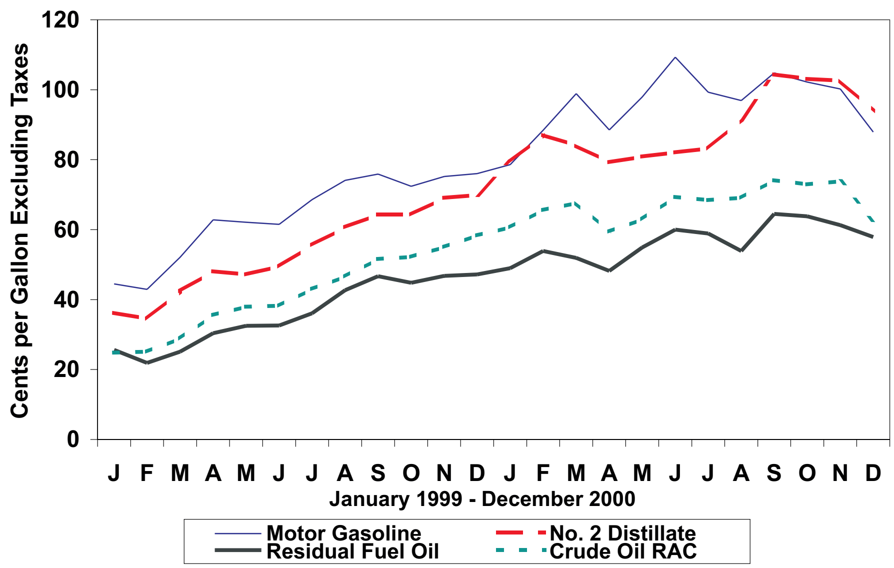
Highlights
2000 Year in Review

International crude oil prices experienced significant increases during 2000 as a variety of issues affected world oil markets. As apprehensions about possible Y2K problems faded following a smooth transition to the new year, oil prices began to rise as some participants in the Organization of Petroleum Exporting Countries (OPEC)-sponsored production quota agreements stated their support for a continuation of the production cuts past the scheduled end at the close of March. An official recommendation coming in mid-January from OPEC's Ministerial Monitoring Committee advocating an extension of the production cutbacks supported rising crude oil prices. At the same time, inclement weather in the North Sea led to disruptions at production facilities in the region and helped underpin rising prices across world markets. By the end of January, uneasiness about declining stocks of crude oil and finished products in key markets began to emerge. Prices continued to climb in February as concern about the rate of supply mounted. While refinery margins improved in various world markets in February, they lacked the depth and stability of range that provided incentive to lay in stocks of high-priced crude oil, particularly when futures prices in commodities markets were heavily backwardated. By the first week of March, prices reached some of the highest values in nearly a decade. However, prices retreated dramatically shortly after that following reports that Iran would unofficially agree to increase production in April. At the end of the month, nine OPEC members officially agreed during the group's quarterly meeting in Vienna, Austria to raise production 1.45 million barrels per day beginning April 1, 2000. With Iran's informal agreement to raise production, the group's total output climbed by 1.72 million barrels per day.

At the beginning of the second quarter of the year, world crude oil prices continued to retreat from the long-term highs set in March. OPEC's decision to increase production on April 1 played a significant role behind falling prices, as it helped ease concerns about supply in international markets. It was at this point that OPEC set in motion its price band mechanism. This price control plan involves monitoring a 20-day average of seven key crude oil streams. If the average price falls outside a $22-$28 range, wellhead output is increased or decreased 500,000 barrels per day to stabilize prices. Due to its informal status, there is no guarantee the group will carry out the plan when the conditions are met.

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."

