HOUSTON BUSINESS BRIEFS

Renewed Profitability In Gulf Coast Refining

The oil refining segment of the petroleum industry is experiencing renewed profitability. Previously overshadowed in the industry by the multi-billion dollar boom in Gulf Coast petrochemical plant construction, oil refining operated on narrow, unprofitable margins and slowly closed capacity throughout much of the 1980s. This has now changed..

An upturn in gasoline consumption since 1985, combined with more extensive use of premium grades of gasoline, are principally responsible for the growth in the oil refining segment. These changes in the market have restored health to profit margins, led to extensive capital improvements, reopened shut-in capacity and produced speculation of new domestic refinery construction in the near future.

A good measure of the oil refining industry's health is its gross margins. Figure 1 shows the selling price for refinery products and the price of crude feedstocks. The difference between these two levels represents the industry's gross margins.

Gross margins must exceed operating costs of $2.50 per barrel to contribute to capital recovery. This level has been maintained almost continually since 1986.
In 1988, the industry experienced a record year for profits in spite of narrow margins early in the year. Last year was again profitable for the industry, although margins were not as high as in 1988.

Industry Trends

An array of energy products from kerosene to asphalt is produced from oil, but gasoline drives the refining industry. The total number of miles driven by vehicles in the United States grew at an annual rate of 2.1 percent from 1975 to 1985. This is down from a long-term trend of 4.4 percent annual growth. A major contributor to this decline in growth is the increasing fuel efficiency of U.S. vehicles. During this time, vehicle fuel efficiency improved 20 percent. As a result of these market trends, domestic production of gasoline peaked in 1985 at 7.2 million barrels per day, and languished at 6.3 to 6.5 barrels per day from 1980 to 1985.

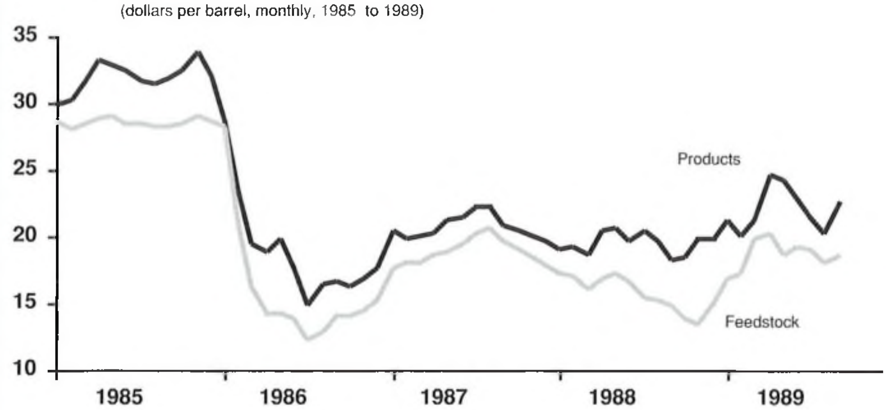
In spite of this level of domestic production, gasoline imports remain a small part of the U. S. market. Many of OPEC's plans for extensive downstream operations were shelved when oil prices plunged. Also, their existing gasoline production mostly affects European markets.

Gasoline consumption turned around in 1986, and by 1988 domestic refining returned to 7.0 million barrels per day. Capacity utilization, which fell below 70 percent in the early 1980s, moved above 85 percent last year.

continued on page four

Figure 1 Cost of Refinery Products and Feedstock

(dollars per barrel, monthly, 1985 to 1989)



Source: Oil and Gas Journal

Houston Beige Book Survey Results

OPTIMISM about the Houston economy is widespread, according to the February/March Houston Beige Book survey. As one respondent put it, "There are just too many good things going on in the Houston economy not to count on another good year."

Recent data bear this out. An anticipated seasonal rise in unemployment failed to materialize in January. In fact, the unemployment rate fell to 4.7 percent. This is the lowest rate since 1982. Construction employment rose by 8,500 in the last year, and residential connections of electric and telephone utilities are reported as very strong. Responses to the beige book survey conducted by the Houston Branch of the Federal Reserve Bank of Dallas continue to support high levels of activity in the Houston area in February and early March.

The following is a more in-depth view of a few specific industries according to the survey results.

Retail Sales

Retail sales continue to grow in Houston with comfortable month-to-month increases. Fall inventories cleared out well, and the outlook for spring is very positive with purchases geared to the kind of increases seen in 1988 and 1989.

January auto sales in Houston ran ahead of last year as rebates returned to the market, and February sales remained at a pace well ahead of the nation. No inventory problems were reported by Houston auto dealers.

In spite of this, increased volumes have not translated into high profits for many Houston retailers. Competitive discounting has hurt profits.

Further, there is a high ratio of retail square footage to population in Houston. New malls in various stages of development in Texas City, The Woodlands and First Colony will not help this situation. Similarly, unit auto sales in Houston are little changed from the early 1980s, but 50 more dealerships make continued consolidation seem likely in the auto market.

Oil Services

The rig count for the first two months of 1990 was up 19 percent from the first two months of last year and was up 36 percent in the Gulf of Mexico. Activity in the Gulf remains high, with 127 December completions of gas wells accounting for 27 percent of the 1989 total rig count.

Soviet cuts in exports, combined with stronger than anticipated demand in the United States and in less developed countries, have led to expectations of higher oil prices in 1990. One respondent expects that international sales will rise throughout the year and U.S. sales "will really pick up strongly by summer."

