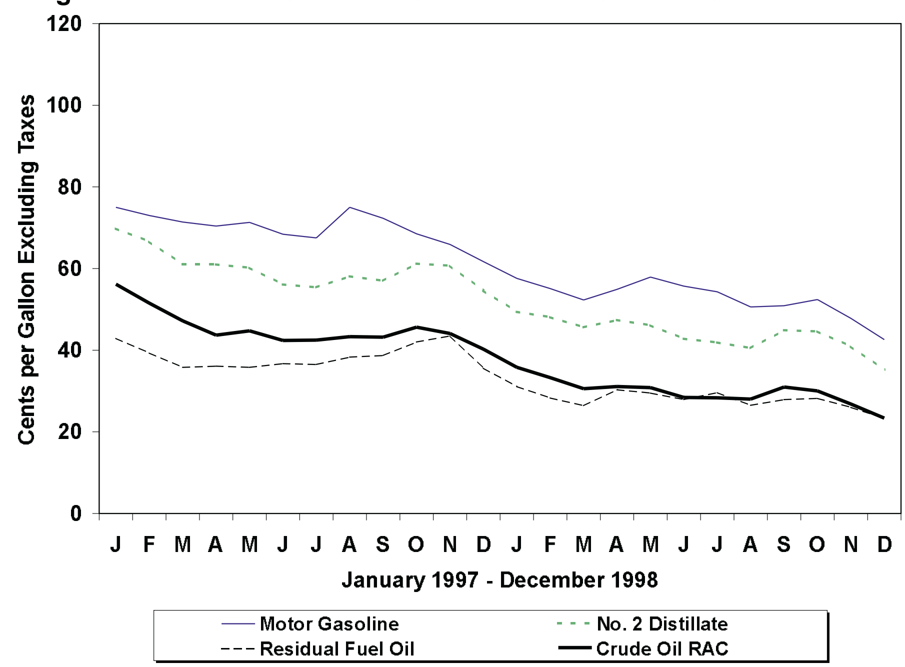
Highlights
1998 Year in Review

International crude oil prices languished during 1998 as slow demand and an overabundance of product dominated world oil markets. Opening the year, the Organization of Petroleum Exporting Countries (OPEC) initiated a new program of production quotas that increased the group's stated crude oil output from 25.033 million barrels per day to 27.5 million barrels per day. Under the weight of the combined effects of enervated demand from Asian markets, rising wellhead output, and renewed exports from Iraq under the U.N. sponsored "oil-for-food" deal, crude oil prices slipped to their lowest levels since autumn 1988 by mid-March. Growing concern over slumping prices prompted discussions involving production cutbacks by many oil producing countries in order to stabilize prices. During the latter part of March, a meeting between some members of OPEC and non-OPEC producer nations yielded the "Riyadh Agreement" which initially proposed cutting crude oil production by as much as 2 million barrels per day. After an emergency meeting of all 16 members of OPEC, the reductions associated with this agreement amounted to approximately 1.5 million barrels per day, and were slated to begin on April 1. While this action helped to pull prices out of the very low range seen during the first quarter of the year, it became evident that market sentiment regarded this measure as insufficient to address the glut of oil in world markets. Further, in a development interpreted as having adverse repercussions on efforts to support prices, the U.N. Secretary-General approved a revised aid distribution plan for Iraq on May 29 that significantly increased the monetary cap for the "oil-for-food" deal. In early June, representatives from Saudi Arabia, Venezuela, and Mexico, under the so-called "Amsterdam Agreement," pledged to cut production by an additional 450,000 barrels per day beginning July 1. Members of the Gulf Cooperation Council (GCC) announced additional reductions totaling 170,000 barrels per day in mid-June. Further, during its quarterly meeting in late-June, OPEC announced a new round of output cuts totaling 1.355 million gallons per day. With the new cuts added to the earlier round of reductions, the group cut production by 2.6 million barrels per day, virtually the same amount it added at the beginning of the year.

During the second half of 1998, efforts to rein in wellhead production met some success, but lackluster demand continued to mitigate the effect of crude oil production cuts on prices. Ongoing economic turmoil in various Asian countries stunted their demand for both crude oil and finished products. Prior to the re-

Figure HL1. Crude Oil and Petroleum Product Wholesale



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."

