

MUSINGS FROM THE OIL PATCH

October 28, 2008

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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

Hey, There's A Recession Out There: Or Is There?

We were shocked at the volume of truck traffic, too – a volume we had not encountered in either our May drive north to Rhode Island, or our July drive south

We've just completed a quick drive to our Rhode Island house for a couple of weeks to finish up some of the work that wasn't completed by the end of our summer visit. We left in the early afternoon of Friday, October 17th and headed east on I-10. When we finally stopped for dinner in Slidell, Louisiana at the end of I-12, before heading north on I-59, my wife and I remarked to each other: Where did all this traffic come from? We were shocked at the volume of truck traffic, too – a volume we had not encountered in either our May drive north to Rhode Island or our July drive south. We did notice, however, that the trucks were generally staying in the right hand lane and at or below the speed limit. Those characteristics reflect the impact of equipment changes implemented to restrict the speed at which trucks drive and thus their need to stay in the slow traffic lane.

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As we went to bed in Hattiesburg, Mississippi, that night, we wondered what the traffic would be like on Saturday. We found early the next morning that trucks accounted for about 60% of all the vehicles on the road. That prompted the question of "What is going on here?" As we got closer to Tuscaloosa, Alabama, the traffic mix changed as we were overtaken by fleets of cars and SUVs carrying flags with large A's on them and/or bumper stickers that shouted "Roll Tide." It was a home football game for the University of Alabama. Once past the city our traffic still was dominated by trucks, but as we neared Chattanooga, Tennessee, the traffic mix again shifted to more cars, but this time they were carrying flags with orange T's. It was a home football game for the University of Tennessee.

We also sensed that the average speed of vehicles was faster, meaning lower fuel efficiency – a sign of the impact of reduced gasoline and diesel pump prices

This drive made us wonder whether the government's economic statistics showing a weakening, but not yet a recessionary economy, might actually be accurate

Is Rhode Island's recessionary economy what we have to look forward to in 2009?

As we drove further north into Virginia, the number of trucks on the road began to thin out, but that was because the number of trucks in rest stops on I-81 and road-side truck stops swelled. Here again we experienced the impact of the new rules on the number of hours truck drivers can drive versus the number of hours they must rest. Once again, our conversation was about the volume of trucks. Isn't there supposed to be a recession going on in this country?

Our Sunday drive through Pennsylvania, New York and Connecticut reflected a more normal mix of cars versus trucks. Whether that had anything to do with it being a Sunday is something we can't answer, but we still found groupings of trucks, just not as many. As we reflected on the volume of traffic and the number of trucks on this trip versus our spring and summer drives, we speculated on several considerations. First, gasoline and diesel prices are lower than earlier in the year. In fact, our purchases of premium gasoline ranged between \$2.799 a gallon to a high of \$3.499. Most were at or below the \$3.00 a gallon threshold. Advertised diesel prices seemed to be around \$3.299 to \$3.599, but we have no idea whether there were cheaper prices just off the highway that truckers might know. We also sensed that the average speed of vehicles was faster, meaning lower fuel efficiency – a sign of the impact of reduced gasoline and diesel pump prices!

While we have always anticipated a higher volume of traffic, and especially truck traffic, on I-10 due to the strength of the Gulf Coast oil-based economy, the fact that the greater traffic volume continued essentially throughout our entire trip made us wonder if the underlying health of the economy is better than reported by the financial media. This drive made us wonder whether the government's economic statistics showing a weakening, but not yet a recessionary economy, might actually be accurate. Of course, the one thing we can't determine about the traffic on our drive is whether it signifies anything about the future for the economy.

Arriving in Rhode Island, we find we are smack dab in the middle of an economic recession. The state was signaled out by one of the television networks as the laboratory for what the rest of the country might look like if a severe recession develops. The newspaper headlines shout out about the economic problems of the state – the highest unemployment rate in the country (8.8%), homeless shelters having to turn away numbers of people, a huge state government deficit, layoffs by the local and state governments, and weak real estate sales and home prices. It is definitely a sobering experience being in the midst of this economy. So as we write this, we are torn. Does our experience on the drive up reflect a healthier economy than we have been led to believe or were we seeing the final throes of economic health? Is Rhode Island's recessionary economy what we have to look forward to in 2009? We certainly hope not. We remain an optimist, but try to stay focused on the worst case economic scenarios so we will be pleasantly surprised by what actually happens in the economy.

Feeling For a Market Bottom – Is It Mud or Granite?

Oilfield service company executives were unable to offer much in the way of guidance because they haven't heard from their customers – the oil companies yet about their capex spending plans

We have just been through the first phase of energy companies reporting their third quarter earnings results. As part of the reporting process, most companies hold conference calls with analysts and investors to discuss the results. In listening to some of these calls, we were amazed that the actual financial results were virtually totally ignored as the questioners were groping for data points that can help them understand where the respective businesses may be headed. Unfortunately, oilfield service company executives were unable to offer much in the way of guidance, at least beyond the scope of their backlogs and equipment contract periods. It is not surprising they are in this conundrum because they haven't heard from their customers – the oil companies – about what those executives are expecting commodity prices to do and how that might force an adjust to company capital spending plans in the future.

Questioners wanted to know whether the result of this current financial and economic turmoil should be compared to the 1997-1998, 2001-2002 or 1981-1984 periods

After listening to various energy and oilfield service companies' third quarter earnings conference calls and reading numerous other conference call transcripts, we were fascinated by the number of references to historic periods and industry responses. Questioners wanted to know whether the result of this current financial and economic turmoil should be compared to the 1997-1998, 2001-2002 or 1981-1984 periods. As we have often noted, history never exactly repeats, but it often closely follows certain patterns.

The 1997-1998 recession came in response to a surprise event – the collapse of the Thailand currency – the baht. While that event seemed to come out of nowhere, it was perceived initially to be merely a regional economic problem that would be relatively contained. Many Asian economies, however, turned out to be more closely tied to the Thai economy than initially assumed and soon those countries' currencies were impacted. The recessionary problems soon spread to the United States as it was the primary consumer of the goods made in Southeast Asia. All of these economic problems came at a time when OPEC had just stepped up its oil output to meet the demand growth coming from Asia. As a result, crude oil quickly moved into an oversupply condition and oil prices collapsed. The oil market was only rescued 18 months later by the cooperation of a diverse group of oil producers who agreed to reduce their production. It was important, however, that the significant drop in oil prices did help the global economy to recover.

