

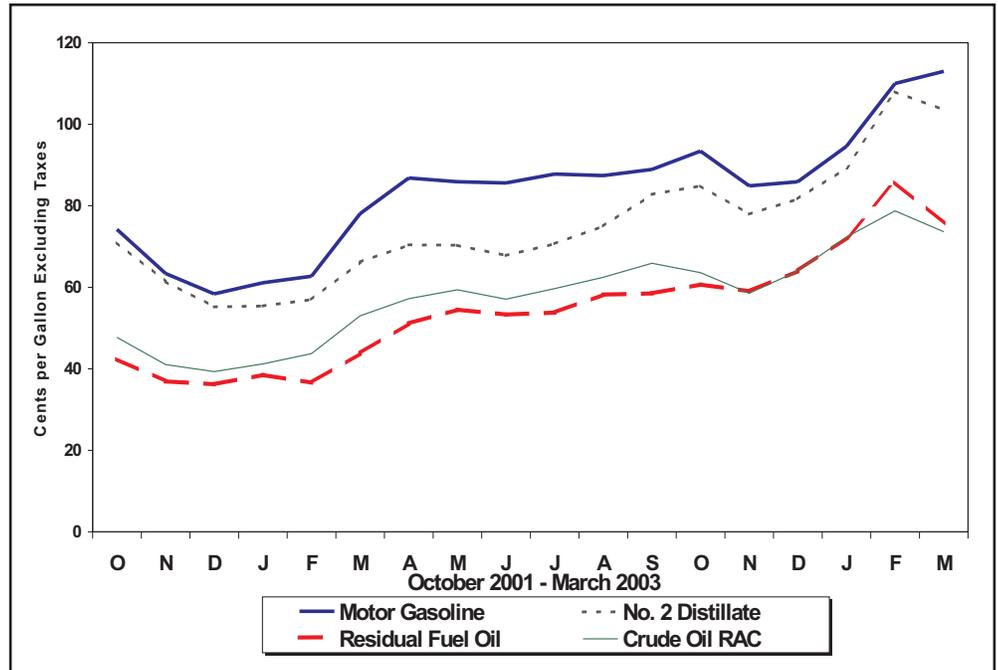
Highlights

International crude oil prices were in a state of flux during March, as a variety of market fundamental factors that had underpinned the dramatic growth in prices during the past few months changed. Additionally, the U.S. invasion of Iraq had significant effect on market prices. More specifically, the “war premium” that had helped support a higher level of prices recently, lost a good deal of influence once the military action began. The premium is generally understood to have consisted of costs above the actual fundamental market value of crude oil, based principally on concern that a military conflict in the Middle East could interrupt production and shipments of oil from the region. Shortly after it became clear following a speech by President Bush on March 17 that the United States intended to move ahead with the invasion at mid-month, prices for key crude oil streams began a substantial decline. Fears that the supply of crude oil from that region would be adversely affected appeared to be unfounded, spurring the steep drop in prices. Further, data suggest world oil production increased more than 2 million barrels in February and by a moderate amount again in March. In addition to indications from the Organization of Petroleum Exporting Countries (OPEC) earlier in the month that it would suspend production limits if needed, considerable amounts of crude oil from Middle Eastern sources already in transit prior to the military action in Iraq also began to reach foreign ports, particularly in the U.S. Additionally, reports suggested oil production in Venezuela had recovered substantially from effects of the labor strike that began in December 2002. The increase in supply also coincided with the typical seasonal decline in demand. In contrast to those issues, political unrest in Nigeria caused a decline in that country’s oil pro-

duction during March and helped to check the decline in crude oil prices. Further, the pace of the war in Iraq—initially assumed to be a very short-lived matter—slowed, providing a bullish factor for market prices.

In the United States, crude oil and finished product prices underwent significant changes during March. Issues such as relief from harsh winter conditions across much of the country, warmer temperatures in the Northeast, rising stocks of crude oil and refined products, and increasing refinery utilization all helped to lead product prices much lower in most regional markets. Prices were also affected by the start, and progression of the war in Iraq. An examination of month-to-month and year-ago spot market prices at New York Harbor illustrates the unsettled atmosphere in petroleum markets during March. While the average price for regular gasoline was 95.5 cents per gallon

Figure HL1. Crude Oil and Petroleum Product Wholesale Prices



Sources: Energy Information Administration. Crude oil refiner acquisition cost: Form EIA-14, “Refiners’ Monthly Cost Report”; petroleum product prices: Form EIA-782A, “Refiners’/Gas Plant Operators’ Monthly Petroleum Product Sales Report.”