The decline in prices was short-lived however. They rose solidly in May despite rising wellhead production and growth in stocks throughout world markets. A number of issues led prices higher. First, a widespread labor strike in Norway that included oil workers lasted through May 9 and hampered oil exports. At mid-month, a statement made by Saudi Arabian, Venezuelan, and Mexican oil ministers indicating they believed there was no need to adjust current production levels also supported rising prices. Further, reports released by the U.S. Energy Information Administration and the International Energy Agency included forecasts for growth in oil demand during the second half of 2000, lending support to the higher level of prices. Additionally, technical factors related to activity in commodities markets and pressure from finished product prices in the United States were seen as neutralizing the effects of increased supplies of crude oil, and prices continued to rise through the end of the month. By June, the continuing upward trend in prices reflected qualms about the ongoing low inventories of crude oil and finished products despite factors that normally dampen prices, such as the extension of the U.N./Iraq "oil-for-food"deal for another 180-day period passed on June 8. Market participants waited for an announcement from OPEC regarding the "automatic" 500,000 barrel-per-day increase outlined in the group's price control plan. The price for the reference basket of crude oils exceeded the $28-per-barrel ceiling for more than 20 days during the second week of June. They decided to raise output by 708,000 barrels per day, or about 3 percent, during the group's quarterly meeting in Vienna, Austria on June 21 and scheduled the production increase to go into effect on July 1. Official statements from the organization noted the opinion that high gasoline prices in the United States, market speculation, and petroleum products tax policy in Europe were primary factors leading to high crude oil prices. By the close of June, Mexico and Norway announced production increases of 75,000 barrels per day and 100,000 barrels per day, respectively.

Prices decreased in July largely in reaction to rising wellhead production rates. In addition to OPEC's increase, Saudi Arabia announced a proposal to produce an additional 500,000 barrels per day to start at the end of July. The Saudi plan included the option of other OPEC members with spare production capacity to contribute to the 500,000-barrel amount. However, uncertainty surrounding the proposal cast doubt whether the group would implement it in the immediate future which caused some price volatility in key markets. OPEC officials later announced they would not implement the plan because the reference price used in the price band system had fallen below $28. During the second half of the month, informal talk of possible production increases from several OPEC members prompted prices to fall again. The decline was short-lived however. Pressure from deepening worries about adequate supplies of finished products in primary markets combined with continuing market sensitivity to production and export rates from OPEC drove crude oil prices higher in August. Below average stocks of heating fuels in Atlantic Basin markets just prior to the winter heating season served to heighten sensitivity to circumstances seen as adverse to market stability. Short supplies of gasoline during the summer "driving season" in North America sensitized markets to the lingering thinness of distillates stocks and affected prices throughout the petroleum products complex. OPEC's reference basket price passed the $28 mark on August 14, starting the clock toward a production increase that would begin on September 8 if the price failed to drop. At different points during the month, the United States, Japan, the European Union, and Australia each voiced concern about continuing high prices. By the end of the month, Saudi Arabia unofficially indicated that it would lobby other OPEC members to increase production above the 500,000 barrel-per-day allocation, if necessary. It also expressed a willingness to raise output alone if other group members were unable or unwilling to increase production. By September crude oil production rates and supply levels were the most significant factors affecting prices. Many market watchers believed OPEC's automatic 500,000 barrels-per-day increase was insufficient to stem rising prices. While the group announced a resolution on September 10 to raise production 800,000 barrels per day, effective October 1, market observers pointed out much of the increase simply validated earlier overproduction, estimated at 600,000 barrels per day. While the announcement caused prices to ease to varying degrees, the decline was short-lived. Shortly afterwards, prices rose sharply, following accusations by Iraq that Kuwait was stealing oil from its fields in border areas. Further, comments from U.S. President Clinton regarding the effect of oil prices on the U.S. economy were interpreted as reducing the possibility of a release of crude oil from the Strategic Petroleum Reserve (SPR). However, on September 22, Clinton announced a release of 30 million barrels of crude oil from the SPR. Combined with a statement the following week by Saudi Arabian Crown Prince Abdullah indicating a willingness to supply more product to stabilize the world oil market, along with the probability that Iraq would not cease exports, the SPR release sent international crude oil prices down markedly during the final week of the September.

