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Gasoline Prices: Policies and Proposals

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SUMMARY

In the spring of 2004 gasoline prices increased rapidly to record high levels (in nominal terms) of over $2.00 per gallon. The increase took place as the Congress continued consideration of major energy legislation containing numerous provisions which would affect gasoline supply and demand.

A large number of factors combined to put pressure on gasoline prices, including increased world demand for crude oil and U.S. refinery capacity inadequate to supply gasoline to a recovering national economy. The war and continued violence in Iraq added uncertainty and a threat of supply disruption that added pressure particularly to the commodity futures markets.

Numerous provisions in current legislative proposals would address perceived problems in the oil and gasoline markets. A comprehensive energy policy bill, H.R. 6, has been reported out of conference and approved by the House, but several issues have kept the bill from passing the Senate. Among the most controversial are provisions regarding the use of ethanol and the additive methyl tertiary butyl ether (MTBE) in motor fuel, proposals to open up part of the Arctic National Wildlife Refuge (ANWR) to oil and gas development, measures concerning corporate average fuel economy (CAFE) standards, and proposals to aid construction of new refineries and to harmonize state "boutique fuels" standards.

The gasoline price surge heightened discussion of energy policy, but the urgency of previous energy crises has been lacking. In part this may be due to the fact that there has been no physical shortage of gasoline, and no lines at the pump. In addition, the expectation of former crises, that prices were destined to grow ever higher, has not been prevalent.

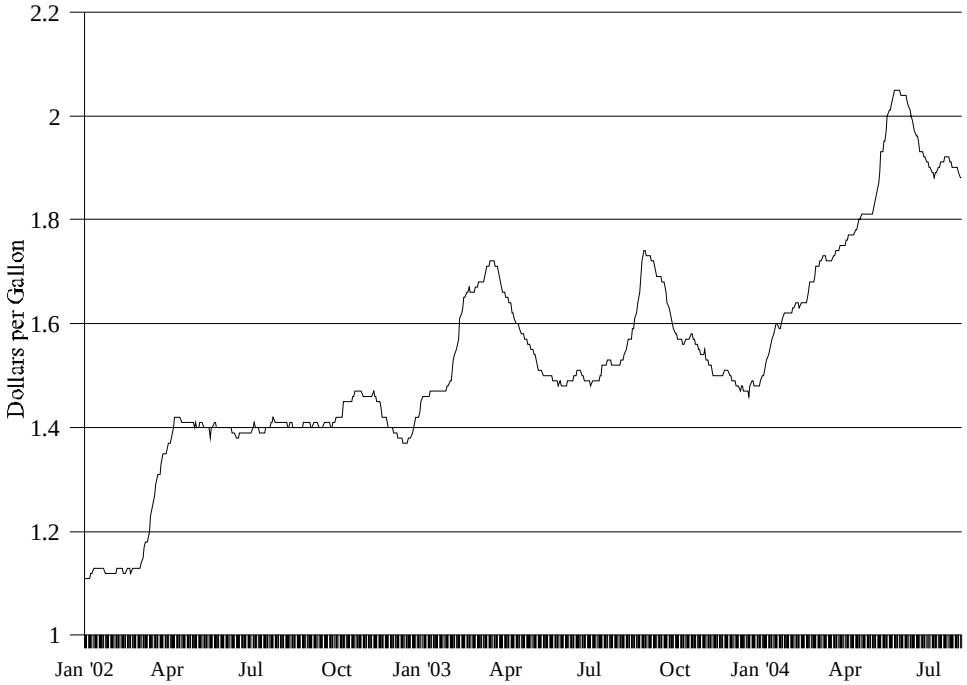
MOST RECENT DEVELOPMENTS

In late July, as problems between the Russian oil giant Yukos and the Russian government threatened to disrupt oil production, crude oil future prices pushed to a record high of $43 per barrel. A week later the price went even higher, to $44.34 on the New York Mercantile Exchange, driven in part by heightened terrorist alerts in New York and Washington. Gasoline prices did not immediately follow suit, however.

