

MUSINGS FROM THE OIL PATCH

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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

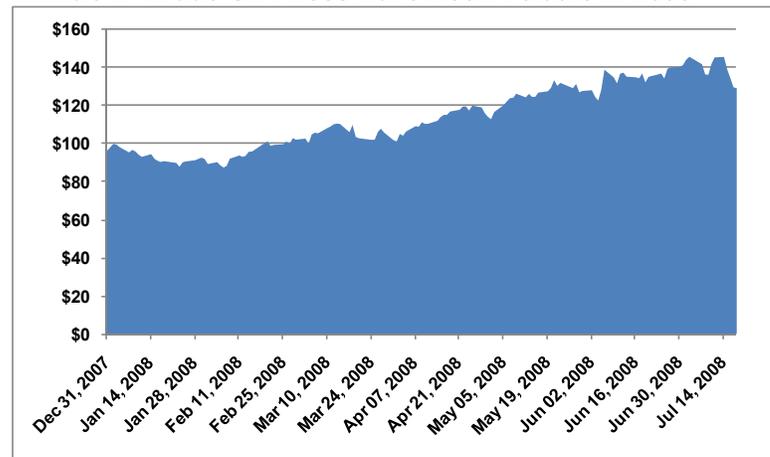
Oil Prices and Energy Stocks – Is The Fun Over?

The rebound suggests to aggressive money managers that they should be dumping the prior stock market leaders – material and commodity stocks – in favor of increased investments in the more leveraged and beaten-down financial stocks

Energy stocks had been among the best performing sectors in the stock market for the first part of 2008, but they have clearly fallen on hard times in recent months even as crude oil prices were soaring to new heights. Crude oil prices have become extremely volatile in recent days reacting to geopolitical news, but becoming more influenced by the growing concern about a seriously weakened global economy. Energy stocks have responded to that volatility by rising less with leaping daily crude oil prices and falling hard on days when oil prices collapse. At the same time, investors are finding speculative value in the improving financial sector and they are less concerned about the need for asset protection hedges through commodity investments against a global financial collapse. As the financial sector appears to have weathered the great storm of 2007-2008, investors are now more convinced that these stocks are destined for a rebound. The rebound suggests to aggressive money managers that they should be dumping the prior stock market leaders – material and commodity stocks – in favor of increased investments in the more leveraged and beaten-down financial stocks.

Crude oil was seen as an inflation hedge

The volatility of energy prices this year has been almost beyond comprehension. From just under \$100 a barrel at the start of 2008, crude oil futures prices soared to almost \$150 a barrel. But that rise, both dramatic and fast, was driven by a series of assumptions about the future that are now under attack. Crude oil was seen as an inflation hedge because prices seemed to be moving up faster than overall inflation. The weak U.S. dollar vis-à-vis other leading global currencies further encouraged investors to buy crude oil futures to protect against further erosion in the dollar's value. The

Exhibit 1. Crude Oil Prices Have Been Volatile in 2008

Source: EIA, PPHB

idea that the United States and Europe could be in recession but that the less developed countries – primarily India and China – would continue to grow and need greater quantities of oil to fuel that growth was another underlying premise for rising oil prices. Lastly, financial investors were encouraged to engage in the oil and other commodities futures market both as a way to diversify and protect their portfolios but also to play the profit opportunities that came from ever-rising energy prices. Little did these investors know that they would quickly become the target of Congressional wrath because of its view that these investors were distorting oil pricing and were significant contributors to soaring oil prices.

In recent days as oil prices have dropped energy stock prices have been hit hard

As energy prices moved dramatically higher in the past few months, energy stocks participated to a limited degree. But in recent days as oil prices have dropped energy stock prices have been hit hard. This is not too surprising given that investors are often quick to seize profits when they believe there are attractive profit-making opportunities in other investment sectors. Today, those opportunities appear to be in the beaten down financial sector.

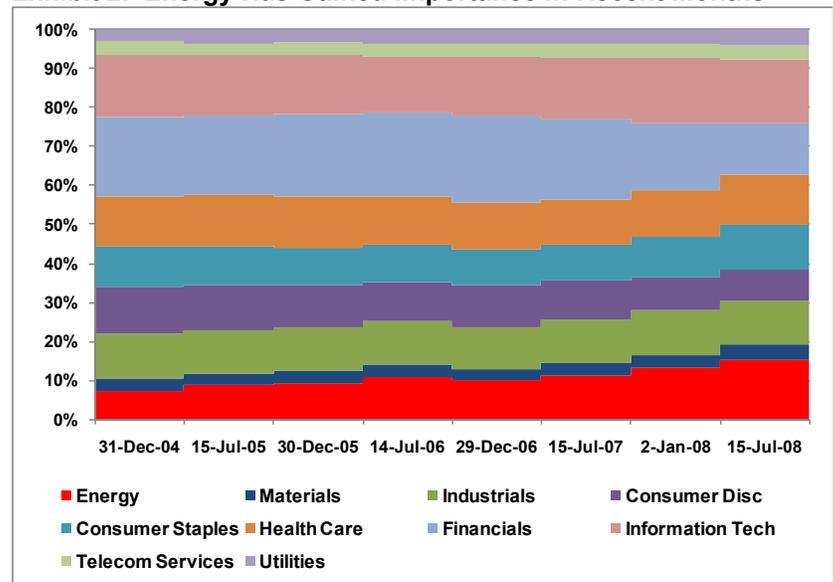
We recently saw a headline in a stock market newsletter stating that energy stocks had now assumed the greatest weighting within the S&P 500 index, surpassing the weighting for financial stocks. Our initial reaction was that it seemed plausible, but surprising. We went to check the data as listed on the Standard and Poor's website. Unfortunately, we couldn't substantiate the claim that energy was the most significant sector in the index, but we got a chance to look at what has happened to the energy stock weighting within the S&P 500 index over the past couple of years and to think about the meaning for energy stocks in the future.

