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ENERGY INVESTMENT BANKING

# 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 and planning for the future. The newsletter is published every two weeks, but periodically events and travel may alter that schedule. As always, I welcome your comments and observations.* Allen Brooks

## Three Cheers For Mom And Other Road Trip Observations

**The second line was: Motherhood The Best Career**

Close to Grimes, Pennsylvania, along I-78, there is a sign board that often displays moral messages. As we passed it the other day, I noticed the sign's message was left over from Mother's Day the prior Sunday. The sign's first line was: Three Cheers For Mothers. The second line was: Motherhood The Best Career. That certainly is an admirable expression. It was, however, only one of many things we observed on our drive from Houston to Rhode Island.

**Along certain parts of the route we encountered more trucks than we have ever seen or experienced**

If this year's drive had a theme it was trucks and police – sometimes together but often not. Along certain parts of the route we encountered more trucks than we have ever seen or experienced. Those trucks all seemed to be on the Gulf Coast highways in Texas and Louisiana. When we turned north on I-59 heading into Mississippi, the trucks pulled a disappearing act, and it wasn't due to the approaching darkness. We have no explanation why there were so few trucks in Mississippi, but they seemed to rejoin us as we entered Virginia. From that point onward, through West Virginia, Maryland Pennsylvania, New Jersey, New York and Connecticut, we were always accompanied by trucks. Why the stretch from I-12 to I-81 had so few trucks remains a mystery. It certainly doesn't appear to be because the route isn't connecting major population centers.

**Maybe the trucks weren't in Mississippi because the police were there**

Along with the trucks came the police. In certain stretches we have never seen so many police. In fact, we joked that the entire Louisiana highway patrol must have been working 1-10 from the Texas border to Baton Rouge where we shifted to I-12. We never saw any Louisiana police on that stretch. Maybe the trucks weren't in Mississippi because the police were there just as they were in Alabama, Tennessee and Virginia. In the latter states the police seemed to be targeting trucks, but they were catching a number of four-wheelers for driving too fast.

**This particular line of trucks started two miles away from the weigh station (based on a sign) and was two lanes wide on a four-lane highway!**

While the states were using their police to generate revenue, they were also generating income from another source - weighing trucks. Almost every state's weigh stations were open and working. It was interesting that even those states that employ weigh-in-motion systems for trucks, where overhead sensors determine a truck's weight or whether the truck must enter the facility, almost all the trucks were heading in to be weighed. Weigh stations enable states to determine whether trucks exceed the allowable weight and thus should be paying a fine in addition to their approved use fee. Several weigh stations had lines of 20-30 trucks slowly moving through the facility. These lines backed up onto the highway creating a potential safety hazard. The most spectacular weigh-station line was in New Jersey and it almost caused several accidents. Trucks were lined up with cars interspersed thinking they were merely in a regular traffic lane that was moving slow for some unknown reason. This particular line of trucks started two miles away from the weigh station (based on a sign) and was two lanes wide on a four-lane highway! Trucks in the third lane were often slowing trying to move over into the line in the second lane. As we worked our way through the congestion, we observed only one truck by-passing the weigh station.

**Trucks continue to overflow rest stops and truck stops, especially as night approaches**

We also learned about discrimination within the trucking industry. A highway sign announcing an upcoming truck rest stop in New Jersey had a special sign attached stating that no truck weighing less than five tons was allowed in the facility. We guess the rest stop was for "big" trucks only. As in previous trips, we saw the impact of the change in over-the-road driver rules. With reduced daily hours and longer rest periods mandated, trucks continue to overflow rest stops and truck stops, especially as night approaches. As a result, truck traffic is mostly encountered during daylight hours. Another manifestation of the shortage of truck drivers in an industry experiencing growing demand was that nearly every truck had signs on the rear of their trailers with phone numbers to call if you wanted to work for them. One national truck line was creative by painting the side of the trailer as a giant sign saying it was looking for drivers. It listed a handful of cities with a separate phone number for each city. We were amused that each city listed had its state listed, helping eliminate confusion over where the jobs were located.

**The trip was uneventful with nice weather along the way – only one brief shower in northern Virginia**

The trip was uneventful with nice weather along the way – only one brief shower in northern Virginia. Our trip was different as we left mid-morning on a Tuesday after we attended a breakfast meeting. We also spent nearly two hours camped in the back of a McDonald's in Tennessee as we participated in a webinar for *Workboat* magazine about the outlook for the Gulf of Mexico. As a result of this schedule we didn't arrive until late afternoon on our third travel day.

There was no difficulty in finding a hotel rooms, although both hotels were more heavily booked than we expected. One hotel was much

more expensive than we have encountered in the past, while the other was about the same price we had been paying. Both hotels were in university towns, but one town was much larger than the other, and its hotel more expensive. Maybe the larger university town had more activities that boosted hotel occupancy and rates. Our favorite restaurants were not packed, but then again they were not empty. There was no shortage of menu items such as we experienced in the past. Better planning?

**Our favorite restaurants were not packed, but then again they were not empty**

We got a chance to update one observation from past road trips. In contrast to two years ago when we stayed at a hotel next door to a Chevy car dealership in Bessemer, Alabama that was devoid of new car inventory, this year it was overflowing. The overflowing dealership reflects the strength of new car sales and the auto industry's positive outlook for future sales. In keeping with this impact of autos on the economy, we were amused to see how much the local Alabama economy has been influenced by the Daimler AG (DDAIY-PINK) assembly plant between Tuscaloosa and Bessemer building Mercedes' SUVs. We stayed at a Hilton Garden Inn in Tuscaloosa and its meeting room was called the Mercedes Room. We have no idea whether the company uses this hotel for meetings or whether the hotel owners were merely acknowledging the company's importance for its business.

**The overflowing dealership reflects the strength of new car sales and the auto industry's positive outlook for future sales**

There was little highway construction. There were only two significant projects, but they have been ongoing for several years. All the construction undertaken following the financial crisis seems to have been completed, suggesting either that the federal spending spigot has run dry or it is directed elsewhere. There were very few camper trailers or recreational vehicles on the road, and few signs of college students heading home or families heading to graduations.

