationwide impact, although the effects were more acute in some regions than in others.[16] There was no question, however, that the hurricanes severely damaged the industry's capacity to produce and deliver gasoline and that substantial effects on prices would result.

The FTC's post-Katrina investigation included, among other things, an intensive examination of whether refiners had manipulated, or tried to manipulate, gasoline prices. Staff investigated whether refiners manipulated prices in the short run by operating their refineries

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[13] Staff selected the February average price as the "low price" benchmark because it was the lowest of any monthly average retail price in early 2006. We chose to compare this benchmark to the "high price" average during the summer driving season (May through August), rather than the average price in the peak month of July, to avoid having to adjust for month-to-month changes in inventories and imports that would affect prices only in a transitory way. Our results are fairly robust to changes in the period under study. For example, comparing the lowest-priced winter month (December 2005) with the highest-priced summer month (July 2006) would show an increase from $2.16 to $2.94 per gallon, or $0.78 per gallon, rather than the $0.62 per gallon described in the text. However, most of the incremental increase during this period resulted from a larger crude oil price increase and a larger ethanol price increase.

[14] *See* FEDERAL TRADE COMM'N, FINAL REPORT: MIDWEST GASOLINE PRICE INVESTIGATION (2001) (analysis of Midwest gasoline price spike in spring and summer 2000), *available at* http://www.ftc.gov/os/2001/03/mwgasrpt.htm; FEDERAL TRADE COMM'N, GASOLINE PRICE CHANGES: THE DYNAMIC OF SUPPLY, DEMAND, AND COMPETITION 1-10 (2005) (discussing the 2003 price increases around Phoenix), *available at* http://www.ftc.gov/reports/gasprices05/050705gaspricesrpt.pdf ("GASOLINE PRICE CHANGES REPORT"). *See also* Jeremy Bulow et al., *U.S. Midwest Gasoline Pricing and the Spring 2000 Price Spike*, 24 ENERGY J. 121 (2003).

[15] *See* FTC HURRICANE REPORT.

[16] The effects of the hurricanes on the crude production, refining, and port facilities in the Gulf had a widespread impact beyond the Gulf because that region is a primary source of gasoline for such a large part of the country. Price increases were particularly large in the Middle Atlantic states because the hurricanes caused the closure of the Colonial and Plantation Pipelines, which run from the Gulf Coast to the Mid-Atlantic.

below full productive capacity in order to restrict output, by altering their mix of output to produce less gasoline, or by diverting gasoline from markets in the United States to less lucrative foreign markets. In addition, they examined allegations that companies refused to invest sufficiently in new refineries for the purpose of restricting output and raising prices in the long run. Staff found no evidence to suggest that refiners manipulated prices through any of these means.

In addition to studying specific instances of price spikes, in 2005, the Commission issued a more general report that explains the various factors that affect gasoline pricing, concluding that most of the variation in gasoline prices over the time period studied was attributable to changes in the price of crude oil.[17] Consistent with the findings of the 2005 report, in the spring and summer of 2006, the price of crude oil increased, contributing to gasoline price increases. As we discuss further below, however, the increase in crude prices alone was not large enough to explain all of the increase in gasoline prices.

The nationwide spring and summer 2006 price increases are a more complicated phenomenon than most previous episodes studied by the Commission. Prices reached levels similar to those that prevailed after the devastating hurricanes in summer 2005. In 2005, however, prices returned to pre-Katrina levels by the end of October—two months after Hurricane Katrina and one month after Hurricane Rita—and by the end of November they had fallen to levels that prevailed before the start of the summer driving season.[18] The price increases addressed in this report endured longer than those in the immediate aftermath of the

[17] GASOLINE PRICE CHANGES REPORT at 13. *See also* BUREAU OF ECONOMICS, FEDERAL TRADE COMM'N, THE PETROLEUM INDUSTRY: MERGERS, STRUCTURAL CHANGE, AND ANTITRUST ENFORCEMENT (2004), *available at* http://www.ftc.gov/os/2004/08/040813mergersinpetrolberpt.pdf.

[18] FTC HURRICANE REPORT at 82.

hurricanes. Moreover, unlike the hurricanes of 2005, there was not a single cataclysmic event or set of events that explains the price increases of 2006.

II. Factors Affecting Summer 2006 Gasoline Prices

Staff's economic analysis revealed that the national average price increases during the spring and summer of 2006 were most likely attributable to six factors, which are consistent with the natural operation of gasoline markets: (1) seasonal effects of the summer driving season; (2) increases in the price of crude oil; (3) increases in the price of ethanol; (4) capacity reductions stemming from refiners' transition from methyl tertiary-butyl ether ("MTBE") to ethanol; (5) refinery outages resulting from hurricane damage, other unexpected problems or external events, and required maintenance; and (6) increased consumer demand for gasoline beyond the seasonal effects of the summer driving season. The first three factors are cost increases, which were relatively straightforward to estimate because they are passed through from refiners to consumers approximately dollar-for-dollar. The last three factors, however, are capacity changes or their equivalent, for which the resulting price impact depends on variables such as the elasticity of demand for gasoline and the rate of supply responses from importers. Estimation of the price effect resulting from these factors therefore required more sophisticated economic analysis.

A. Upward Pressure Due to Seasonal Effects

Past experience shows that gasoline prices rise relative to crude oil prices during the spring and summer. This relative price increase is due to both an increase in demand for gasoline and a decrease in refiners' ability to produce gasoline. The demand for gasoline increases in the summer, because this is the high driving season in the United States.[19] Furthermore, gasoline must meet more stringent environmental specifications in the summer,

[19] In recent years, gasoline consumption typically has been 4-7% higher during May through August than during the other months of the year.

requiring refiners to use different processes that yield smaller amounts of gasoline.[20] This increase in demand, combined with the decrease in capacity during the summer, places upward pressure on gasoline prices. Historically, prices begin to rise in the spring as refineries and wholesalers drain tanks of winter-grade gasoline and build inventories of the more stringent summer-grade formulations to meet the anticipated peak summer demand.