For a quick look, we picked selected dates to see what has happened to sector weightings within the S&P 500 index from the beginning of 2005 to now. The graphical presentation of the data is contained in Exhibit 2. It shows that from the start of 2005, the

As of July 15 of this year, energy was in second place in the S&P 500 index, trailing information technology

energy sector weighting was slightly over 7%. It rose slowly to almost 11% by July of 2006. In terms of sector weightings within the index, energy was seventh until the July 2006 date when it moved into fifth place. It remained in fifth place until the beginning of 2008 when it rose to the third position. As of July 15 of this year, energy was in second place, trailing information technology (16.72% to 15.34%) The financial sector, which had been the leading industry group in the index for the entire period until now, fell into a tie for third place with health care at 12.88%. Our assumption is that the newsletter author was more interested in comparing the market adjustments for financial stocks versus energy stocks and forgot technology stocks.

Exhibit 2. Energy Has Gained Importance In Recent Months



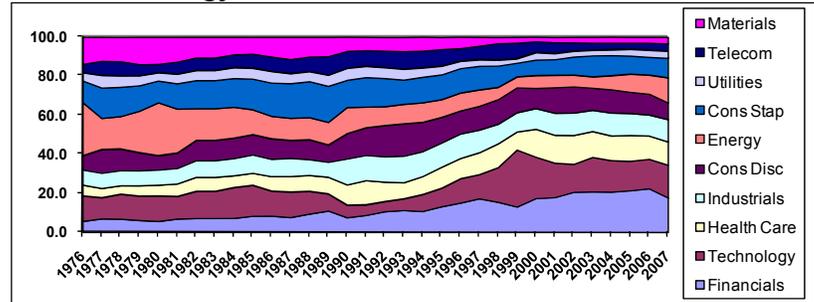
Source: Standard and Poor's, PPHB

From 1976 through 1984, energy was the leading market sector

The headline had drawn our attention to the energy sector because it raised memories of the 1970s and 1980s when energy seemed to be the only investment sector that mattered. Exhibit 3 shows the movement of S&P 500 index sector weightings for the years 1976 through 2007. From 1976 through 1984, energy was the leading market sector. During some of those years, energy accounted for over 27% of the index value. By the time energy fell into second place, its weighting in the index had declined to slightly under 13%. Thoughts that energy might have assumed the number one spot in the market rankings now suggested that we were about to experience a repeat of the earlier period – leading the market until oil prices cracked and the economy recovered and other investment sectors gained increased investor favor.

While oil prices have been volatile recently due to market forces, the underlying supply and demand trends suggest a favorable outlook for the energy industry for many years to come. We laughed when on CNBC one morning recently, several of the anchors were

Exhibit 3. Energy Was The Star In the 70s and 80s

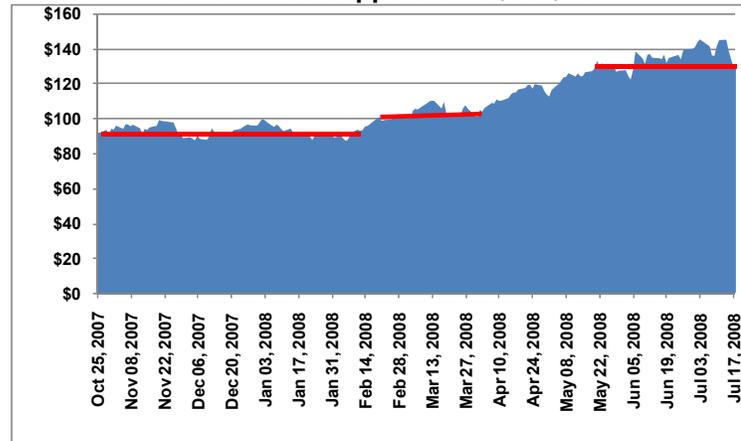


Source: Standard and Poor's, PPHB

“It’s down from what? \$147 to \$134? Don’t talk to me until it hits \$100!”

marveling at the swift drop in oil prices. The remaining anchor exclaimed with exasperation, “It’s down from what? \$147 to \$134? Don’t talk to me until it hits \$100!” There is a certain amount of truth to that statement, but his target price might be reached sooner than he, or others, expect. When one looks at a chart of crude oil futures prices, it becomes clear that there is support around \$130, but little support at \$125 or \$120. The major support comes in around \$100 a barrel, the ceiling late last year that took considerable effort to break through. So if we fall below \$130, we could quickly see \$100. That oil price drop would certainly stimulate a dramatic rise in the overall stock market as the “tax” of high energy prices on company earnings and consumer budgets is reduced. While the overall market was rising, it does not necessarily mean that energy stock prices would collapse from current levels, which are already down from the peak levels.

Exhibit 4. Real Oil Price Support Is At \$95-\$100



Source: EIA, PPHB

Will an oil price driven broad market rally take the indices out of the current bear market and establish a new bull market?

The bigger question for stock prices may be the issue of whether an oil price driven broad market rally takes the indices out of the current bear market and establishes a new bull market. We have no idea whether that would happen, but we found a table showing the performance of the S&P 500 index during bull and bear markets since the end of the Second World War. We brought the chart up to

The length of the average bull market has been 1,632 days versus average bear market durations of 383 days, a 4.25 to 1 ratio

July 15, 2008, and we compared the energy service sector of the S&P 500 index with the overall market's performance during these time periods. As can be seen by the table in Exhibit 5, the length of the average bull market has been 1,632 days versus average bear market durations of 383 days, a 4.25 to 1 ratio. Equally impressive is that the energy service stocks returned more than 75 percentage points more than the overall market during bull markets, yet lost almost the exact same amount in bear markets.