Lastly, we were surprised about gasoline prices. For the first time in memory, the price of regular gasoline we purchased was uniform over 1,600 miles of our 1,800 mile trip. We found that pump prices were within a narrow range around $3.25 per gallon all the way from Texas to Pennsylvania. When we reached Greenwich, Connecticut that changed as we had to pay $3.89 a gallon. This seemed to be the price range for this region. Here in southern Rhode Island, the notoriously highest-priced station in the state was at $3.74 as we drove in. We were surprised this station wasn't closer to $4 a gallon knowing its history. They recently boosted the price to $3.79, five cents above competing but less convenient stations. We wonder whether the increase reflected the rise in gasoline futures prices or because Memorial Day is near?

**For the first time in memory, the price of regular gasoline we purchased was uniform over 1,600 miles of our 1,800 mile trip**

The conclusion from the trip is that the economy is recovering, albeit slowly and unevenly. Farmland from Virginia through Pennsylvania was being prepped for planting, which is always encouraging and hopefully will yield bountiful crops. We remain hopeful the economic activity we observed along the route north will continue to improve.

# Stocks On A Tear; Energy Doing Well; Market Overvalued?

Over the past four years since the financial crisis ended, the stock market, as measured by the Standard & Poor's 500 Stock Index, has rebounded by 21% annually. There are many questions about how much of this performance reflects the improvement in economic performance and increased company profitability versus the impact of the Federal Reserve's quantitative easing (QE) monetary policy. The QE strategy of driving interest rates to nearly zero is thought to boost the pace of the economic recovery by helping the nascent recovery in housing and creating a "wealth effect" for consumers. The latter impact comes from helping home prices to recover, which represents the largest asset for most families and by driving investors to buy stocks to replace their lost income from the collapse in interest rates. Higher home and stock prices boost the wealth of individuals giving them increased confidence to lift their spending and presumably economic activity.

**The QE strategy of driving interest rates to nearly zero is thought to boost the pace of the economic recovery by helping the nascent recovery in housing and creating a "wealth effect" for consumers**

Despite the sluggish economic recovery, corporate revenues and profits have increased, largely due to excellent cost control management. Higher profit margins coupled with the prospect for further profitability improvement is contributing to investor enthusiasm for stocks. What has been surprising, however, is that since the third quarter of 2012 an increasing percentage of companies have reported quarterly financial results where revenue growth has fallen short of analysts' estimates and future profit expectations have been lowered by managements. Despite the lack of corporate financial encouragement, the stock market has roared ahead this year, climbing 14% through the middle of May. As the stock market broke through historical barriers – 15,000 for the Dow Jones Industrial Index and 1,600 for the S&P 500 – investors have begun to question whether we are in a financial bubble whereby the risk of a stock market correction has increased significantly. Countering that concern was a recent bullish call from market strategists at Goldman Sachs (GS-NYSE) who are predicting that the S&P 500 will reach 1,750 by the end of 2013, 1,800 in 2014 and 1,900 in 2015. Their rationale is the market will be driven by dividends rather than earnings, meaning that Goldman's analysts expect the S&P 500's price-to-earnings (P/E) ratio to expand.

**Despite the lack of corporate financial encouragement, the stock market has roared ahead this year, climbing 14% through the middle of May**

To answer the question about market valuation, researchers at the New York Federal Reserve Bank examined 29 different equity valuation models and surveys that use varying economic and market-related data such as dividends or inflation to calculate future returns using weighted-average measures. From these models, the NY Fed estimated equity risk premiums for the market over the following month. The equity risk premium is the expected future return for stocks minus the risk-free rate, usually the interest rate on U.S Treasury bonds. There will always be some premium for stocks, which is logical since in exchange for taking the higher risk of owning stocks investors expect to see higher returns.

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**The P/E multiple for the S&P 500 has increased steadily this year**

What we do know is that the P/E multiple for the S&P 500 has increased steadily this year as stock prices have risen faster than earnings. As shown in Exhibit 1, the rise in the trailing P/E ratio was fairly slow from May 2011 through early 2013. However, since March of this year the P/E rise has accelerated contributing to concern about the market's overvaluation.

**Exhibit 1. Market P/E On The Rise; A Concern?**


**Source: Bespoke**

**What is clear is that in the late 1990s, the S&P 500's P/E ratio was nearly twice what it is today**

Based on the history of the stock market's valuation, it doesn't appear to be overvalued even though the trailing 12-month P/E has expanded by roughly two multiple points. To complement the chart in Exhibit 1, Bespoke Investment Research also prepared a chart showing the history of the price of the S&P 500 and its trailing P/E ratio for the past 15 years (Exhibit 2, next page). What is clear is that in the late 1990s, the S&P 500's P/E ratio was nearly twice what it is today. At the same time, if you look at how the S&P 500 has soared in 2012 and 2013 to date, it has pulled up the trailing P/E ratio. It is this trend that has market students concerned over the health of the market. They point to the fact that the recent performance of the market has been closely tied to the Federal Reserve's QE. In the minds of these market strategists, we are in dangerous territory because the economy has never experienced the magnitude of monetary stimulation in this country and now globally while it struggles to generate growth at a rate similar to the nation's long-term average of 3.2% per year. Those students understand that the significant slack in the economy, and especially our labor market, explains why we have experienced little or no inflation. However, they also believe the labor market problems are structural in nature such that at some point we will experience high inflation rates, driven largely by sharply rising wage costs as companies scramble for skilled workers who are in short supply.

**Exhibit 2. Market P/E Ratio Near Recent Low**


**Source: Bespoke**

**There have been two times in the past when the equity risk premium fell nearly to zero**

To try to answer the question about the market's valuation, the NY Fed's study generated the chart in Exhibit 3 showing the history of the market's equity risk premium over the past 50 years. What it shows is that there have been two times in the past when the equity risk premium fell nearly to zero – 1987 when investors' exuberance toward the equity market caused stocks to rise sharply and in 2000 at the end of the great technology boom when tech stocks sported triple-digit P/E ratios and Federal Reserve Chairman Alan Greenspan coined the term "Irrational Exuberance."

