

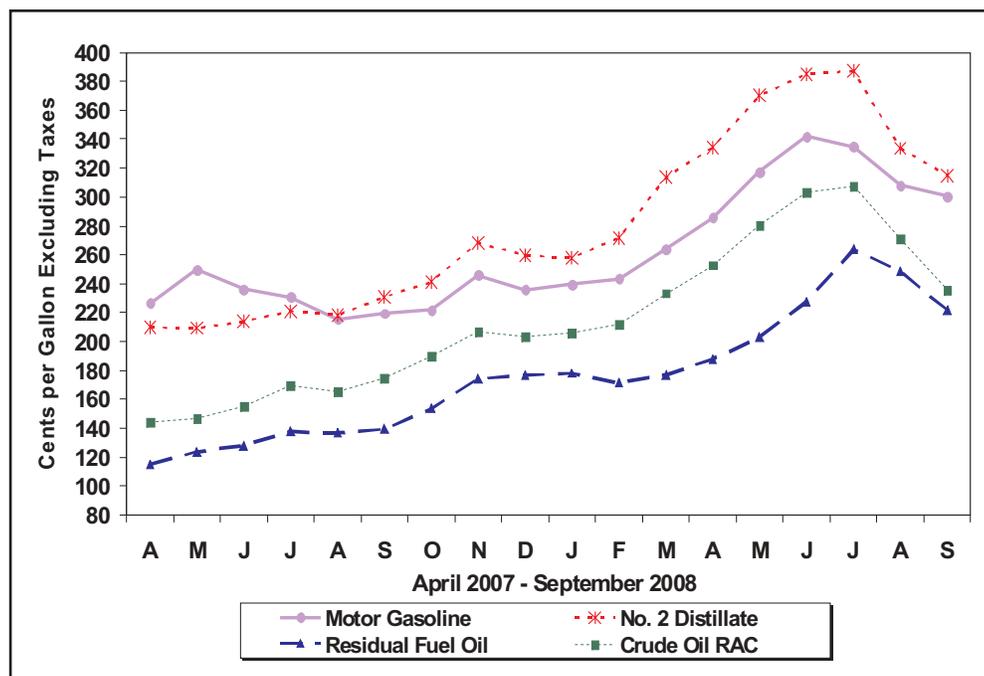
# Highlights

Amid a volatile market, world crude oil prices continued to register appreciable decreases in September. While the combined effects of hurricanes in the Gulf of Mexico on the U.S. oil industry, violence in Nigeria, and market technical factors helped to underpin prices during the latter part of the month, September's overall decline reflects decelerating economies across the globe and an attendant slump in oil demand. At the start of the month, prices were on a downward slope as the overall impact of Hurricane Gustav on production and refining facilities in the Gulf of Mexico region was seen as minimal. In the absence of supportive news, prices remained on the decline during the coming days, and continued to drop following a decision to reduce output during a meeting of the Organization of Petroleum Exporting Countries (OPEC) on September 9-10. The group cut its official production by 520,000 barrels per day, back to the September 2007 level of 28.8 million barrels per day. Additionally during the meeting, the group accepted Indonesia's formal request to suspend its membership in the organization. Further, because of the drop in oil demand from major consumers, Saudi Arabia reduced supply to many customers in September. Nevertheless, prices rose during the second half of the month on a combination of factors including attacks on oil infrastructure in Nigeria, Hurricane Ike, and worries about the U.S. plan to bail out financial sector businesses. The slow recovery of the oil production, refining, and transportation facilities in the United States following Hurricane Ike's strike on the Gulf Coast of Texas underpinned oil prices throughout world markets. Additionally, more rebel attacks on oil industry

infrastructure in Nigeria curbed oil production in the strife-riven country. Prices for many key streams closed the month on the downswing again, as U.S. oil industry operations improved and worries about the financial crisis and contracting demand for oil came to the fore once again.