BACKGROUND AND ANALYSIS

The run-up of gasoline prices in the spring of 2004 (see **Figure 1**) climaxed a period of almost five years during which gasoline prices demonstrated a great deal of regional volatility but less of an increase at the national level. This year a large number of factors combined to exert pressure on gasoline prices in all parts of the country. Some of these factors have affected the price of crude oil, and others the cost of producing and marketing gasoline.

Figure 1. Average Daily Nationwide Price of Unleaded Gasoline, 2002 - Present



Note: Prices include federal, state and local taxes.
Source: *Daily Fuel Gauge Report*, American Automobile Association, [http://www.fuelgaugereport.com] compiled by CRS.

Past energy crises have demonstrated that oil is traded in a world market, in which events in remote areas affect the price of crude for almost everyone. In the past 12-18 months, these events have included:

- Decisions by the Organization of Petroleum Exporting Countries (OPEC) cartel, after having reduced production quotas in 2002, to raise them only slowly and reluctantly;

- Unexpected demand growth in China;

- Disruptions in oil production in major exporters, including Venezuela, Iraq and Nigeria;

- Decline in the value of the U.S. dollar, the currency in which oil is traded in the world market, compared to other major currencies, particularly the Euro.

- Uncertainty and fear of major disruptions in Iraq and Saudi Arabia, in the context of the war in Iraq and the threat of terrorism.

As often happens when commodity prices are volatile, speculation in futures contracts has accentuated the upward price pressure and may likely continue high prices longer than would be expected as market fundamentals push toward lower prices. Secretary of Energy Spencer Abraham, criticizing speculation in oil markets, asserted that the price of oil was $10 per barrel too high because of the possibility of disruptions in supply.[1]

Just as a number of factors have led to increased crude prices, a combination of features in the U.S. refinery industry has made production of gasoline costly.

- U.S. demand for gasoline has increased as economic growth has resumed.

- Domestic refining capacity has declined, both in number of refineries — from 324 in 1981 to 153 in 2002 — and in total capacity — from 18.62 million barrels per day (mbd) in 1981 to 16.78 mbd in 2002.

- The structure of the refining industry has changed. In 1981 most refining capacity was owned and operated by integrated oil companies that supplied their own crude oil, refined it, distributed it, and marketed the products. Refining was only one part of the company's profit-making operation, and frequently was not an important profit maker. Now the refining industry is characterized more by independently owned, nonintegrated firms. When refineries are the sole source of revenue to the owners, it becomes more important that the operation be profitable, leading to pressure to raise prices.

- The refining industry has been operating with lower inventories of both crude oil and gasoline, as a means of cutting costs. The side effect has been reduced ability to meet unanticipated demand, leading to greater price pressure.

[1] "Abraham criticizes high cost of oil," *Washington Times,* July 7, 2004, p. A1.

- Gasoline markets are fragmented regionally because air quality requirements have led to numerous different formulations to meet varying standards. In meeting demand for these regional formulations, called "boutique fuels," refiners lose flexibility to meet local variations in demand elsewhere, leading to increased price pressure.

- With domestic refining capacity constraints, a greater proportion of gasoline demand is being met with imported products. Foreign refiners typically manufacture products designed to sell in the international market, not the special product "boutique fuels" demanded by a significant share of the U.S. market.