**Exhibit 3. 50 Year Equity Risk Premium**


**Source: NY Fed**

**From 2009 to now, as we already pointed out, the stock market has nearly doubled**

Today's equity risk premium of 5.4% is as high as it was in November 1974 and January 2009. Given what happened in the subsequent years from these prior peaks, some analysts and investors are expecting further meaningful stock price appreciation for the balance of 2013 and in future years. From 2009 to now, as we already pointed out, the stock market has nearly doubled. The 1970s provided surprisingly good price appreciation if you were able to time the market. Most of us remember that decade as a troubled one with the breakdown of the Bretton Woods monetary system and an extended period of stagflation. However, from the fall of 1974 following the stock market's sharp drop to the end of 1979, prices

appreciated about 15% per year. From the bottom in 1974, there was a steady increase in prices over the next two years and then it remained essentially flat, although it actually declined in 1977, until late 1979 when the S&P 500 rose sharply through 1980.

**Exhibit 4. History Often Repeats In Stock Market**


**Source:** ***Clusterstock.com***

**Some stock market investment strategists recently have been recommending energy stocks**

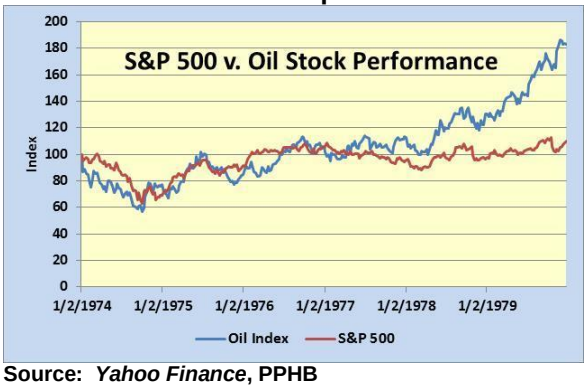
After reading various articles about the valuation of the stock market, we wondered how energy stocks performed. Some stock market investment strategists recently have been recommending energy stocks (cyclical stocks) as a way to play the strategists' expectation of accelerating economic growth and because current energy stock valuations are lower than that of the overall market. In their view, energy stocks are undervalued.

**While most people think that crude oil prices rose steadily throughout the decade from $3 a barrel to $38, the history is that oil prices rose essentially in two steps**

The decade of the 1970s was very good for energy stocks as they were the best performing stock market segment overall. That outperformance was driven by the dramatic change in the global energy industry as the United States experienced a peak in domestic oil production in 1971, followed by the Arab oil embargo in 1973 and a resulting quadrupling of oil prices. In 1978 we experienced the Iranian revolution and a further doubling of oil prices. While most people think that crude oil prices rose steadily throughout the decade from $3 a barrel to $38, the history is that oil prices rose essentially in two steps – the early 1970s and then the end of the decade with oil prices remaining essentially flat during 1975-1979. Energy stock price performance reflected this oil price pattern. Energy stocks essentially performed in line with the overall stock market before taking off in 1978 as the political situation in Iran deteriorated, which eventually led to the overthrow of the Shah of Iran, the creation of an Islamic theocracy, the seizure of American diplomats and the withdrawal of Iran's six million barrels a day of oil output. The impact of this loss of global oil supply sent economies tumbling as energy prices skyrocketed, oil availability became a serious economic issue and the political stability of the Middle East region holding the vast majority of the globe's oil reserves and a

substantial portion of its current supply was in chaos. Was it any wonder that investors bet that the winner from this environment had to be energy companies and their suppliers?

**Exhibit 5. Oil Stocks Outperformed In The End**

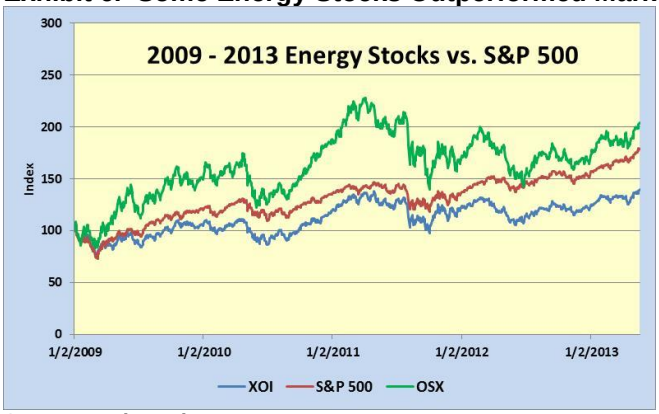



**Source:** ***Yahoo Finance*****, PPHB**

**Since the start of 2009 until mid-May, oilfield service stocks have outperformed the S&P 500 while oil stocks have lagged**

In the years since the end of the financial crisis as the stock market has been soaring, certain energy stocks have outperformed the overall market, but not all energy stocks. As shown in Exhibit 6, since the start of 2009 until mid-May, oilfield service stocks have outperformed the S&P 500 while oil stocks, represented by the AMEX Oil Index (XOI), have lagged. During this period, the Philadelphia Oil Service Index (OSX) has essentially doubled while the overall market is up about 75%. The XOI has only gained about 40%, which we attribute to its population with a number of major integrated oil companies that are impacted by concerns over the pace of global economic growth on future oil demand and, in turn, refined product demand. Because these companies often are caught between high crude oil prices and weak product demand, i.e., product prices, squeezing profit margins. On the other hand, these stocks are strong dividend payers in a market where investors seek income suggesting that the lagging price performance means these stocks are not being purchased for their dividends.

**Exhibit 6. Some Energy Stocks Outperformed Market**




**Source:** ***Yahoo Finance*****, PPHB**

**The question will be the valuation placed on these earnings going forward – will it expand, remain stable or contract?**

Does the strong relative performance of energy stocks (at least some segments) in the two periods following the peak in the equity risk premium suggest energy should continue to be a focus of investors going forward? If you accept the thesis that global energy demand will continue to grow, even while demand in North America and Europe may not, and the pressure to develop additional supplies from lower quality reservoirs acts to keep oil prices high and rising, then the earnings of oil and gas companies and the service companies that help them should grow. The question will be the valuation placed on these earnings going forward – will it expand, remain stable or contract? If either of the first two scenarios unfolds, then stock prices will climb. In the event P/E multiples contract, the stocks could still rise, albeit marginally, but more likely they would decline in price. This scenario is what actually happened during the 1975-1978 period when, even with high oil prices, the recovery from the 1973 recession had a greater impact on industrial and consumer stocks rather than energy shares.