Prices remained volatile at the beginning of the final quarter of 2000. Market activity was frequently focused on political issues during October. At the start of the month, tensions in the Middle East rose on accusations and counter-accusations between Iraq and Kuwait regarding alleged theft of oil from fields situated near the border of the two countries. The threat of a hurricane disrupting oil production in the Gulf of Mexico added firmness to rising prices. Prices also reacted sharply to rising Israeli-Palestinian violence and a bombing attack on the U.S.S. Cole in the Yemeni port of Aden on October 12. They eased following a temporary accord reached between Israeli and Palestinian negotiators, allaying market trepidation that Arab nations would retaliate against countries supporting Israel by enacting crude oil export bans. Despite the downturn, prices remained restive due to market worries about finished product supplies in key world markets and still-simmering tensions in the Middle East. By the end of October, prices dropped again when OPEC confirmed a production increase in accordance with the group's price band mechanism. By November, cost trends reflected solid demand for crude oil and ongoing low finished product stock levels in Atlantic basin markets. Robust refining margins, made possible by high prices for finished products, led some refinery operators to delay scheduled maintenance on facilities. Also, continuing turmoil between Israelis and Palestinians along with issues associated with the U.N./Iraq "oil-for-food" program affected prices at various times during the month. Prices also rose leading up to, and following an OPEC meeting where the group announced on November 12 that they would not increase wellhead production for a fifth time in 2000. In effect, the decision suspended the group's price band mechanism. During the final month of the year, prices dropped substantially from the ten-year highs struck in late November despite a halt to Iraqi crude oil exports on December 1. Assurances by Saudi Arabia to increase production and promises by the United States and the International Energy Agency to implement measures that included releasing supplies from strategic reserves eased market nervousness. Iraq resumed exports on December 13 following a renewal of the "oil-for-food" program for another six-month term on December 5. As prices slowed their descent later in the month, market interest focused on whether OPEC would cut production during its next meeting in January. If the reference price falls below the $22-per-barrel floor of the price band for 10 consecutive business days, production would be cut by 500,000 barrels per day. Many of the group's members endorsed an output cut to sustain prices. As the year drew to a close, a growing consensus among market participants that OPEC would cut production fortified prices.

In the United States, the year 2000 proved to be a volatile one for crude oil and finished product prices. The year began quietly enough, with finished product prices dropping a bit during the first days of January. Most product prices receded from December levels due to market sentiment that demand would be slow due to pre-Y2K stockpiling and a period of warm winter temperatures. Lower product prices coupled with the continuing vigorousness of crude oil prices prompted a number of refiners to cut runs, causing the national refinery utilization rate to fall to its lowest level in several years. More specifically, despite the mandated use of federal Phase II reformulated gasoline in ozone non-attainment areas as of January 1, gasoline prices remained quiet during the first part of the month. Distillate prices followed suit because of slower demand. However, later in the month, unexpected refinery problems combined with forecasts for colder temperatures caused the spot price for No. 2 heating oil at New York Harbor to surge more than 50 cents per gallon in one week's time. While the price dropped sharply during the final days of January, it experienced an extraordinary spike at the beginning of February due to cold weather and sharply reduced stockpiles in Northeastern markets. Once supplies reached the region and demand eased due to milder temperatures, the price retreated to a more normal range. Although generally on a downward path, prices for all products continued to be unsettled during March, largely due to low stock levels. Uneasiness about low gasoline stock levels affected prices throughout the country. The approaching switch from winter-specification gasoline to a summer-specification product increased market uneasiness since the ability of producers to make enough product complying with federal Phase II reformulated gasoline standards was in question in light of refinery problems across the country. Despite these issues, prices dropped from their high levels by the end of March as pressure from rising refinery use and the accompanying increase in finished product production and stocks.

A fresh spate of problems at a number of refining facilities in mid-April reversed declining prices and reflected the general tone of volatility during the second quarter of the year. In particular, rising distillates demand for springtime agricultural use coupled with cool temperatures in the Northeast encouraged demand for heating oil and drove prices higher. Interest in finished product stock levels, particularly for gasoline, continued to affect prices in markets across the country during May. Although stocks had risen moderately in recent months, they remained below average, continuing the trend seen since late 1999. When unexpected disruptions to refining and delivery systems occur, lean stockpiles commonly intensify market reaction to the incidents. Such was the case in May. Refinery problems on the West Coast caused spot market prices for ultra-clean CARB gasoline to spike in California markets. Troubles at other facilities across the country contributed to price increases in other regional markets. However, the most significant price changes took place in the Midwest due to problems that occurred on the Explorer pipeline in March. By mid-May, stores of RFG at some terminals in the St. Louis area were depleted. The federal Environmental Protection Agency (EPA) granted several temporary waivers to alleviate the supply problem. The RFG supply problem also affected prices in other areas in the region, particularly in Chicago and Milwaukee. At month's end, prices for all gasoline formulations were feeling the effects of the soaring costs for RFG. By mid-June, prices in Chicago and Milwaukee areas rose to inordinately high levels. As a result, the Governor of Illinois approved a 6-month suspension of the state's 6.25 percent sales tax, effective July 1, 2000. The 5 percent sales tax in Indiana was also suspended for 60 days beginning July 1. Prices in the region retreated as more supplies reached the area by the end of the month. However, the situation affected prices in other regional markets particularly, on the East and West coasts. Refinery problems and tight supply levels affected both regions in addition to product being diverted to Midwestern markets. High finished product prices in Europe further affected East Coast markets, which sharply dampened trans-Atlantic trade. Additionally, natural gas prices which had risen significantly across the country due to tight supplies caused a shift to residual fuel oil by users in some areas, which in turn drove up the residual fuel oil price in several key markets.