Exhibit 5. Bull and Bear Markets And Oil Service Stock Returns

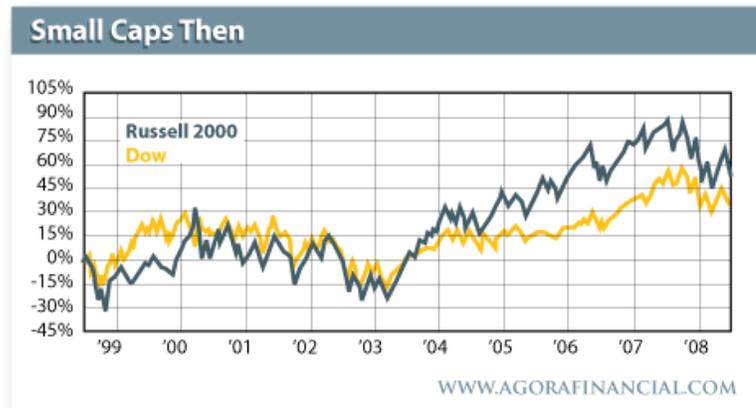
Bull/Bear	Start	End	Days	S & P 500			S & P 500 Energy Service			
				Start Price	End Price	Pct. Change	Start Price	End Price	Pct. Change	
Bull	4/28/42	5/29/46	1,492	7.47	19.25	157.7%	0.46	1.47	219.6%	
Bear	5/29/46	5/19/47	355	19.25	13.77	-28.5%	1.47	0.86	-41.5%	
Bull	5/19/47	6/15/48	393	13.77	17.06	23.9%	0.86	1.41	64.0%	
Bear	6/15/48	6/13/49	363	17.06	13.55	-20.6%	1.41	0.98	-30.5%	
Bull	6/13/49	8/2/56	2,607	13.55	49.74	267.1%	0.98	6.13	525.5%	
Bear	8/2/56	10/22/57	446	49.74	38.98	-21.6%	6.13	5.03	-17.9%	
Bull	10/22/57	12/12/61	1,512	38.98	72.64	86.4%	5.03	4.36	-13.3%	
Bear	12/12/61	6/26/62	196	72.64	52.32	-28.0%	4.36	3.57	-18.1%	
Bull	6/26/62	2/9/66	1,324	52.32	94.06	79.8%	3.57	7.61	113.2%	
Bear	2/9/66	10/7/66	240	94.06	73.20	-22.2%	7.61	5.51	-27.6%	
Bull	10/7/66	11/29/68	784	73.20	108.37	48.0%	5.51	14.09	155.7%	
Bear	11/29/68	5/26/70	543	108.37	69.29	-36.1%	14.09	8.92	-36.7%	
Bull	5/26/70	1/11/73	961	69.29	120.24	73.5%	8.92	37.60	321.5%	
Bear	1/11/73	10/3/74	630	120.24	62.28	-48.2%	37.60	28.79	-23.4%	
Bull	10/3/74	11/28/80	2,248	62.28	140.52	125.6%	28.79	178.27	519.2%	
Bear	11/28/80	8/12/82	622	140.52	102.42	-27.1%	178.27	66.82	-62.5%	
Bull	8/12/82	8/25/87	1,839	102.42	336.77	228.8%	66.82	100.88	51.0%	
Bear	8/25/87	12/4/87	101	336.77	223.92	-33.5%	100.88	63.08	-37.5%	
Bull	12/4/87	3/24/00	4,494	223.92	1527.46	582.1%	63.08	272.56	332.1%	
Bear	3/24/00	9/21/01	546	1527.46	965.80	-36.8%	272.56	178.32	-34.6%	
Bull	9/21/01	1/4/02	105	965.80	1172.51	21.4%	178.32	182.46	2.3%	
Bear	1/4/02	10/9/02	278	1172.51	776.76	-33.8%	182.46	130.84	-28.3%	
Bull	10/9/02	10/9/07	1,827	776.76	1565.15	101.5%	130.84	691.25	428.3%	
Bear-YTD	10/9/07	7/15/08	280	1565.15	1214.91	-22.4%	691.25	698.23	1.0%	
Average Bull			1,632				149.5%	226.6%		
Average Bear			383				-29.9%	-29.8%		

Source: Global Financial Data, Standard and Poor's, PPHB

Is it due to the energy market dynamics? Or is it due to market capitalization issues?

This relative investment performance suggests that energy service stocks have had better market dynamics than the overall market. That begs the question, why? Is it due to the energy market dynamics? Or is it due to market capitalization issues? We tend to think it is the latter.

To investigate that view, we looked at the relative performance of the Dow Jones Industrial Index, which is composed entirely of mega-capitalization companies, and the Russell 2000 index of small capitalization companies over the past decade. That chart is in Exhibit 6. While most readers are familiar with the Dow Jones index, many may not be familiar with the Russell 2000 Index. It is composed of the 2,000 smallest companies that make up the Russell 3000 Index, which represents approximately 98% of the value of the investable U.S. equity market. The Russell 2000 represents only about 8% of the total market capitalization of the Russell 3000.

Exhibit 6. Small Caps Versus Large Caps

Source: AgoraFinancial.com

Oilfield service stocks are generally in the small cap market segment

The industry is still quite small relative to the large companies that make up most of the other sectors

In bear markets investors tend to embrace a more conservative or defensive investment strategy that favors large cap companies

By comparing these two indices, we can explore the general thesis that over the last half of the past decade, small capitalization companies have outperformed the large capitalization companies. Why is this important? It is because the oilfield service stocks are generally in the small cap market segment. When the ten-year period began, we used to describe the industry's composition as "one giant company, a handful of large companies and a boatload of tiny companies." Stock price increases and corporate combinations over the past decade has modified that structure to one very large market cap company, a greater number of smaller market cap companies and a small handful of tiny companies. But despite this change, the industry is still quite small relative to the large companies that make up most of the other sectors. For example, Schlumberger (SLB-NYSE), the largest market cap oilfield service company, is only about \$114 billion while the industry's next largest company, Transocean (RIG-NYSE), is at \$46 billion. By contrast, ExxonMobil has a market cap of \$425 billion, nearly 3.7 times the size of Schlumberger and Chevron, another major oil industry producer, has a \$178 billion market cap, or almost 1.6 times Schlumberger's size. Clearly the market cap ratios of the major oil companies compared to Transocean is a multiple of their ratio to Schlumberger.

