MUSINGS FROM THE OIL PATCH

July 12, 2005

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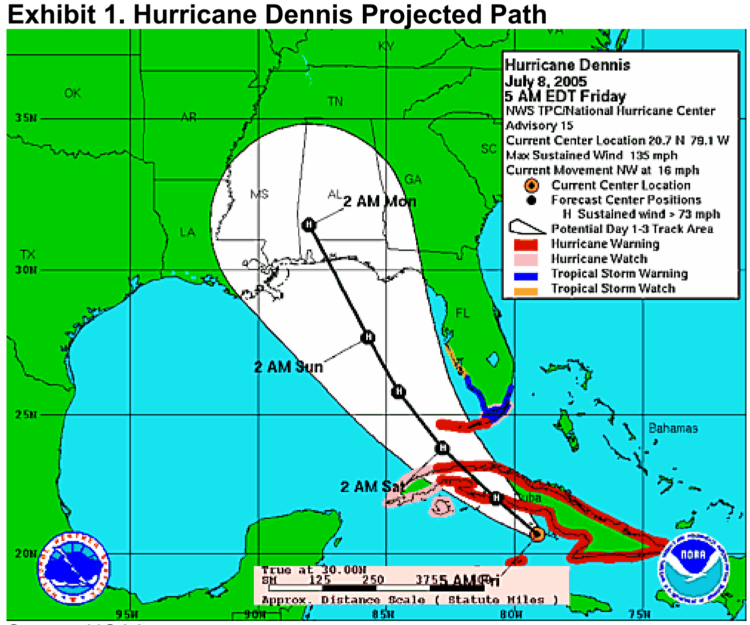
Note: *Musings from the Oil Patch reflects an eclectic collection of stories and analyses dealing with issues and developments within the energy industry that I feel have potentially significant implications for executives operating oilfield service companies. The newsletter currently anticipates a semi-monthly publishing schedule, but periodically the event and news flow may dictate a more frequent schedule. As always, I welcome your comments and observations.* Allen Brooks

Hurricane Dennis Skirts GOM Oil and Gas Infrastructure

Hurricane Dennis was the strongest storm in history to hit the Gulf Coast this early in the hurricane season

The fourth storm of the 2005 hurricane season emerged as the most powerful of the bunch, but it appears to have caused less damage than previous storms. It was the strongest hurricane in history to hit the Gulf Coast this early in the hurricane season. Not many days ago, while Gulf Coast citizens were dealing with the path of Tropical Storm Cindy as it came ashore in south Louisiana, tropical depression Dennis was just starting to take shape. Hurricane Dennis attained Category 4 status with sustained winds of 135-mph late last week before hitting Cuba. The storm crossed that island country and headed back into the Gulf of Mexico on its trek toward

Exhibit 1. Hurricane Dennis Projected Path



Source: NOAA

The warm waters of the Gulf quickly helped rebuild Dennis's strength

the Gulf Coast. As meteorologists had predicted, the mountains of western Cuba knocked down Dennis's strength to a Category 1 storm, but the warm waters of the Gulf quickly helped rebuild its strength. Water temperatures in the central Gulf of Mexico are currently in the 82-84 degree range, and it is warm water that gives hurricanes their strength.

Over the weekend, while trying to gauge just how strong Dennis would become, meteorologists also wrestled with its potential path. The computer models showed Dennis heading toward landfall in the western Florida Panhandle close to the Alabama/Florida line. This region has been a frequent target of hurricanes in recent times. On the other hand, the AccuWeather service suggested that there was a potential of Dennis to land further west, possibly even delivering a direct blow to New Orleans. The difference between these two projected paths presented significant implications for domestic oil and gas production.