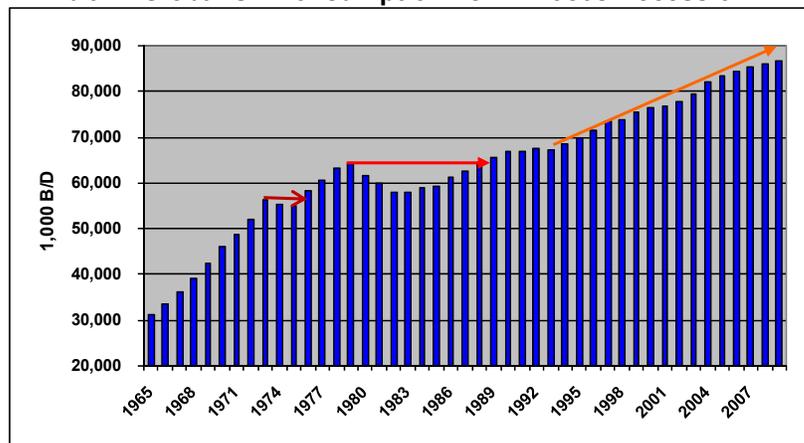
The 2001-2002 recession came initially from the economic shock associated with the 9/11 attacks on the United States

The 2001-2002 recession came initially from the economic shock associated with the 9/11 attacks on the United States and the resulting psychological damage done to consumers and businessmen. The economy was, however, still adjusting to the recent bursting of the dot.com stock market bubble that had shaken the confidence of investors and cost many people their jobs and wealth. So this recession was actually a long time in coming, but the impact on the oil markets was relatively muted.

The earlier events and conditions included the first oil price spike in 1973 and the coincidental rise to power of OPEC

The granddaddy of recent recessions was in 1981-1983. Many would say it came out of the blue after the overthrow of the Iranian government and the establishment of an Islamic theocracy that involved the seizure of a group of Americans who were held hostage for over a year. The reality was that those conditions that sparked this recession were only part of the predicate of events and conditions that produced economic downturn. The earlier events and conditions included the first oil price spike in 1973 and the coincidental rise to power of OPEC. The resulting recession that occurred in 1973-1974 set in motion a number of other events – a surge in global inflation, a wage-price spiral in the United States, exploding interest rates and a need to find alternative energy supplies to meet the continued increase in crude oil consumption.

Exhibit 1. Global Oil Consumption Fell In 1980s Recession

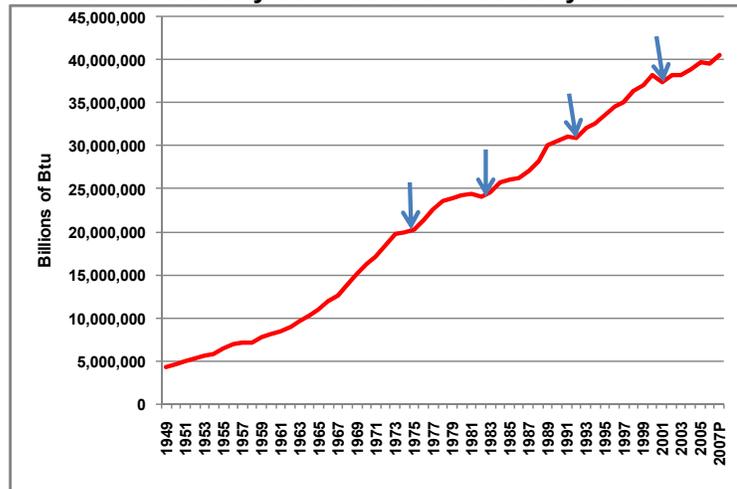


Source: BP, PPHB

In the four year period of 1980-1984, global oil consumption fell by about 6.5 million barrels a day

When measured by the impact of these recessionary environments on global oil consumption, the 1980s event was the most significant. In the four year period of 1980-1984, global oil consumption fell by about 6.5 million barrels a day. It is this history that is haunting the current crude oil trading pits, but we need to examine more closely what drove the consumption drop. It was a combination of weaker economic activity, energy conservation due to the earlier significant oil price spike and substitution of other energy supplies for crude oil. Many people may remember the speech President Jimmy Carter gave dressed in a cardigan sweater and his statement that the need to conserve energy was the moral equivalent of war. Unfortunately the American public never fully embraced that view and some 30 years later we are in a worse foreign oil dependency situation than in the 1970s.

One energy market condition that existed in the United States was the heavy use of oil – primarily residual fuel oil – as a fuel to generate electric power. We show in Exhibit 2 the growth of electricity consumption in the United States over the 1949 to 2007 period. As we have highlighted with arrows, there have been several periods when electricity consumption growth was either flat

Exhibit 2. Electricity Use Has Grown Steadily Over Time

Source: EIA, PPHB

or declined. At least three of these times have coincided with the three recession periods we have commented on above. Since we have focused more on what happened in the 1980-1984 period, it is instructive to understand what was happening in the U.S. energy markets at that time.

Starting in the 1950s the U.S. natural gas industry began to expand its reach from the Southwest where gas supplies were found into the Northeast, Middle Atlantic and Midwest regions where it was consumed. Initially, the gas flowed through pipelines that had been converted from oil and petroleum product lines, many built during World War II. As the market demand grew, new major pipelines were constructed to move the gas from the supply basins to the consumers. As the pipeline networks were being built and gas demand stimulated, the Federal Power Commission (FPC) that regulated the interstate natural gas market due to a court decision in the Phillips Petroleum (COP-NYSE) case opted to keep gas prices low.

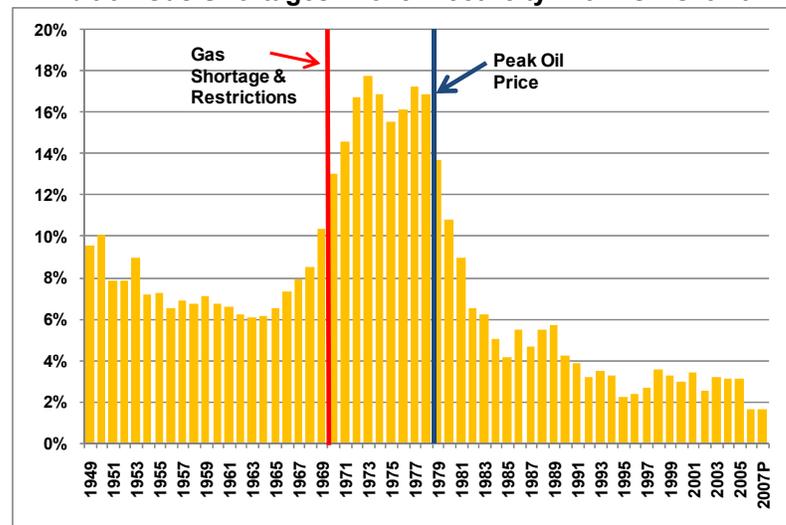
Serious supply problems developed in the early 1970s that impacted the development of the country's industrial base

Prices had been allowed to drift higher during the 1950s and 1960s, rising to \$0.45 per Mcf in the late 1960s. The problem was that rising finding and developing costs for new natural gas supplies, especially in the prolific offshore Gulf of Mexico basin, put a squeeze on producers' profits. In the late 1960s, this margin squeeze created natural gas shortages. Serious supply problems developed in the early 1970s that impacted the development of the country's industrial base. Industries that needed natural gas for either fuel or as a feedstock (raw material) for their production processes began to relocate to the energy-rich states in the South and Southwest. If natural gas did not move beyond the border of the state in which it was found, its price was not regulated by the FPC. As a result, the nation developed a dual fuel market – interstate and intrastate – one regulated at low prices and the other unregulated with prices reflecting whatever consumers were willing to pay.