While the small caps outperformed the large caps during the last half of the past decade, so far this year the trend has been different. That is not surprising given the fact that we fell into a bearish market environment and possibly a recession, as well. Under those conditions, investors tend to embrace a more conservative or defensive investment strategy that favors large cap companies. While these trends are interesting from a broad investment perspective, we were more interested in the performance of the oilfield service and oil and gas producer stocks. To see how these stocks fared compared to the broader Dow Jones and Russell 2000 indices, we plotted the Philadelphia Oil Service Stock Index (OSX)

Exhibit 7. Small Caps Vs. Large Caps This Year

Source: AgoraFinancial.com

and the American Stock Exchange Oil Index (XOI). The former index is composed of 15 oil service companies including offshore and land contract drillers, oil service equipment and service providers and a boat company. The latter index is made up of a dozen major international and domestic oil and gas producers and several refining companies.

From the data in the decade-long chart in Exhibit 8, both the OSX and XOI indices greatly outperformed both the Dow Jones and Russell 2000 indices

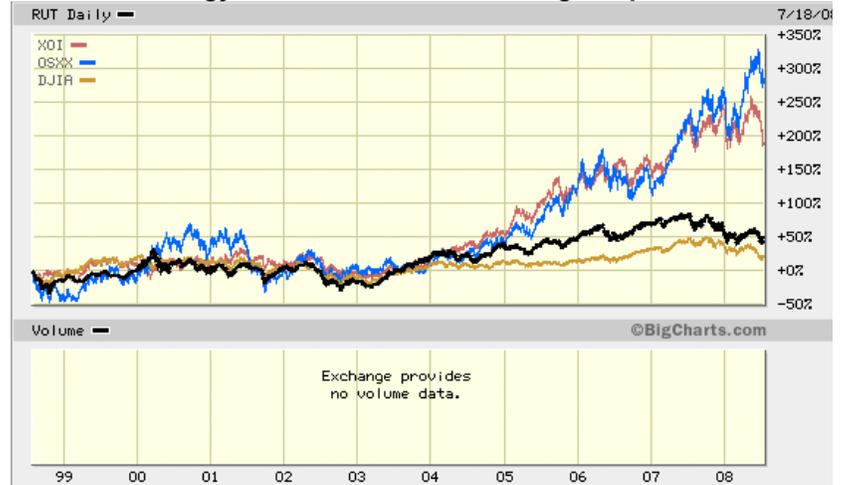
As can be seen in the decade-long chart in Exhibit 8, both the OSX and XOI indices greatly outperformed both the Dow Jones and Russell 2000 indices. But when one looks at the performance of these two very different indices compared to their proxies during the decade, one finds some interesting results. The OSX underperformed from mid 1998 to 2000 at which time it began to outperform until mid 2001. It then performed in-line with the Russell 2000 until early 2004 at which time it started to dramatically outperform both of the broad market indices.

The extraordinary performance from 2004 to now is partially explained by the dramatic rise in crude oil prices that started about then

In contrast, the XOI performed in line with the Dow Jones index from mid 1998 to 2004 at which time it began to significantly outperform for the balance of the period. The extraordinary performance from 2004 to now is partially explained by the dramatic rise in crude oil prices that started about then. As the rise in crude oil prices accelerated over the past 12-24 months, the energy stocks kept pace until 2008.

The performance of the energy stocks against the broad market indices so far in 2008 is shown in Exhibit 9. For the first three months of the year, the OSX and XOI either matched or trailed the Russell 2000 and the Dow Jones indices. Starting in April, the OSX began to outperform all the other indices. From late March to mid May, the XOI outperformed the broad market indices, largely due to

Exhibit 8. Energy Stocks Vs. Small and Large Cap Indices



Source: BigCharts.com, PPHB

The very recent drop in oil prices coupled with the better than expected second quarter earnings results for some of the financial stocks, has contributed to the Dow Jones doing better than the Russell 2000

the recovery in natural gas prices, which was a complete surprise to the industry and investors.

If we look only at the Russell 2000 and Dow Jones indices, from about late February, the Dow Jones outperformed the Russell 2000 up until mid May. At that point the Russell 2000 started to outperform the Dow Jones, and has continued to do so until about early July when the two indices touched, after the Russell 2000 index gave up more of its performance than the Dow Jones. Since then, the Russell 2000 has done slightly better than the Dow Jones, which is not surprising given the decimation wrought on the automobile and financial stocks, all of which are classified in the large cap grouping. The very recent drop in oil prices coupled with the better than expected second quarter earnings results for some of the financial stocks, has contributed to the Dow Jones doing better than the Russell 2000.

Exhibit 9. Energy Stocks Vs. Small and Large Caps In 2008



Source: BigCharts.com, PPHB

The big question now is whether large cap stocks will continue to outperform small cap stocks

The big question now is whether large cap stocks will continue to outperform small cap stocks. Given the likelihood that crude oil prices will continue to drop due to a lack of technical support, the absence of “speculators” in the market because they fear attack from Congressional and regulatory officials and weakening economies producing lower oil demand, the OSX and XOJ are at risk of further declines. This will become a trying time for many energy investors – at least those who believe in the long term fundamentals for the industry – and for company managements who will be reporting strong earnings but watching their stock prices fall.

Having enjoyed triple digit crude oil prices and double digit natural gas prices for virtually all of this year, how will managements react to sharply lower prices?

Having enjoyed triple digit crude oil prices and double digit natural gas prices for virtually all of this year, how will managements react to sharply lower prices? Will they stay the course and continue to invest and operate like they are still in the current high oil price environment, or will they shrink back and cut their spending plans pleading a lack of market clarity? How this scenario plays out will likely determine how well or how poor energy stocks perform in the near term.