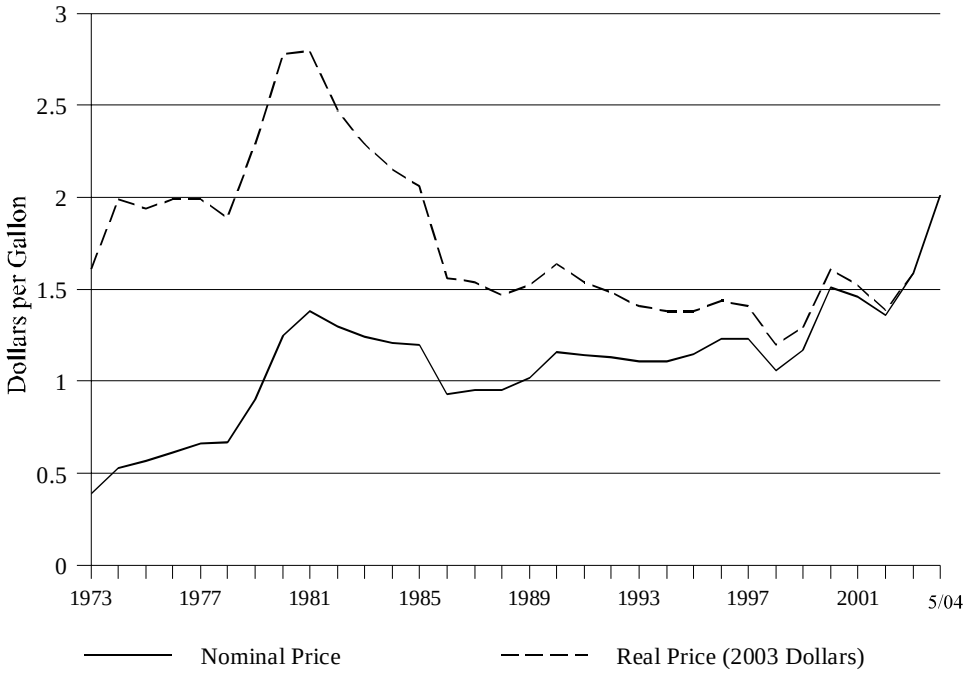
- Refiners have had increased costs in the past year to comply with new requirements to limit sulfur content and to switch from the oxygenate additive MTBE to ethanol.

These various factors pushed the nationwide average price of gasoline over $2 per gallon in May 2004. By mid-June, Energy Information Administrator Guy Caruso was able to note a slight decline in prices, and tell a Senate Energy Committee hearing that, "absent major disruptions, oil and gasoline markets may be turning a corner."[2]

The price surge intensified discussion of energy policy and led to further calls for passage of energy legislation. However, the urgency of previous energy crises has been lacking. In part this may be because, although the price of gasoline in nominal terms set a record, in real terms it was less than in the Iranian crisis years of the early 1980s. (See **Figure 2**.) Further, unlike the earlier crises, there was no physical shortage of gasoline, and no lines at the pump. In addition, as **Figure 3** indicates, the proportion of consumer expenditure on oil and gasoline remained low compared to the earlier years. Perhaps most important, the common view during the earlier crises was that oil prices not only were high, but were destined to become ever higher in the coming years. This view is no longer prevalent, and the general expectation has been that the run-up of prices in 2004 is a temporary phenomenon.

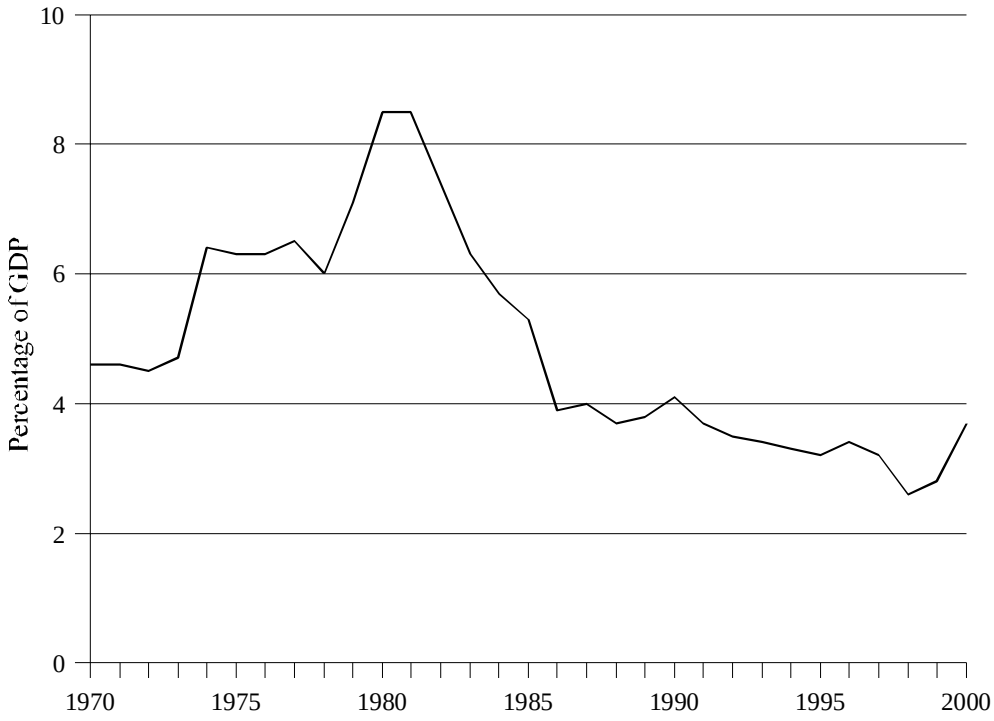
[2] Caruso, Guy. Statement before the Senate Committee on Energy and Natural Resources, June 15, 2004.

