



MUSINGS FROM THE OIL PATCH

April 29, 2014

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Managing Director

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

NOIA's Position On Offshore Contractor Regulation Shifts

The issue relates to whether the federal government, through BSEE, has the power to regulate offshore contractors

We advocated that NOIA and offshore contractors should force BSEE to engage in a rulemaking process in order for everyone to have a say in the establishment of the rules and regulations that would govern offshore operations

At the recent annual meeting of the National Ocean Industries Association (NOIA) held in Washington, D.C., there was a presentation by David Bernhardt of Brownstein Hyatt Farber Schreck dealing with "Regulation of Contractors," an issue we have written about extensively in the past. The issue relates to whether the federal government, through its Bureau of Safety & Environmental Enforcement (BSEE), has the power to regulate offshore contractors in addition to its power to regulate oil and gas company lessees.

We were surprised by the presentation as we had assumed that NOIA had already accepted the view that the government had the power to regulate offshore contractors. As the presentation unfolded, we were surprised by its thrust as it mirrored our position questioning the legality of the regulatory power expansion. More important in our view, was the question of why offshore service company CEOs had been reluctant to challenge this power grab. At least, we thought, they should have challenged the failure of BSEE engaging in a rulemaking process that would address what the rules and regulations would be. This rulemaking procedure is firmly established in administrative policy. We advocated that NOIA and offshore contractors should force BSEE to engage in a rulemaking process in order for everyone to have a say in the establishment of the rules and regulations that would govern offshore operations. Without this guidance, contractors were exposed to ex post actions, significantly changing the risk profile for operating offshore. A particularly sinister aspect of this regulatory overreach is the requirement that contractors now have joint and several liability for all other contractors' and the lessee's operations, necessitating a change in insurance coverage. We were frustrated that the NOIA leadership seemed to acknowledge the heightened risk for operating offshore but was reluctant to move forward to challenge the

Some service company CEOs say they are now more concerned about the potential for being subject to INCs

government over the policy overreach when it had a non-confrontational opportunity to do so through demanding a rulemaking process.

During the presentation to NOIA, we learned it had agreed to file an amicus brief in support of a challenge to BSEE's regulatory overreach from a contractor who had been served with a Notice of an Incident of Noncompliance (INC), the procedure for fining a company for an offshore working violation. The NOIA leadership is now more concerned about the evolution of this regulatory expansion and saw the challenge to the INC as a vehicle to lodge their objection. Some service company CEOs say they are now more concerned about the potential for being subject to INCs, especially after a statement by Mr. Bernhardt during his presentation that when the Interior Department was asked to submit its estimates for revenue and expenses for the government's budget, Interior indicated it anticipated generating half its INC fee income from contractor INCs. According to Mr. Bernhardt, in the past year BSEE handed out seven INCs to contractors and 8,000+ INCs to operators/lessees. Those two statements suggest that substantially more INCs will be given to contractors in the future and that the fines may be greater, or BSEE will serve fewer INCs on operators/lessees.

We are happy that NOIA has finally acknowledged that the playing field for offshore contractors has been significantly altered in an adverse manner

We are happy that NOIA has finally acknowledged that the playing field for offshore contractors has been significantly altered in an adverse manner. We are unhappy that NOIA and the contractors failed to utilize a less adversarial venue to make its case. Supporting someone charged with an infraction is a less clean, and probably a less successful way to make progress. NOIA and its members still can push for greater clarity over the legality of BSEE's regulatory expansion, but more importantly it can force BSEE to follow the established rulemaking process that would enable industry input into the rules and regulations that will govern working offshore. As they say, knowledge is power.

We suggest this reluctance has contributed to increased enterprise risk that may not be fully appreciated by executives and directors

We always ask contractor CEOs whether they would like to have input into the rules and regulations that are going to govern the business. While they answer yes, they then have been reluctant to act to gain greater clarity and to be positioned to add input into the rules being created by BSEE. We suggest this reluctance has contributed to increased enterprise risk that may not be fully appreciated by executives and directors. Over the past five years, the Obama administration (the same administration that altered the offshore regulatory environment) has reinterpreted and selectively enforced laws and rules. That record should be a wake-up call for CEOs to become more actively involved in helping define the rules and regulations for offshore operations that will govern their companies. Maybe the NOIA meeting marks a new chapter in offshore contractor relations with BSEE. We hope this chapter isn't tied exclusively to an administrative challenge to an INC.