Oil Demand Growth Remains A Key To Energy Markets

In both cases these preliminary forecasts call for less oil consumption growth in 2009 than in 2008

Last week the International Energy Agency (IEA) and the Organization of Petroleum Exporting Countries (OPEC) both released their latest monthly oil market reports. These reports included new adjustments to each organization’s estimate for oil demand for 2008. But maybe more important, each organization issued its first estimate for oil demand for 2009. In both cases these preliminary forecasts call for less oil consumption growth in 2009 than in 2008. These lowered growth rates reflect views that the slower and more challenging economic growth conditions plaguing the United States, Europe and Japan will continue throughout next year. Even though the forecasts expect continued high growth rates from developing economies, the impact of high and climbing fuel oil prices along with shrinking fuel subsidies, coupled with the drag from slower economic growth in developing economies (read consuming countries) will reduce the rate of oil consumption in these developing countries, especially those in Latin America and Asia.

Within that forecast is projected slower growth in the highly developed OECD countries (+1.8% vs. +1.9%) and developing countries (+5.6% vs. +5.9%)

For example, in OPEC’s latest forecast, it expects world gross domestic production (GDP) to increase by 3.9% in 2009, down from the 4.0% gain expected for this year. Within that forecast is projected slower growth in the highly developed OECD countries (+1.8% vs. +1.9%) and developing countries (+5.6% vs. +5.9%). The two main economies driving the developing countries growth are China whose growth is projected to be lower next year (+9.2% vs. +9.9%) and India with an unchanged growth rate of 7.5%. OPEC’s oil demand forecast calls for oil consumption growth to increase by 900,000 barrels a day (b/d) or an increase of 1.03%, which is about 100,000 b/d lower than will be experienced this year. Developing economies are expected to generate about 1.2 million b/d of oil usage, accounting for more than the entire world’s demand

The IEA's forecast sees world oil demand increasing by 890,000 b/d to 86.9 million b/d this year, and growing by 860,000 b/d to 87.7 million b/d in 2009

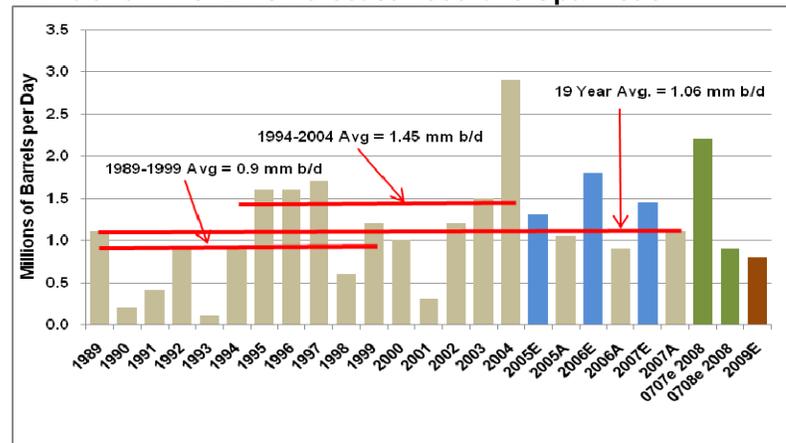
In all the recent years, the actual demand growth has fallen short of the initial projections

increase. This means that the developed economies will experience another year of falling oil demand.

In the case of the IEA's forecast, it sees world oil demand increasing by 890,000 b/d to 86.9 million b/d this year, and growing by 860,000 b/d to 87.7 million b/d in 2009. When rounded, these two annual increases appear statistically similar. What was interesting was that the IEA and the media made a lot about the agency's latest monthly forecast for 2008 oil consumption growth that projected an increase of 80,000 b/d from the prior monthly projection. This was highlighted since it marked the first monthly demand forecast increase in five months of forecasts. The problem we had with this hoopla was the forecasting record of the IEA over the past few years has been poor.

In Exhibit 10, we show the annual oil consumption growth since 1989 and the initial forecast (made in July of the prior year) and the actual demand growth recorded for 2005 through 2007. We also show the first and most recent monthly demand forecast for 2008 and the initial forecast for 2009. You will notice that in all the recent years, the actual demand growth has fallen short of the initial projections. So should we take comfort in the IEA's initial forecast for 2009?

Exhibit 10. The IEA's Forecast Record Is Optimistic



Source: IEA, PPHB

Clearly, the IEA missed the impending weakness of global economies, but they also seem to have misestimated the impact on consumption from high oil and petroleum product prices

If you look at the IEA's forecast record for 2008, the latest forecast, even though it projects a boost of 80,000 b/d, is still only about 40% of the agency's initial demand estimate for the year. Clearly, the IEA missed the impending weakness of global economies, but they also seem to have misestimated the impact on consumption from high oil and petroleum product prices. The riots and demonstrations against high fuel prices in Europe – actually the attacks were against the high taxes levied on fuels – is a phenomenon the IEA never expected to happen.

As the information in the chart shows, the 19-year record of average annual oil demand increases is barely over one million barrels a day.

As demand growth slows, new oil supplies are starting to have an impact on the global oil market

What has captivated analysts is the demand picture for the decade of 1994 to 2004, which showed almost a 1.5 million b/d annual demand growth rate. But that period was significantly impacted by 2004's increase of 2.9 million b/d when China's demand for diesel fuel exploded due to the country's electric power shortages and the need to use portable generators. When put into the long term oil demand period, however, 2004's dynamics become less of an issue.

It seems to us that we are in the midst of a transitional period of energy use. As foreign government subsidies of fuel costs ease, economies become more efficient in using energy, alternative energy supplies grow and global economic activity remains challenged by a frazzled financial system, global energy consumption growth will be weaker than currently expected. As demand growth slows, new oil supplies are starting to have an impact on the global oil market. Non-OPEC oil supply, according to OPEC, will increase by 600,000 b/d this year and by 900,000 b/d in 2009, helping ease the tight oil market. The IEA has also suggested that tightness in crude oil markets is likely to ease next year. Those are conditions for lower oil prices that should help consumers worldwide. While falling oil prices are not supportive of energy investments and conservation efforts in the near term, long-term they will support a healthy and profitable energy industry.