**There are numerous possible scenarios that could undercut the positive view of the future for energy companies, but the fundamentals appear solid**

Investors should understand that the underlying fundamentals for an industry may be positive and participating companies may increase their earnings, but if the market view of the projected future earnings growth turns less positive, the stocks may trade sideways in price or even decline. Therefore, while investors, stock market strategists and New York Federal Reserve Bank researchers are all suggesting that the stock market is poised to move higher in coming months and years, all market sectors may not participate. There are numerous possible scenarios that could undercut the positive view of the future for energy companies, but the fundamentals appear solid.

## Addressing The Economic Growth Challenges Of Europe

**These efforts are part of a program to get more young people into the work force, a move that experts say is crucial if the Eurozone is to survive into the next generation**

We were not surprised to see an article in *The New York Times* discussing how Germany is heeding economists' warnings about the need to address the stubbornly high youth unemployment in the European Union. The article was triggered by an announcement by the German finance minister and his counterpart in Portugal that the German state development bank will help set up a financial institution to assist Portuguese under the age of 25 in getting jobs or training. Earlier, Germany's labor minister signed an agreement with her Spanish counterpart to bring thousands of young Spaniards to Germany for apprenticeships. Germany will also assist Spain in creating a dual-track vocational system in which young people earn qualifications through a combination of work and study. These efforts are part of a program to get more young people into the work force, a move that experts say is crucial if the Eurozone is to survive into the next generation.

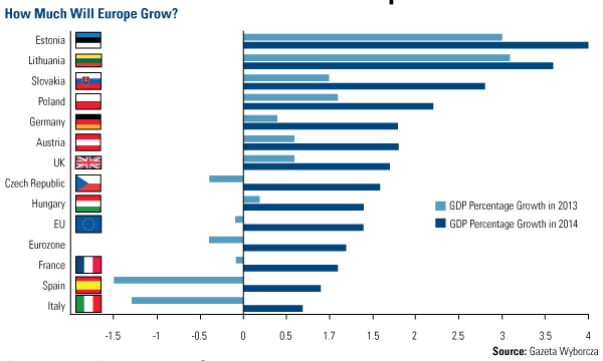
Eurostat, the statistical office of the European Union (EU), reported that there are more than 5.6 million people under the age of 25 without work across the union. We have seen that the countries with

the highest numbers of young people out of work also have the weakest economies. Joachim Möller, director of the Institute for Employment Research in Nuremberg, pointed out that unemployment in the early stages of a person's career damages their ability to integrate into society and to support more integration on the Continent. He commented, "The long-term effects reach far beyond the working world. It could be catastrophic for their idea of Europe." That is certainly not positive for the stability of the EU long term.

**The issue for Europe is that GDP growth for most countries in 2014 will be below 2%**

These are positive developments for the Eurozone. We have to believe some of these efforts have been prodded by the latest economic growth projections for the members of the EU, which is currently in a recession. The latest estimates for gross domestic product for the EU members released by Brussels shows that all countries should experience positive growth in 2014. Some of the countries, especially those along the southern tier of Europe, are experiencing sharply lower growth this year. The issue for Europe is that GDP growth for most countries in 2014 will be below 2%. (There is a mistake in labeling of the axis in Exhibit 7, the 1.7 should be 1.) These estimates suggest the Eurozone will only grow by 1.2% in 2014 and the entire EU by 1.4%, but these growth rates will not create substantial numbers of new jobs nor sufficient tax revenues to help ease the financial and debt burdens for most European countries. Both issues hold out the potential for further destabilizing social and economic conditions, which could threaten the unity of the EU. The most interesting observation is that the economic recovery next year will be led by countries in Eastern Europe. However, note that Germany's growth is projected to only be about 1.7%.

**Exhibit 7. 2013 And 2014 European Growth Rates**

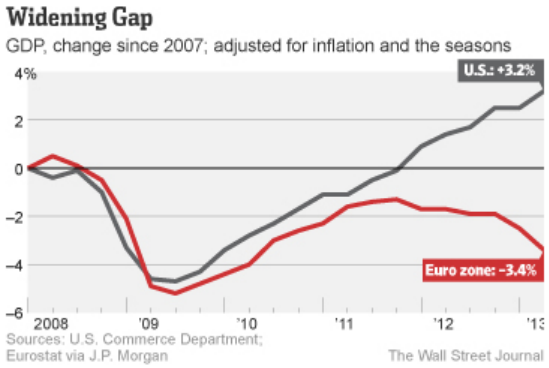



**Source: Gazeta Wyborcza**

To comprehend the importance of resolving the economic problems of Europe, one only needs to look at the widening gap in GDP growth between the United States and Europe as shown in Exhibit 8. The U.S. experienced positive GDP growth in 2012 and in the first quarter of 2013 while the Eurozone has remained firmly in negative growth territory with the pace weakening in recent quarters.

Starting to address the structural problems of European economies is imperative if that region's growth trend is to be reversed. The EU forecast for 2014 in real terms probably doesn't make it into positive territory, although it should show improvement over that of 2013.

**Exhibit 8. EU and US GDP Growth Rates**

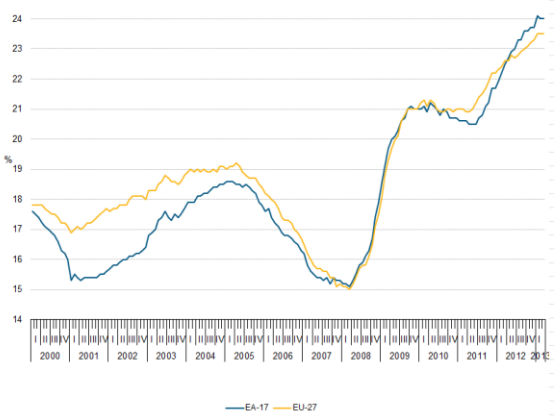



**Source:** ***The Wall Street Journal***

**In the economic boom leading up to the 2008 financial crisis, substantial numbers of new jobs were being generated and the youth (15-24 years old) unemployment rate dipped**

To gain a better understanding of the impact of youth unemployment in Europe, the chart in Exhibit 9 shows that segment's rate since the start of this century. (EA-17 is Europe and EU-27 is the EU) In the economic boom leading up to the 2008 financial crisis, substantial numbers of new jobs were being generated and the youth (15-24 years old) unemployment rate dipped. The onset of the financial crisis in 2008 and the resulting recession drove the youth unemployment rate sharply higher, only to see it stabilize and then decline marginally shortly after the recession as substantial economic stimulus was injected into European economies. In 2011, when the financial and economic problems of Greece, Italy and Spain took center stage, the financial austerity measures implemented in these economies as a condition of receiving economic assistance from the stronger European economies leveled a serious toll on jobs, and youth employment in particular.