The Nine Lives Of The Keystone Denial Process

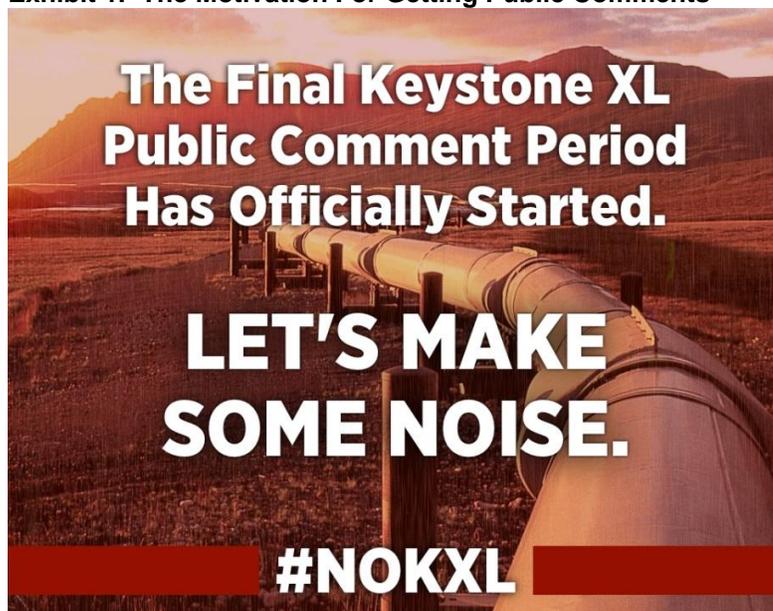
Few people were surprised, although many were outraged, when the State Department announced on Good Friday that it was extending indefinitely the inter-agency review period

Partisans can be motivated to send in public comments about an issue to the officials involved, especially if the process is made easy

The Obama administration utilized the standard communications procedure for delivering “bad” news that it doesn’t want to receive media attention – release the news late on a Friday afternoon, especially if it is a holiday weekend. Few people were surprised, although many were outraged, when the State Department announced on Good Friday that it was extending indefinitely the inter-agency review period for the Keystone XL pipeline application. The rationale for the delay was twofold: the department had been overwhelmed with 2.5 million public comments that needed to be reviewed and the Nebraska state court decision invalidating the pipeline’s rerouting approval process called into question the validity of the state permit and the pipeline’s route.

Like many emotional issues, partisans can be motivated to send in public comments about an issue to the officials involved, especially if the process is made easy. We know from several of the climate change activist web sites and newsletters we monitor that well over one million of the public comments received by the State Department came from people opposed to the pipeline. We believe, based on published comments (not verified by us), more than a million supportive comments were forwarded as a result of organized efforts of energy industry organizations and companies. While we couldn’t reproduce the web page from the site maintained by Oil Change International, it contained the pipeline photo with the text announcing the opening of the public comment period as shown in Exhibit 1.

Exhibit 1. The Motivation For Getting Public Comments



Source: *OilChangeInternational.com*

“Keystone XL would be a disaster for the climate. I urge you to reject this dirty tar sands pipeline”

An overwhelming proportion of the public comments come from partisans in forms

Barely a week earlier, the State Department said it would render its decision shortly after the May 1st end to the inter-agency consultation period

Adjacent to the photo was the bold headline “Subject: Keystone XL is not in our national interest (Docket #: DOS-2014-0003)” followed by the following text immediately below the headline:

“Keystone XL would be a disaster for the climate. I urge you to reject this dirty tar sands pipeline.