Figure 2. Nominal & Real Price of Gasoline, 1973-2003 & May 2004



Source: EIA, *Monthly Energy Review*, July 2004, Tables 1.6 and 9.4, calculated by CRS.

Figure 3. Consumer Spending on Oil as % of GDP, 1970 - 2000



Source: EIA, *Annual Energy Review* 2002, Table 3.4.

Policy Options

The several energy crises of the past led to major legislative action, twice in the 1970s and once following the 1991 Gulf War. The current legislative situation differs from the previous actions because the Congress had been considering major energy legislation for three years before the crisis became a nationwide concern. The various versions of a comprehensive energy bill, which now appears unlikely to pass in the 108th Congress, all contain measures addressing some of the problems putting pressure on gasoline prices. In addition, a number of stand-alone legislative proposals to deal with the some of the specific problems noted above have been introduced.

As in previous legislative energy debates, a major policy divide exists between those who view the gasoline-fueled automobile as a temporary necessity to be tolerated only until a substitute fuel or alternative means of transportation can be developed, and those who expect oil to be the same dominant transportation fuel in the indefinite future that it is at present. Compromise agreements have been reached via a combination of measures that enhance the development of alternatives or restrain the growth in demand for oil, on the one hand, and those that increase production or reduce the cost of supplying that demand, on the other. However, individual measures often carry with them complicating features that make consensus more difficult. In addition, major legislation often becomes the vehicle for measures that typically would not find enough support to pass as individual bills, or which may be added to gain support for the whole measure. In the current legislative effort, balancing the various interests involved has so far proved too difficult a task, despite the influence of a nationwide energy crisis in an election year.

A policy debate that has not had a legislative component involves the Strategic Petroleum Reserve (SPR). The Bush Administration has continued to add to the SPR during the period when the price of crude oil has been rising. This policy has led to calls in some quarters to stop the fill and even to draw down the reserve to ease upward price pressure.

Status of Legislation

Several versions of omnibus energy legislation are before the Congress, but none appears likely to be approved by both Houses during the current session. The House passed its version of the bill, H.R. 6, in April 2003, and the Senate went to conference after passing the text of a bill approved in the previous Congress. The conference committee reported a bill in November, and the House quickly approved the conference report, but in the Senate an attempt to invoke cloture on debate on the conference bill failed. In February 2004 Senator Domenici introduced a bill, S. 2095, dropping some provisions that had been controversial, but the bill did not gain enough support to make it to the floor. The Senate then attached a number of tax provisions in the omnibus bill to another tax measure. Meanwhile, the Republican House leadership led an “Energy Week” campaign in June, voting again to approve the conference bill.

Major Oil-Related Issues

A number of issues have been major barriers to passage of omnibus energy legislation. Provisions to continue the restructuring of the electric power industry have been and continue

to be controversial. Among oil-related issues, proposals to open part of the Arctic National Wildlife Refuge (ANWR) to oil and gas development, and measures concerning Corporate Average Fuel Economy (CAFE) standards have stimulated major debate. But the primary stumbling block has been the issues involving ethanol as an automobile fuel, and the problems involving a gasoline fuel additive MTBE.

Ethanol and MTBE. The roots of the controversy lie in the Clean Air Act Amendments of 1990, which mandated that "reformulated" gasoline required in some localities to improve air quality contain 2% oxygen. This requirement could be met by adding ethanol to gasoline, but it could also be achieved by adding a substance called methyl tertiary butyl ether (MTBE), which had been produced in small quantities for many years as an octane enhancer. Because MTBE was cheaper than ethanol and was easier to mix and transport than ethanol, many refiners began using it to meet the new standards.