From Coast to Coast – Energy Views Changing

The public is out in front of the politicians, which means it is only a matter of time before government policies change

From sea to shining sea, the attitudes about energy use in America are changing. And once again the public is out in front of the politicians, which means it is only a matter of time before government policies change. Over the Fourth of July weekend politicians in Rhode Island were barraged from constituents with comments and questions about our energy situation, the reason for high gasoline and heating oil prices and what Congress was going to do about it. And now comes the release of the latest nonpartisan Field Poll about energy attitudes in California. The poll contained shocking results that have politicians and environmentalists worried.

The new Field Poll showed that for the first time since the 1970s, half of Californians support building more nuclear power plants

The new Field Poll showed that for the first time since the 1970s, half of Californians support building more nuclear power plants in the state. Also, only 51% of Californians are against oil drilling off their coast, down from 56% opposed when the poll was last taken in 2005. Equally important, support for offshore drilling rose from 39% in 2005 to 43% now. The poll also showed that Californians haven't lost their environmental bent – 70% of those surveyed support the state's tough air pollution standards for cars. But the attitude change toward offshore drilling and new nuclear power plants is threatening the policy positions of the state's governor and its Congressional delegation.

High gasoline and electricity prices are causing West Coast residents to alter their lifestyles. With a gallon of regular gasoline averaging \$4.51, some 78% of people are driving less and 68%

The four-week average gasoline consumption was off by 3.3% and gasoline use is actually at a five-year low

have reduced their spending on other things such as food and clothing. As one lady put it, "I used to go down and browse at the bookstore, but I don't do that anymore. Now I make sure I have at least three places to go before I drive someplace." That attitude shift is behind the sharp fall in gasoline consumption. According to the latest weekly Department of Energy oil data, gasoline usage was 2.1% lower than a year ago, the four-week average gasoline consumption was off by 3.3% and gasoline use is actually at a five-year low.

In Rhode Island, according to the various Congressional representatives, all Democrats, the message they heard from constituents was: "Drill. Drill. Drill."

In Rhode Island, according to the various Congressional representatives, all Democrats, the message they heard from constituents was: "Drill. Drill. Drill." It was in response to this message that the Democrats started their campaign to challenge the oil and gas industry to drill on the leases they already hold before being offered new ones. The "Use it or lose it" strategy began to backfire as the oil and gas industry mounted a counterattack to show that it was already under this mandate – all leases have specified term limits unless held by production. So while some of the Rhode Island Congressional delegation has supported the recently introduced 2008 Drill Act and legislation to attack oil speculators, their efforts are being viewed here in the state with a jaundiced view.

So the decision by the Clinton Administration not to allow drilling in ANWR has contributed to today's \$140 a barrel oil price

The latest Democratic strategy is to claim that even if the government did open up more offshore and Alaskan acreage for drilling, it would take eight to ten years to have any impact – way too long to help current gasoline consumers. We understand, however, that at a very recent conference in Washington where a former Clinton Administration official was spouting this latest Democratic talking point, he was challenged for his role in stopping the opening of the Alaska National Wildlife Refuge (ANWR) to drilling. When it was blocked by President Clinton, the argument was it would take 8-10 years to have any impact and it would only add 500,000 barrels a day to domestic production. The comment made to him was that had the Clinton Administration gone ahead and allowed drilling then, now is when we would be getting that oil. So the decision not to drill has contributed to today's \$140 a barrel oil price. We understand that former official was stopped dead in his tracks.

According to South Carolina legislative researchers, there are no state legal restrictions in place banning offshore drilling

Just recently, state Senator Robert Ford of South Carolina announced he was preparing to introduce a bill to allow offshore drilling off the state's coast. Before that could happen, however, Congress would have to lift the moratorium on offshore drilling that was put in place in the early 1980s. According to South Carolina legislative researchers, there are no state legal restrictions in place banning offshore drilling. Sen. Ford has said the state may need to challenge the moratorium in federal court, but that he was encouraged by President Bush's action in lifting the federal government's ban against offshore drilling.

There is little doubt that public attitudes toward energy policy are shifting – and shifting faster than most of us appreciate. That may become a problem for certain politicians in the upcoming election.

New England Learns About Offshore Energy Regulation

The Minerals Management Service (MMS) has just issued its proposed regulations for the development of offshore wind-, tidal- and wave-energy projects. According to a column written by a Cape Cod-based science writer and a specialist on the Cape Wind wind-turbine project in Nantucket Sound, alternative energy entrepreneurs who wish to participate in the industry are far from happy. We read the column published in last Thursday's edition of *The Providence Journal* that interviewed some of these entrepreneurs who asked not to have their names used for fear of retribution from the MMS. As we read their comments, we reflected on how naïve they were about the regulation of the offshore energy business. It was as if these people thought the federal government would create rules that would favor them by minimizing the burden of regulation. Hello?

No one ever said that government regulation of the offshore energy business was to be designed to foster the creation of new companies or to allow undercapitalized companies to engage in offshore activities that could harm the oceans by working under less stringent rules than the other offshore industries

One statement in the column dealing with the 450-page document was that "the regulations may have been designed to favor larger corporations, essentially cutting out the smaller, less-well-funded companies – those that do not have well-funded lobbyists in Washington." The writer went on to say, "The MMS's lengthy and complex proposed rules are clearly not designed to encourage new companies." No one ever said that government regulation of the offshore energy business was to be designed to foster the creation of new companies or to allow undercapitalized companies to engage in offshore activities that could harm the oceans by working under less stringent rules than the other offshore industries – primarily the oil and gas business. Because Americans seem to now favor the development of alternative energy sources, supposedly the rules are to be written to make it easy for startup companies to get into the business. If that were to happen, we wonder how quickly the environmental movement would move to file suit against the MMS for drafting inadequate rules for protecting the oceans.