“Whether it's droughts and wildfires in the west, extreme weather across the middle of our country, or superstorms on the east coast, climate change is staring our country in the face every day. We simply cannot afford to ignore the science that shows that we must leave the vast majority of existing proven fossil fuels in the ground. Keystone XL would cause even more of the tar sands to be developed at a time that we know we must leave the oil in the ground.

“As Senator, Secretary Kerry spent years trying to push our country to take action on climate change. As Secretary of State, he has the opportunity to make a huge impact on this vital issue, by working with President Obama to reject the Keystone XL pipeline.”

Immediately below the text was a fill-in-the-blanks form for your name and address. Directly below the form was a large SEND button to be clicked to ship off the prepared comment.

We assume the pipeline’s supporters had similar web sites and easy to fill in comment forms to motivate people to submit positive comments urging Secretary Kerry to recommend approving the Keystone pipeline permit. The point of our commentary is that it is clear that an overwhelming proportion of the public comments come from partisans in forms similar to those described above. Those comments are worthy of being counted, but they require little time and no need for a response.

The more damaging aspect of the State Department’s announcement was the decision to extend indefinitely the inter-agency consultation period. Barely a week earlier, the State Department said it would render its decision shortly after the May 1st end to the inter-agency consultation period. That announcement stimulated a sharp escalation in op-ed articles and public protests both for and against approval of the pipeline. Then, less than a week later, the decision to extend the review timetable based on concerns over the impact of Judge Stephanie Stacy of the District Court of Lancaster County’s ruling voiding the pipeline approval. She ruled that the Nebraska Public Service Commission is the proper state agency to decide pipeline matters and therefore the governor’s decision to approve the rerouting was “unconstitutional and void.” The governor immediately filed a notice appealing the decision to the state appeals court, but that could take months before a hearing is held and a ruling issued. The beginning of last week, the governor asked the state supreme court to overturn the

The likely timetable for any court hearing is not before September and a ruling would likely not come until after the November mid-term elections

ruling based on the fact that the parties who brought the suit had not been injured as taxpayers by the state's pipeline routing.

We had previously commented on this aspect of TransCanada's (TRP-NYSE) arguments during the trial that because the pipeline route did not cross any of the land of these ranchers, they did not have "standing," meaning they had not and were not harmed by the routing decision. By not being harmed, they should not be allowed to claim injury, so their lawsuit was invalid. The judge ignored this argument, but it is a well-established legal principle and one the Obama administration has utilized in fighting numerous legal challenges to the Affordable Care Act. The likely timetable for any court hearing is not before September and a ruling would likely not come until after the November mid-term elections. Should the state supreme court uphold the county judge's decision, then TransCanada would need to submit a new permit application meaning at least an additional seven-month time period would pass, which is the official timetable for the PUC to render decisions on applications submitted, before final approval could be made. This timetable could complicate the entire pipeline timetable since the permit for building the South Dakota leg of the line expires in September if construction has not begun. We do not know what might be involved in getting the permit extended, but we are sure the environmental movement would work to make any extension an extended legal battle.

If the State Department thought the court ruling was an issue, it could have announced the decision to extend the review period last February

An interesting aspect of the timing of the State Department's decision is its claim to the uncertainty of the pipeline route through Nebraska. That court ruling was handed down on February 19th, barely more than a couple of weeks into the 90-day inter-agency review period. If the State Department thought the court ruling was an issue, it could have announced the decision to extend the review period then. Why wait until Good Friday afternoon, especially after stating a ruling would be forthcoming in early May? We guess because none of the other agencies involved in the review process had come up with any objections, which meant making a political decision and announcing it when there was less chance of the media paying attention became the most important consideration.