To determine the price impact of these seasonal effects, staff analyzed the increases in gasoline prices relative to crude oil prices—what we refer to as the "gasoline spread"—between February 2006 and summer 2006. We used the difference between the New York Harbor spot price for conventional gasoline[21] and the West Texas Intermediate ("WTI") crude price, a commonly used crude oil benchmark, to measure the gasoline spread. First, we documented the baseline spread before gasoline prices started to rise. The average gasoline spread for conventional gasoline in February 2006 was $0.032. For the summer of 2006 (May through August), the spread averaged about $0.36 per gallon. Second, we used two methodologies to estimate what the gasoline spread would have been during the summer if there had been no additional changes in demand or production.

The first approach for estimating the expected gasoline spread during the summer of 2006 is to use the average gasoline spreads that prevailed during this season in previous years as a basis for comparison. From 2001 to 2005, the average monthly gasoline spread for conventional gasoline for the months May through August was $0.169. The 2006 spreads for

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[20] The main difference between summer and winter gasoline is that summer gasoline has a lower Reid Vapor Pressure ("RVP"). Lower RVP gasoline does not evaporate as easily, and therefore reduces summer air pollution. One consequence of the lower RVP summer gasoline is that refiners cannot blend in as much butane (which has a high RVP) in the gasoline in summer as they can in winter. As a result, refiners are not able to make as much gasoline during the summer.

[21] The New York Harbor spot price of conventional gasoline is commonly used as a proxy for the value of gasoline as it leaves the refinery before it has been transported to a local distribution center.

those months reasonably could be expected to rise at least to the 2001-2005 average even if no unusual conditions prevailed. By itself, an increase in the gasoline spread to the levels that prevailed in 2001-2005 would have caused average prices to increase about $0.14 per gallon ($0.169 minus $0.032) during the spring and summer months of 2006.

An alternative benchmark value for spring and summer 2006 gasoline spreads is that which prevailed in the summers of 2004 and 2005, the most recent prior years for which data are available. During these summers, gasoline spreads were significantly higher than they had been in previous summers.[22] From May through August, they averaged $0.244 for conventional gasoline, which is roughly $0.21 per gallon ($0.244 minus $0.032) higher than in February 2006. Therefore, an increase in the gasoline spread to the levels that prevailed in 2004-2005 would have caused prices to increase by about $0.21 per gallon. In sum, depending on which of the two preceding alternative benchmark values is selected, the expected seasonal increase in national average gasoline prices from February 2006 to summer 2006 would be $0.14-$0.21 per gallon.

B. Increases in Crude Prices

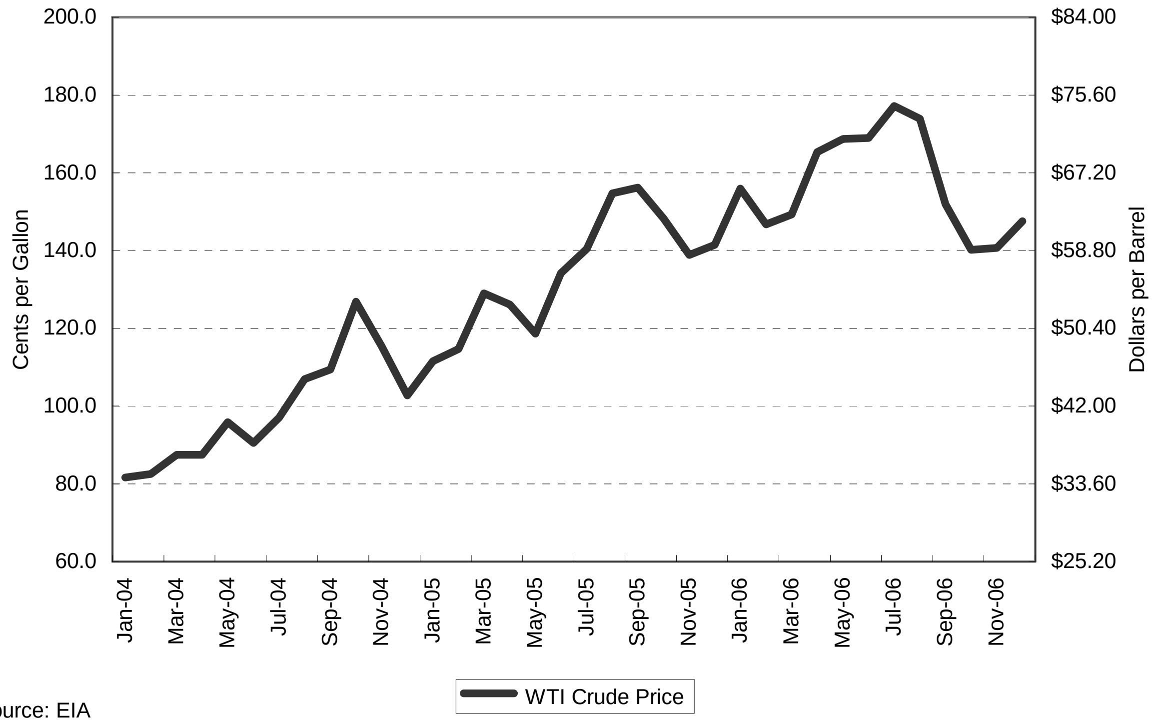
The largest cost component in producing gasoline is that for crude oil, and changes in the price of crude oil historically have been the source of a substantial fraction of changes in the

[22] Gasoline spreads have been increasing in recent years, especially during the summer, because summer supplies worldwide have become increasingly tight. There are at least two reasons for this increased tightness. First, over time, demand growth has exceeded capacity growth. Second, changes in gasoline specifications have reduced existing capacity to produce gasoline. Section II.D discusses the impact on capacity of the most recent switch from MTBE to ethanol.

State bans on MTBE in California, New York, and Connecticut became effective in 2004. Also in 2004, U.S. refiners were required to produce lower-sulfur gasoline—a switch that increased refining costs and modestly reduced output. Thus, 2004 and 2005 are likely better predictors of future seasonal price changes than are 2001 through 2003. However, we discuss the longer range averages in the text to provide a more conservative estimate of the baseline price. For more extensive discussion of reasons for higher refining margins, *see New Maintenance Model Lifts US Refining Margins*, PETROLEUM INTELLIGENCE WEEKLY, Apr. 9, 2007; Ana Campoy, *Refineries' Summer Break*, WALL STREET JOURNAL, Jun. 26, 2007.

price of gasoline.[23] Figure 2 shows the monthly average price of WTI from January 2004 through December 2006. Prices are shown both on a per-gallon basis, which aids comparability to retail gasoline prices, and on a per-barrel basis, which is how crude prices are normally reported.