Exhibit 2. Path of Tropical Storm Cindy Hits GOM Oil Patch

Source: AccuWeather

By Friday, the shut-ins reported by the MMS related to Hurricane Dennis reached 15% of our daily oil and 10% of our gas production

The last data on evacuations and production shut-ins due to Tropical Storm Cindy, as reported by the Minerals Management Service (MMS), showed 12.7% of daily crude oil and 7.5% of natural gas production. By Friday, the shut-ins reported by the MMS related to Hurricane Dennis reached 15% of our daily oil and 10% of our gas production. Some 85 platforms and 35 drilling rigs had been evacuated. We expect that these totals went higher over the weekend, but the MMS does not report data on Saturdays and Sundays.

Since Hurricane Dennis ultimately followed the trajectory projected by the majority of the computer forecast models, there likely was a less significant impact on offshore operations than if it had gone closer to New Orleans. We won't know for sure about this conclusion for a few days, but we expect a fairly rapid restoration of production and offshore activity. We understand that the Louisiana Offshore Oil Port (LOOP) began to unload ships again on Sunday after being shut down on Friday and Saturday. It supplied refineries in the interim with crude oil it had stored onshore.

We anticipate little damage to the offshore producing facilities

The original, and later revised, forecasts for 2005 tropical storm activity had predicted a very 'active' year. With the first storm arriving within days of the start of the season and now four storms within roughly the first 40 days of the season, this categorization of the 2005 hurricane season appears accurate. The major issue for the oil and gas industry is whether the storms that might develop during the balance of the season will continue to find their way into the Gulf of Mexico further disrupting oil and gas operations. An unknown issue is the potential for significant oil and gas infrastructure damage such as caused by Hurricane Ivan last year. Hurricane Dennis was stronger than Ivan, but was smaller in size and moved faster through the Gulf of Mexico. As a result, we anticipate little damage to the offshore producing facilities. The only thing we can safely predict is that the more disruptions experienced this year, the greater the upward pressure on oil and gas prices.

Saudi Arabia: A Future Oil Shortage

We were intrigued that the story in last Thursday's *Financial Times* quoting Saudi officials that the Organization of the Petroleum Exporting Countries (OPEC) will be unable to meet projected western oil demand in 10 to 15 years went virtually unnoticed. Quite possibly it was due to the fact the story came out the same morning terrorists set off bombs in London and attention was understandably diverted. According to International Energy Agency forecasts, OPEC needs to boost its production from 30 million to 50 million barrels per day by 2020 to meet global demand projections.

Saudi Arabia calculates there is a 4.5 million b/d gap between what the world will need and what the kingdom can provide

The *Financial Times* says that senior Saudi energy officials have privately warned U.S. and European counterparts that OPEC would have an "extremely difficult time" meeting that demand. Saudi Arabia calculates there is a 4.5 million b/d gap between what the world will need and what the kingdom can provide.

The interesting question is how does one square this statement with all the Saudi officials' and Saudi Aramco executives' statements about the ability of the kingdom to supply all the oil the world will need for the next 30-50 years? Unfortunately, this news story does nothing to clear up the debate over the health of Saudi Arabian oil reserves and productive capacity. Will we soon be treated to a clarification of the article in the form of another official pronouncement about the robust health of Saudi's oil industry?

China Continues to Attract Energy Investors

ExxonMobil, Saudi Aramco and Sinopec signed a $3.5 billion deal to expand a refinery in Fujian province in southeastern China

On Friday, ExxonMobil (XOM-NYSE), Saudi Aramco and China Petroleum and Chemical, Sinopec, the largest Asian refiner, signed a $3.5 billion deal to expand a refinery in Fujian province in southeastern China. Fujian province is north of Guandong province on the coast of China and directly across from Taiwan. Each company and the government of the province will own a quarter of the refinery. The investment will enable a tripling of the refinery's capacity to 12 million tons per year (tpy), or the equivalent of 230,000 b/d. The plan includes constructing an 800,000-typ ethylene cracker to produce naphtha. In addition, several downstream facilities would be built, including a 650,000-tpy polyethylene plant, a 400,000-tpy polypropylene unit and a 1 million-tpy aromatics plant that will be fed by the naphtha output. Polyethylene and polypropylene are used to produce plastics while aromatics are used as blending agents in the production of gasoline.