Markets were calmer in July as many of the immediate supply and infrastructure problems abated. Despite that, the longer term view remained troubling. Inventories remained at low levels especially for crude oil and distillates. By the last week of July, crude oil stocks approached 24-year lows for the same period. Distillate stocks were more than 17 percent lower than in July 1999, which elicited worries about the availability and price of heating oil in the coming heating season. In August prices increased under pressure from a combination of factors including low stock levels, mixed messages from international oil producers, reactionary markets, refinery outages, and the threat of hurricanes along the Gulf Coast and in the Caribbean. The heavy emphasis on producing gasoline during recent months came at the expense of distillate production. As a result, stocks of distillates were substantially below average. Stocks in New England stood at about one third of their August 1999 level while inventories in the Central Atlantic region were at about half their August 1999 level. High prices for natural gas and refinery outages also affected distillate prices across the country, especially on the West Coast. Many factors spurred the high price: short supplies, higher utility demand stemming from a shortage of natural gas due to an explosion on a major supply line in New Mexico, solid demand for jet fuel and other distillates in Asian markets, and facilities problems that forced refiners into the market. Many of the same issues remained in play during September. Markets continued to react to low stock levels of key products and refinery production problems. An approaching OPEC meeting aroused additional pressure on product prices, in large part due to conflicting messages about the size of the production increase from group members. Nevertheless, prices yielded to pressure from the release of 30 million barrels of crude oil from the SPR during the latter part of the month.

Prices were in a volatile mode during much of the final quarter of the year. Prices rose appreciably during the first two weeks of October as international political tension reverberated through petroleum markets. As some had anticipated, the focus to produce distillate products came at the expense of gasoline production. Against typical seasonal trends, gasoline prices surpassed heating oil prices at New York Harbor in mid-October and remained in that position until the second week of November. At that point, distillate prices across the country began to rise as cold weather descended across the country. In addition to ongoing market concern about adequate inventories of heating oil for the coming winter season, record-breaking high natural gas prices aided the surge in distillate prices. Although prices were the highest seen since February's extraordinary spike, they were not enough to help trigger a release from the Northeast Heating Oil Reserve. During the closing month of the year, crude oil and finished product prices declined to some of their lowest levels in months. The ongoing influx of product from the Strategic Petroleum Reserve (SPR) influenced crude oil prices and the view that demand would follow characteristic seasonal trends and decline during the next few months. Gasoline prices experienced the most significant decreases at the beginning of December, outpacing the drop in crude oil prices. Supply reports showed gasoline stocks were within close range of year-ago levels and were comfortable enough to meet current demand. However, gasoline prices went against the general trend at the end of the month in part because of a heavy slate of refinery repairs scheduled for January. Market attention was increasingly focused on distillate fuels due to cold temperatures, inclement winter weather, and record-setting high natural gas prices across the country. Persistent cold weather and predictions for a severe winter storm particularly affected heating oil prices in the Northeastern region of the country at the close of the year. Support for distillate prices in that and other regional markets came from large volume end users who typically use natural gas. With skyrocketing natural gas prices, these consumers—particularly power generation companies—sought a less expensive alternative to it. As a result of these factors, distillate demand in December is estimated to have risen more than 14 percent from November's level. Despite that, prices closed December and the year lower than they had been since August.