gions's financial crisis, which began in late-1997, Asia had shown appreciable growth in consumption of petroleum products. In addition, demand from the industrialized West continued at a lower-than-expected rate. More specifically, high stock levels of crude oil in the United States and Europe persisted and contributed significantly to enervated prices. Overall, data show that the total world supply of crude oil still exceeded demand (by 1.02 million gallons per day) during this period. In the political domain, tensions between the United Nations and Iraq over the terms of the weapons inspection program caused crude oil prices to rise considerably during September, the last increase of any significance for the year. The overabundance of product continued to counteract the energizing effect political affairs and inclement weather had on prices during the final quarter of the year. Further, prices suffered from market sentiment that OPEC would not announce any more substantive actions to reduce the oversupply during its final quarterly meeting in November. In December, shortly after many key crude oil streams had reached their lowest point for the year, prices experienced a short-lived increase when U.S. and British forces initiated a 4-day air strike against targets in Iraq. The conflict arose from reports citing Iraqi government-led efforts to hamper the U.N.-sponsored weapons inspection program. Despite early suggestions that oil exports would halt because of the attacks, production and transportation facilities were evidently unaffected by the raids. By the end of the campaign, market prices had returned to their previous low levels. The year closed on a note of uncertainty about the prospects of any imminent relief from the depressed price levels for crude oil since the fundamental factors causing the slump—brimming product stockpiles and slow demand—remained.

In the United States, crude oil and finished product prices both reflected and helped set the tone for the trends seen across world markets during 1998. As the world's largest consumer of petroleum products, reports indicating storage facilities reaching saturation levels illustrated the oversupply problem and played a fundamental role, along with uneven demand, behind lethargic prices here and abroad. Like other major international markets, concerns in U.S. markets about the quantity and implementation of promised global crude oil production cuts also acted as a primary factor behind enervated prices throughout the year. Weather also played a notable role in product price trends, from unusually warm winter temperatures that significantly affected demand for heating fuels to storms that disrupted product transportation facilities.

The year opened with most product prices at their highest level for the year. Markets across the country remained under the same essential factors that had driven market activity for many prior to the new year: abundant supplies, solid production rates, and uneven demand. With refining margins remaining profitable enough to sustain a high rate of refinery utilization, stocks of products mounted. During the first quarter of 1998, production of finished gasoline and distillate fuels were approximately 3.0 percent and 5.8 percent higher, respectively, than during the same period in 1997. A similar comparison of demand rates for these products show a 2.5 percent increase for gasoline while demand for distillate fuels remained essentially flat. During the final 2 weeks of March, a combination of proposed cuts in global crude oil production, a spate of refinery problems, and reported reductions in gasoline stocks prompted prices to rise significantly during the last two weeks of the month. A switch to producing and supplying lower-RVP summer grade gasoline under the new Complex Model regulations and disruptions in the pipeline distribution system along the East Coast also contributed to rising prices.

At the start of spring, markets became more volatile. Concern about the implementation of promised crude oil wellhead production cuts and shrinking refining margins enervated crude oil prices. Finished product prices were buffeted by a number of conditions associated with production and distribution facilities in addition to the direction of crude oil prices. Refinery outages gave finished product prices across the country a boost, but particularly on the West Coast where the spot price for CARB gasoline spiked during the second half of April due to refinery breakdowns in both Los Angeles and San Francisco. As the season continued, crude oil prices continued to suffer under the weight of oversupply and to reports of shortages of storage space, particularly in PADD II. These conditions led to the spot price for West Texas Intermediate (WTI) at Cushing, Oklahoma to drop below the $12-per-barrel mark for the first time in nearly 12 years during the middle of June.

By July, crude oil prices moved away from the long-term lows seen during the final weeks of spring as market uneasiness over the adequacy of efforts to reduce international wellhead production diminished. In contrast, prices for the major finished products did not fare as well. At New York Harbor, prices for conventional regular gasoline and No. 2 heating oil reached their lowest points in nearly 5 and 12 years, respectively. Gulf Coast spot market prices for the same products sank even lower. However, with refining margins remaining attractive, refinery utilization stayed very high throughout July. While crude oil and finished product prices remained soft during August, owing to a lack of any extraordinary events to alter on-going market circumstances, prices rose considerably during September due to inclement weather. Production and transportation facilities in and around the Gulf of Mexico and the Caribbean Sea were affected by five tropical storms or hurricanes striking the area over the month. The most damaging storm, Hurricane Georges, caused considerable flooding along the U.S. Gulf Coast and led to closure of production and refining facilities in that region. Further, disruptions at major ports, particularly at the Louisiana Offshore Oil Port (LOOP), delayed the delivery of crude oil shipments, leading to a significant draw on available stocks and drove prices higher.