Exhibit 3. Fujian Province of China

Source: Mutzag Travel

The foreign partners are gaining access to China's protected retail fuel sector, an important consideration according to ExxonMobil

China, the world's number two oil consumer, is struggling to expand its refining capacity to feed its energy demand growth. The country's refining capacity is set to expand by nearly 30% in the next five years. As part of the investment, the foreign partners are gaining access to China's protected retail fuel sector, an important consideration according to ExxonMobil's chief Lee Raymond. "This is an integrated project in the sense of refining, chemicals and marketing, which makes it unusual," according to Raymond.

ExxonMobil is also considering another integrated refining complex in China's Guandong province while Saudi Aramco says it is negotiating with Sinopec for a stake in a proposed $1.2 billion refinery in eastern China. ExxonMobil and Saudi Aramco are joining Royal Dutch/Shell (RD-NYSE), BP plc (BP-NYSE) and Total (TOT-NYSE) who are already active in China's retail fuel business. The rapid growth of China's transportation industry is projected to push demand up to 7.2 million b/d by the fourth quarter of 2005, a 9.1% increase over the same quarter in 2004. Given the limited growth in domestic crude oil supply, China's imports will account for 50% of its demand by the fourth quarter. Expansion of domestic refining capacity is imperative if the country is going to have adequate fuel supplies.

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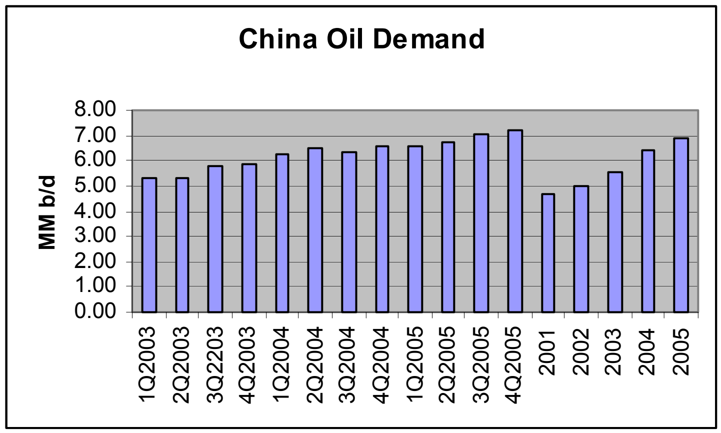
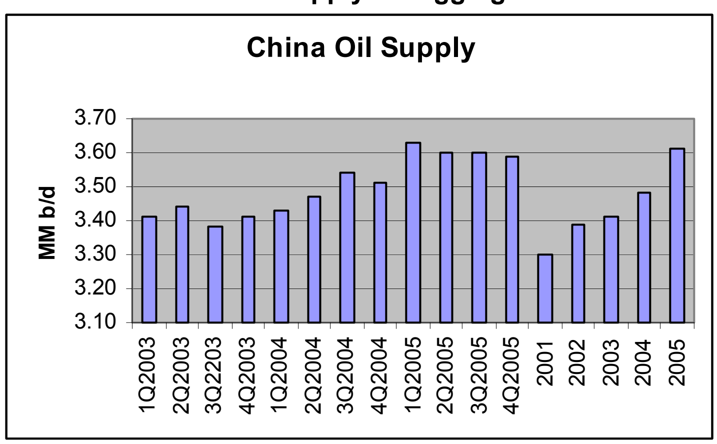
Exhibit 4. China's Oil Demand Continues to Grow



Source: IEA; PPHB

Exhibit 5. China's Oil Supply is Lagging



Source: IEA; PPHB

China has arrived

What we find most interesting in this transaction is the fact that ExxonMobil, one of the most conservative oil company investors, has made this commitment. Raymond indicated that they had been working on the investment for ten years, and that it now had reached the point where it could go forward. To us this represents an acknowledgement that China has arrived. By that we mean it has growth characteristics, both in terms of demand and investment that

ExxonMobil finds attractive and compelling for the long-term. Their investment represents a blue ribbon endorsement of the future of China as a petroleum market.