Figure 2: Monthly Average WTI Crude Prices, 2004 - 2006



Source: EIA

Benchmark crude oil prices were $0.255 per gallon higher in summer 2006 than they were in February 2006. In February 2006, the price of WTI crude averaged $61.63 per barrel, or $1.47 per gallon. The average price rose to nearly $69.44 per barrel, or $1.65 per gallon, in April, and remained roughly constant through June. Then, in July, it rose to $74.41 per barrel, or $1.77 per gallon. Over the period from May 1 to September 1, the average price of crude oil was $72.34, or about $10.71 per barrel above the price in February 2006. Therefore, the cost of producing gasoline attributable to crude oil prices increased by approximately $0.26 per gallon

[23] GASOLINE PRICE CHANGES REPORT at 13.

($10.71 divided by 42) during the summer of 2006, and would be expected to increase national average gasoline prices by a comparable amount.[24]

C. Increases in Ethanol Prices

A key difference between the summers of 2005 and 2006 was refiners' increase in the use of ethanol as an additive in reformulated gasoline ("RFG"), which is required to be sold in "non-attainment areas"[25] under the Clean Air Act of 1990. In 2005, 12.7% of gasoline produced by domestic refiners and blenders was RFG blended with MTBE.[26] By May of 2006, refiners and blenders were producing almost no RFG with MTBE. Instead, they were making virtually all of the RFG with ethanol. This transition in the first half of 2006 added roughly 129,000 barrels per day of ethanol demand[27] to 2005 ethanol production of 255,000 barrels per day—a roughly 50% increase.[28] While ethanol production and capacity previously had been increasing steadily,[29] the domestic ethanol industry had a difficult time meeting this massive increase in demand, and

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[24] There are 42 gallons in a barrel. The calculation assumes that a $1.00 per barrel increase in the price of crude leads to a $1.00 per barrel increase in the cost of producing gasoline. Historical price relationships show that the price of gasoline rises slightly more than the price of crude oil, so that this dollar-for-dollar estimate may slightly underestimate the impact of the increase in crude oil prices on gasoline prices.

[25] A non-attainment area is defined by the Environmental Protection Agency ("EPA") as "any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant." Areas designated as non-attainment areas must use gasoline with less volatility in order to reduce the gasoline evaporation rate. Refiners supplying most such areas produce RFG, although the EPA permits them to utilize alternative fuel specifications that yield similar pollution-reducing results.

[26] *See* Energy Info. Admin., U.S. Dep't of Energy, *Petroleum Navigator: Refinery and Blender Net Production*, *available at* http://tonto.eia.doe.gov/dnav/pet/pet_pnp_refp_dc_nus_mbblpd_a.htm. Overall, in 2006, one-third of gasoline sold was reformulated gasoline.

[27] *See* Energy Info. Admin., U.S. Dep't of Energy, ELIMINATING MTBE IN GASOLINE IN 2006 at 5 (2006) (ELIMINATING MTBE STUDY 2006), *available at* http://www.eia.doe.gov/pub/oil_gas/petroleum/feature_articles/2006/mtbe2006/mtbe2006.pdf.

[28] Energy Info. Admin., U.S. Dep't of Energy, *Petroleum Navigator: Oxygenate Production*, *available at* http://tonto.eia.doe.gov/dnav/pet/pet_pnp_oxy_dc_nus_mbblpd_a.htm.

[29] *See* FEDERAL TRADE COMM'N, 2006 REPORT ON ETHANOL MARKET CONCENTRATION, *available at* http://www.ftc.gov/reports/ethanol/Ethanol_Report_2006.pdf.

refiners had to turn to imports of ethanol during the spring and summer of 2006.[30] As a result of the disproportionately higher demand in the first half of 2006, ethanol prices increased significantly, and this price increase in turn increased the cost of producing ethanol-blended gasoline.

The switch from MTBE to ethanol resulted from a change in environmental regulations as well as other factors. The Clean Air Act of 1990 required that a substantial portion of U.S. gasoline meet certain emissions goals, in part through the inclusion of oxygenates. Refiners were allowed to choose which oxygenate to use, with MTBE and ethanol being the primary two options. Because MTBE was less expensive than other oxygenates, refiners largely relied on it to meet the oxygenate requirement in the 1990 Clean Air Act.[31] Aside from their value as oxygenates, MTBE and ethanol also improve octane levels and help gasoline suppliers meet various other clean air standards.[32]

Over time, however, incidents involving leaks from MTBE storage tanks raised concerns of potential groundwater contamination, leading MTBE producers and gasoline suppliers to fear MTBE-based environmental contamination and the associated potential for liability.[33] Some

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[30] Domestic monthly ethanol production averaged about 315,000 barrels per day in May through August 2006 (*see* Energy Info. Admin., U.S. Dep't of Energy, *Petroleum Navigator: U.S. Fuel Ethanol Oxygenate Production at Oxy Plant*, *available at* http://tonto.eia.doe.gov/dnav/pet/hist/m_epooxe_yop_nus_2m.htm), while imports averaged about 65,000 barrels per day (*see* Energy Info. Admin., U.S. Dep't of Energy, *Petroleum Navigator: U.S. Oxygenates*, *Fuel Ethanol Imports*, *available at* http://tonto.eia.doe.gov/dnav/pet/hist/mfeimus2m.htm). Domestic supply of finished gasoline averaged 9,480,000 barrels per day over those months (*see* Energy Info. Admin., U.S. Dep't of Energy, *Petroleum Navigator: U.S. Finished Motor Gasoline Product Supplied, available at* http://tonto.eia.doe.gov/dnav/pet/hist/mgfupus2m.htm).