**Exhibit 9. EU Youth Unemployment Rate**

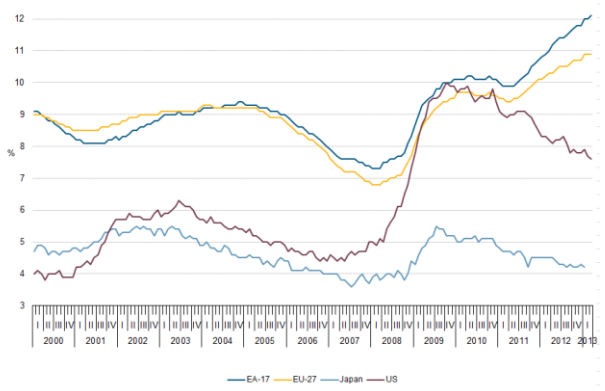



**Source: Wikipedia**

**Japan's unemployment rate peaked first and has steadily declined but importantly from a significantly lower point than either the U.S. or Europe**

The significance of the youth unemployment problem in Europe is best seen by looking at overall unemployment rates in Europe, Japan and the United States. All three countries experienced rising unemployment as a result of the financial crisis and recession. Japan's unemployment rate peaked first and has steadily declined but importantly from a significantly lower point than either the U.S. or Europe. Both of those regions peaked about the same time, however, the U.S. unemployment rate has declined slowly while the European rate remained relatively flat before resuming its climb to the high level being experienced today.

**Exhibit 10. Selected Country Unemployment Rates**




**Source: Wikipedia**

**The weakening economy of China and the lack of prospects for accelerating economic growth in the United States make it harder for companies to grow their revenue, which is crucial for boosting future earnings and share prices**

Many economists and investors are now concluding that the continued weak state of economies in Europe is translating into problems for the United States' economy and even that growth marvel, China. The weakening economy of China and the lack of prospects for accelerating economic growth in the United States make it harder for companies to grow their revenue, which is crucial for boosting future earnings and share prices. This same relationship holds true for energy companies that need higher oil and gas consumption to support higher oil and gas prices and to generate strong cash flows. Without cash flow growth, it is difficult to see a broad-based expansion of drilling and exploration activity, which is key for the earnings outlook for oilfield service and infrastructure-related companies. Anything that politicians in Europe can do to boost the growth rates of its member countries will help energy demand and, in turn, the outlook for energy stocks. Attacking the high youth unemployment is an important and welcomed step.

## Second LNG Terminal Okayed; Gas Export Debate Ongoing

Two weeks ago the Department of Energy conditionally approved a permit for Freeport LNG Expansion LP and FLNG Liquefaction LLC to begin exporting up to 1.4 billion cubic feet of natural gas per day as liquefied natural gas (LNG) for the next 20 years to countries with

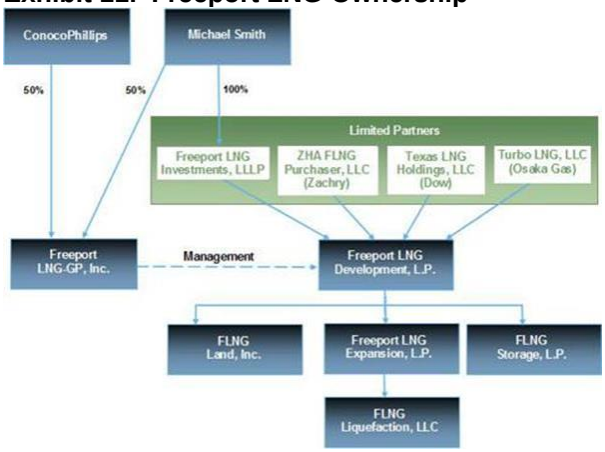
**Freeport LNG still needs to secure a permit from the FERC, something Cheniere has already obtained**

which the United States does not have special free trade agreements (FTA). This is the second terminal to receive such an approval, the other being Cheniere Energy Inc.'s (LNG-NYSE), which is authorized to export up to 2.2 billion cubic feet per day. Freeport LNG still needs to secure a permit from the Federal Energy Regulatory Commission (FERC), something Cheniere has already obtained. In February 2011, Freeport received approval to export LNG to FTA-countries but it wanted the approval to be able to export to non-FTA-countries to expand its marketing potential. Japan is a country that does not have free trade status with the United States and two of Freeport's initial customers are Japanese utilities.

**The Freeport facility is located on Quintana Island, Texas, and the general partner is owned equally by ConocoPhillips and CEO Michael S. Smith**

The Freeport LNG facility has an interesting history and a somewhat confusing ownership structure. The Freeport facility is located on Quintana Island, Texas, and the general partner (Freeport LNG GP, Inc.) is owned equally by ConocoPhillips (COP-NYSE) and CEO Michael S. Smith. The export permit, however, was awarded to Freeport LNG Expansion and FLNG Liquefaction, which have different ownerships. To clarify the ownership structure, and to see who is likely to benefit from the export permit, we have presented the ownership structure of the entity taken from its web site in Exhibit 11. ConocoPhillips will only benefit from fees paid to it through its general partner ownership interest as the limited partners of Freeport LNG Development actually own the equity in the terminal. ConocoPhillips will benefit in other ways which we highlight later.

**Exhibit 11. Freeport LNG Ownership**




**Source: Freeport LNG**

**Freeport LNG-GP was originally formed to import LNG**

Freeport LNG-GP was originally formed to import LNG. In June 2003, Dow Chemical Co. (DOW-NYSE) purchased a 15% equity stake in Freeport LNG and agreed to be its first customer. In December 2003, ConocoPhillips became the second customer, the facilities' lender and co-manager of the project along with Michael Smith. In January 2005, Freeport LNG was awarded a permit to construct the gasification terminal, which was completed three years later in June 2008. The completion of the LNG import terminal came

just as the global financial crisis and recession emerged and the American shale gas boom mushroomed radically changing the domestic natural gas market.