Crude oil and refined product prices in U.S. markets were unsettled throughout September. Falling demand, storms affecting the Gulf Coast, regional supply disruptions, and the spreading financial crisis all influenced prices over the course of the month. At the start of the month, Hurricane Gustav made landfall along the Louisiana coastline on September 1, but inflicted little lasting damage to oil industry installations and operations in the region. At the height of the storm's threat, the U.S. Department of Interior's Mineral Management Service (MMS) estimated that 100 percent of U.S. crude oil and

**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					
	September 2008		August 2008		September 2007		September 2008		August 2008		September 2007	
	Price	Volume	Price	Volume	Price	Volume	Price	Volume	Price	Volume	Price	Volume
<b>Motor Gasoline</b> .....	320.7	53.7	327.8	55.9	233.7	57.9	300.4	292.5	307.9	311.7	219.5	320.8
<b>Conventional</b> .....	322.5	33.1	323.7	34.8	233.8	35.0	301.5	204.0	306.6	219.8	219.6	230.6
Regular .....	320.7	29.1	321.4	30.8	231.6	30.2	300.2	180.7	305.0	195.9	217.6	202.4
Midgrade .....	330.6	2.0	335.8	2.1	242.3	2.6	300.4	10.0	309.6	9.9	227.2	10.8
Premium .....	341.4	2.0	346.9	1.9	252.5	2.2	320.3	13.2	325.7	14.1	238.4	17.4
<b>Reformulated</b> .....	317.8	20.5	334.5	21.1	233.7	22.9	297.9	88.5	311.0	91.9	219.3	90.2
Regular .....	314.2	16.2	330.2	16.9	229.3	17.7	295.2	76.0	308.4	79.4	216.3	75.2
Midgrade .....	326.7	1.9	345.8	1.9	242.5	2.4	306.6	2.0	319.6	2.1	225.9	2.8
Premium .....	335.2	2.5	356.7	2.3	253.8	2.8	315.5	10.5	328.9	10.4	235.7	12.2
<b>Aviation Gasoline</b> .....	384.2	0.2	379.2	0.2	290.0	0.1	374.6	0.4	373.7	0.4	283.0	0.5
<b>Kerosene-Type Jet Fuel</b> .....	326.4	38.6	342.6	43.7	225.0	38.3	327.7	15.6	339.3	15.4	225.6	15.8
<b>Propane (Consumer Grade)</b> .....	192.4	1.8	190.6	2.3	142.8	2.7	156.9	30.3	166.5	24.7	124.8	40.0
<b>Kerosene</b> .....	399.2	0.0	404.8	0.0	267.3	NA	337.8	0.8	345.6	0.6	245.0	0.7
<b>No. 1 Distillate</b> .....	352.7	0.1	382.3	0.0	241.5	0.1	322.0	0.5	343.0	0.4	253.8	0.4
<b>No. 2 Distillate</b> .....	332.5	20.8	357.2	19.6	238.0	23.1	314.9	144.3	333.6	152.1	230.7	146.8
No. 2 Fuel Oil .....	327.1	0.7	339.9	0.6	231.6	0.4	299.9	10.7	328.7	9.3	213.3	11.3
No. 2 Diesel Fuel .....	332.7	20.1	357.7	19.0	238.1	22.7	316.1	133.5	333.9	142.8	232.2	135.5
Ultra Low Sulfur .....	333.7	12.6	357.7	12.1	239.6	12.9	316.9	113.1	334.6	121.0	233.8	107.6
Low Sulfur .....	332.8	5.4	357.6	5.2	238.0	7.6	311.0	18.4	330.2	20.3	225.6	21.9
High Sulfur .....	326.9	2.1	358.6	1.7	229.8	2.3	314.9	2.0	330.7	1.6	228.0	6.0
<b>No. 4 Fuel<sup>a</sup></b> .....	W	W	W	W	W	W	W	W	W	W	159.6	0.2
<b>Residual Fuel Oil</b> .....	240.9	7.7	269.4	7.4	145.0	10.7	221.7	7.4	248.6	8.4	139.3	7.9
Sulfur Content not > 1 % .....	266.6	2.3	NA	2.3	161.0	2.1	219.4	2.0	254.6	3.4	147.4	3.2
Sulfur Content > 1 % .....	230.3	5.4	255.4	5.1	141.0	8.6	222.6	5.4	244.5	5.0	133.7	4.7

NA = Not available.

W = Withheld to avoid disclosure of individual company data.

<sup>a</sup> Includes No. 4 fuel oil and No. 4 diesel fuel.

Note: Beginning January 2007, oxygenated gasoline is included in conventional gasoline.

Note: In January 2007, ultra low-sulfur diesel fuel was added.

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*. Total volumes may not equal the sum of the components due to rounding.