[31] *See* ENERGY INFO. ADMIN., U.S. DEP'T OF ENERGY, SUPPLY IMPACTS OF AN MTBE BAN at 4 (2002), *available at* http://www.eia.doe.gov/oiaf/servicerpt/fuel/pdf/question1.pdf.

[32] For example, neither MTBE nor ethanol contains sulfur.

[33] *See* ELIMINATING MTBE STUDY 2006 at 1.

refiners sought liability protections for the continued use of MTBE in gasoline.[34] On August 8, 2005, the Energy Policy Act of 2005 was signed. The Act did not include protection against liability related to MTBE use, and removed (as of May 8, 2006) the requirement that RFG contain an oxygenate.[35] Even without the oxygenate mandate, however, refiners typically still needed to use MTBE or ethanol to produce RFG meeting the other clean air standards. The elimination of the oxygenate requirement removed a potential defense against MTBE liability. Consequently, many refiners opted to discontinue MTBE use when the oxygenate requirement expired.[36] With refiners no longer using MTBE, demand for ethanol increased significantly. Figure 3 illustrates the transition to ethanol blending by comparing weekly production of RFG blended with MTBE to RFG blended with ethanol, from January through September 2006. It shows that production of RFG blended with MTBE started to decline dramatically near the beginning of April 2006 and effectively ended by the beginning of May 2006, just before the date on which the Energy Policy Act provisions took effect.

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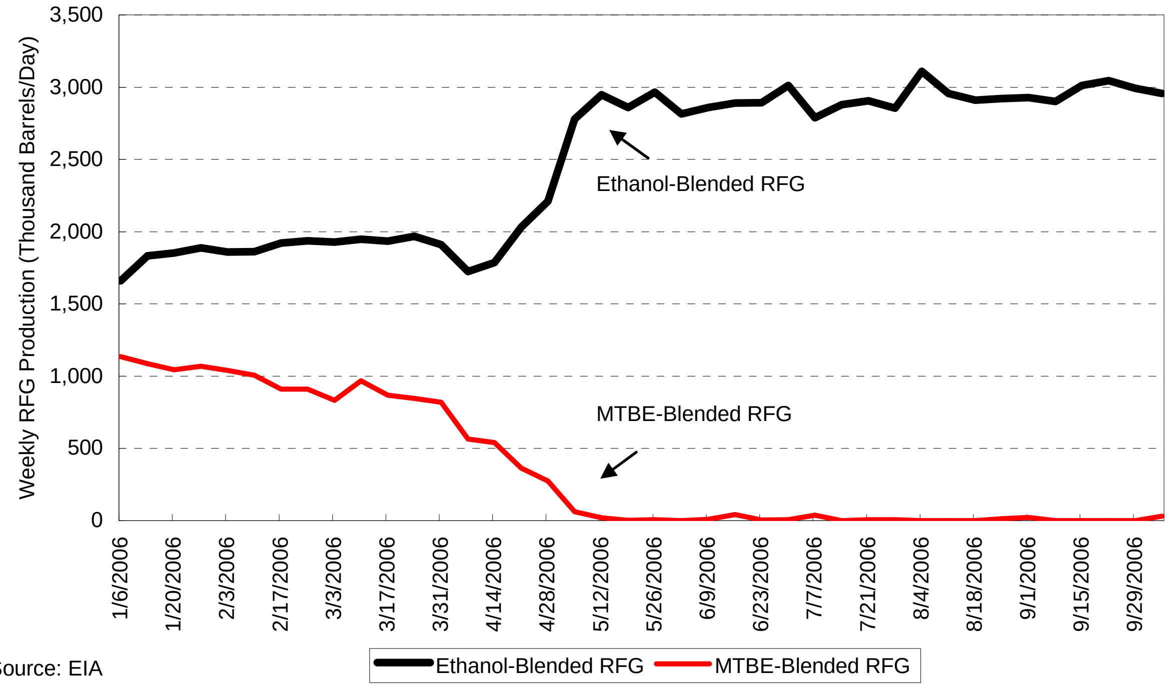
[34] *See* Phil Flynn, *Gas Spec Wreck!*, FASTBREAK: A FUTURESOURCE NEWSLETTER, Mar. 10, 2006, *available at* http://partners.futuresource.com/fbp/2006/0310.htm; Timothy B. Wheeler, *Refiners to Phase Out Use of MTBE*, BALTIMORE SUN, Feb. 17, 2006; Chris Woodyard, *Refiner's Change Could Raise Gas Prices*, USA TODAY, Aug. 5, 2005 ("One of the nation's largest refiners, Valero decided this week to stop producing and blending the additive MTBE in gasoline. The company said it was taking the action because refiners didn't receive liability protection regarding the additive in the energy bill passed last week by Congress. MTBE . . . has been blamed for polluting wells and groundwater.").

[35] The Act also required that a minimum amount of biofuels, including ethanol, be used as transportation fuels. To date, the amount used has exceeded these minimum volumes.

[36] *See Blendstocks: US MTBE Crosses the Line*, PLATTS OILGRAM PRICE REPORT at 3, Oct. 30, 2006.

Figure 3: 2006 Weekly Domestic Production of MTBE-Blended RFG and Ethanol-Blended RFG



Source: EIA

As refiners rapidly decreased their reliance on MTBE and the summer driving season began, the price of ethanol soared. Figure 4 shows the daily spot price of ethanol from January 2005 through August 2006. In February 2006, the price of ethanol averaged $2.53 per gallon. It then started a steep climb, reaching a peak of $4.23 per gallon on June 20, 2006, before dropping back to $2.55 per gallon by August 1 and to $2.33 per gallon by August 23. During the summer (May through August) of 2006, the average price of ethanol was $3.15 per gallon—about $0.62 per gallon above the price in February 2006.