Crude Oil

The daily spot price for West Texas Intermediate (WTI) crude oil at Cushing, Oklahoma followed an unsettled course during 2000. Opening the year at $25.56 per barrel, the price began to rise primarily in reaction to talk of extending OPEC production cuts past their scheduled expiration at the end of March and concern about falling stock levels. By early March the price had reached its highest level since 1990. However, once it became evident that members of OPEC would increase production in addition to output increases from other producing nations, the price dropped sharply. On April 10 the price reached the annual low of $23.91 per barrel. After that point, the price advanced along an upward path through the remainder of the second quarter of the year. Following a period of decline in July, the price began to rise again as concern about international production and export rates increased in addition to growing concern about low finished products stock levels. The price reached its annual high of $37.22 per barrel on September 20. However, it dropped sharply following President Clinton's approval of a release from the SPR on September 22. During the final quarter of 2000, the price remained sensitive to news concerning crude oil production and supply in addition to trends relating to stock levels of finished products. In December the price dropped considerably, influenced by the ongoing issue of crude oil from the SPR. The price closed the year at $26.72 per barrel.

- Average crude oil prices for 2000 increased dramatically from 1999 levels in all categories. The average domestic crude oil first purchase price underwent the greatest increase, rising $11.16 (71.7 percent), to $26.72 per barrel.

- The average free-on-board (f.o.b.) cost of imported crude oil rose $9.80 (59.5 percent), to $26.27 per barrel. The average landed cost of foreign crude oil increased $10.30 (59.8 percent), to $27.53 per barrel.

- The average refiner acquisition cost of domestic crude oil rose $11.21 (62.6 percent), to $29.11 per barrel. The average cost of imported crude oil to U.S. refiners climbed $10.44 (60.5 percent), to $27.70 per barrel. The composite refiner acquisition cost of crude oil in the United States increased $10.75 (61.4 percent), to $28.26 per barrel.

Petroleum Products

Motor Gasoline

The daily spot price for regular gasoline at New York Harbor experienced considerable volatility during 2000. After opening at 65.8 cents per gallon, the price reached its annual low of 64.0 cents per gallon on January 7. Following that, the price began to climb and continued to rise appreciably during much of the first quarter of the year as refinery operations were affected by both scheduled and unscheduled maintenance and uneasiness about stock levels mounted. After a pronounced decline during the first half of April, resulting from easing concerns stock levels and rising production, the price reversed the downward trend and rose substantially during the remainder of the second quarter. By July, as the refinery problems and disturbances in regional distribution systems that led the price upward during the previous weeks abated, the price began to drop from its high level. However, the decline was short-lived. The price returned to a pattern of firm growth during August due to concern about declining stock levels and disruptions to refinery operations. The high for the year was marked on September 6, when the price reached $1.043 per gallon. The price continued in a volatile mode during the final months of 2000, rising and falling as a variety of political events and fundamental market issues influenced it. Following a steep drop in December, the price closed the year at 76.4 cents per gallon, about 10 cents higher than where it began 2000.

- National average gasoline prices for 2000 soared above 1999 levels. The average price for retail sales of motor gasoline by refiners jumped 32.5 cents to $1.106 per gallon, while the average wholesale price rose 31.8 cents to 96.3 cents per gallon. Including data reported by a sample of motor gasoline marketers, the national average price at company-operated retail outlets climbed 33.0 cents, to $1.095 per gallon. The average wholesale price leaped 32.1 cents, to 96.6 cents per gallon. The average dealer tank wagon (DTW) price for motor gasoline increased 32.0 cents, to $1.047 per gallon. The average rack price rose 32.0 cents to 94.1 cents per gallon. The average bulk sales price increased the most, climbing 33.2 cents to 88.1 cents per gallon. The average difference between reformulated and conventional gasoline prices was 7.4 cents at retail and 9.8 cents at wholesale. The difference between conventional and oxygenated gasoline prices was 6.8 cents at retail and 9.2 cents at wholesale.

- Refiner sales of finished motor gasoline fell in many categories from 1999 levels. Total sales declined 3.6 million gallons per day (1.0 percent), to an average of 365.3 million gallons per day. Retail sales dropped 1.1 million gallons per day (1.8 percent), while wholesale decreased 2.5 million gallons per day (0.8 percent). Rack sales accounted for 65.0 percent of refiner wholesale gasoline volumes, while DTW and bulk sales made up 22.8 percent and 12.2 percent, respectively. Sales of reformulated gasoline (RFG) constituted 32.2 percent of total motor gasoline sales, while oxygenated gasoline made up 3.2 percent of sales.