Moving into the final quarter of the year, prices were still supported at the beginning of October by the effects of numerous tropical storms in September. By the latter half of October, supply reports indicated that the anticipated level of draw downs in product stocks had not occurred, and prices in most regional markets dropped sharply. In contrast, prices on the West Coast rose as a series of refinery outages contributed to significant stock reductions in that region's markets. By November, market prices for both crude oil and finished products plummeted in response to rising stockpiles and the perception that OPEC would be unable to complete the implementation of new measures designed to alleviate pressure on crude oil prices. Additionally, finished product production rose as refining facilities came back online after scheduled and storm-related maintenance, contributing to sharp price declines. During the final month of the year, prices were buffeted by opposing influences. Month- and year-end technical factors, along with tensions stemming from military actions in Iraq helped to pull prices up for a brief time, but the upturn was rather quickly dampened by reports indicating brimming stockpiles of products.

1998 market and sales activity for crude oil and the principal petroleum products are summarized in the following sections.

Crude Oil

Under the weight of ample supplies, the daily spot price for West Texas Intermediate (WTI) crude oil at Cushing, Oklahoma dropped considerably during 1998. The ready availability of crude oil, throughout U.S. and global markets was the filter through which all other potentially influential events passed. The price opened the year at $17.41 per barrel and moved to the year's high of $17.93 per barrel on January 29, chiefly in response to Iraq's refusal to adhere to the terms of the United Nations weapons inspection program fully. The price gravitated downward for the remainder of the winter season, reaching long-term lows before leaping upwards during the first weeks of spring on news of wellhead production cuts agreements. The price remained volatile during the remainder of the quarter, buffeted by reports of brimming stockpiles and news of further production cuts. After a period of relative firmness, the price foundered during the final months of year as growing stocks and solid wellhead production rates reasserted their influence on market price trends. The year's low of $10.82 per barrel, reached on December 10, also marked the lowest level seen in 12 years. Closing at $12.14 per barrel, the price was $5.27 per barrel lower than where it began 1998.

- 1998 average crude oil prices fell dramatically from 1997 levels in all categories of sales. The average domestic crude oil first purchase price declined $6.35 (36.9 percent), to $10.88 per barrel.

- The average free-on-board (f.o.b.) cost of imported crude oil decreased $6.18 (36.5 percent), to $10.76 per barrel. The average landed cost of foreign crude oil dropped $6.27 (34.6 percent), to $11.84 per barrel.

- The average refiner acquisition cost of domestic crude oil fell $6.43 (32.8 percent), to $13.18 per barrel. The average cost of imported crude oil to U.S. refiners declined $6.49 (35.0 percent), to $12.04 per barrel. The composite refiner acquisition cost of crude oil in the United States decreased $6.52 (34.2 percent), to $12.52 per barrel.

Petroleum Products

Motor Gasoline

At New York Harbor, many of the same conditions and events affected the daily spot price for unleaded regular gasoline that influenced prices for crude oil and other finished products' prices during 1998. After opening at 49.6 cents per gallon, the price generally waned during the first quarter, as stocks remained at robust levels. By the end of the period, however, a combination of factors including a spate of refinery problems, disruptions in the pipeline distribution system along the East Coast, and proposed cuts in world crude oil production prompted the price to rise significantly during the last two weeks of March. The late-winter surge lingered through the first half of spring as more refinery outages (specifically, on the West Coast) and expected draws on stocks supported the price and led to the year's high of 52.4 cents per gallon on May 4. For the remainder of spring, and through most of the summer, the price remained relatively stagnant, as plentiful stocks and high refinery output continued to dampen market prices. Heading into the final quarter of the year, inclement weather affecting refining operations and product transportation networks in late-September, boosted the price to its highest level since springtime. Plummeting after that, the price reached the year's low of 29.1 cents per gallon on December 4. The price closed the year at 33.2 cents per gallon, 16.4 cents per gallon lower than where it began 1998.

- 1998 average gasoline prices fell substantially from 1997 levels. The average price for retail sales of motor gasoline by refiners declined 16.6 cents to 67.3 cents per gallon, while the average wholesale price decreased 17.4 cents to 52.6 cents per gallon. Including data reported by a sample of motor gasoline marketers, the national average price at company-operated retail outlets fell 17.1 cents, to 66.4 cents per gallon. The average wholesale price fell 17.3 cents, to 53.0 cents per gallon. The average dealer tank wagon (DTW) price for motor gasoline dropped 17.0 cents, to 60.5 cents per gallon. The average rack price declined 17.3 cents to 50.3 cents per gallon. The average bulk sales price fell 16.6 cents to 45.5 cents per gallon. The average difference between reformulated and conventional gasoline prices was 5.0 cents at retail and 7.9 at wholesale. The difference between conventional and oxygenated gasoline prices was 7.0 cents at retail and 8.4 cents at wholesale.