The development of dual natural gas markets produced the phenomenon of interstate natural gas prices being in the \$0.50 and then \$0.75 per Mcf range while the intrastate markets in Texas and Louisiana were pricing gas in the \$7 to \$9 per Mcf range

The development of dual natural gas markets produced the phenomenon of interstate natural gas prices being in the \$0.50 and then \$0.75 per Mcf range while the intrastate markets in Texas and Louisiana were pricing gas in the \$7 to \$9 per Mcf range. Due to this price disparity and its impact on exploration and development of gas supplies for the interstate market, the federal government created a program involving advanced payments from gas utilities and pipeline companies to E&P companies to be used for natural gas exploration in the Gulf of Mexico (beyond state waters). These funds were included in the companies' rate bases, meaning they would earn a return on the funds even if no gas was found. It was this program that helped to turn around what had rapidly become a stagnant offshore market.

Exhibit 3. Gas Shortages Drove Electricity From Oil Growth



Source: EIA, PPHB

The percentage of electricity generated using oil as a fuel crossed the 10% threshold in 1969 as shown in Exhibit 3, a level it had not previously experienced since 1950

The other impact of this natural gas shortage was to increase the use of crude oil and residual fuel oil as boiler fuel in electric power plants. As electric power consumption was growing (Exhibit 2), the percentage of output generated by oil also grew rapidly during the 1970s. The percentage of electricity generated using oil as a fuel crossed the 10% threshold in 1969 as shown in Exhibit 3, a level it had not previously experienced since 1950. The peak use of oil was in 1973, and the subsequent reductions reflected the impact of a flattening in electricity consumption due to the 1973-1974 recession and the need for utility executives to find a cheaper alternative to now high-priced crude oil. That alternative was natural gas.

While we only have shown the United States market switch from oil to natural gas for fueling boilers in electric power plants, the same phenomenon was underway in Europe as new natural gas supplies were discovered in the North Sea that could be piped either to the continent or to England. This history is important when we consider the current market outlook for crude oil consumption. As correctly

Another era of consumer switching from less-efficient to more-efficient vehicle may lie ahead, but the growth of the global vehicle population may mitigate the impact

pointed out by Schlumberger (SLB-NYSE) CEO Andrew Gould in answering a question from an analyst on the company's third quarter earnings conference call, a significant amount of the fall in oil consumption in the early 1980s was due to the substitution effect that no longer exists in today's global economy.

Mr. Gould did not talk about the impact of the switch to more fuel-efficient vehicles both in the United States and Europe in the 1980s, but that did account for some of the consumption fall. Another era of consumer switching from less-efficient to more-efficient vehicle may lie ahead, but the growth of the global vehicle population may mitigate the impact. Additionally, the percentage gain from the switch was much greater in the 1980s than it is likely to be now, although the sheer volume impact could still be significant.

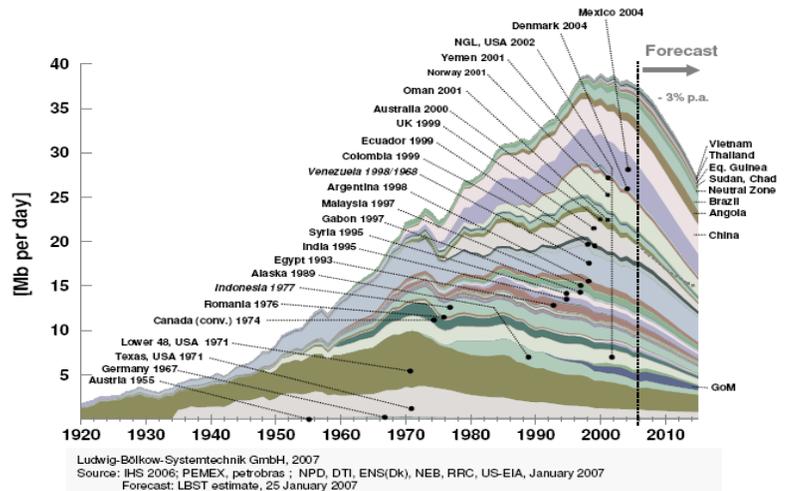
One can find the UK and Norway production commencing in the middle of the 1970s and Denmark production shortly later

Another significant difference between today's energy industry and the one that existed in the 1980s is the crude oil supply situation. When the first oil market shocks were delivered in the early and late 1970s, the global oil supply situation was quite different from today. That difference is clearly seen by examining the chart in Exhibit 4. While it may be a little difficult to see, the North Sea was just opening up during the 1970s. One can find the UK and Norway production commencing in the middle of the 1970s and Denmark production shortly later. Those were all new supply sources, albeit their oil was significantly more expensive than that of US Lower 48. In North America, Alaskan oil production also was just starting in the latter part of the 1970s, again a higher cost oil supply. Together these were significant new oil supplies and helped for many years to diminish the economic power of OPEC.

Starting in 1990, an additional 18 countries have reached their peak oil production including those significant new 1970s production provinces of the North Sea and Alaska

While new supplies helped us in the 1980s, as Exhibit 4 demonstrates, many more countries producing oil have now reached or have passed their peak production levels. If one looks at the period before 1980, there were six countries that were beyond their peak production. Those countries included: Austria, Germany, the US Lower 48 states including Texas, Canada's conventional oil, Romania and Indonesia. Starting in 1990, an additional 18 countries have reached their peak oil production including those significant new 1970s production provinces of the North Sea and Alaska. While there remains a lot of oil in place in many of these older basins and even new exploration horizons, the key question is: Where are the next North Sea's or Alaska's? Without huge new oil basins, admittedly Brazil could be one of those, the world's supply situation is markedly different than it was at the end of the 1970s. For those of us who lived through that 1970s period, the visibility of those future new supplies at that time was not obvious. However, the international petroleum industry was optimistic about its ability to find new source and thus its future, just as it is today. We share that optimism, but recognize that the effort likely will be more daunting than in the past.

Exhibit 4. Global Oil Supplies Were Expanding In The 1980s



Source: The Oil Drum

We have developed two market scenarios that we believe are instructive to consider as we try to figure out how the world of energy may look in the future. We call one scenario, the V-Recovery and the other, Murphy's Law. The key points for each scenario are highlighted in Exhibit 9.