Table HL1. U.S. Refiner Prices and Volumes of Petroleum Products

(Prices: Cents per Gallon Excluding Taxes, Volumes: Million Gallons per Day)

Products	Sales to End Users						Sales for Resale					
	March 2003		February 2003		March 2002		March 2003		February 2003		March 2002	
	Price	Volume	Price	Volume	Price	Volume	Price	Volume	Price	Volume	Price	Volume
Motor Gasoline	129.9	61.6	122.1	60.9	87.3	62.8	113.0	287.7	110.0	288.5	78.1	299.8
Conventional	123.6	35.8	119.5	34.2	84.3	36.2	106.7	187.5	106.8	186.5	75.5	195.5
Regular	121.0	28.3	117.0	26.9	81.4	27.4	105.4	158.8	105.4	156.0	73.9	160.3
Midgrade	130.1	4.3	125.5	4.2	90.1	4.8	111.0	10.6	111.4	11.0	79.6	11.5
Premium	138.2	3.2	132.7	3.1	97.4	4.0	116.2	18.2	115.3	19.6	84.5	23.7
Oxygenated	132.1	2.5	124.2	3.4	89.9	2.6	120.6	8.7	113.1	10.9	82.0	8.8
Regular	130.3	2.0	121.6	2.7	87.4	2.1	119.9	6.9	111.8	8.6	80.5	6.9
Midgrade	135.2	0.3	129.9	0.5	97.5	0.3	117.0	1.1	113.5	1.3	84.4	1.2
Premium	148.9	0.2	140.5	0.3	105.4	0.2	133.9	0.6	123.1	1.0	92.0	0.8
Reformulated	139.4	23.3	125.6	23.2	91.4	24.0	125.2	91.5	116.2	91.1	83.2	95.5
Regular	136.4	17.6	122.0	17.2	87.8	17.1	122.8	71.7	113.6	69.8	80.6	72.1
Midgrade	145.0	2.8	132.6	3.0	97.3	3.4	132.2	6.1	122.3	6.4	90.1	7.9
Premium	151.8	2.9	138.7	3.1	103.5	3.5	134.8	13.7	125.4	14.9	92.0	15.5
Aviation Gasoline	W	W	W	W	125.2	0.1	135.4	0.5	130.2	0.4	103.2	0.7
Kerosene-Type Jet Fuel	104.5	43.4	101.8	45.1	64.3	49.2	104.1	14.6	102.8	13.0	64.2	13.9
Propane (Consumer Grade)	67.3	2.1	69.6	1.9	39.5	2.7	69.2	32.4	72.8	44.5	39.9	33.9
Kerosene	138.7	0.3	137.4	0.3	99.3	0.1	115.6	2.3	118.6	3.8	69.2	1.5
No. 1 Distillate	112.5	0.3	109.3	0.4	78.0	0.4	120.8	1.0	117.4	2.5	71.9	1.4
No. 2 Distillate	112.4	20.8	110.8	23.3	70.1	23.3	103.5	129.5	108.0	133.0	66.2	117.3
No. 2 Fuel Oil	109.9	3.8	113.5	4.0	70.1	2.9	104.5	29.4	107.8	33.7	64.6	27.1
No. 2 Diesel Fuel	113.0	17.0	110.2	19.3	70.1	20.4	103.2	100.1	108.1	99.3	66.7	90.2
Low Sulfur	116.7	11.7	112.2	13.0	71.9	14.2	103.7	87.7	108.6	86.3	67.0	79.1
High Sulfur	104.6	5.3	106.1	6.3	65.9	6.1	99.8	12.4	105.0	13.0	64.1	11.1
No. 4 Fuel^a	105.1	0.4	W	W	59.5	0.4	85.1	0.1	88.5	0.2	60.7	0.1
Residual Fuel Oil	81.5	12.3	83.8	13.0	49.5	10.1	75.7	11.2	85.8	8.3	43.8	8.5
Sulfur Content not > 1 %	97.6	4.5	95.6	4.7	53.2	2.7	88.0	5.5	93.9	4.7	45.7	5.8
Sulfur Content > 1 %	72.3	7.9	77.0	8.2	48.1	7.4	63.7	5.7	74.8	3.5	39.6	2.7

W = Withheld to avoid disclosure of individual company data.

^a Includes No. 4 fuel oil and No. 4 diesel fuel.

Notes: Motor gasoline averages and totals prior to October 1993 include leaded gasoline.