- Data reflecting 1998 refiner sales of finished motor gasoline show growth in most categories. Total sales rose 9.9 million gallons per day (2.8 percent), to an average of 363.7 million gallons per day. Retail sales increased 2.2 million gallons per day (3.6 percent), while wholesale rose 7.7 million gallons per day (2.6 percent). Rack sales formed 62.0 percent of refiner wholesale gasoline volumes, while DTW and bulk sales made up 24.3 percent and 13.8 percent, respectively. Reformulated gasoline (RFG) accounted for 30.9 percent of total motor gasoline sales, while oxygenated gasoline made up 3.0 percent of sales.

No. 2 Distillate

Another warmer-than-normal heating season contributed to the surplus that played a primary role behind the overall decline of the daily spot price for No. 2 heating oil at New York Harbor during 1998. Opening at 48.8 cents per gallon, the price followed the same general pattern seen in other products' prices during the first quarter. After reaching the high for the year, 49.2 cents per gallon, on January 29, the price ebbed through most of the first quarter. Notably, the No. 2 heating oil price remained below the price for gasoline through most of the winter season, when those positions are more typically reversed. By May, mounting stockpiles and falling demand led to a growing difference between the price for heating oil and other major products. However, the price rose considerably during September due to the combination of increasing demand in preparation of the coming heating season and stormy weather that disrupted market operations. The price tumbled during the final months of the year, hitting the year's low of 29.9 cents per gallon on December 10. The price closed 1998 at 32.5 cents per gallon, 16.3 cents lower than where it began the year.

- Like gasoline prices, average 1998 prices for No. 2 distillate fell substantially from 1997 levels. The national average residential price declined 13.2 cents to 85.2 cents per gallon. The average wholesale price decreased 16.1 cents to 45.0 cents per gallon. The national average price at company-operated retail outlets for No. 2 diesel fuel fell 15.2 cents to 59.3 cents per gallon, while the average wholesale price declined 16.2 cents, to 45.4 cents per gallon. The difference between low- and high-sulfur diesel fuel prices fuel averaged 1.0 and 2.0 cents per at retail and wholesale, respectively.

- Refiner sales of No. 2 distillate were mixed in 1998, with decreasing sales of No. 2 fuel oil causing a decline in No. 2 distillate sales overall. Total sales fell 1.1 million gallons (0.8 percent) to 143.5 million gallons per day. No. 2 fuel oil sales fell 3.6 million gallons per day (10.6 percent) while sales of No. 2 diesel fuel increased 2.5 million gallons per day (2.3 percent). Low-sulfur diesel fuel made up 80.9 percent of all diesel fuel sales and 63.7 percent of all refiner No. 2 distillate sales.

Residual Fuel Oil

- 1998 average residual fuel oil prices fell markedly in all categories of sales. Refiner prices for low-sulfur residual fuel declined 13.4 cents to 35.4 cents per gallon for retail sales and 11.6 cents to 29.9 cents per gallon for wholesale. Refiner high-sulfur residual fuel prices dropped 11.6 cents, to 28.7 cents per gallon at the retail level and 9.7 cents to 26.9 cents per gallon at wholesale. Including data reported by the sample of residual fuel oil marketers, the average low-sulfur price declined 11.6 cents per gallon at retail and 11.9 cents per gallon at wholesale. The average price for high-sulfur residual fuel fell 11.5 cents and 10.4 cents for retail and wholesale sales, respectively.

- While prices declined, total refiner sales of residual fuel oil increased 4.9 million gallons per day (19.7 percent) during 1998, with sales averaging 29.8 million gallons per day. Low-sulfur residual fuel oil sales rose 1.6 million gallons per day (20.0 percent), while high-sulfur residual fuel oil increased 3.1 million gallons per day (18.2 percent).

Other Products

- 1998 average prices for all products included in this section fell from last year's levels. Refiner propane prices slid 14.7 cents per gallon at retail and 12.8 cents at wholesale. Including the sample of propane marketers, the average residential propane price tumbled 10.8 cents to 88.8 cents per gallon, while the average end-user price fell 10.4 cents. The average wholesale price declined 12.9 cents, dropping to 29.7 cents per gallon. Refiner prices for the remaining products—kerosene-type jet fuel, No. 1 distillate, No. 4 distillate, and aviation gasoline—fell substantially at both levels.

- Refiner sales of these products were mixed during 1998. Propane sales decreased 100,000 gallons per day at retail but rose 600,000 gallons per day at wholesale. Kerosene-type jet fuel sales fell 700,000 gallons per day at retail and rose 900,000 gallons per day at wholesale. Sales of kerosene, No. 1 distillate, and No. 4 distillate increased at retail and fell wholesale. Sales of aviation gasoline declined at both levels.