The V-Recovery Scenario:

This scenario is based somewhat on the views of Brian Wesbury, chief economist for First Trust Advisors and a frequent contributor to the *The Wall Street Journal* and CNBC. In his view, the credit crisis is a transitory event that is closer to an end than the beginning. While the crisis has been painful, in his view the world's underlying economic health has not been seriously damaged and the ongoing recession will be modest. He believes the recession began late last year and will end in the upcoming fourth quarter as GDP will fall somewhere between -0.1% and -0.5%. In the first quarter of 2009, Mr. Wesbury expects flat GDP growth followed by an annual average rate of growth of 3% in each of the final three quarters. Given this economic outlook, we believe global oil demand growth would be consistent with the recently revised forecasts by OPEC and the International Energy Agency calling for somewhere between 700,000 to 800,000 barrels per day increases, or roughly 0.7% growth compared to 2008's demand.

With oil demand growing next year, crude oil prices currently should be near their bottom. A large part of the impetus for the collapse in oil prices has been hedge funds and investors liquidating investments in commodities. Driving these liquidations is the fall in value of other investments, fear of a severe global recession and the need to sell highly liquid investments to raise funds to meet client redemptions. As soon as investors sense economic growth may not be as bad as anticipated in 2009, oil prices should start to recover.

In the first quarter of 2009, Mr. Wesbury expects flat GDP growth followed by an annual average rate of growth of 3% in each of the final three quarters

Energy companies are moving to cut their North American capital spending in 2009, which is primarily focused on natural gas reserves, but they are likely to maintain their international spending plans

The natural gas market in North America remains a special case as growing supply is overwhelming demand growth and putting downward pressure on prices. Energy companies are moving to cut their North American capital spending in 2009, which is primarily focused on natural gas reserves, but they are likely to maintain their international spending plans. By the second half of 2009, both because of prospects for higher economic activity and energy demand, worldwide capital spending growth should begin to accelerate.

As 2009 unfolds, we would expect to see the analysts switching from a cutting mode to a boosting one as earnings estimates will be raised and preliminary 2010 estimates will reflect a healthy activity increase over 2009

A reason for the upturn in capital spending is that OPEC's production cuts in the latter part of 2008 coupled with the resumption in economic growth in 2009 will quickly show the hydrocarbon supply challenge for non-OPEC reserves. From a global crude oil market that is substantially over-supplied and a North American natural gas market in surplus, we rapidly should see a return to oil and gas markets in supply/demand balance. With that shift, prospects for future shortages of crude oil and natural gas will return as the primary driver of commodity prices.

Analysts are already rushing to cut energy company earnings estimates for 2009. The reductions will likely be modest for most companies with a selective few – primarily those totally concentrated on North American gas markets – being cut severely. Possibly a few companies may actually see their earnings estimates raised, but those will be very few. As 2009 unfolds, we would expect to see the analysts switching from a cutting mode to a boosting one as earnings estimates will be raised and preliminary 2010 estimates will reflect a healthy activity increase over 2009 as global growth will promote a healthy energy industry.

Boosting the attractiveness of energy stocks is that stock market recoveries usually are led by those market sectors that performed the best during the latter stages of the prior market cycle

If energy company earnings estimates do not fall precipitously, current energy stock prices are suggesting an industry that is significantly undervalued. As investors begin to gain confidence that the world is not about to end, they will shift their focus to those industries and stock market sectors that hold the promise for healthy growth at attractive stock valuations. Energy should be in that universe. Another consideration boosting the attractiveness of energy stocks is that stock market recoveries usually are led by those market sectors that performed the best during the latter stages of the prior market cycle. Energy was in that group along with materials and financial services, but one has to assume the fundamental damage and partial nationalization of the financial services sector will make it less attractive. Investors in financial stocks will be an overhang of shares as the federal government seeks to exit its holdings and bank managements seek to boost their capital positions by selling new shares to raise additional equity.

The V-Recovery scenario suggests an attractive outlook for energy companies and their share prices. An unknown is the possible impact of new regulations that come from the witch hunts currently underway on Capitol Hill. Executive compensation, new enhanced transparency rules for financial statements and corporate

The V-Recovery scenario suggests energy industry activity will go through a brief slowdown

governance, and greater regulation of commodity trading markets are likely focal points for Washington's politicians. A President Obama with large Democratic majorities in both houses of Congress will lead the populist movement to tighten regulations for all industries, especially for those businesses that impact average Americans the most, and energy is definitely in that category.

The V-Recovery scenario suggests energy industry activity will go through a brief slowdown but the financial damage will be minimal plus there is a significant activity recovery on the horizon. If one believes this scenario is highly likely, he should be buying energy stocks now as they are probably about at their absolute bottom.

Murphy's Law Scenario:

Under the Murphy's Law scenario the recession in the United States deepens and then spreads across the Atlantic Ocean to Europe and eventually across the Pacific Ocean to Asia. Next year will see negative growth for almost all OECD countries and Asian economic growth, while better than the rest of the world, will not be sufficiently strong to offset economic problems of the rest of the world. The big question will be whether the recessionary environment ends during 2009 or continues through the year and into the first half of 2010.

If the recession continues through 2009, it will be hard for oil demand growth to be very robust in 2010

Oil demand will be negatively impacted under this scenario and there will be serious concern about what, if any, oil demand growth might occur in 2010. If the recession continues through 2009, it will be hard for oil demand growth to be very robust in 2010. Under Murphy's Law, we anticipate that the upcoming winter in North America will be warmer than normal (contrary to the Farmer's Almanac forecast) that will weaken natural gas demand and send gas prices lower. As Murphy's Law states: Whatever can go wrong will go wrong. Since a cold winter is what North American natural gas markets want and need, they won't get it.

Crude oil at \$50 a barrel is a real possibility along with natural gas prices below \$5 per Mcf, at least during the spring and early summer of 2009

As a result of this economic and commodity outlook, we expect crude oil and natural gas prices to fall further. Crude oil at \$50 a barrel is a real possibility along with natural gas prices below \$5 per Mcf, at least during the spring and early summer of 2009. We believe commodity prices will slowly rally back to the levels they were at in the first half of 2007 before the big run up in oil prices began. This oil and gas pricing outlook will lead to a significant cut in North American capital spending by energy companies, but more importantly they should hold their international spending in 2009 flat with 2008's amount rather than boosting it as is currently expected. Investors will quickly begin to focus on the outlook for spending in 2010 as another year of flat or down spending will force oilfield service companies to scale back their activities, investment in new equipment and expansion plans.

Energy company 2009 earnings estimates will be cut sharply under this scenario. Since there will be a high degree of uncertainty about the outlook for 2010, both economically and in the energy sector,

Investors recognize that low oil prices and reduced petroleum industry capital spending will contribute to a rapid erosion in oil supplies

There is a risk of further changes in the regulatory environment, not only in energy markets, but in capital markets and corporate governance, also

Investor malaise is a potentially significant Black Swan that could hurt capital markets in the future

energy stock prices will drift lower. We doubt they will fall dramatically from current levels because other than small domestic producers who are highly leveraged and/or dependent upon capital markets to survive, the companies are in strong financial positions and can weather a period of weak earnings and cash flows. Value investors will find the energy sector attractive, but then again they are less concerned about having a near term catalyst to drive share prices higher quickly. Patience is their watchword.