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

natural gas production in the Gulf of Mexico was shut-in. Prices for crude oil and most major products began to retreat after that as worries about the health of the economy rose again following an unexpectedly large rise in the unemployment rate and evidence of an ongoing decline in demand for petroleum products. Nevertheless, prices for gasoline and other finished products jumped at mid-month as the threat of Hurricane Ike caused precautionary closures of numerous refineries. At the same time, however, crude oil prices were in decline, reacting to news of the bankruptcy filing for Lehman Brothers Holdings, LLC, and worries that other financial institutions were in similarly precarious positions. While post-storm

assessments of industry infrastructure generally showed relatively modest damages, power outages hampered the resumption of refinery activity and pipeline operations. Additionally, deliveries of crude oil were delayed due to the suspension of operations in major import centers. By the end of the month, weekly data show the refinery utilization rate dropped to 73.7 percent and stocks of gasoline had plummeted in several regions of the country. The Southeastern portion of the country was particularly affected by gasoline shortages when operations on Colonial Pipeline were stymied by the lack of product inputs at the line's point of origination in

Houston. These conditions helped drive retail gasoline prices in the region significantly higher during the remainder of the month. Futures and spot market prices for West Texas Intermediate (WTI) crude oil also experienced a dramatic record one-day increase on September 22, thanks to market technical factors (expiration of front-month contracts) and worries about the financial bailout plan. Notably, though, spot market prices for all of the major prices registered decreases for the month, on average. The September 2008 average spot price for West Texas Intermediate (WTI) crude oil at Cushing, Oklahoma fell \$12.56 (10.8 percent), to \$104.11 per barrel from last month's average of \$116.67 per barrel. That price differs by \$24.20 (30.3 percent) from the September 2007 price of \$79.91 per barrel. The monthly average spot price for regular gasoline at New York Harbor was \$2.805 per gallon in September, down 9.2 cents from August's average of \$2.897 per gallon. The price last September was \$2.102 per gallon, reflecting a difference of 70.3 cents (33.4 percent) to this year's level. The September 2008 price for No. 2 fuel oil at New York Harbor was \$2.911 per gallon, a fall of 25.8 cents (8.1 percent) from the August 2008 average of \$3.169 per gallon. The current month's average marks a 73.2-cent (33.6 percent) increase from the September 2007 price of \$2.179 per gallon. Additional September market and sales activity for crude oil and the principal petroleum products are summarized in the following sections.

## Crude Oil

The September daily spot price for WTI crude oil at Cushing, Oklahoma moved along a volatile path over the course of the month. After opening the month at \$115.55 per barrel, the price entered into a period of steady descent, thanks to a number of factors including expectations that OPEC would leave production output at current levels and speculation that Hurricane Ike would skirt most oil industry installations in the Gulf of Mexico region. Additional pressure came from revised forecasts showing less growth in demand for oil. Continuing tumult in the financial sector helped lead the price to the month's low of \$91.49 per barrel on September 16. While inventory data and the announced financial rescue plan underpinned an increase in the price in the following days, market technical factors fueled the record-setting one-day price rise on September 22 when the price jumped to the month high of \$122.61 per barrel. Retreating substantially after that, the price closed the month at \$100.70 per barrel, \$14.85 below the opening level for September.

- Monthly average crude oil prices continued to decline in September. The average domestic crude oil first purchase price decreased \$14.33 (12.7 percent), to \$98.50 per barrel.
- The average free-on-board (f.o.b.) cost of imported crude oil fell \$15.58 (14.4 percent), to \$92.62 per barrel. The average landed cost of foreign crude oil declined \$14.92 (13.4 percent), to \$96.08 per barrel.
- The average refiner acquisition cost for domestic crude oil dropped \$14.99 (12.7 percent), to \$103.33 per barrel. The average cost of imported crude oil declined \$14.66 (13.2 percent), to \$96.55 per barrel. The composite refiner acquisition cost for crude oil fell \$14.81 (13.0 percent), to \$98.90 per barrel.

## Petroleum Products

### *Motor Gasoline*

The daily spot price for regular gasoline at New York Harbor moved along an unsettled path during September. Opening at \$2.900 per gallon, the price fluctuated moderately during the first ten days of the month, then rose sharply on refinery shut-ins in preparation for the arrival of Hurricane Ike. The price hit the month's high of \$3.263 per gallon on September 12, only to drop significantly during the following few days. The price rose assertively again on news of problems restarting refineries following the storm, only to retreat firmly after that point through the end of the month. Closing September at \$2.501 per gallon, the price was nearly 40 cents below its opening level for the month.