Notes: Values shown for the current month are preliminary. Values shown for previous months are revised. Data are final upon publication in the *Petroleum Marketing Annual*.

Source: Energy Information Administration Form EIA-782A, "Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report."

in March 2003, and 99.6 cents per gallon in February, the price ranged 27.7 cents in March compared with 10.3 cents the previous month. The average price in March 2002 was 69.8 cents per gallon, a difference of 29.8 cents per gallon. For No. 2 heating oil, the March 2003 price was 98.8 cents per gallon, compared with \$1.129 per gallon in February 2003, a difference of 14.1 cents per gallon. Again the range of each month's price reveals the turbulence in the market, with the price ranging 51.3 cents in March and 27.4 cents in February. The March 2002 average price was 63.6 cents per gallon, marking a difference of 35.2 cents per gallon. At Cushing, Oklahoma, the monthly average price for West Texas Intermediate crude oil was \$35.83 per barrel in February 2003, and \$33.51 per barrel in March 2003, with the range of prices being \$5.12 and \$10.69, respectively. The average price in March 2002 was \$24.53

per barrel, a difference of nearly \$9.00. Notably, while product stocks were generally rising and spot market prices were falling in regional markets across the country, gasoline prices in California skyrocketed in March. While State environment regulations required the transition to using ethanol as a gasoline blending component instead of MTBE in 2003, the major factors behind the price run-up were high crude oil costs, planned and unplanned refinery outages, and the shift to producing low-RVP, summer-grade gasoline. All of these factors led to short inventories in a comparatively isolated market. However, it appeared California spot market prices were on the decline during the last ten days of the month as more refining facilities either came back online or were expected to do so in the near future.

Additional March market and sales activity for crude oil and the principal petroleum products are summarized in the following sections.

Crude Oil

The daily spot price for West Texas Intermediate (WTI) crude oil at Cushing, Oklahoma dropped dramatically in March. Opening at \$36.76 per barrel, the price remained above \$35.00 per barrel through the first half of the month. The price reached its high of \$37.87 per barrel on March 12. However, the price fell dramatically during the following days as Venezuelan production continued to rise, and exports from that and other major producers reached oil markets. The month's low of \$27.18 was reached on March 21, reflecting a drop of more \$10.00 per barrel in less than 2 weeks time. The price was very volatile during the last part of the month, springing back to \$33.42 per barrel on March 25, then dropping back to \$28.71 per barrel the next day. Closing at \$31.14 per barrel, the price was \$5.62 below its opening level.

- Monthly average crude oil prices fell in all categories during March. The average domestic crude oil first purchase price declined \$1.77 (5.6 percent), to \$30.08 per barrel.
- The average free-on-board (f.o.b.) cost of imported crude oil fell \$3.66 (12.2 percent), to \$26.28 per barrel. The average landed cost of foreign crude oil declined \$2.23 (7.0 percent), to \$29.48 per barrel.
- The average refiner acquisition cost for domestic crude oil dropped 77.0 cents (2.3 percent), to \$33.21 per barrel. The average cost of imported crude oil to U.S. refiners fell \$3.08 (9.5 percent), to \$29.34 per barrel. The composite refiner acquisition cost for crude oil decreased \$2.16 (6.5 percent), to \$30.92 per barrel.

Petroleum Products

Motor Gasoline

Like other product prices, the daily spot price for regular gasoline at New York Harbor was unsettled during March. After opening at \$1.012 per gallon, interest about whether inventories will be sufficient to meet de-

mand in coming months pressured the price higher during the first week of the month. The price reached its high of \$1.078 per gallon on March 7. The price went into a sharp decline after that, dropping nearly 28 cents during the next 2 weeks and reaching the month's low of 80.1 cents per gallon on March 21. Rebounding during the final days of the month, the price closed at 90.9 cents per gallon, 10.3 cents lower than where it began March.