The great concern for energy investors is that the OPEC production cut will not be sufficient to support current oil prices. As a result, they are not confident that oil prices will not fall further. On the other hand, investors recognize that low oil prices and reduced petroleum industry capital spending will contribute to a rapid erosion in oil supplies. The great unknown is how quickly this natural phenomenon of accelerating depletion can bring the oil supply/demand equation back into balance and stabilize oil prices, setting the stage for higher prices in the future.

Longer term, there are several wildcards that might impact the Murphy's Law scenario. One is the potential that the current stock market environment will create a malaise among investors and drive them out of the stock market. There is a risk of further changes in the regulatory environment, not only in energy markets, but in capital markets and corporate governance, also. Lastly, energy investors need to worry about the impact from continued growth of alternative energy supplies on the traditional oil and gas markets. While economics do not support most alternative energies at the present time, their future support is closely tied to the climate change movement. Consumers are beginning to see the value of alternatively-powered vehicles because their owners will not have to deal with those "evil oil companies," or the interaction will be kept to a minimum. If the next Administration elects to subsidize the production of and mandate the increased use of alternative energies, their share of the nation's energy pie will expand to the detriment of the existing fossil fuel categories. One can even envision a scenario where sometime after the middle of the next decade, alternative energies account for a sufficient share of the total energy market that they gain a growth momentum of their own. Once that happens, we may be looking at the oil business becoming like the whaling industry in the 1860s.

Investor malaise is a potentially significant Black Swan that could hurt capital markets in the future. The performance of equity market over the past several months and the resulting financial damage inflicted on American investors could drive them from the investment arena. We think there is a much greater risk of this happening than many believe and it comes from not only the magnitude of the recent stock market downturn, but also the great volatility being experienced by the market. Admittedly, professional investors understand that volatility is often associated with inflection points in the stock market, but most investors cannot stand watching the stock market go through 3%-8% daily price swings each day. The

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Mr. Grantham has now turned bullish

magnitude of this market action is virtually impossible to explain to the average American investor and after losing significant retirement money, many investors may elect to simply skip this market and seek out more stable and predictable investments. They will be assuming other risks such as being more exposed to the erosion of the value of their investments from higher inflation and a fall in the value of the U.S. dollar.

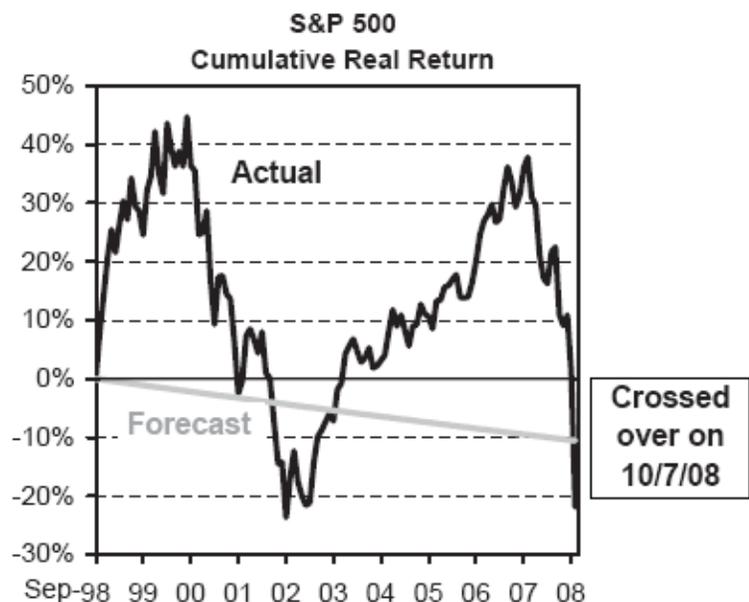
Our fear of investor malaise is reinforced if one considers the returns, or lack thereof, investors have earned by investing in the stock market over the past decade. As shown in Exhibit 5 taken from the recent GMO quarterly letter to clients authored by the organization's head man, Jeremy Grantham, investors have suffered a negative real return over this period. At the time Mr. Grantham made his stock market forecast ten years ago, predicting that the S&P 500 would return -1.1% over the next decade, his was an extreme outlier. Unfortunately for investors, Mr. Grantham missed his forecast by only three days!

Mr. Grantham has now turned bullish, but cautions that further market lows are likely to be experienced. He views stocks as cheap on an absolute basis, and cheaper than they have been at any time in the past 20 years. We doubt many investors, especially the general public, will follow his lead and start buying stocks as they are fearful and stressed out.

Exhibit 5. Negative Real Returns Over The Decade

Exhibit 2

On-Time Arrivals, Despite Some Turbulence



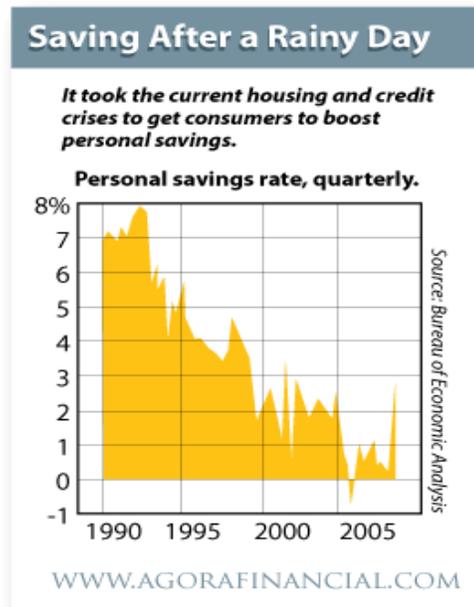
Source: GMO, Prieur du Plessis

Mr. Wolf pointed out that the American consumer accounts for 20% of global GDP

We believe there are two other factors that should be considered when trying to determine how the future of energy markets may unfold. First is the consumption habits of American consumers and the second is the role of China's economy. In some ways these two considerations are intertwined, but we will try to separate them.

We recently heard Martin Wolf, the associate editor and chief economic commentator for the *Financial Times* being interviewed. He pointed out that his greatest concern about the world's economic outlook was the role of the developed economies and especially that of the American consumer. At the present time he believes there will be no global economic growth in 2009 with the recession ending sometime in 2010. He bases his view on the fact that the U.S. and Europe account for two-thirds of the world's GDP and the credit crisis is taking a huge toll on economic growth. His greatest concern is how households in the OECD countries react to a year or more of no economic growth. Mr. Wolf pointed out that the American consumer accounts for 20% of global GDP. If the American consumer becomes a dedicated saver as he was for many years, it will be much harder for the world to recover from the current recession. While that might mean the recession will be deeper than he is thinking, the bigger impact will be on how long it will take for the world's economy to recover. Exhibit 6 shows the pattern of American's savings rate since 1990 and how that rate has jumped up very recently. If we go back to the level of savings rates experienced in the early 1990s, the American economy will be a different one than we have lived with since the turn of the century.