The writer of the column and the interviewees were taken aback by the concept of offshore royalty payments and offshore licensing procedures

For those of us who spend our lives in and around the Gulf of Mexico oil and gas industry, we understand the rule making process and the fact that these rules are based on the accumulated industry knowledge gained from 60 years of offshore activity. More interesting is the fact that the writer of the column and the interviewees were taken aback by the concept of offshore royalty payments and offshore licensing procedures. The draft rules call for the payment of 2% of a company's revenues from any given offshore site. We all know that as a royalty payment, but that concept appears foreign to people in New England. The writer contrasted the offshore royalty payment with the fact that land-based wind-projects merely pay a lease fee on the amount of land used rather than on revenues. But what she failed to understand is that the lease rental fee is paid to a private land owner and not the federal government.

Another surprise for New Englanders was that the government would hold a series of lease sales (auctions). We have not read the

If the site selected can commercially support a wind-, wave- or tidal-project, than the economics should be able to support financing the project's construction cost

If companies, large and small, do their economics on the same parameters, they will probably come close to the fair value of the lease

Another example of the residents of New England not understanding the rules of the offshore energy industry and wanting something for nothing

document, but according to the writer there would be two auctions – one for leases to examine the feasibility of the site and later another for the final construction of a project. We question whether the writer has her details correct, because that is not the procedure in the offshore oil and gas business. It is possible that the first set of auctions for feasibility analysis is the same as licenses needed to conduct survey work, such as seismic or ocean-bottom surveying before leases for field development are actually auctioned. As we know from the oil and gas business, seismic and survey expenses are minor compared to the fees paid for the right to explore and develop an offshore field.

Based on the writer's assessment of the MMS proposed rules, "This means that a company could spend a lot of money finding out whether a particular site is appropriate for wind, wave or tidal development, but, after gathering the data, not have enough money to succeed in the final bid to allow for project development." Again a lack of understanding of the workings of the offshore oil and gas business distorts the writer's analysis. We know that companies use equity to explore for hydrocarbons and then debt to finance the development. That same basic rule should hold true for these projects, too. If the site selected can commercially support a wind-, wave- or tidal-project, than the economics should be able to support financing the project's construction cost.

Contrary to the belief of Chris Sauer, of Ocean Renewable Energy, as quoted in the column, "Some large company with more money like Exxon could step in and take the site over." If that means that ExxonMobil (XOM-NYSE) could outbid the smaller company in an auction, there is little doubt. But that can, and does happen at offshore oil and gas lease sales. If companies, large and small, do their economics on the same parameters, they will probably come close to the fair value of the lease. If a larger company has a lower cost of capital (very likely) it is better positioned to outbid the smaller company. Unfortunately, there is little anyone can do about that situation other than skew the auction process to favor the smaller company. Or, more likely, the smaller company will have to accept a lower future return when it bids. If the MMS created rules with a bias in favor of small companies, corporate lawyers would be running to the court house to be first in line to file suit.

Our impression of the column and the quotes is that it is another example of the residents of New England not understanding the rules of the offshore energy industry and wanting something for nothing. It was funny to read that many of the "harmed" entrepreneurs are wondering what role the Alliance to Protect Nantucket Sound, the group opposing the Cape Wind project, and backed by powerful politicians, such as the Kennedys, and wealthy summer-home owners in the region, has played in the MMS' draft rules. While that is a possibility, we think it is more likely that in drafting the rules, the MMS has merely relied on its long history of successful regulation of the oil and gas industry and protection of the outer continental shelf. So for New Englanders, welcome to the world of offshore energy!

Inflation In Gasoline Prices? Depends On Who's Counting

Everyone knows that gasoline pump prices have soared this year as they marched in lockstep with the rise in crude oil prices. The nightly television news has been filled with interviews of consumers filling up their vehicle's tanks while talking about the impact high gasoline prices is having on their budgets and lifestyles. The print media has authored many stories about gasoline pumps not being able to record the now more common \$100 fill-up and what "hyper milers" are doing to obtain exceptionally high miles per gallon readings. However, when we saw the chart in Exhibit 11, we were amused.

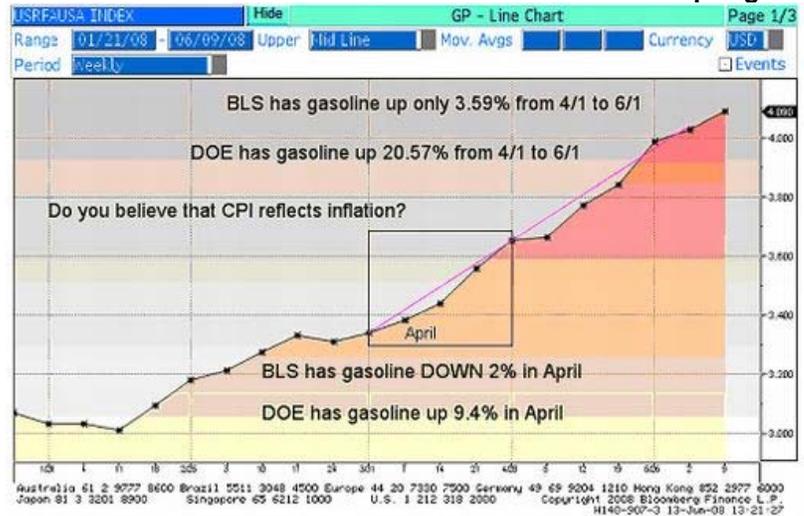
There has been a long-standing argument that the change in the federal government's method of calculating the consumer price index (CPI) has distorted the amount of inflation in everyday living costs

There has been a long-standing argument that the change in the federal government's method of calculating the consumer price index (CPI) has distorted the amount of inflation in everyday living costs. The calculation change is above and beyond the popular focus on the "core" rate of inflation, which measures the amount of inflation in all the costs of goods and services except for the cost of food and fuel. As many have put it – the CPI measures inflation in everything but what consumers need to buy every week to live. The change to the CPI calculation methodology relates to the subjective adjustments to the cost of goods and services to reflect improvements in their quality. For example, as personal computers have improved – became faster, had more storage capacity, were equipped with better screens, etc. – the theoretical cost of that unit was adjusted higher to reflect the improved technical capabilities. Then when the actual cost of the computer was compared against that theoretical cost, it appears that the cost of computers had fallen by a much greater amount than direct price comparisons over time would support. In the case of automobiles, the cost increase in newly mandated safety equipment is always adjusted out of the price of the car when autos are measured in the CPI.