World Growth to Slow Say Strategists

The conclusion of the poll is that world economic growth should slow this year to a 4.0% rate compared to last year's 5.1% rate

Reuters news service conducted a poll among 22 strategists at major investment banks during the July 4-6 period. The conclusion of the poll is that world economic growth should slow this year to a 4.0% rate compared to last year's 5.1% rate as reported by the International Monetary Fund (IMF). The 2005 growth rate forecast, while lower than last year, which was the highest level in thirty years, still exceeds the 20-year average of 3.5% annual global growth.

The range of growth forecasts was from 2.8% to 4.3%. The median value has barely changed from the prior poll taken in January. Essentially the slower growth is due to tighter fiscal policy, higher interest rates, higher oil prices and a maturing economic cycle. Interestingly, the strategists said that if oil prices stayed at around current levels of $60 per barrel, rather than the $52 average in the forecasts, the growth forecasts only would be reduced by about 0.1% to 0.2%. Were that to happen, the 2005 growth rate would still exceed the 20-year average.

The median forecast for global growth in 2006 is 3.9%

The strategists see little change in the outlook for global growth in 2006. The median forecast for global growth in 2006 is 3.9%. The range of forecasts was 2.5% to 4.2%. The most recent forecasts by the IMF made in April call for growth of 4.3% and 4.4% in 2005 and 2006, respectively.

As expected, the United States is the main driver of global economic growth. China, the world's second economy measured by purchasing power parity and the seventh by total GDP according to the World Bank, should grow 8.8% this year in contrast to the euro zone that should only grow about 1.5% this year. Next year, the U.S. growth should slow, but the long-awaited euro zone recovery should help offset the slack. Is that wishful thinking?

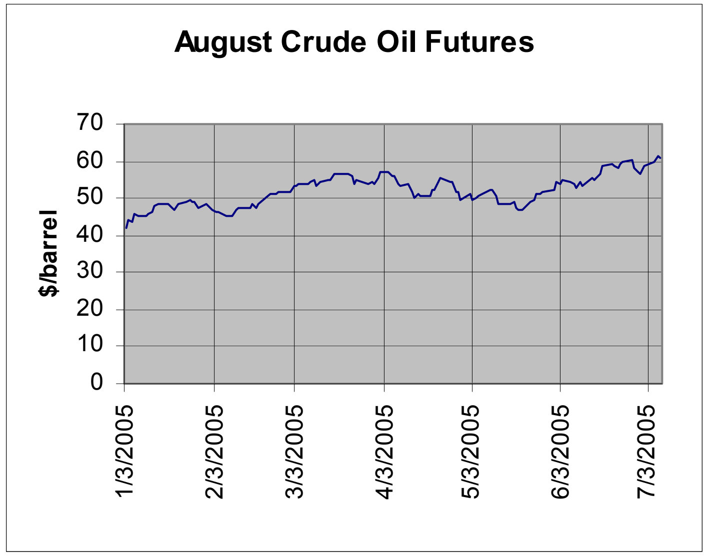
The Volatility of Crude Oil Futures

Since we crossed the $50 per barrel threshold price for crude oil futures their price action has become more volatile

Ever since we crossed the $50 per barrel threshold price for crude oil futures their price action has become more volatile. The daily volatility is driven by news, anticipated events, emotions and speculative trading opportunities. The most recent examples of this volatility occurred Thursday following the news of the London terrorist bombings and then again on Friday as Hurricane Dennis was about to hit Cuba. In each case, the price volatility should not have been unexpected, but the final results were probably different than people might have thought.

Crude oil prices have climbed 41.6% since the start of 2005. They first crossed the $50 per barrel threshold in late February and stayed up there until May 18 when the August futures closed at $49.96. The decline bottomed out on May 23 with a low at $49.05. From then until Wednesday, July 6, crude oil futures prices essentially moved straight up, peaking at $61.28.