The Keystone pipeline issue is a critical prop for motivating donations and get-out-the-vote campaigns for candidates opposed

For the White House, the politics of the Keystone decision became paramount. Approve it and possibly help a couple of pro-energy Democratic senators involved in fierce re-election challenges, or reject it and win the support of the environmental element within the Democratic Party, especially former hedge fund guru and leading environmental apocalypse leader Tom Steyer with his \$100 million campaign financing commitment. The Keystone pipeline issue is a critical prop for motivating donations and get-out-the-vote campaigns for candidates opposed. We continue to believe the Canadian interconnect for Keystone will never be built. That means Canada must continue to develop its truck, rail and alternative export pipeline opportunities. The oil will reach global markets, and the way it gets

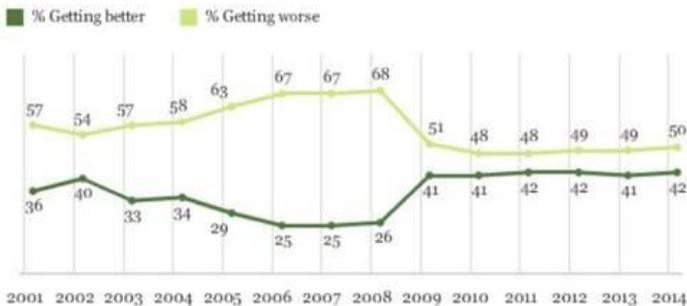
We read where *RollingStone.com* published a report stating that President Barack Obama had largely decided to reject the Keystone pipeline permit

there could actually produce greater greenhouse gases and be delivered via less-safe transportation methods than through a pipeline, but the environmental movement is not rational about the Keystone. For them, Keystone is the red line, and they seem to be more dedicated to protecting that line than our president is with his red lines.

After writing this article, we read where *RollingStone.com* published a report stating that President Barack Obama had largely decided to reject the Keystone pipeline permit. This would be consistent with a comment made by former White House advisor Carol Browner last October. According to the article, President Obama’s decision is driven by his desire to lead a “sea change” in climate change politics. If that claim proves true, (we have no idea if it will but we wouldn’t bet against it) then the Good Friday review delay announcement due to the uncertainty raised by the court decision suggests politics played a greater role in evaluating whether the pipeline will be in the national interest. In that regard, an article entitled “Low-Information Environmentalists” by conservative commentator and university professor Steven Hayward on *Power Line* examining the public’s attitudes toward climate change over time, as measured by the Gallup poll, raised an interesting question about why there has been such a dramatic improvement in the public’s view of the quality of the environment beginning in 2008 and lasting to today.

Exhibit 2. Why The Change In Environmental Quality View?

Right now, do you think the quality of the environment in the country as a whole is getting better or getting worse?



GALLUP

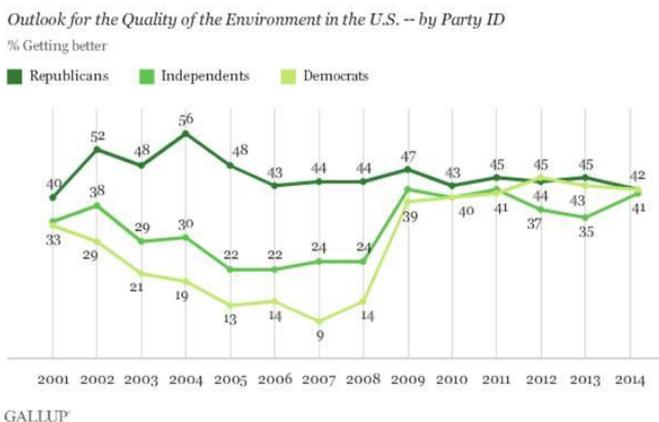
Source: Gallup, *Power Line*

In seeking an answer, Mr. Hayward examined another view of public attitudes toward the quality of the environment, which examined the issue based on political party affiliations. What he found, as shown in Exhibit 3 (next page), was a dramatic improvement in the outlook among Democrats and Independents following the election of President Obama. One may remember that in 2008 at the end of his primary battle with Hillary Clinton, then Senator Obama gave a victory speech in St. Paul, Minnesota, in which he said, this was the

“this was the moment when the rise of the oceans began to slow and our planet began to heal”

moment to which “generations would look back” and say, among other things, “this was the moment when the rise of the oceans began to slow and our planet began to heal.” If the planet was now being saved, it should not be a surprise that these supporters would have a more favorable view of the quality of the environment.