Exhibit 6. U.S. Savings Are Rising



Source: Agora Financial

Forecasts are now calling for 9%, or possibly slightly lower, growth in the fourth quarter, while estimates for 2009 are beginning to be reduced to 8% growth

The lack of a large domestic consumption market makes China heavily dependent on exports and internal investment

China's economy is another critical factor in understanding the world's economic outlook in 2009. The latest figures from China show its economy has slowed from its growth pace of recent years and even from the first half of 2008. For the third quarter, China's GDP grew 9%, down from the 10.6% in the first quarter and 10.1% growth in the second quarter. Forecasts are now calling for 9%, or possibly slightly lower, growth in the fourth quarter, while estimates for 2009 are beginning to be reduced to 8% growth. The third quarter GDP growth rate in single digits is the lowest China's economy has grown in five years. The one bright aspect of these economic numbers is that inflation has moderated throughout 2008 and was only at a 4.6% rate in September, consistent with the inflation rate for the entire third quarter.

In contrast to the United States where consumption accounts for 73% of GDP and capital investment is 20% and net exports 7%, China's numbers in 2007 were 37%/42%/21%. What this suggests is that the lack of a large domestic consumption market makes China heavily dependent on exports and internal investment, which are at risk in a world of slowing or negative economic growth. One can ask how much capital investment the government can justify if there is little or no return? The country does need to make a lot of infrastructure investment, which will help position China for the next global upswing, but that doesn't help the economy's returns in the near term. Infrastructure investment, however, may help to mitigate the risk of social unrest, especially in rural China that could be spawned by a slowing economy. That is not an inconsequential consideration for the Chinese national government.

When we look at China's export sector, it is instructive to look at how dependent the country is on the United States, Europe and Japan, the major consuming markets in the world. Collectively, these three regions accounted for over 46% of China's net exports in the first half of 2008. With all three regions facing the prospect of severe recessions in 2009, it is hard to see China's economy becoming the

Exhibit 7. 1H2008 Chinese Net Exports By Region

Rank		Export value (\$ bn)	Portion of total (%)	YOY growth (%)
	Total	666.6	100.0	21.9
1	EU	137.0	20.6	27.0
2	United States	116.8	17.5	8.9
3	Hong Kong	90.7	13.6	7.8
4	ASEAN	55.3	8.3	30.3
5	Japan	55.2	8.3	15.1
6	South Korea	35.8	4.6	36.0
7	India	15.6	2.3	52.9
8	Russia	14.2	2.1	32.5
9	Taiwan	13.1	2.0	18.9

Source: Tokyo Foundation

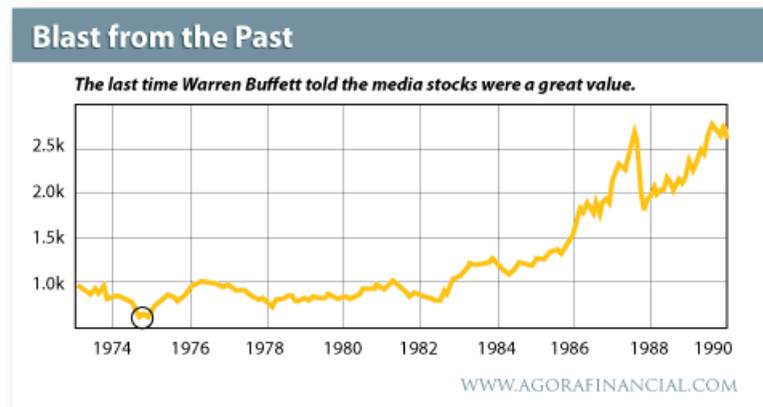
At the moment, we suspect investors are pricing in something like the Murphy's Law scenario into both oil and gas markets and energy stocks

driving force to keep the world's economy growing and to boost crude oil demand. Automobile sales are softening in China and we have recently learned that air conditioner sales were down this summer despite hot temperatures.

Our conclusion is that we doubt either of our V-Recovery or Murphy's Law scenarios will happen. It will likely be something that falls between the two. At the moment, we suspect investors are pricing in something like the Murphy's Law scenario into both oil and gas markets and energy stocks. This would suggest now is probably a good time to be scooping up values among energy stocks.

To support that conviction, we point to Warren Buffett's recent op-ed piece in *The New York Times* where he said he was buying stocks personally. The last time Mr. Buffett made such a bold statement was to *Forbes* magazine on November 1, 1974, when he said, "[I feel] like an oversexed guy in a whorehouse." He almost called the stock market low to the very day with his statement

Exhibit 8. Buffett Almost Called The Market Bottom



Source: Agora Financial

Odds are favoring another significant bull market, and we have to believe that the fundamentals for energy suggest it will be a sector that should prosper during that next stock market run

Within two years after Mr. Buffett's statement, the Dow Jones index had nearly doubled and 15 years later it was up almost five-fold. In 1999, he told his Berkshire Hathaway (BRK-A-NYSE) shareholders, "We do not think the general ownership of equities is going to be very exciting over the next 10-15 years." If he is correct, we may still have a few years of sub-normal investment returns ahead, but the odds are favoring another significant bull market, and we have to believe that the fundamentals for energy suggest it will be a sector that should prosper during that next stock market run.

Exhibit 9. Two Energy Market Scenarios to Ponder

Topic	V - Recovery	Murphy's Law
Global Economies	Credit crisis eases, global growth better than expected	Global recession, negative economic growth for most OECD countries, Asian growth moderates
Energy Demand	Oil demand consistent with recent forecasts in 2009, US natural gas demand grows	Oil demand negative in 2009, concern about 2010 growth, warm winter hurts US gas demand
Oil & Gas Prices	Prices bottom at around current levels, prices jump up as economic growth accelerates	Prices fall meaningfully below current levels, during summer of 2009 prices rally back to 2007 levels
Energy Capex	NA capex cut but int'l capex higher, both start growing in 2H09	NA capex cut substantially; int'l capex flat, everyone waiting for 2010 outlook
Energy Company Earnings	2009 estimates cut modestly for most, severely for some; as 2009 unfolds, EPS estimates increased	Earnings estimates cut sharply and industry offers little prospect for near term pickup
Stock Market Valuation	Stock prices flat at bottom then jump on expectations of jump in earnings and demand	Stocks drift lower as market lacks conviction about earnings growth and when that might begin
Oil & Gas Supply	OPEC cuts supply and quick uptick in demand supports concerns of rapidly falling non-OPEC supply	OPEC supply cut not sufficient to support oil price; prospects of sharp supply drop with no capex spending
Other Considerations	New regulatory environment	Stock market malaise drives investors away hurting overall market valuation metrics, new regulatory environment; concern about impact of alternative energy and changes in consumer consumption patterns

Source: PPHB

Can OPEC's Concern and Production Cut Stop Oil's Slide?

As expected, on Friday the members of OPEC assembled in Vienna for a special emergency meeting of the organization and decided to cut its collective production by 1.5 million barrels a day effective immediately. They already have another meeting scheduled for December (to do their Christmas shopping?) at which time they will assess whether this cut was sufficient to stop the global oil price slide at around \$70 a barrel. That price would put the OPEC oil basket price somewhere in the \$60 a barrel range. This level is consistent with the price used by a number of OPEC countries in determining their government budgets for 2009. What a far cry from the \$100 or \$140 a barrel price levels of the first half of this year.