Exhibit 6. Crude Oil Prices Climb in 2005



Source: EIA; PPHB

From the high to the low for the day, August crude oil futures prices moved down by 8.6%, or $4.90 per barrel

On Thursday, July 7, futures prices were rising (in London) when the first announcements about the terrorist attacks came. Crude oil futures prices spiked to $62.10 as investors rushed to buy oil speculating that commodities would be a safe investment haven, especially if there were other terrorist attacks. But after that initial price uplift, investors shifted their focus to the fact that there were no more attacks, that the London attack was on its transportation system and that global travel might be hurt by the attacks. Crude oil futures prices started to plummet. From the high to the low for the day, August crude oil futures prices moved down by 8.6%, or $4.90 per barrel. Once the NYMEX opened and oil trading in the U.S. began, crude oil futures started to recover. By the end of the day, futures prices had regained $3.53 pre barrel to close at $60.73.

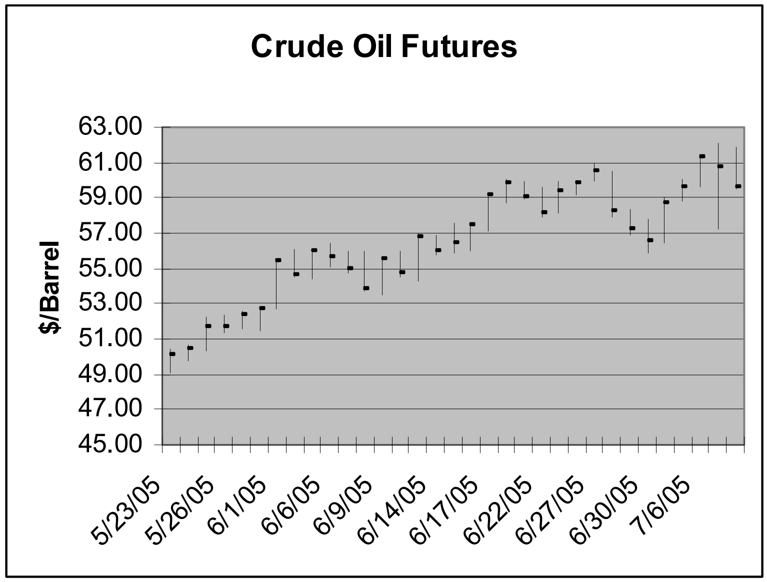
The NYMEX market may have been helped by the release of the oil inventory situation that showed a significant drop in crude oil and gasoline inventories and a rise in distillate inventories. More important was the fact that there were no other terrorist attacks. Additionally, as time passed, investors and traders began to focus on the probability that there would not be a significant reduction in global travel, and therefore oil demand would not likely suffer in the aftermath of the attacks.

Some of the recovery on Thursday was probably driven by increasing concern over the impact Hurricane Dennis might have on the Gulf of Mexico's oil and gas producing infrastructure

Some of the recovery on Thursday was probably driven by increasing concern over the impact Hurricane Dennis might have on the Gulf of Mexico's oil and gas producing infrastructure. As Tropical Storm Cindy forced the shut-in of about 12% of the Gulf's daily oil production and 7.5% of its gas, concern grew that Dennis might shut in a greater volume of production. Additional concern was that Dennis might generate infrastructure damage such as Hurricane Ivan did last September that could cause a meaningful, and extended, reduction in Gulf of Mexico oil and gas supplies.

Monday will likely show a drop in crude oil futures since the storm track did not impact the Gulf of Mexico oil and gas infrastructure as much as feared

Exhibit 7. Recent August Crude Oil Futures Prices



Source: EIA; PPHB

On Friday, July 8, August crude oil futures opened $0.87 per barrel higher and climbed by an additional $0.30 to peak at $61.90 before falling to a low of $59.50, or down $2.40. The futures closed Friday at $59.63, up $0.13 from the low for the day.