As the global LNG industry approaches 50 years old, this obscure sector of the natural gas industry is rising in prominence. The role of natural gas in the world's energy supply is targeted to expand. The less polluting nature of natural gas has been grudgingly accepted by environmentalists and offers a political compromise for managing the transition from a world powered almost exclusively by fossil fuels to one with a more diverse portfolio of energy supplies. Underlying LNG's newfound importance is the American shale revolution that began in the 1990s and is now blossoming worldwide. The impact of unconventional natural gas resources is comparable to the seismic shift experienced by the global oil industry upon Winston Churchill's decision to fuel the British Navy with oil instead of coal.

**Underlying LNG's newfound importance is the American shale revolution that began in the 1990s and is now blossoming worldwide**

The International Energy Agency (IEA) in its World Energy Outlook 2012 projected natural gas's role in global energy supplies would expand from 21% in 2010 to 25% by 2035. This equates to an annual compound growth rate of 1.6% over that period. To meet the IEA's target, LNG demand growth, understanding there is a wide range of forecasts, is expected to grow at somewhere in the range of 5%-6% per year by 2020 and then at the slower rate of 2%-3% until 2035. While one can debate the growth rate projections, due to the geographic location of the world's large natural gas resources and where promising shale gas deposits lay still to be exploited, and where the gas is needed for fuel, there is a supply and demand geographic mismatch. That mismatch will be addressed by either building long distance pipelines or liquefying the gas for shipping. Shipping LNG increases the flexibility to match supply and demand at potentially lower costs.

**LNG demand growth, is expected to grow at somewhere in the range of 5%-6% per year by 2020 and then at the slower rate of 2%-3% until 2035**

The shale revolution has turned conventional energy policy in the United States on its head as the nation has moved from needing to import substantial natural gas volumes both from Canada and as LNG from around the world, to a potentially self-sufficient domestic supplier. Today, not only is domestic natural gas production growing, with the unintended consequence of severely depressing gas prices, but the U.S. is actively engaged in a rigorous debate over possibility exporting LNG into the world market to capture the premium of high gas prices in Europe and Asia. This energy market shift is what has caused the situation shown by the history of Freeport LNG – completing construction of an LNG import facility in 2008 that now will be revamped into an export outlet by 2017.

**Today, not only is domestic natural gas production growing, with the unintended consequence of severely depressing gas prices, but the U.S. is actively engaged in a rigorous debate over possibility exporting LNG**

The U.S. Potential Gas Committee recently released its 2012 assessment of technically recoverable natural gas resources in the United States. It opines there is 2,384 trillion cubic feet of gas available, a record high for this 48-year old survey. The 486 Tcf increase from the previous record high assessment in 2010 is due to

new evaluations of the Atlantic, Rocky Mountain and Gulf Coast regions, home to some of the largest and most successful American shale plays to date, and represents a nearly 26% increase. The rapid growth of the American shale resource base supports the U.S. government's projection of an expanded role for shale gas in the national supply picture. More importantly, the success of America's shale industry has encouraged the exploration for shale resources around the world. The global shale resource potential, coupled with the technical success demonstrated in North America, underlies the IEA's forecast that shale gas will grow from 8% of the world's gas supply to 25% in 2035.

**The global shale resource potential, coupled with the technical success demonstrated in North America, underlies the IEA's forecast that shale gas will grow from 8% of the world's gas supply to 25% in 2035**

With prospects for a seemingly bountiful supply of shale and conventional gas resources worldwide, the issue now shifts to getting it to consuming markets. Estimates are that global LNG demand in 2012 was approximately 250 million tons, a volume projected to potentially double in the next decade. LNG supply is estimated at roughly 300 million tons a year, but new export terminals are being built and proposed that could drastically increase that capacity. Estimates are that if all the currently proposed export terminals are built (a fluid number) and operate at full output, there could be an incremental 350 million tons a year of LNG capacity added to the system.

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Besides the prospect for significant new gas supplies due to the expansion of the shale revolution globally, natural gas industry executives and local governments are eyeing gas demand trends and extrapolating them into meaningful business opportunities. Since 2000, global LNG demand growth has averaged about 7.6% per year or 2.8 times the overall growth of natural gas demand (+2.7% per year). If those trends continue, the industry will be facing a challenge to develop sufficient shale gas supplies and to build the infrastructure to ship the gas to market – both representing attractive profit opportunities.

**Since 2000, global LNG demand growth has averaged about 7.6% per year or 2.8 times the overall growth of natural gas demand**

A battle has started in the United States between E&P companies and industrial corporations over the possibility of exporting LNG. The success of the American shale revolution has resulted in a sharp drop in natural gas prices. Admittedly some of the gas price weakness has resulted from the lingering effects of the 2008 financial crisis and resulting recession, but since late April 2008 to the same time in 2012, Henry Hub terminal spot natural gas prices fell by over 80% from roughly $10.50 per thousand cubic feet to $1.99. A colder than expected 2012/13 winter boosted gas prices to slightly above $4 per Mcf where they continue to reside. These low gas prices, and prospects for their continuation, coupled with continuing success of the shale revolution, has encouraged petrochemical and industrial industries that utilize natural gas as either a feedstock or raw material to plan major capacity expansions in the U.S. This would be the first such growth since many of these companies abandoned the United States in the 1970s when natural

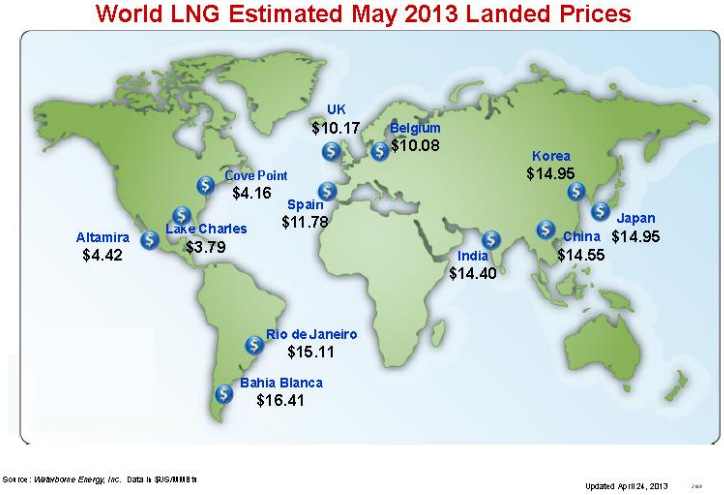
**Since late April 2008 to the same time in 2012, Henry Hub terminal spot natural gas prices fell by over 80% from roughly $10.50 per thousand cubic feet to $1.99**

gas was either not available or extremely expensive and headed overseas to the Middle East's cheap gas supplies. For America, struggling with a sluggish economy and low job creation, the prospect of an industrial revival due to a competitive advantage for its manufacturing sector from low-cost natural gas is an attractive prospect.