Exhibit 3. Did Obama’s Election Alter Climate View?



Source: Gallup, *Power Line*

Energy executives need to understand that their world today is no longer similar to the one they were trained in

A question posed by Mr. Hayward is: does this mean that if a Republican is elected president in 2016 then the view of the quality of the environment will suddenly return to where it was prior to Mr. Obama’s election? We suspect that would be the case. The transparency of this administration regarding environmental policy is about as clear as that regarding health care. The overriding objective is to increasingly restructure the American economy into a quasi-planned one dictated by the federal government. Energy executives need to understand that their world today is no longer similar to the one they were trained in, meaning success will require navigating shifting national priorities and government regulations.

Polar Vortex, Climate Change And Gas Storage Challenge

We estimate the industry needs to inject at least 2.2 Tcf of gas

In our last *Musings*, we discussed how the guessing game has started over how much natural gas the energy industry can inject into the nation’s storage caverns this summer in order to be prepared to meet winter heating demand. The injection season lasts for approximately 32 weeks, from the end of March through to the end of October, and based on our historical analysis of the industry’s performance during injection seasons since 1994, we estimate the industry needs to inject at least 2.2 trillion cubic feet (Tcf) of gas, which, along with the 826 billion cubic feet (Bcf) of gas already in storage as of early April, should enable the industry to reach a 3 Tcf storage threshold. In recent years, the industry has started the withdrawal season with 3.4-3.8 Tcf of gas stored. Warm winters enabled those injection seasons to begin with over 1 Tcf of gas

The growth in gas output has come largely from increased drilling in liquids-rich plays

in storage, or more than 200 Bcf than at the start of this season, thus easing the injection needs. Last winter was one of the coldest in recent years, draining storage to a level seldom seen in the past 20 years and creating the rebuilding challenge.

Natural gas output continues to grow, although drilling for dry gas has declined to a low level. The growth in gas output has come largely from increased drilling in liquids-rich plays and some from natural gas produced in association with tight oil output. We suggested that, based on weather forecasts we had seen including in the *Browning Newsletter*, the U.S. is likely looking at a cooler-than-normal summer, which would reduce gas demand for air conditioning, freeing up more supply for injection into storage.

Recently, we read a refutation of claims made by White House science advisor John Holdren this past January linking the extremely cold weather of late December and early January to global warming. Mr. Holdren was quoted in his video comments stating:

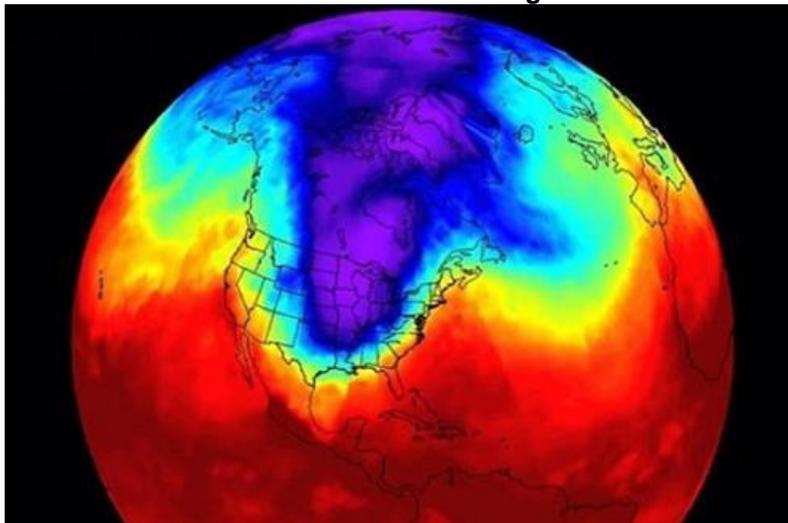
“A growing body of evidence suggests that the kind of extreme cold being experienced by much of the United States as we speak is a pattern that we can expect to see with increasing frequency as global warming continues....