With Hurricane Dennis behind us, Monday will likely show a drop in crude oil futures since the storm track did not impact the Gulf of Mexico oil and gas infrastructure as much as feared, i.e., there is probably little physical damage to producing facilities. So investors and traders will turn their focus back to underlying energy demand trends, the next storms headed toward the Gulf of Mexico and current technical trading patterns.

The Bulls and Bears Speak Out In *Barron's*

This is more coverage of the industry in *Barron's* than we have seen in many months – at least since the spring when the stocks were climbing steadily

This week's issue of *Barron's* carried a large article outlining why investments in many of the broad-based oilfield service companies are attractive. However, commodity traders quoted in the Commodities Corner column were negative about the direction of crude oil prices and a portfolio manager talking up the investment merits of Transocean (RIG-NYSE) was questioned in Alan Abelson's investment column. This is more coverage of the industry in *Barron's* than we have seen in many months – at least since spring when the stocks were climbing steadily. As we have pointed out in the past two issues of the *Musings From the Oil Patch*, the technical trading pattern of the OSX (Philadelphia Oil Service Index) has provided incentives for investors to aggressively buy these stocks and the index. So now it seems appropriate for the skeptics to try to 'rain on the parade.'

The author drew the analogy of the profits made by the suppliers of picks and shovels to the gold rush prospectors to the oilfield service companies selling their equipment and services to the oil and gas companies

The major *Barron's* article, entitled "Wave of the Future," focused on the fact that oil prices are expected to stay high and oil companies are ramping up their exploration and development spending. That outlook is good for oilfield service stocks since they haven't risen in price as much as either crude oil or other oil-related stocks such as producers. The author drew the analogy of the profits made by the suppliers of picks and shovels to the gold rush prospectors to the oilfield service companies selling their equipment and services to the oil and gas companies.

While there was essentially nothing new in the article, its emphasis was on where business is strongest and the pricing of the oilfield service stocks. Most of the analysts quoted favor the internationally-focused oilfield service companies. One portfolio manager discussed the recent heavy investor emphasis on offshore contract drillers such as Transocean. He made the point that there has been so much good news due to the wave of new rig contract announcements that the stock price rise has incorporated all this good news. That was why he preferred stocks such as Schlumberger (SLB-NYSE), Halliburton (HAL-NYSE), Baker Hughes (BHI-NYSE) and Weatherford (WFT-NYSE).

A good part of the article was focused on the arguments over the valuation of Schlumberger's stock both in terms of its past, its relative value to the other broad-based oilfield service stocks and the fact it is the industry's least-volatile stock

A good part of the article was focused on arguments about the valuation of Schlumberger's stock both in terms of its past, its relative value to the other broad-based oilfield service stocks and the fact that it is the industry's least-volatile stock. One argument we didn't see was the market capitalization issue. Schlumberger is still the largest market cap stock in the sector by a wide margin, and the entire oilfield service industry remains a small sector. Therefore, if portfolio managers want to establish a position but don't want, or need, to understand the nuances of contract drillers versus service companies, or offshore versus onshore companies, or domestic versus internationally-oriented companies, buying and selling shares of Schlumberger can be the easiest thing to do.

We thought Abelson's view was well reasoned

Alan Abelson's industry-leading column, *Up & Down Wall Street*, discussed the investment merits of Transocean with "an old friend" he calls Harry. We thought Abelson's view was well reasoned. He wrote. "While Harry turned a bit coy when we asked what a good entry price would be for a new buyer of Transocean, we share his feeling that the next temporary break in oil would more than likely create one. It certainly wouldn't knock our socks off if one of these weeks crude took a spill that carried it close to $50 a barrel. And at that point, Transocean, weakening in sympathy, could very well be interesting.

"In this market where there are no screaming bargains, Transocean is symptomatic of a number of stocks quite promising but a tad too pricey (in our view) to be compelling. One of those times, we suspect, when all good things come to him (or her) who waits."