Traders are concerned that the 1.5 million barrel a day production cut is insufficient to support prices in a world of slumping economic activity

The announcement of the production cut did little to stem the fall in NYMEX oil futures prices Friday as they crashed to the \$63 a barrel range at the beginning of trading, down over \$4 a barrel. Prices did rally somewhat during the day ending down only about \$3 per barrel. Traders are concerned that the 1.5 million barrel a day production cut is insufficient to support prices in a world of slumping economic activity. We pointed out in our last Musings how rapidly and how far the CRB and Baltic Dry Bulk indices had fallen. These two indices reflect global consumption of raw materials and other commodities, and both indices are suggesting rapidly contracting global economic activity.

As reported by *Lloyd's List*, a Xiamen, China, freight forwarder said

Shipping rates are falling on all trade routes at the moment with the most severe drop being on the Mediterranean to Europe service

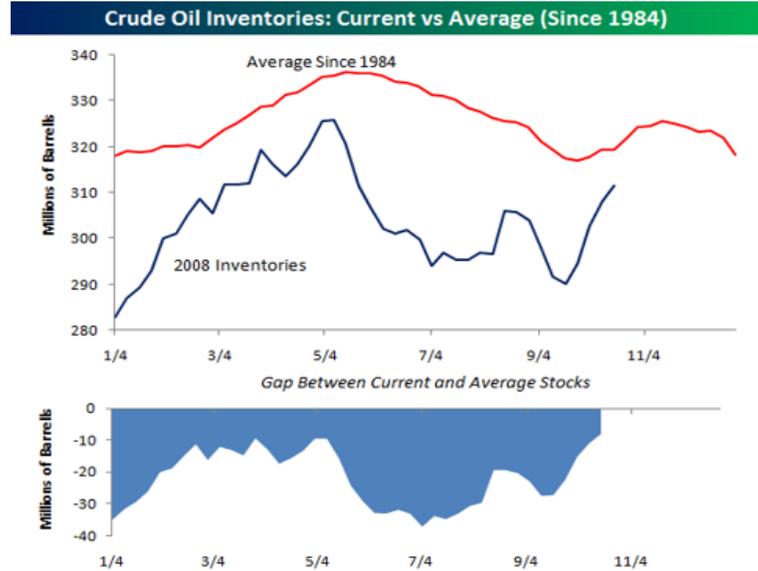
that shipping rates are falling on all trade routes at the moment with the most severe drop being on the Mediterranean to Europe service where rates have fallen from \$1,200/TEU to \$600/TEU. APL, the container shipping arm of Neptune Orient Lines (NOL.F-Hamburg), announced it was reducing capacity on its Asia to Europe trade by 25%, and also cutting its transpacific capacity by 20%.

The global economic slowdown is only now beginning to materialize and many wonder whether the decline will turn into a severe recession or only a mild one. The difference could have significant implications for the near-term price of oil. If the world is currently oversupplied with crude oil while Nigerian production is significantly reduced due to its internal turmoil and output is lower in Venezuela and Mexico and potentially Iraq, one has to wonder what happens as some of these suppliers restore their production.

Falling demand, coupled with a slower than expected recovery in refinery utilization, has combined to push crude oil inventories higher

In the United States, the latest Department of Energy weekly inventory numbers showed a 2.7 million barrels a day increase in crude oil inventories. As shown by the chart in Exhibit 10, U.S. crude oil inventories had fallen from early May to early July, only to stabilize and begin rising as summer unfolded. With the arrival of Hurricane Gustav and its impact on Gulf Coast refinery operations, inventories fell. The inventory picture was further hurt by Hurricane Ike that delayed the restarting of many of the refineries, but once the waiting ships arrived, crude oil inventories swelled. Falling demand, coupled with a slower than expected recovery in refinery utilization, has combined to push crude oil inventories higher as well as gasoline and distillate inventories.

Exhibit 10. U.S. Oil Inventories Continue To Build



Source: Bespoke Investment Group

As oil demand growth has evaporated and supplies have continued to flood the market, oil prices have fallen sharply - \$40 a barrel in the

past month. Where might the oil price decline bottom out? The chart in Exhibit 11 shows how traders look at historic support levels to try to determine where the price might bottom. The chart shows the price of oil since the fall of 2001 when it bottomed out at \$16.70 a barrel after the 9/11 event. The chart also shows the Fibonacci retracement levels that represent the percentage of the gains made as oil prices rose from \$16.70 to \$147.27 a barrel between 2001 and 2008 that have been given up as oil prices have fallen. These support levels often are used by traders but in the current market environment they probably only represent a guide as to where support might come into the oil market.

Exhibit 11. Oil Prices Rapidly Breaking All Support Levels



Source: Bespoke Investment Group

Oil prices seemed to be holding at the \$66.58 support, but with Friday's price action going through that level, it looks like we could be headed toward \$47.52 a barrel

The worst case scenario we have heard recently calls for \$40 oil and \$4 natural gas

The oil price decline quickly blew through the 23.6% (\$116.46) and 38.2% (\$97.39) support levels. It took a little longer to go through the 50% decline (\$81.99) and then prices seemed to be holding at the 61.8% decline support (\$66.58), but with Friday's price action going through that level, it looks like we could be headed toward the 76.4% support level, or \$47.52 a barrel. Hopefully we don't have to retrace the entire price rise of 2001 to 2008 to \$16.70 a barrel.

Recently, an investment firm lowered its 2009 oil and gas price forecasts and reduced its industry capital spending projection. In its report, the firm tossed out a possible Domsday scenario that called for oil to hit \$50 a barrel and natural gas at \$6 per Mcf. Under that scenario, this firm figures the petroleum industry's capital spending would be cut across the board by 25%. We thought that was an interesting scenario, but not the worst case scenario we have heard recently. That one calls for \$40 oil and \$4 natural gas. Talk about price levels that would cause the energy business to shift into a lower gear!

Our own guess is that we are likely to see oil prices somewhere in the \$50s a barrel before this correction ends. As we have mentioned before, there are a number of differences fundamentally

between this environment and the one we experienced in the early 1980s. These differences suggest the possibility for a much faster industry recovery than we experienced following the 1985 oil price bust. Some of those differences were covered in our story, "Feeling For a Bottom."