“We also know that this week’s cold spell is of a type there’s reason to believe may become more frequent in a world that’s getting warmer, on average, because of greenhouse-gas pollution.”

We find is that this weather pattern actually has been fairly rare and has occurred about every 40 years

Mr. Holdren’s reference to “this week’s cold spell” was to the polar vortex phenomenon that caused the jet stream to bring extremely cold Arctic air well down into the continental United States. That cold weather drove temperatures to very low levels throughout much of the Midwest, Southeast and Northeast and was a major reason for the significant drain of gas supplies. While Mr. Holdren claims that we are destined to experience a repetition of polar vortex weather in coming winters, what we find is that this weather pattern actually has been fairly rare and has occurred about every 40 years. We also found that the record cold temperatures were not records for the winter season in the various cities but instead were for that particular day. Significant polar vortex episodes occurred most recently in 1976 and 1935-36.

Exhibit 4. Feb. 2014 NASA Photo Showing Jan. Polar Vortex

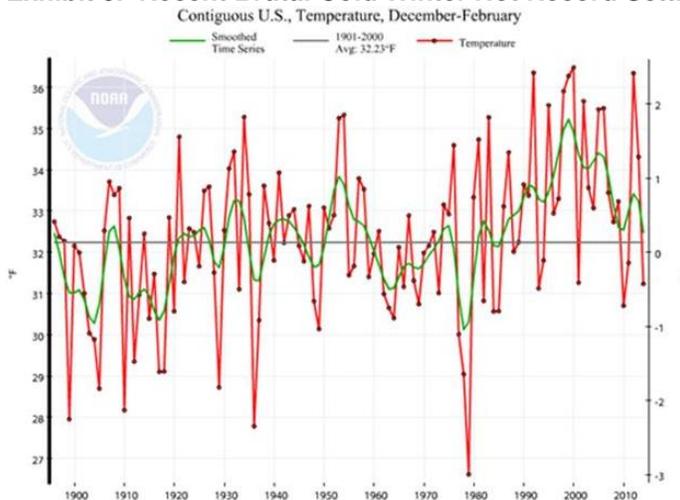


Source: NASA

Since 2000, there have only been three winters colder than the 1901-2000 average

Paul Homewood, writing about Mr. Holdren’s claims on the web site *Not A Lot Of People Know That*, disputed the idea that winters are getting colder. To check, he examined NOAA’s temperature variation data for the December-February period for the contiguous 48 states. What was obvious was that since 2000, there have only been three winters colder than the 1901-2000 average. Certainly, recent winters were not colder than experienced in the late 1970s and early 1980s.

Exhibit 5. Recent Brutal Cold Winter Not Record Setting

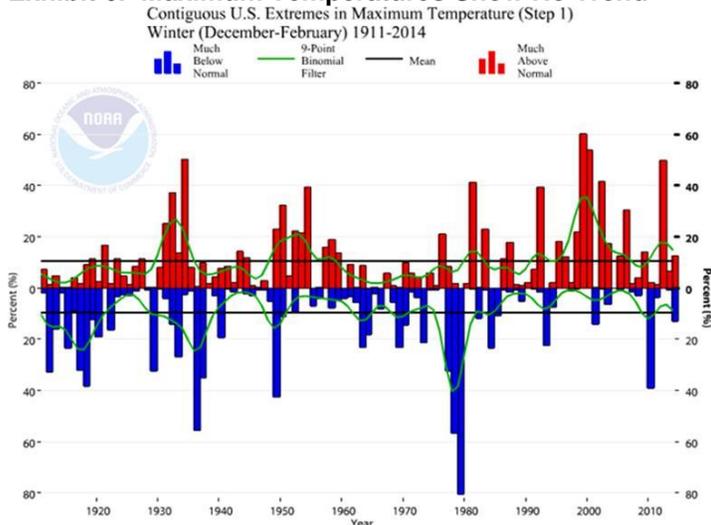


Source: NOAA

Mr. Homewood acknowledged that the temperature data was for the entire United States, so he postulated that there might be a difference among regional temperatures. In order to examine that