The question is how much were gasoline prices rising and was that rate of increase above the normal seasonal rise

Besides these qualitative adjustments there is always the seasonal adjustment factor. We know, in the case of gasoline, that pump prices rise in the spring at the start of the summer driving season and then tend to drift lower as the end of the summer approaches and the vacation season ends. So rising pump prices this spring should not have come as a surprise even though crude oil prices were soaring, the question is how much were gasoline prices rising and was that rate of increase above the normal seasonal rise. The answer to that question seems to depend upon whose calculation of the rise in gasoline pump prices you want to believe - the Department of Energy or the Bureau of Labor Statistics, the preparer of the CPI.

If you follow the BLS calculation of the inflation in gasoline pump prices you should feel good even though your budget has been squeezed. I think, though, that most people have trouble believing gasoline prices actually declined in April or that they only increased 3.5% over April and May. This chart makes you wonder if we are

Exhibit 11. How Much Did Gasoline Prices Rise This Spring?

Source: AgoraFinancial.com

all living in Alice's Wonderland world?

Energy Prices Drive Distribution and Packaging Innovations

The newly designed, essentially square, gallon-milk container will enable the dairy and retail industries to deliver fresher milk to stores while reducing the energy required to do it

We have been searching in our local Wal-Mart and Sam's Club stores for the new milk cartons designed to help deal with high energy prices. As recently reported by the media, the newly designed, essentially square, gallon-milk container will enable the dairy and retail industries to deliver fresher milk to stores while reducing the energy required to do it. The new containers, however, have a downside. By having a flat top, they are more difficult to pour because the spout is flat. Some stores are even holding demonstrations to show consumers how best to pour from the new container. From what we can tell, it is really little more than aiming to hit a target slightly further away from the one we are currently targeting.

The typical plastic gallon jug of milk travels to your friendly grocery store in crates because the container's design does not allow for stacking of the containers. These crates take up extra room, add weight to the load and must be washed after each use. In addition, they are left in the trucks after the milk is delivered necessitating the truck make an extra trip back to the dairy. All of these steps require energy.

The new milk cartons are designed to eliminate the need for a crate, which will allow the trucks to carry a greater volume of milk in each load

The new milk cartons are designed to eliminate the need for a crate, which will allow the trucks to carry a greater volume of milk in each load, reducing the amount of energy necessary in the distribution process. With no crates there is no need for washing and no fuel for the extra trip to the dairy. As a result, these new milk containers are less labor intensive and the distribution process more streamlined for getting milk to the stores quicker, meaning customers get it

Exhibit 12. The New Square Milk Carton Is Energy-Friendly



Source: thedailygreen.com

fresher. The biggest surprise for the dairy industry, and consumers, is that the new milk jugs cost about 10 to 20 cents less than the current version.

Exhibit 13. How New Milk Carton Saves Energy Efficiency, One Gallon at a Time

Sam's Club is adopting a new, stronger milk container design that will streamline packaging, maintenance and delivery at lower cost to its customers. Other retailers may follow suit.



	TRADITIONAL JUG	NEW DESIGN	IMPACT
Packaging and Storage	Traditional milk jugs cannot be stacked and require crates for storage and transport.	The new milk containers have flat tops and ridged sides that allow multiple stacking, bound by cardboard bands and shrink wrap.	By eliminating the crates, the new containers store 4.5 gallons of milk in a cubic foot — 50 percent more than the 3 gallons stored in a cubic foot with the old jugs.
Maintenance	Plastic crates are reusable after being returned and washed.	After single use, the cardboard and shrink wrap are recycled.	No water is needed for washing, and no labor is required to load and return the crates.
Transport and Fuel	Four to five trips a week are required to deliver milk to a typical Sam's Club.	Two delivery trips are required each week.	Fewer trips by delivery trucks reduce fuel cost and consumption.

Source: Superior Dairy

Source: *The New York Times*

Some manufacturers are rethinking their whole approach to the distribution of their products

While new packaging designs are coming into the marketplace, all designed to help beat the rising cost of distribution, some manufacturers are rethinking their whole approach to the distribution of their products. In contrast to the past, where fewer, larger distribution facilities were the key to managing inventory levels, we may see companies reverse that approach and opt for more, smaller distribution locations to reduce the distance to the purchaser. While

The key will be whether the reduced fuel costs will offset the additional cost of more facilities and increased working capital requirements

this shift will mean fewer miles driven by trucks, with obvious fuel savings, it means more facilities will need to be managed (probably necessitating more employees) and greater volume of inventory (with an impact on company working capital and information technology needs). The key will be whether the reduced fuel costs will offset the additional cost of more facilities and increased working capital requirements.

It is becoming clearer every day that American businesses and consumers are altering how they work and live in response to high energy prices. Things we have taken for granted – just-in-time inventory, movies on airplanes, oversized packaging, to name a few – are all destined for change. The next few years will mark an interesting period as people confront these changes – accepting some and rejecting others. It seems safe to say that how we live in the future will be different than how we have lived in the past or even how we are living today.

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Parks Paton Hoepfl & Brown is an independent investment banking firm providing financial advisory services, including merger and acquisition and capital raising assistance, exclusively to clients in the energy service industry.