Figure 4: Daily Chicago Ethanol Spot Prices,
January 2005 - August 2006

Source: OPIS

The effect of the increase in the price of ethanol on the cost of producing gasoline varied across grades depending on how much ethanol was included in the blend. Most gasoline sold in the United States is conventional (non-RFG) gasoline that contains no ethanol, although refiners in some areas produce a blend of conventional gasoline that contains 10% ethanol. Similarly, most ethanol-blended RFG contains 10% ethanol, as well. There is also a very small portion of the gasoline sold in the United States that is E-85, a blend containing 85% ethanol and 15% gasoline. Staff estimated the impact of ethanol price increases on national average gasoline prices by looking at the overall percentage of gasoline volume comprised by ethanol in the United States. In total, ethanol accounted for 3.7% by volume of the gasoline sold in the country during the spring and summer of 2006. We concluded, therefore, that the ethanol price increase of $0.62 per gallon between February 2006 and summer 2006 caused the cost of gasoline to rise on average by 3.7% of $0.62—or $0.023.[37]

D. Capacity Reductions Due to the Transition to Ethanol

In addition to higher ethanol prices directly raising the price of gasoline, refiners' transition from MTBE to ethanol diminished their ability to produce finished gasoline, and thereby reduced capacity.[38] The chemical properties of ethanol differ substantially from those of MTBE. Indeed, some of the more volatile compounds typically blended with MTBE cannot be included in the reformulated blendstock for oxygenate blending ("RBOB") that is blended with ethanol, because they make ethanol-blended RFG evaporate too readily. To reduce gasoline evaporation during the summer, environmental specifications require gasoline to maintain a lower RVP. All else equal, replacing MTBE with ethanol increases the RVP of gasoline. In order to continue to meet the summer-time RVP specifications, some of the blendstock components that were used in RFG blended with MTBE no longer can be used when RFG is made with ethanol. Such elimination of blendstock components has been estimated to reduce effective refinery capacity by up to 5-6% per gallon of ethanol-blended RBOB.[39] As domestic refiners transitioned to ethanol-blended RBOB for approximately 12.7% of their overall nationwide gasoline production, the aggregate effect was a reduction of effective U.S. refinery

[37] This assumes that the full increase in the cost of ethanol is passed through as higher gasoline prices.

[38] The transition from MTBE to ethanol had other, smaller effects on gasoline prices, as well. For example, in February 2006, ethanol also cost more than MTBE, so that even without the increase in ethanol prices, the cost for the oxygenate portion of RFG would go up as ethanol replaced MTBE. In addition, ethanol's physical characteristics (such as its affinity for water) effectively prevent it from being transported or stored with petroleum-based products. Unlike MTBE, which typically was transported in pipelines that carried other petroleum products, ethanol must be transported by rail, truck, or barge, and it requires dedicated storage and blending facilities at the terminal. *See* ELIMINATING MTBE STUDY 2006 at 4; ENERGY INFO. ADMIN., U.S. DEP'T OF ENERGY, PREPARATIONS FOR MEETING NEW YORK AND CONNECTICUT MTBE BANS, at iii, (2003), *available at* http://www.eia.doe.gov/pub/oil_gas/petroleum/analysis_publications/mtbebans/mtbebans.pdf. The use of ethanol rather than MTBE in making RFG therefore increases the cost and complexity of producing and distributing gasoline. However, while these differences may help explain local changes in gasoline prices, the impact on the national average gasoline price is likely less than $0.01 per gallon.

[39] *See* ELIMINATING MTBE STUDY 2006 at 3.

capacity of about 0.6-0.8%.[40] The effect of this capacity reduction on national average gasoline prices is discussed in Part III below.[41]

E. Further Output Reductions

There were further substantial reductions in refiners' ability to produce gasoline in the spring and summer of 2006 compared with this period during previous years. Even though operable refining capacity, measured as the amount of crude oil that a refinery can process,[42] increased by 1.5% between January 1, 2005, and January 1, 2006, gasoline production by domestic refiners fell by 0.5% in the first eight months of 2006 relative to that time period in 2005.[43] Similarly, gasoline production between April and August 2006 was roughly the same as

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[40] In 2005, 12.7% of domestic gasoline production was RFG blended with MTBE. This calculation assumes that 5-6% of those volumes will no longer be able to be made into finished gasoline that could be sold in the United States.

[41] An FTC staff analysis of data for RFG and RBOB futures scheduled for delivery between January 2001 and March 2007 provides another indication of the price impact of refiners' transition from MTBE to ethanol. The data show that, in April 2006, traders predicted an unusually large upcoming decrease in RBOB prices relative to crude oil prices in New York Harbor between summer (May 2006 and August 2006) and winter (October 2006 and January 2007), coinciding with the annual switch to winter-grade gasoline in mid-September. Thus, the traders predicted that a reduction in RBOB prices relative to crude oil prices would occur at the same time that gasoline would become easier to refine and that gasoline demand would fall relative to the peak summer demand, and, in fact, the predicted price reduction occurred. FTC staff finds the futures market data supportive of our conclusion that factors reflecting the normal operation of the market, rather than anticompetitive conduct, explain the spring and summer 2006 price increases.

[42] Operable refinery capacity includes capacity that is offline for planned or unplanned maintenance, and represents the amount of crude oil that the distillation unit can process. Constraints on other units at the refinery may also limit the amount of crude oil that a refinery can process, but these constraints would not lower the operable distillation capacity figures. Furthermore, crude distillation capacity is not the same as gasoline production capacity. An increase in crude distillation capacity may also increase gasoline production capacity, but gasoline production capacity would further depend on changes in capacity of other units at the refinery. For example, if a refiner is constrained by how much sulfur it can remove from gasoline, running more crude oil through the refinery may not increase the amount of gasoline produced; rather, it may increase the amount of off-specification product for which there is limited demand. To limit the amount of off-specification product produced, a refiner may run its crude distillation unit below capacity.

[43] The measure of gasoline production by domestic refiners referred to here is the sum of finished gasoline production and gasoline blending component production as reported by EIA, adjusted to take into account oxygenates added before the gasoline leaves the refinery. Formerly, MTBE typically was blended into gasoline at the refineries, and its volume was included in reported refinery production of gasoline. By contrast, the additive that refiners have adopted to replace MTBE–ethanol–typically is blended into gasoline after it leaves the refinery, and therefore is not included in refinery production data. Without an adjustment, this measurement would count the oxygenate portion of RFG blended with MTBE, but would not count the oxygenate portion of RFG blended with ethanol. As a result, the reported values from EIA without an adjustment show a reduction in gasoline output during

for those months in 2005, even though operable capacity increased.[44] This reduction in output relative to capacity is greater than can be explained by the effective capacity reduction due to the transition from MTBE to ethanol, discussed above.