Petroleum Products

Refiners report that crude runs are up this year, and inventory holdings of gasoline are down, as the big freeze of December forced refiners to refill depleted stocks of fuel oil. Another four to six weeks will be required to bring gasoline stocks back to normal levels. Overall, respondents expect strong demand for gasoline this year.

The petrochemical market remains soft, blamed on slack product demand or new capacity coming online by survey respondents. The petrochemical outlook for this year is for markets to weaken only slightly, but as one respondent states, "we didn't predict last year to be nearly as soft as it was."

Wood Products

East Texas lumber mills report that wet weather has made it difficult or impossible to get logs out of the woods. The problem is shared nationally, and prices for logs to produce pulp and other products are rising. It will be 60 to 90 days before they catch up on orders even if the weather turns dry.

Paper demand remains steady with some inventory increases reported in bleached products. Both bleached and linerboard products show softer prices or discounting from the fourth quarter, and survey respondents expect bleached product prices will continue to decline without an increase in demand over the next month.

Demand for building products generally has been strong because of excellent weather in the southern United States this winter, according to respondents. Respondents also believe the usual spring revival in these products won't materialize because of this early start. Specialized products for multi-family units "are dead in the water, with inventories rising fast."

Real Estate

The Houston apartment market was the most active in the nation last year for investment purchases of apartments, as 25 percent of the 400,00 units in Houston was sold to investors. Occupancy inside the loop is 95 percent or better, and this tight market is felt widely throughout the city. After a near standstill since the mid-1980s, construction has begun on 11 apartment complexes with 3,000 units.

Improvements in the office building market remain less broad, with improvements concentrated in downtown, North Belt, Galleria and the Energy Corridor. Single-family housing remains strong in the move-up category, according to survey respondents. Houston's five large planned communities sold 3,700 units last year. Sales through December continued very strong, and walk-through traffic is reported to be very heavy in model homes. ♦

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Increased Gas Consumption Means Refinery Expansion

Continued from page one

Capital improvements during this same time have been widespread, driven by environmental regulation (especially the use of unleaded gasoline) and the demand for high octane unleaded gasoline. In 1988, the demand for gasoline rose 2 percent, while the demand for unleaded premium grades rose 12 percent. Sun Oil forecasts high and medium octane unleaded gasoline will take one-third of the market by the end of the year.

To meet this rising demand for higher octane grades of gasoline, refineries may choose from a range of technical options. Catalytic reforming is the workhorse for increasing octanes, and pressure and temperatures for reforming units are now at a maximum. There has also been extensive investment by members of the industry in new processes to handle crudes with poor reforming characteristics, or to turn lighter molecules into high octane gasoline. Various additives, such as aromatics or ethanol, are other options available to increase octane levels. Ethanol is popular because of the federal and state subsidies available for its use, and sub-octane gasoline blended with ethanol is quite profitable. Whatever the option, growth in this sector is expected to continue.

Refining on the Texas Gulf Coast

Before Spindletop, the Gulf Coast served as the passageway to world markets for East Texas wood products and Dixie cotton from as far north as the Red River. After the Spindletop discovery in 1901, the Gulf Coast filled the same role for oil. Three refineries were in the region in 1905: Gulf Oil and Texaco at Port Arthur and Standard Oil at Beaumont. As other major oil field discoveries were made at Humble, Sour Lake and as far north as Oklahoma, pipelines reached out to connect them to refineries along the coast.

The Gulf Coast was an ideal location for an oil refinery because it offered access to crude in Texas, Louisiana, Arkansas and Oklahoma through pipeline easily laid over the flat landscape. The Gulf Coast also had a well-developed water and rail distribution system to world markets. Therefore, by 1940, the Gulf Coast was the dominant refining region in the world. Today, 40 percent of the nation's refining capacity lies along the Gulf Coast in Texas and Louisiana.

The most direct economic linkage between refineries and the Gulf Coast economy is employment, and despite the vast investment in the region, it is a linkage that has weakened over time. The man-hours required per barrel of product has shrunk steadily as the oil refining industry has become one of the most highly automated industries.

Refinery employment in Houston peaked at 12,000 workers in the late 1950s and stands at 8,500 today. Beaumont/Port Arthur refinery employment peaked at the same time, and fell from 18,000 workers to fewer than 10,000 today. However, wages paid to refinery workers are among the highest in American industry. In the Houston area, for example, hourly earnings for refinery workers are 40 percent above that of all manufacturing.

Capital investment is another crucial link to the local economy. Between 1981 and 1986, the number of refining facilities in the United States shrunk from 324 to 223, many of which closed permanently. However, the changing product mix simultaneously forced extensive capital improvements. From 1982 to 1986, capital expenditures by refiners in Texas averaged $1.4 billion per year with the Gulf Coast housing 95 percent of the state's capacity. Information concerning capital expenditures since 1986 is not available, but product changes have continued, and the Gulf Coast is home to more than its share of recent process improvements to boost octane.

Finally, are new refineries on the horizon? The industry has moved back to its ideal operating levels of 85 to 90 percent of capacity, but further growth in gasoline consumption would mean new capacity demands. This would require the new refinery expansion.

One stumbling block to this expansion is the clean-air proposals that would mandate use of alternate fuels. The effect of these environmental issues extend much further than oil industry or the Houston economy, but a relaxation of these proposals would considerably brighten the industry's future.

As many as 10 new refineries with a price tag of $1.5 billion could be built in the 1990s nationwide, and the Gulf Coast is certain to obtain its share of this expansion. The engineering design work on these projects would be welcome in Houston as the current round of petrochemical expansion winds down. ❖