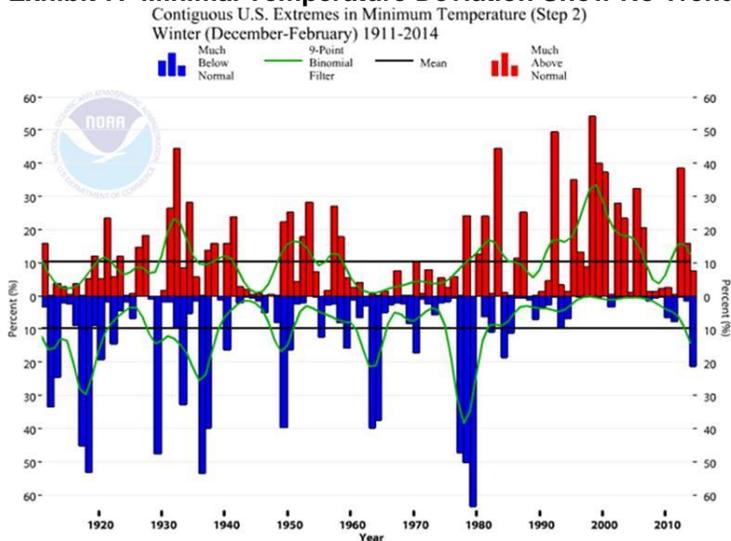
thesis, he turned to the National Oceanic and Atmospheric Administration's (NOAA) Climate Extreme Index data. It shows the maximum and minimum temperature variances. When the two charts (Exhibits 6 and 7) are compared, there is no discernable pattern of either colder or warmer winters.

Exhibit 6. Maximum Temperatures Show No Trend



Source: NOAA

Exhibit 7. Minimal Temperature Deviation Show No Trend



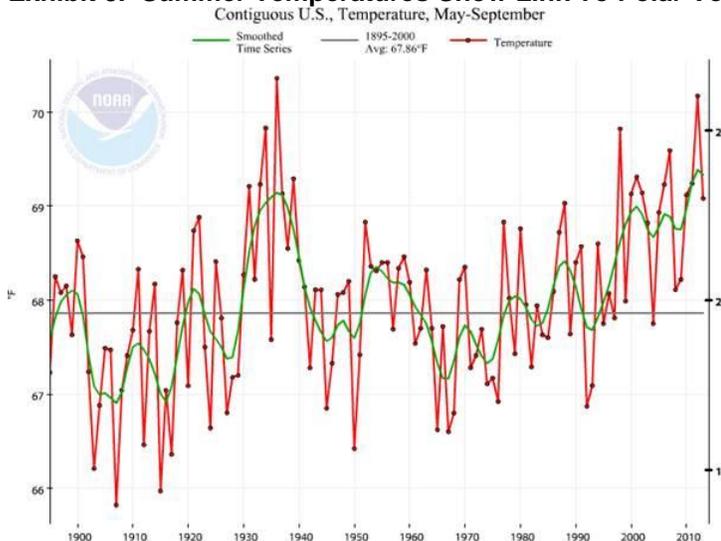
Source: NOAA

The analysis of the pattern of polar vortex weather made us curious as to whether there was a similar pattern for the following summer's weather. To examine the issue, we also turned to NOAA's temperature variation data for the summer months of May through September for the Lower 48 states. While picking out the summer

In 1936, the average temperature was above 70o F, while it approached 69o F in 1977

temperatures for the polar vortex years is somewhat of a challenge on the chart (Exhibit 8), we found that in 1936 and 1977, the temperature variation was extremely high. In 1936, the average temperature was above 70° F, while it approached 69° F in 1977. Both temperatures were the highest recorded for their respective decades, and in the case of 1936, it is the highest recorded for the entire time period displayed on the chart.