- Monthly average prices for finished gasoline fell again in September. The average price for retail sales of motor gasoline by refiners dropped 7.1 cents to \$3.207 per gallon, while the average wholesale price fell 7.5 cents to \$3.004 per gallon. Including data reported by a sample of motor gasoline marketers, the national average price at company-operated retail outlets declined 4.6 cents to \$3.229 per gallon. The average wholesale price for gasoline decreased 7.6 cents to \$3.003 per gallon. The average dealer tank wagon (DTW) price dropped 10.5 cents to \$3.057 per gallon, while the average rack price declined 7.2 cents to \$2.995 per gallon. The average bulk sale price fell

5.2 cents to \$2.928 per gallon. Reformulated gasoline prices were 4.8 cents lower than conventional gasoline prices at retail, and 4.5 cents less at wholesale.

- Refiner sales of motor gasoline decreased in September. Total sales dropped 21.4 million gallons per day (5.8 percent) to an average of 346.2 million gallons per day. Retail sales fell 2.2 million gallons per day (3.9 percent), while wholesales declined 19.2 million gallons per day (6.2 percent.) DTW sales made up 13.3 percent of wholesales, while rack and bulk sales accounted for 72.5 percent and 14.2 percent, respectively.

### ***No. 2 Distillate***

Although the daily spot price for No. 2 heating oil at New York Harbor followed a varied path, it lost ground overall during September. After opening at its highest level for the month, \$3.150 per gallon, the price entered a period of decline after Hurricane Gustav passed through the Gulf of Mexico and in response to enervated demand. The price reached the month's low on September 15 when it reached \$2.736 per gallon. Despite the decline seen during the first half of the month, the price rose firmly for a period of time during the latter part of September on tighter inventories and lower refinery utilization rates in the aftermath of Hurricane Ike. However, the price followed the rest of the complex downwards again at the end of the month, closing September at \$2.851 per gallon, 29.9 cents below its opening level.

- September No. 2 distillate prices declined firmly from August levels. The national average residential sales price fell 19.9 cents to \$3.666 per gallon, while the average wholesale price decreased 18.9 cents to \$3.165 per gallon. The average price for No. 2 diesel fuel at company-operated retail outlets dropped 25.1 cents, while the average wholesale price fell 18.0 cents. Ultra low-sulfur diesel fuel prices were 0.4 cent below low-sulfur diesel fuel prices at retail, but 3.0 cents higher at wholesale.
- Overall, refiner sales of No. 2 distillates fell in September. Total sales decreased 6.8 million gallons per day (3.9 percent), to 165.0 million gallons per day. Sales of No. 2 fuel oil rose 1.5 million gallons per day (15.6 percent), while sales of No. 2 diesel fuel declined 8.3 million gallons per day (5.1 percent). Ultra low-sulfur diesel fuel made up 81.8 percent of all

refiner diesel fuel sales, while total diesel fuel sales accounted for 93.1 percent of all refiner No. 2 distillate sales.

### ***Residual Fuel Oil***

- Residual fuel oil prices fell significantly in September. Refiner prices for low-sulfur residual fuel oil dropped 33.9 cents to \$2.666 per gallon at retail, and 35.2 cents per gallon at wholesale. Refiner prices for high-sulfur residual fuel oil declined 25.1 cents to \$2.303 per gallon at retail, and 21.9 cents to \$2.226 per gallon at wholesale. Including data reported by a sample of residual fuel oil marketers, average prices for low-sulfur residual fuel oil fell 37.9 cents to \$2.590 per gallon at retail and 25.9 cents to \$2.919 per gallon at wholesale. Prices for high-sulfur residual fuel oil declined 24.1 cents to \$2.270 per gallon at retail, and 18.8 cents to \$2.217 per gallon at wholesale.
- In total, refiner sales of residual fuel oil decreased in September. Total sales fell 700,000 gallons (4.4 percent) to 15.1 million gallons per day. Low-sulfur residual fuel oil sales declined 1.4 million gallons (24.6 percent), while high-sulfur residual fuel oil sales rose 700,000 gallons (6.9 percent).

### ***Other Products***

- Prices for the remaining surveyed products generally fell during September. The refiner retail sales price for propane increased 1.8 cents per gallon, while the wholesale price dropped 9.6 cents per gallon. Including data from a sample of propane marketers, the average residential price fell 0.5 cent per gallon, while the average retail price inched up 0.6 cent per gallon. The average wholesale price for propane declined 9.0 cents per gallon. Aviation gasoline prices increased at both the retail and wholesale levels, while prices for kerosene-type jet fuel, kerosene, and No. 1 distillate did just the opposite.
- The direction of refiner sales of the products included in this section were mixed in September. Sales of propane and kerosene-type jet fuel fell at retail but rose at wholesale. Aviation gasoline sales fell at both the retail and wholesale levels, while sales of kerosene and No. 1 distillate did the reverse.