However, as its use spread, it became apparent that MTBE tended to escape easily from its fuel carriers and storage tanks, and contaminate water supplies, imparting a taste and odor that was unpalatable even in small quantities. This development led to moves to restrict and prohibit the use of MTBE. It also led a number of communities to sue refiners for the cost of decontaminating their water supply. At the same time, evidence began to accumulate that oxygenating gasoline was not necessary to achieve the air quality benefits of reformulated gasoline.

The omnibus energy bills addressed this changing situation by repealing the oxygenation requirement in the Clean Air Act, but adding a new mandate that gasoline have an increasing amount of renewable fuel, presumably ethanol. Consumption of ethanol in gasoline in 2002 was 2.1 billion gallons. Under the Renewable Fuel Standard, the amount required to be consumed would be 3.1 billion gallons in 2005 and 5.0 billion gallons by 2012. This would still be a small proportion of the total amount of gasoline consumed, which was close to 150 billion gallons in 2004, but was expected to stimulate the ethanol industry and the agricultural sector that supplies it. It was opposed by oil industry interests, who complained of the mandated increase in consumption of ethanol, which receives a substantial tax credit. Some suggested that it would raise prices locally, despite the subsidy.

The most controversial measure in the bills was a so-called "safe harbor" provision from product liability lawsuits for producers of MTBE and renewable fuels. The measure was in the original House version of H.R. 6, and remained in the conference bill, where it was a major factor in the failure to invoke cloture in the Senate. It was dropped from S. 2095 in an attempt to get the bill through the Senate, but on the House side supporters of MTBE producers have declared opposition to any bill that does not contain a safe harbor provision.

ANWR. Oil and gas exploration and development of part of the Arctic National Wildlife Refuge has been controversial for many years. It was part of the early proposals for legislation that eventually became the Energy Policy Act of 1992, but was dropped in the face of strong opposition in both Houses. Support for action grew gradually through the decade, along with technological developments that advocates claimed would reduce the environmental impact of development, and in August 2001 the House included a development measure in its version of an omnibus energy bill. A similar measure was part of the House-passed bill H.R. 6 in the 108th Congress. However, opposition in the Senate

has kept the measure from the floor, and it was dropped from the conference version of H.R. 6.

CAFE. Fuel economy standards also have a long history of controversy, going back to their establishment in the 1970s. Proposals to mandate new standards were also considered, but dropped, early in the development of the 1992 Energy Policy Act. In the mid-1990s the National Highway Traffic Safety Administration (NHTSA) was considering a rulemaking that would result in increased standards for light duty trucks (including sports utility vehicles), but for several years the Congress included in its annual appropriation for NHTSA a prohibition to analyze or undertake such a ruling. That prohibition has been dropped in current NHTSA appropriations, and a final rule issued by NHTSA in April 2003 requires a boost in light truck fuel economy to 22.2 miles per gallon by Model Year 2007. Early versions of the omnibus energy legislation mandated specific increases in light truck fuel economy, but the current versions of H.R. 6 merely amend slightly the criteria NHTSA must follow in its rulemaking and authorizes appropriations of $2 million annually through FY2008 for that purpose.

Other Oil and Gasoline Measures.

Other provisions in H.R. 6 related to petroleum include:

- The federal government would be allowed to continue to receive physical quantities of oil and gas as royalty-in-kind payments instead of cash payments for royalties on leased federal property.
- Royalties for certain types of leases such as marginal wells could be lowered or terminated.
- Regulatory requirements would be eased for some oil and gas activities such as hydraulic fracturing and construction of exploration and production facilities.
- The system of leasing and permitting access to federal lands for oil and gas development would be amended.
- Several provisions would amend statutes concerning alternative-fueled vehicles.
- Proliferation of state "boutique fuels" requirements would be discouraged and a study of "harmonization" of current fuel controls would be mandated.
- Several tax provisions would aid production for some oil and gas properties, such as marginal wells. Tax credits for hybrid vehicles would be continued.