During 2006, several U.S. refineries were unable to operate at full capacity as a result of planned and unplanned refinery outages. In general, a refinery outage may affect the entire refinery or only a portion of it. Planned outages occur when refineries shut down to perform required scheduled maintenance. Although refiners have some discretion over scheduling planned maintenance, this maintenance must occur regularly for refineries to operate safely and efficiently. Unplanned outages occur due to "exogenous" factors such as equipment failures or damage from fires, floods, or other disasters—that is, factors outside refiners' immediate control.

On the whole, domestic refining operations did not recover fully from Hurricanes Katrina and Rita until at least a year after the hurricanes struck in August and September 2005, respectively. Indeed, damage from Katrina and Rita continued to affect capacity utilization at two major Gulf Coast refineries significantly during the spring and summer of 2006.

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the first eight months of 2006 of 1.3% relative to that time period in 2005. However, this figure overstates the production decline because more RFG with MTBE was used in 2005 than in 2006. To adjust for the effect of the switch from MTBE to ethanol on refiner production, we removed the oxygenate portion of refiner domestic finished gasoline production. RFG with MTBE production, RFG with ethanol (in PADDs I through IV) production, and conventional gasoline production were adjusted down by 10%, while PADD V RFG with ethanol production was adjusted down by 5.7%. With these adjustments, gasoline production fell by 0.5%.

[44] Because refiners hold inventories of gasoline, the effect of an outage on prices is not limited to the precise time of the outage. This key feature of the industry is important in explaining many short-run movements in prices and illustrates why we have chosen to look at average prices over the summer. To analyze the impact of capacity outages on summer gasoline prices, one must identify a time period when production for the summer occurs. One basis for an estimate is the net output of normal butane and butylene, which are two of the products produced by refineries. Normal butane and butylene can be blended into winter-RVP gasoline in much greater amounts than summer-RVP gasoline (this is one of the reasons for the normal seasonal variation discussed above). A significant increase in normal butane and butylene output signals that refiners are not using as much to blend with gasoline. This increase, therefore, indicates that refiners are switching production from winter gasoline to summer gasoline. EIA data suggest that refiners predominantly blend summer gasoline from April through August, and winter gasoline from November through January. For February, March, September, and October, there appears to be some production of summer- and some production of winter-RVP gasoline.

BP's refinery in Texas City, Texas—one of the largest refineries in the United States[45]—undertook a precautionary shutdown as Hurricane Rita approached. Problems with the shutdown caused extensive damage to many of the refinery's gasoline production units.[46] The refinery remained closed through the end of 2005 and much of the spring of 2006[47] before coming partially back on line, operating at roughly half capacity through the summer.[48]

The other refinery to suffer a significant continuing outage—Murphy Oil's 120,000-barrel-per-day refinery at Meraux, Louisiana—was devastated by Hurricane Katrina and remained shut down into the spring of 2006. It restarted some operations in April of 2006, but did not reach full production until late summer.[49]

In addition, as discussed in the FTC's post-Katrina report, many U.S. refineries deferred maintenance during the fall and winter of 2005 and early 2006 in order to continue operations while damaged Gulf Coast refineries were shut down due to Hurricanes Katrina and Rita.[50] These refineries generally needed to take longer outages than normal once deferred maintenance

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[45] The Texas City refinery had refining capacity of 437,000 barrels per day, or 2.6% of domestic U.S. refining capacity, as of the beginning of 2006.

[46] *See* BP, 2005 SEC FORM 20-F at 46 (Annual report), *available at* http://www.sec.gov/Archives/edgar/data/313807/000115697306000772/u50124e20vf.htm.

[47] *See BP First Quarter Oil, Gas Output Below Last Year; Hurricane-related Outages in U.S. Gulf Persist*, PLATTS OILGRAM NEWS at 6, Apr. 6, 2006. *See also Some U.S. Gulf Coast Refiners Still Recovering from 2005 Storms*, PLATTS OILGRAM PRICE REPORT at 2, Jun. 12, 2006.

[48] *See Ten Months After Rita, BP's Texas City Refinery Limps On*, PLATTS OILGRAM NEWS at 1, Jul. 14, 2006. According to press reports, BP's refinery was already running below capacity before the hurricanes due to an explosion in the spring of 2005. *See Refinery Updates*, PLATTS OILGRAM PRICE REPORT at 11, Jun. 2, 2006. Although the hurricane-related outages were more severe in February 2006 than in the summer, the effect of a reduction in capacity is much greater during the summer months, when demand is higher.

[49] *See* Murphy Oil 2006 SEC FORM 10-K at 6, *available at* http://www.sec.gov/Archives/edgar/data/717423/000119312507044355/d10k.htm. *See also Some U.S. Gulf Coast Refiners Still Recovering from 2005 Storms*, PLATTS OILGRAM PRICE REPORT at 2, Jun. 12, 2006.

[50] FTC HURRICANE REPORT at 75-76.

was scheduled and took place.[51]

Other refineries shut down during the spring of 2006 in order to make system upgrades enabling them to meet more stringent ultra low sulfur diesel regulations that became effective on June 1 of that year. Due to the switch to ultra low sulfur diesel, many refineries required more planned maintenance in the first half of 2006 than normal.[52] Aside from these planned outages for required maintenance, there were reports of a number of other refineries experiencing outages due to equipment failures, fires, and other unanticipated events.[53]

In sum, if it were not for the outages described here, refining capacity—and likely, gasoline output—during the spring and summer of 2006 would have exceeded that for the same period during 2005. Based on the refiner production data and other information that staff obtained, we concluded that a minimum of 1.6% of capacity was not operative during the first eight months of 2006.[54] This reduction in available capacity was much larger than the actual reduction in refinery output, indicating that other refineries must have increased production during this timeframe.[55] Moreover, by the end of the summer of 2006, monthly domestic

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[51] Statement of Howard Gruenspecht, Deputy Administrator, Energy Info. Admin., U.S. Dep't of Energy, before the Committee on Energy and Commerce, U.S. Congress (May 10, 2006), *available at* http://energycommerce.house.gov/reparchives/108/Hearings/05102006hearing1869/Gruenspecht.pdf.