No. 2 Distillate

2000 proved to be a notable year for the daily spot price for No. 2 heating oil at New York Harbor. After opening at 68.7 cents per gallon, the price slipped to its low of 66.0 cents per gallon on January7. Shortly after that, the price began the first of two extraordinary increases. Beginning on January 14, the price jumped nearly 60 cents per gallon to $1.359 on January 25. Although the price retreated sharply during the next several days, it soared again, reaching the year's high of $1.765 on February 4. Both spikes were caused by severe winter weather and sharply reduced stockpiles of the product on the East Coast. The price declined as quickly as it rose as the market reacted to reports of more imports from foreign markets and forecasts for warmer temperatures. While not as mercurial, the price continued to be unsettled during the rest of the year as concern about low stock levels for this and other petroleum products persisted among market players. Following a final upswing in November caused by an early batch of cold weather and high natural gas prices, the price began to ratchet its way down during December and closed the year at 93.1 cents per gallon.

- Yearly average No. 2 distillate prices rose significantly in 2000. The national average residential price jumped 43.5 cents to $1.311 per gallon. The average wholesale price climbed 36.3 cents to 90.1 cents per gallon. The national average price at company-operated retail outlets for No. 2 diesel fuel increased 35.1 cents to $1.036 per gallon, while the average wholesale price climbed 35.2 cents, to 90.4 cents per gallon. The difference between low- and high-sulfur diesel fuel prices averaged 3.3 cents per gallon at retail and 3.4 cents per gallon at wholesale.

- Refiner sales of No. 2 distillate generally rose in 2000. Total sales increased 3.6 million gallons (2.5 percent) to 147.5 million gallons per day. No. 2 fuel oil sales declined 1.2 million gallons per day (4.4 percent) while sales of No. 2 diesel fuel rose 4.8 million gallons per day (4.1 percent). Low-sulfur diesel accounted for 82.5 percent of all diesel fuel sales and 67.9 percent of all refiner No. 2 distillate sales.

Residual Fuel Oil

- Average residual fuel oil prices increased across all sales categories in 2000. The refiner price for retail sales of low-sulfur residual fuel rose 30.3 cents to 70.8 cents per gallon. The wholesale price increased 24.5 cents to 62.7 cents per gallon. Refiner high-sulfur residual fuel prices climbed 20.4 cents, to 56.6 cents per gallon at retail and 18.3 cents to 51.2 cents per gallon at wholesale. Including data reported by the sample of residual fuel oil marketers, the average low-sulfur price rose 27.7 cents to 68.3 cents per gallon at retail and 25.6 cents to 63.8 cents per gallon at wholesale. The average price for high-sulfur residual fuel increased 21.0 cents to 57.6 cents per gallon at retail and 19.0 cents to 52.3 cents per gallon at wholesale.

- Residual fuel oil sales by refiners in 2000 declined in all categories. Total refiner sales of residual fuel oil fell 1.8 million gallons per day (7.1 percent), to an average of 23.6 million gallons per day. Low-sulfur residual fuel oil sales dropped 1.0 million gallons per day (10.9 percent), while high-sulfur residual fuel oil declined 800,000 gallons per day (4.9 percent).

Other Products

- 2000 average prices for products included in this section increased considerably from 1999 levels. Refiner propane prices rose 14.5 cents per gallon at retail and 25.3 cents at wholesale. Including the sample of propane marketers, the average residential propane price climbed 28.8 cents to $1.173 per gallon, while the average wholesale price increased 24.9 cents to 60.3 cents per gallon. Refiner prices for kerosene-type jet fuel, No. 1 distillate, No. 4 distillate, and aviation gasoline rose at both levels, substantially in some instances.

- The volumes of refiner sales of these products were mixed in 2000. Propane sales decreased at retail but rose at wholesale. Sales of kerosene-type jet fuel rose at both levels, while sales of No. 1 and No. 4 distillates decreased at both retail and wholesale. Sales of aviation gasoline and kerosene increased at retail but fell at wholesale.