In addition to H.R. 6, the House in June passed H.R. 4517, the U.S. Refinery Revitalization Act, which would ease regulatory requirements for construction of new refineries in areas of high unemployment. It also debated H.R. 4545, the Gasoline Price Reduction Act, which would act to reduce the proliferation of boutique fuels, under

suspension of the rules, but the 236-194 vote failed to gain the two-thirds majority required for passage.

Another bill, H.R. 4529, the Arctic Coastal Plain and Surface Mining Improvement Act, would have authorized drilling in ANWR and designate revenues from bonuses and leases there to fund the health benefits program of retired mineworkers. However, the United Mine Workers of America opposed the bill as too risky a funding source for the health benefits program, and the bill was not taken up on the floor.

LEGISLATION

H.R. 6, House Version (Tauzin)/H.R. 6, Senate Version (Domenici)

Omnibus Energy Bill. Introduced April 7, 2003; referred to Committee on Energy and Commerce and several other committees. Passed House, amended, April 10. Senate version incorporates text of omnibus energy bill (H.R. 4) that the Senate adopted in the 107th Congress. Passed Senate July 31, in lieu of S. 14. Conference reported (H.Rept. 108-375) November 18. House approved November 18. Senate cloture motion failed (57-40) November 21.

H.R. 4517 (Barton)

To provide incentives to increase refinery capacity in the United States. Introduced June 4, 2004; referred to the House Energy and Commerce Committee. Passed House, without amendment June 16, 2004. In Senate, referred to the Committee on Environment and Public Works, June 16, 2004.

H.R. 4529 (Pombo)

To provide for exploration, development, and production of oil and gas resources on the Arctic Coastal Plain of Alaska, to resolve outstanding issues relating to the Surface Mining Control and Reclamation Act of 1977, to benefit the coal miners of America, and for other purposes. Introduced June 9, 2004; referred to the House Resources and House Ways and Means Committees. June 15, 2004 Rule H.Res. 672 providing for consideration of H.R. 4529 passed House.

H.R. 4545 (Blunt)

To amend the Clean Air Act to reduce the proliferation of boutique fuels, and for other purposes. June 14, 2004 Introduced and referred to the House Energy and Commerce Committee. June 16, 2004 Failed of passage/not agreed to in House: On motion to suspend the rules and pass the bill Failed by the Yeas and Nays: (2/3 required): 236 - 194.

S. 2095 (Domenici)

To enhance energy conservation and research and development and to provide for security and diversity in the energy supply for the American people. February 23, 2004, read the second time. Placed on Senate Legislative Calendar under General Orders. Calendar No. 432.

FOR ADDITIONAL READING

CRS Issue Briefs

CRS Issue Brief IB10116. *Energy Policy: The Continuing Debate and Omnibus Energy Legislation*, by Robert L. Bamberger.

CRS Issue Brief IB10054. *Energy Tax Policy*, by Salvatore Lazzari.

CRS Issue Brief IB87050. *Strategic Petroleum Reserve*, by Robert Bamberger.

CRS Issue Brief IB10111. *Arctic National Wildlife Refuge (ANWR): Controversies for the 108th Congress*, by M. Lynne Corn, Bernard A. Gelb, and Pamela Baldwin.

CRS Reports

CRS Report RL32343. *Gasoline Price Surge Revisited: Crude Oil and Refinery Issues*, by Lawrence Kumins and Robert Bamberger

CRS Report RL32358. *The Strategic Petroleum Reserve: Possible Effects on Gasoline Prices of Selected Fill Policies*, by Robert Bamberger and Robert L. Pirog.

CRS Report RL32248. *Petroleum Refining: Economic Performance and Challenges for the Future*, by Robert L. Pirog.

CRS Report RL31361. *"Boutique Fuels" and Reformulated Gasoline: Harmonization of Fuel Standards*, by Brent D. Yacobucci.

CRS Report RL32042. *Energy Tax Incentives in H.R. 6: The Conference Agreement as Compared with the House Bill and Senate Amendment*, by Salvatore Lazzari.

CRS Report RL32204. *Omnibus Energy Legislation: Comparison of Non-Tax Provisions in the H.R. 6 Conference Report and S. 2095*, by Mark Holt and Carol Glover, Coordinators.