[52] *See* Fuel Focus, Natural Resources Canada, *Refinery Utilization Rates*, PETROLEUM MARKET OUTLOOK, April 2006, *available at* http://fuelfocus.nrcan.gc.ca/reports/2006-04/rates_e.cfm. *See also* Energy Info. Admin., U.S. Dep't of Energy, THE TRANSITION TO ULTRA-LOW-SULFUR DIESEL FUEL: EFFECTS ON PRICES AND SUPPLY, *available at* http://www.eia.doe.gov/oiaf/servicerpt/ulsd/index.html. *See also REFINING NETBACKS: Buying Markets*, OIL MARKET INTELLIGENCE, June 15, 2006, and *Follow my Leader*, ENERGY COMPASS, June 23, 2006.

[53] In particular, California experienced a price spike relative to the rest of the country from April 2006 through June 2006. The California Energy Commission studied this price spike and concluded that it resulted from an unusually large number of refinery outages in California in April, as well as other ordinary market effects. The California Energy Commission did not find any evidence that the outages were deliberate attempts to raise prices. *See* CEC STUDY 2006. Other areas of the country also experienced unplanned refinery outages. *See Crude Futures Reach New Highs; Gasoline Soars on Refinery Problems*, PLATTS OILGRAM NEWS at 1, Apr. 19, 2006.

[54] The identified decline in the ability to produce gasoline would be expected to result in a decline in domestic refiner gasoline production, unless other unaffected refiners substantially increased production.

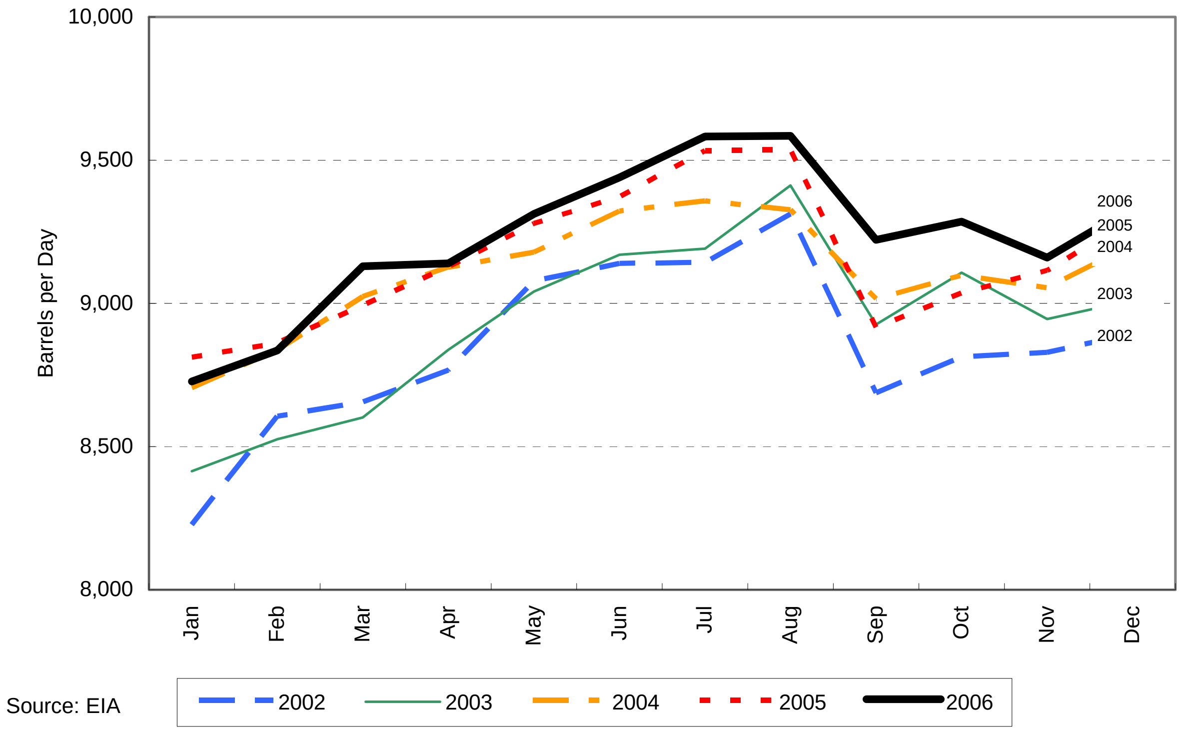
[55] This increased production by other refiners could result either from increased capacity or from increased capacity

gasoline production increased to levels above those in 2005.[56] Nevertheless, the capacity reduction we describe here had a significant impact on gasoline prices during the spring and summer of 2006, as described below in Section III.

F. Increased Demand

The previous two capacity-related factors decreased refiners' ability to produce gasoline in 2006. Meanwhile, the demand for gasoline increased. Potential reasons for the increase in demand for gasoline include population growth and an increase in miles driven. Figure 5 shows U.S. monthly gasoline consumption for the years 2002-2006.

Figure 5: Monthly Gasoline Consumption 2002 - 2006



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utilization.

[56] Although the lingering hurricane-related outages described in the report were resolved by the end of the summer of 2006, several of the other factors (*e.g.*, higher crude and ethanol prices, capacity reductions stemming from the transition from MTBE to ethanol, and increased demand) continued to place upward pressure on prices as compared with the previous year. Therefore, although prices fell substantially by the end of September 2006, they did not fall below 2005 (pre-hurricane) levels.

During the summer of 2006, while gasoline prices averaged 26% higher than in the summer of 2005, consumers still purchased 0.5% more gasoline. This increase in the quantity of gasoline purchased can be thought of as reflecting the net effect of two factors: (1) the increase in demand that would have occurred if the price had remained constant, and (2) the decrease in quantity demanded due to the higher price. All else equal, we would expect a 26% increase in prices to decrease consumption by 1.3-2.6%.[57] Because actual consumption was 1.8-3.2% higher than these levels, we estimate that the increase in demand that would have occurred if gasoline prices had remained constant was within this same range (1.8-3.2%).