The Commodities Corner titled its article, "Will Storage Bloat Finally Bring Energy-Price Bust?" The article focused on the surging petroleum and natural gas storage volumes. Commercial petroleum inventories are 695 million barrels in the United States, some 37 million barrels more than a year ago. Based on the current rate of stockpiling, we are on a path to reach 740 million barrels. U.S. natural gas inventories are set to reach an all-time high by the end of October of nearly 3.4 trillion cubic feet, barring either a severe hurricane or heat wave.

The tightness of supply and demand means that any significant event that interrupts supply could send prices spiking higher

There was discussion on how the relationship between the petroleum inventory days-of-supply ratio and oil prices seems to have been broken. People acknowledge that the tightness of supply and demand means that any significant event that interrupts supply could send prices spiking higher. This eventuality was given as a reason why larger inventories have not had the dampening impact on prices one would expect. Likewise for natural gas storage, last year's record-high volume, near the limits of physical capacity, may have become the minimum acceptable safe level, and that the industry needs more gas storage capacity.

The concluding paragraph sets the likely tone for commodity markets this week. "But with prices sky high and with the sharply upward-sloping term structure in futures contracts providing a strong financial incentive to store both oil and gas, there's the possibility that energy companies may overdo their stockpiling, setting the stage for a price crash – especially if high prices eventually choke off demand. "The futures market is going to make the physical market prove it first," says [Mike] Schick [president of consulting firm Energy Analytics] 'It's logical that the market's headed in a pretty bearish direction.'"

The anticipated strong second quarter oil and oilfield service company earnings reports due in the next few weeks may not be a catalyst for higher stock prices

The only conclusion we have from all these articles is that whenever there is this much attention on the energy industry in *Barron's*, the stocks/industry often change direction. It reflects that old saying: 'When the news is on the front page of the paper, the trend has peaked.' This doesn't mean that the long-term oil and gas supply/demand trends have been resolved, but rather the issue may be ready to move off the front pages and draw less investor attention. As a result, the anticipated strong second quarter oil and oilfield service company earnings reports due over the next few weeks may not be a catalyst for higher stock prices.

First Warren Buffet, Now GE

GE and Caisse de dépôt, Canada's largest institutional investor, are purchasing the 6,000 mile Southern Star pipeline system from a private-equity fund

On Monday, a deal involving GE (GE-NYSE) and Caisse de dépôt et placement du Québec, Canada's largest institutional investor, to purchase the Southern Star pipeline system from a private-equity fund sponsored by American International Group (AIG-NYSE) was announced. The buyers will pay $362 million and will assume $476 million in debt. The Southern Star system involves 6,000 miles of pipeline. The system is the largest natural-gas transmission system based on miles of pipe and peak day capacity in the central United States according to the Energy Information Administration.

Plans are to double GE's $10 billion energy portfolio over the next three years

According to comments from GE, the investment is part of the energy services unit's strategy to diversify its energy holdings. Plans are to double GE's $10 billion energy portfolio over the next three years. The deal follows last year's joint venture purchase of Cross Energy LLC from Enron Corp. in conjunction with Southern Union Co. Cross Energy consists of two major pipelines that deliver natural gas to Florida and California.

GE's move comes on the heels of Warren Buffet's agreement to purchase PacifiCorp, a U.S. utility, to add to his other energy holdings in MidAmerican Energy Holdings Co.

These transactions mark another segment of the broad energy business going through transition

Following the implosion of the natural gas pipeline and power industries as a result of the financial fallout from the California energy crisis, new investors are moving in to acquire these capital intensive energy assets. For certain sectors of the oilfield service industry, those that supply and service pipeline and power companies, the shift of these assets into the hands of strong financial buyers should mean increased R&M business and new expansion opportunities.

These transactions mark another segment of the broad energy business going through transition that should lead to stronger capitalized and more forward-looking companies. That has to be a plus for the energy industry, and the global population, as well.

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