**The landed cost for LNG in Japan and South Korea is $14.95 per Mcf, while in the UK it is $10.17 and $10.08 in Belgium**

On the other side of the issue are E&P companies who have invested billions in lease holdings and the drilling of wells who see LNG exports as a way to capture some of the premium being paid for LNG supplies by European and Asia buyers. As estimated for May by the U.S. FERC, the landed cost for LNG in Japan and South Korea is $14.95 per Mcf, while in the UK it is $10.17 and $10.08 in Belgium. LNG in South America is in the $15-$16 per Mcf range. These prices compare with Henry Hub prices of about $4 per Mcf. Even with the cost to liquefy, re-gasify and transport LNG, American gas producers could probably double their wellhead price realizations, significantly easing the pain low gas prices have brought to the industry.

**Exhibit 12. FERC Estimate Of Global LNG Prices**




**Source: FERC**

**A predecessor company joined with Marathon Oil and Bechtel Corporation to construct the first U.S. LNG export terminal in Cook Inlet in Alaska, which began shipping Alaskan gas to Japan in 1969**

ConocoPhillips could be a major beneficiary from this push to export U.S. LNG even though it doesn't own a direct interest in Freeport LNG. ConocoPhillips has a long history in the LNG business. A predecessor company joined with Marathon Oil (MRO-NYSE) and Bechtel Corporation to construct the first U.S. LNG export terminal in Cook Inlet in Alaska, which began shipping Alaskan gas to Japan in 1969. ConocoPhillips owns an interest in a LNG liquefaction terminal off Darwin, Australia and has licensed its proprietary LNG technology for terminals located in Trinidad, Angola, Egypt, Equatorial Guinea and Australia. The Freeport terminal will not use ConocoPhillips' technology, opting instead to use a refrigerant process developed by Air Products and Chemicals (APD-NYSE).

One reason for the high LNG prices in Europe and Asia is that the price of their LNG contracts is tied to the price of crude oil, which is high due to geopolitical concerns and demand growth from developing economies. India and Japan have recently discussed establishing gas-price linked LNG contracts in the future rather than continuing the oil-linked ones. The first U.S. LNG export terminal contracts are gas-linked with the buyer paying a slight premium to the Henry Hub price for their supply plus the costs of liquefaction, re-gasification and transportation. If a spot-gas price linkage can be established as the new pricing mechanism, what are the implications for gas suppliers and how might this dynamic impact the global LNG business? Those countries with extremely low-cost natural gas would be the primary beneficiary – countries such as Qatar and the United States.

**The first U.S. LNG export terminal contracts are gas-linked with the buyer paying a slight premium to the Henry Hub price for their supply plus the costs of liquefaction, re-gasification and transportation**

What are the implications of these export terminals for gas producers and the terminal owners? First, we assume that the cost of liquefaction and transportation is $3.50 per million British thermal units (MMBtu) to Europe and $5.50/MMBtu to Asia. Second, we will use the current estimated landed LNG cost in Europe ($10/MMBtu) and Asia ($15/MMBtu) to determine profitability. With natural gas prices around $4 per thousand cubic feet (Mcf) and assuming a small mark up for securing and delivering the gas to the terminal, we will use $4.50/Mcf as our gas cost estimate. Our final assumption for purposes of this exercise is that we will equate one cubic feet of gas with 1,000 British thermal units, rather than the actual 1,023, meaning that all our price parameters are equivalent. Therefore, the profit potential for LNG to Europe is $2/Mcf and to Asia it is $5/Mcf. While Europe is discussed as an attractive market, and clearly it is since several of the initial contracts for output from Freeport LNG and Cheniere are targeting that market, current landed LNG prices in South America are equal to or higher than Asian prices offering better economics but probably not as large a market, plus the South American market could be squeezed if Argentina's shale gas exploitation efforts prove successful.

**The profit potential for LNG to Europe is $2/Mcf and to Asia it is $5/Mcf**

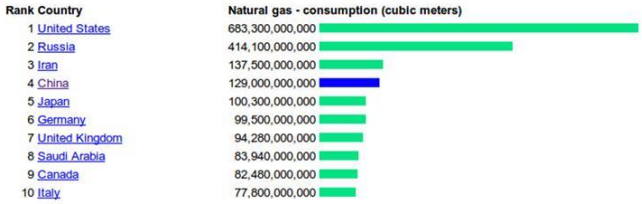
Implicit in the thought process for LNG exporters in the U.S. is that they will be able to capture the gas price arbitrage with overseas markets. But if new LNG buyers in the U.S. will only pay a small premium to Henry Hub prices, then some of the expected windfall for producers vanishes. Just how much of the $2/Mcf and $5/Mcf profits from the Europe and Asia LNG profits will the buyers be willing to share with U.S. producers? ConocoPhillips certainly hopes to be positioned to gain from the creation of an LNG export market. As of the end of 2012, the company was the 7$^{th}$ largest natural gas producer in the United States. It is also a significant gas producer in Canada. According to Natural Gas Intelligence, ConocoPhillips was also the second largest natural gas marketer in North America during the fourth quarter of 2012 with a volume of 15.69 Bcf.