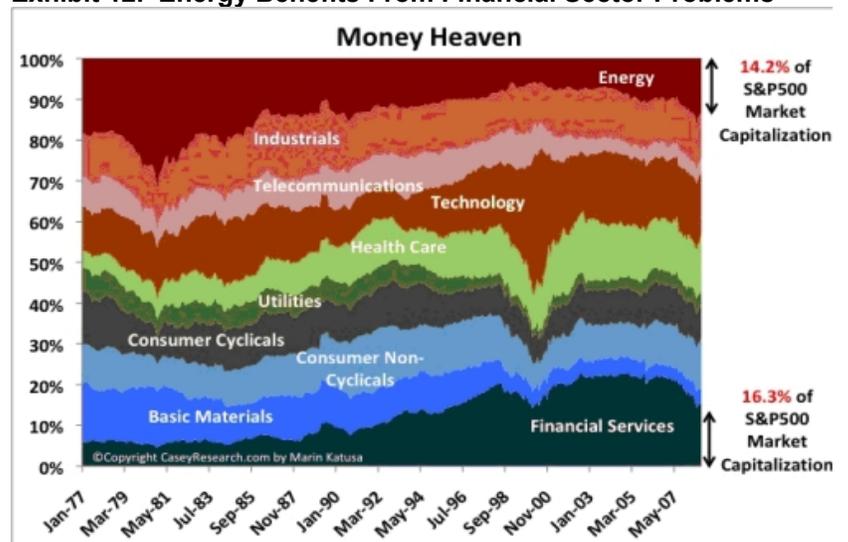
Oil Price Decline Hammers Stocks, But Are They History?

Volatility in the stock market has been the watchword. Midweek last week we saw a statistic that said that four of the ten largest one-day moves in the stock market had occurred this October. If you measure volatility by the range of price swings in the stock market averages, some of the daily moves have been huge. These moves have ranged from 500 to 900 points and can clearly be described as "whiplash" as the ups and downs often occur more than once in the course of the trading day.

In the decline since August of this year, about \$3 trillion of market value has been lost

We were intrigued by a chart we saw that measured the Standard & Poor's 500 Index on a value-weighted basis. The chart was prepared through October 14, which admittedly missed the most recent volatility and decline in stocks, but we thought the historical chart still offered some instructive value. As pointed out by the Casey Research people who prepared the chart, in the decline since August of this year, about \$3 trillion of market value has been lost. Of that amount, approximately \$1.1 trillion was lost by falling financial services stocks. This is not a huge surprise given the way prominent financial companies were being destroyed or merged out of existence on almost a nightly basis. What was interesting was that while this vast amount of market value was being destroyed, there was a significant shift in the market value of the different sectors within the overall index.

Exhibit 12. Energy Benefits From Financial Sector Problems



Source: Casey Research, Prieur du Plessis

As certain money managers point out, the fundamental outlook for the energy business still appears solid even in a near-term recessionary environment because energy demand in the near-term is still likely to grow

The loss of value for the financial services sector meant that its share of the value-weighted S&P 500 Index declined from 21.2% to 16.3%. So where did that value go? Surprisingly it went into energy whose share increased from 9.3% to 14.2%. We will be interested in seeing how the sector values have shifted in the past week or so as energy has taken a hit associated with the fall in crude oil prices. (A quick check suggests that each of the two groups, financial services and energy lost value – 1.6% for financials and 1.3% for energy). As certain money managers point out, the fundamental outlook for the energy business still appears solid even in a near-term recessionary environment because energy demand in the near-term is still likely to grow, albeit at a slower rate than previously anticipated, but longer term energy supplies will still need to be discovered and developed and higher commodity prices will be needed to support that effort, which will boost energy stock prices.

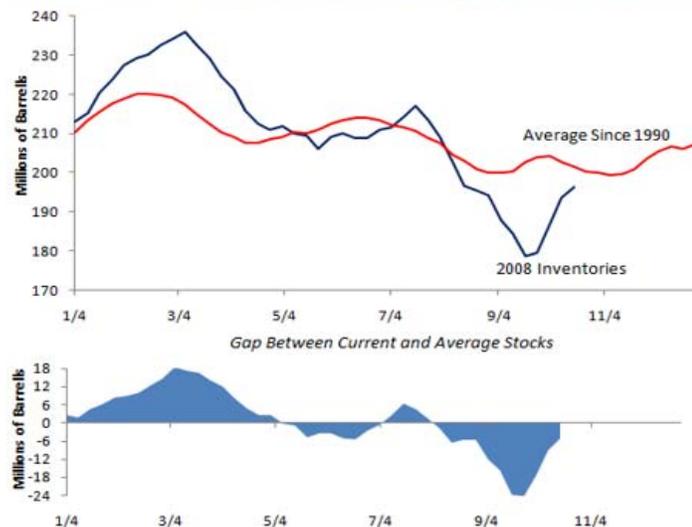
Gasoline Prices Go Full Circle – Demand Headed Up?

This is the exact same pump price that existed one year ago

Last Thursday, it was reported in the media that the national average for a gallon of regular gasoline at the pump had fallen to \$2.82. This is the exact same pump price that existed one year ago. As they say, what a difference a day, or in this case a year, makes. Gasoline prices have fallen \$0.90 a gallon in just the past 30 days and they are down by \$1.29 since pump prices hit their record high of \$4.11 a gallon in July.

Exhibit 13. Gasoline Inventories Approaching Its L-T Average

Gasoline Inventories: Current vs Average (Since 1990)



Source: Bespoke Investment Group

Gasoline prices have fallen partly because crude oil prices have been declining. Since their peak in July at \$145 a barrel, they recently traded intraday at \$63, some \$80+ a barrel fall. Equally important has been the recovery of the Gulf Coast refining industry

Demand averaged over the last four weeks is down 4.3% from a year ago

from the shutdown and damage caused by the two hurricanes – Ike and Gustav. As gasoline supplies have grown, the credit and financial market crisis has impacted consumers and their spending. As a result there has been a decline in driving. The impact of lower demand and rising production has been a sharp increase in gasoline stocks.

Gasoline demand during the third quarter of 2008 averaged 9,243,000 barrels per day, the lowest daily usage in five years

As we have reported in previous Musings, Americans are driving less due to high gasoline prices. The decline in driving is a function of people adjusting their consumption patterns – shifting to smaller, more fuel efficient cars, switching from cars to public transit, and generally using their vehicles more efficiently, including avoiding unnecessary trips. As the Department of Energy weekly data on gasoline consumption has shown, demand, based on the average of the last four weeks, is down 4.3% from a year ago, although some of that decline has to be associated with the lingering effects of the storm-related refinery shutdowns. When looked at on a year-to-date basis, the decline in gasoline demand versus 2007 is down 2.8%.

The more interesting statistic is that gasoline demand during the third quarter of 2008 averaged 9,243,000 barrels per day. That is the lowest daily gasoline usage in five years. We view that trend to be significant since the American vehicle fleet has grown and the number of licensed drivers is higher, too. This clearly supports the trend we have experienced in cumulative 12-month driving statistics that have been falling for nine months. The \$64,000-question is: Will falling gasoline pump prices, and they are projected to decline by another \$0.20 a gallon, translate into a resumption of the historic upward trend in miles driven? Our guess is that the current credit and financial market turmoil will keep consumer spending under pressure and resuming past driving habits will be weighed against the impact additional income from lower gasoline prices plays in family budgets.

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