"Nameplate capacity" (or the maximum amount of crude oil that U.S. refiners can process in their crude distillation units) also increased in 2006, but by a lesser amount—1.5%. If the amount demanded at a constant price increased only by this same percentage, and if the increase in nameplate capacity led to a similar increase in gasoline production, then no further upward pressure on prices would have resulted. However, our estimate of the increase in demand at a constant price is 0.3-1.7% higher than the 1.5% increase in nameplate capacity. All else equal, we would expect this type of increase in demand above the increase in capacity to increase gasoline prices. The quantitative impact is discussed in Section III, below.

III. The Combined Effect of the Six Factors

Of the six major factors that contributed to the price increases during the spring and summer of 2006, the quantitative impacts of the first three were relatively straightforward to

[57] This decrease in consumption is based on a range of short-run elasticity of demand for gasoline of between -0.05 and -0.1. This range of elasticity estimates is comparable to that found in a recent study by Jonathan E. Hughes, Christopher R. Knettel, and Daniel Sperling, *Evidence of a Shift in the Short-Run Elasticity of Gasoline Demand*, forthcoming in THE ENERGY JOURNAL, *available at* http://www.econ.ucdavis.edu/faculty/knittel. By definition, the elasticity of demand is the percentage change in the quantity demanded divided by the percentage change in price. Thus, to determine the percentage effect of a price increase on the quantity demanded, one multiplies the elasticity by the percentage change in price. In this case, the percentage change in demand of -1.3% is calculated as -0.05 multiplied by 26%; the change of -2.6% is calculated as -0.1 multiplied by 26%. In the past, FTC staff also has used demand elasticities of -0.2, in which case the demand growth would be 6.0%.

estimate. As discussed earlier, staff estimated that seasonality (the switch from winter- to summer-grade gasoline) explains national average gasoline price increases ranging from $0.14-$0.21 per gallon. Increases in the price of crude oil explain an additional $0.26 per gallon increase in prices, while increases in the price of ethanol add another $0.02 per gallon. We estimated that these three factors, taken together, increased gasoline prices from the February average of $2.28 per gallon to between $2.70 and $2.77 per gallon. The routine effects of summer seasonality, coupled with increases in the prices of inputs (crude oil and ethanol), therefore explain 68-79% of the increase in gasoline prices that occurred between February 2006 and summer 2006.

Staff further concluded, based on our economic analysis, that reductions in capacity due to the transition to ethanol, other output reductions described previously, and increased overall demand, in combination, are sufficient to explain the remaining 21-32% of the national average gasoline price increases during the spring and summer of 2006. Economic theory indicates that when realized demand is greater than normal (due to outside factors that influence the demand for gasoline) and planned productive capacity falls short of realized demand, prices often rise substantially in the short run.[58] Prices also can rise in the short run if demand exceeds capacity because of a temporary decline in productive capacity. As discussed in Sections II.E and II.F, all of these events occurred during the spring and summer of 2006.[59] These factors' combined impact is comparable to a 2.5-4.1% reduction in productive capacity—that is, the sum of the upper and lower bounds of the ranges mentioned above (0.6-0.8% due the conversion to ethanol,

[58] The tendency for gasoline spreads to increase in the summer (or for the price of many goods to be higher at times of peak demand) is another example of the same phenomenon. Over the long run, competition leads to a level of capacity that enables producers to earn a competitive rate of return. These earnings are realized over the life of an investment, not at each moment in time.

[59] Although nameplate capacity increased between 2005 and 2006, refiners' actual ability to produce gasoline decreased due to the exogenous refinery outages and the transition from MTBE to ethanol.

1.6% due to refinery outages, and 0.3-1.7% due to the increase in demand relative to the increase in capacity).

The quantitative price effect of a reduction in productive capacity depends on the relevant demand elasticity (a measure of how much consumers reduce gasoline consumption as prices increase) and how aggressively the unaffected foreign and domestic refineries increase output in response to the resulting increases in prices. Using a demand elasticity of -0.05,[60] without any response from importers or other domestic refiners, the 2.5-4.1% decrease in gasoline production described above could increase national average gasoline prices by as much as $1.35-$2.21 per gallon.[61] An increase in imports, however, and increases in production by domestic refineries that were unaffected by the hurricanes and other problems, explain why these factors in fact appeared to increase prices by only $0.13-$0.20 per gallon. Indeed, increased imports during the summer of 2006 played an important role in preventing U.S. gasoline prices from rising higher than they did. In 2006, imports of gasoline and blending components were about 13% higher during May, June, and July, compared with the same period in 2005.

IV. Conclusion

In the spring and summer of 2006, gasoline prices rose nationwide as refiners experienced a series of shocks: increases in the prices of inputs such as crude oil and ethanol, declines in capacity due to the substitution of ethanol for MTBE, and persistent refinery damage associated with Hurricanes Katrina and Rita and other unanticipated events. These factors, together with increased demand for gasoline and the yearly required transition from winter- to summer-grade gasoline, placed upward pressure on gasoline prices during the spring and summer of 2006. The fact that the price increases were a worldwide phenomenon, coupled with

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[60] *See* n.57.

[61] We note that with a demand elasticity of -0.1, the range would be $0.68-$1.11.

evidence that U.S. refiners increased output once their refineries were repaired and back online, tends to support our conclusion that the 2006 price increases were caused by a confluence of factors reflecting the normal operation of the market and also tends to explain why we did not find evidence that those price increases were caused by activities that violate the antitrust laws.

The Commission continues its efforts to identify, prosecute, and prevent any unlawful anticompetitive practices or mergers within the oil industry. The agency's program of policing anticompetitive conduct in petroleum markets includes continuous examination of price movements and other activity to identify any that may not reflect the normal workings of competition. As stated previously, the Commission actively investigates price anomalies that it detects, as illustrated by its current investigation into bulk supply and demand conditions and practices for gasoline and diesel fuel in the Pacific Northwest. The Commission will take immediate action if these efforts reveal possible use of illegal anticompetitive practices, and will refer potential criminal matters to the Department of Justice, which has exclusive federal jurisdiction to bring such cases, and to appropriate state and local authorities.