**Just how much of the $2/Mcf and $5/Mcf profits from the Europe and Asia LNG profits will the buyers be willing to share with U.S. producers?**

**Just as we have seen cheaper shale gas output eliminate the need for more expensive U.S. LNG imports, might the same phenomenon occur in Europe, South America or Asia, especially in China?**

Of concern for LNG exporters has to be the issue of the potential impact on LNG consuming markets if local or nearby shale resources can be exploited at costs well below landed LNG prices. Just as we have seen cheaper shale gas output eliminate the need for more expensive U.S. LNG imports, might the same phenomenon occur in Europe, South America or Asia, especially in China? Likewise, if global shale resource exploitation proves unsuccessful or is inhibited by government regulation, will that open up a larger market potential for LNG exports from North America? While these issues are being resolved, the battle over the ability of U.S. producers to export LNG has yet to be settled.

**Exhibit 13. Top Ten Consumers Of Natural Gas**



| Rank | Country | Natural gas - consumption (cubic meters) |
|---|---|---|
| 1 | United States | 683,300,000,000 |
| 2 | Russia | 414,100,000,000 |
| 3 | Iran | 137,500,000,000 |
| 4 | China | 129,000,000,000 |
| 5 | Japan | 100,300,000,000 |
| 6 | Germany | 99,500,000,000 |
| 7 | United Kingdom | 94,280,000,000 |
| 8 | Saudi Arabia | 83,940,000,000 |
| 9 | Canada | 82,480,000,000 |
| 10 | Italy | 77,800,000,000 |

**Source: Seeking Alpha**

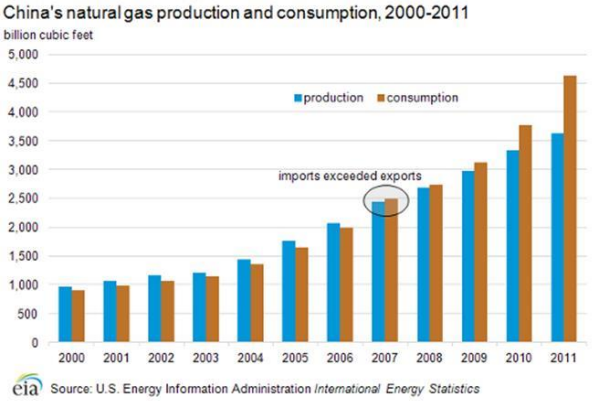
When we examine the list of the top ten consumers of natural gas, we find many are among the globe's largest suppliers, too. The important thing is that three European countries – Germany, UK and Italy – are on the list of top gas consumers. Japan and China are the two primary consumers in Asia, and each ranks ahead of the largest European gas consumer, Germany.

**China is estimated to have very large potential shale gas resources, but to date the limited exploration efforts have failed to prove up any of the plays**

China is an important market for natural gas given the country's large population and its rapid economic growth. To fuel its economy, China has been resorting to increased use of coal, even importing coal from abroad. China is estimated to have very large potential shale gas resources, but to date the limited exploration efforts have failed to prove up any of the plays. Due to the growing concerns over increasing pollution in major cities in China, the government has been pressuring its local energy companies to learn more about the technology needed to exploit shale resources along with securing additional gas resources abroad.

China's consumption of natural gas has been growing steadily over the past decade, but especially in the last few years. The country became a natural gas importer in 2007 and based on its long-term consumption needs is rapidly constructing LNG import terminals near major population centers.

**Exhibit 14. China's Natural Gas Market**

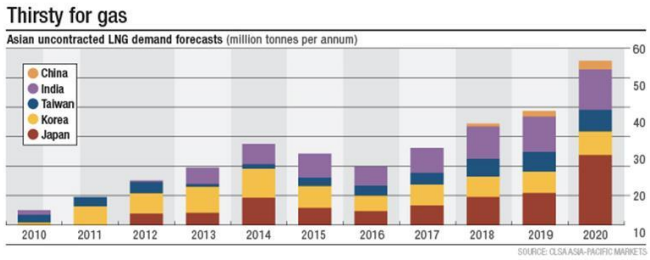



**Source: EIA**

**These Asian demands are significant given current global LNG demand of about 250 million tons**

It is interesting to assess the Asian LNG market for where gas demand is growing and which markets offer new supply opportunities due to uncontracted demand. If you examine the chart in Exhibit 15, note that China doesn't represent incremental LNG demand until 2018. In certain years between 2013 and 2020, India, Japan and Korea have substantial demand volumes that are not contracted presently. Some of this demand is future consumption assuming further population and economic growth while another portion represents existing demand for which suppliers have not arranged future supply yet following contract expirations. The value of this chart is to visualize the future growth pattern. Secondly the chart provides an estimate of how large unsupplied demand may be in 2020 – roughly 55 million tons. Although demand in 2020 represents a significant jump, the two prior years reflect close to 40 million tons a year in demand. These Asian demands are significant given current global LNG demand of about 250 million tons.

**Exhibit 15. Asian LNG Uncontracted Market Demand**




**Source: CLSA Asia**

**If that technology is regulated or outlawed, the domestic E&P shale gas industry will be forced to reconsider its future**

A sub issue related to the U.S. LNG export battle is the question of regulation of hydraulic fracturing, which is a critical component of successful shale gas exploitation. If that technology is regulated or outlawed, the domestic E&P shale gas industry will be forced to reconsider its future, along with the potential American re-industrialization. At the present time two LNG export terminals have been approved with several others close to being approved. There

**Counting on regulators to get it "right" is a dangerous strategy**

are 19 additional export terminals in the approval pipeline, which if all were approved and operated at capacity would account for nearly 40 percent of current U.S. natural gas production. There is little likelihood all these export terminals will be approved given the conflict between industrial America and the E&P industry. But which ones will, or should be approved? Unfortunately, the history of regulation of the U.S. natural gas industry has been marked by missteps, which have contributed to periods of supply shortages or huge gas surpluses. Counting on regulators to get it "right" is a dangerous strategy.

**A lack of resource performance could also doom the American LNG export initiative with its knock-on effects for the global LNG business**

At the heart of the LNG question lays the issue of the output performance of shale resources. The financial shambles the U.S. E&P industry finds itself in today is a reflection of poor resource performance coupled with overly optimistic financial expectations. This poor performance is leading to a restructuring of the U.S. E&P business. A lack of resource performance could also doom the American LNG export initiative with its knock-on effects for the global LNG business. A restructured U.S. gas producing industry will alter control over gas volumes available for export further impacting the dynamics of the global gas business. Five to ten years from now, we may find that the global LNG business has barely changed. That may be welcomed news for conventional gas exporting countries who may be worried about their future.

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