- For the most part, monthly average gasoline prices continued to increase in March. The average price for retail sales of motor gasoline by refiners rose 7.8 cents to \$1.299 per gallon. The average wholesale price increased 3.0 cents to \$1.130 per gallon. Including data reported by a sample of motor gasoline marketers, the national average price at company-operated retail outlets rose 5.2 cents to \$1.267 per gallon. The average wholesale price increased 2.1 cents to \$1.122 per gallon. The average dealer tank wagon (DTW) price climbed 4.7 cents to \$1.196 per gallon, while the average rack price remained flat at \$1.088 per gallon. The average price for bulk sales rose 3.9 cents to \$1.028 per gallon. Reformulated gasoline (RFG) prices were 13.8 cents higher than conventional gasoline prices at retail, and 15.8 cents more at wholesale. Oxygenated gasoline prices were 6.1 cents more than conventional gasoline prices at retail, and 10.6 cents higher at wholesale.
- Motor gasoline sales by refiners in March show only marginal changes from February levels. Total sales fell 100,000 gallons per day, to an average of 349.3 million gallons per day. Retail sales rose 700,000 gallons per day (1.1 percent), while wholesales declined 800,000 gallons per day (0.3 percent). Rack sales made up 67.4 percent of wholesales, while DTW and bulk sales accounted for 21.3 percent and 11.3 percent, respectively. Reformulated gasoline made up 32.9 percent of total motor gasoline sales, while oxygenated gasoline made up 3.2 percent of sales.

No. 2 Distillate

In addition to market fundamentals fostering lower prices for all petroleum products, warmer temperatures in the Northeast helped to draw the daily spot market price for No. 2 heating oil at New York Harbor down dramatically in March. The price opened at \$1.223 per gallon and established its high of \$1.269 per gallon immediately on March 3. After a period of fluctuation during the first 10 days of the month, the price fell steadily until it reached its low of 75.6 cents per gal-

lon on March 26. The price closed the month at 79.6 cents per gallon, almost 43 cents below its opening level.

- Following February's large increases, No. 2 distillate prices show only moderate changes in March. The national average residential sales price for No. 2 distillate rose 3.2 cents to \$1.539 per gallon. The average wholesale price dropped 3.9 cents to \$1.043 per gallon. The average price for No. 2 diesel fuel at company-operated retail outlets climbed 3.3 cents, while the average No. 2 diesel fuel wholesale price declined 5.0 cents. The difference between low- and high-sulfur diesel fuel prices was 5.4 cents at retail and 3.2 cents at wholesale.
- Refiner sales of No. 2 distillate declined again in March. Total sales dropped 6.0 million gallons (3.8 percent), to 150.3 million gallons per day. Sales of No. 2 fuel oil decreased 4.5 million gallons per day (11.9 percent), while sales of No. 2 diesel fuel dropped 1.5 million gallons per day (1.3 percent). Low-sulfur diesel fuel made up 84.9 percent of all refiner diesel fuel sales, and 66.1 percent of all refiner No. 2 distillate sales.

Residual Fuel Oil

- Most residual fuel oil prices declined in March. Refiner prices for low-sulfur residual fuel oil increased 2.0 cents to 97.6 cents per gallon at retail, but fell 5.9 cents to 88.0 cents per gallon at wholesale. The average retail price for high-sulfur residual fuel oil decreased 4.7 cents to 72.3 cents per gallon, while the wholesale price dropped 11.1 cents to 63.7 cents per gallon. Including data reported by a sample of residual fuel oil marketers, the average low-sulfur residual fuel oil price rose 3.2 cents to 97.9 cents per gallon

at retail, while the wholesale price declined 4.0 cents to 87.2 cents per gallon. The retail price for high-sulfur residual fuel oil fell 3.9 cents to 72.8 cents per gallon, while the wholesale price decreased 4.3 cents to 69.2 cents per gallon.

- Overall, refiner sales of residual fuel oil increased during March. Total sales rose 2.2 million gallons per day (10.3 percent) to 23.5 million gallons per day. Low-sulfur residual fuel sales increased 600,000 gallons (6.4 percent), while high-sulfur residual fuel oil sales climbed 1.9 million gallons (16.2 percent).

Other Products

- Price trends for the remaining surveyed products were mixed in March. Refiner propane prices declined 2.3 cents per gallon at retail and 3.6 cents at wholesale. Including data from a sample of propane marketers, the average residential propane price rose 10.2 cents per gallon, while the average retail price increased 5.9 cents. The average wholesale propane price dropped 2.4 cents. Retail and wholesale prices for kerosene-type jet fuel and No. 1 distillate rose, while prices for kerosene increased at retail and fell at wholesale. The price for No. 4 distillate decreased at wholesale, while the aviation gasoline wholesale price increased in March.
- Refiner sales of these products generally declined in March. Sales of kerosene and No. 1 distillate decreased at both retail and wholesale. Aviation gasoline sales rose at wholesale, while No. 4 distillate sales declined in the same category. Kerosene-type jet fuel fell at retail but increased at wholesale, while propane sales did just the opposite.