Exhibit 8. Summer Temperatures Show Link To Polar Vortex



Source: NOAA

We are careful to not confuse correlation with causation, but the similarity in the temperature patterns does make us pay attention

We are careful to not confuse correlation with causation, but the similarity in the temperature patterns does make us pay attention. Another consideration for this summer’s weather is the development of an El Niño, which is a warming of the surface temperatures in the Pacific Ocean. According to data from the Center for Ocean Atmospheric Prediction Studies at Florida State University, an El Niño weather phenomenon generally produces certain weather patterns in North America: cooler and wetter weather in the southern U.S.; warmer weather for western Canada and southern Alaska; drier weather for the Pacific Northwest; cooler weather for northern Canada; and wetter weather for southern California. Importantly, these weather patterns are felt strongest in the winter following the onset of El Niño. It also causes the Atlantic hurricane season to be diminished, while the tornado season becomes more active.

1976 and 1977 were weak El Niño years

Unfortunately, the data to track El Niños is limited, only starting in the 1950s. According to the NOAA database, 1976 and 1977 were weak El Niño years, but it is difficult to draw any conclusion about the relationship of El Niño or La Niña, its counterpart, to polar vortex years. The only other period of extreme cold we identified came from a paper published in November 1977 by A. James Wagner with the Long Range Prediction Group at NOAA analyzing precursors to the severe winter of 1976-1977. That paper pointed out the

When we looked at the summer temperatures for 1918, however, we found it was the coolest summer that decade

similarities of the winter of 1917-1918 with those of 1976-1977. When we looked at the summer temperatures for 1918, however, we found it was the coolest summer that decade, meaning it didn't fit the pattern we found for very hot summers following polar vortex winters. There is no mention in the research for 1917-1918 about a polar vortex, but the research paper does focus on a similar wind pattern with 1976-1977 and meteorological highs and lows in the Arctic. It is possible the polar vortex was just not identified at that time.

Mother Nature might actually throw a curve ball at the current summer weather forecasts

At the moment, most meteorologists expect this summer to be cooler than normal. We consider that trend will help the energy industry's efforts to rebuild natural gas storage. Our exercise in examining temperatures during the summers following winters with polar vortex weather phenomenon suggests the possibility that Mother Nature might actually throw a curve ball at the current summer weather forecasts. If that hotter summer pattern develops, natural gas prices might be set to rise significantly in order to stimulate gas drilling and production to generate the necessary storage volumes. If the rise in gas prices is weather-related, then barring any follow-through from industrial gas demand growth, we could experience a swift retreat in gas prices in 2015.

Russia, Ukraine and The EU's Energy And Climate Challenge

The EU has been leading the global charge to clean up the planet's environment with aggressive policies for abandoning nuclear and fossil fuel-generated electricity in favor of renewables

The ongoing geopolitical struggle between Russia and Western Europe and the United States over the former's expansionist desires for Eastern Europe has kicked the European Union's energy and climate change agenda out the window. The EU has been leading the global charge to clean up the planet's environment with aggressive policies for abandoning nuclear and fossil fuel-generated electricity in favor of renewables. With its compact nations and high population density, Europe's citizens have been quite willing to embrace mass transit, small cars, energy-constrained homes, high-priced fuels, and greater use of lower efficiency energy sources, all in the name of cleaning up the atmosphere and reducing the risk for catastrophic climate disasters in the future. On the road to nirvana, however, some potholes developed that went from merely small bumps in the road to giant sinkholes. The Crimea event is just the latest pothole, but it may become a sinkhole.

That framework targets a reduction in greenhouse gas (GHG) emissions of 40% below the 1990 level, an EU-wide binding target for renewable energy of at least 27%

In early January, the European Commission presented the new EU framework on climate and energy. That framework targets a reduction in greenhouse gas (GHG) emissions of 40% below the 1990 level, an EU-wide binding target for renewable energy of at least 27%, renewed ambitions for energy efficiency policies, a new governance system and a set of new indicators to ensure a competitive and secure energy system. While the EU framework is clear and ambitious, the EU is a mosaic of autonomous nations, meaning that every member state follows its own strategy related to the national composition of its energy supply. While every nation is

The problem is that cheap coal, especially fed by the supply coming from the United States due to its “war on coal” energy policy, has undercut the more expensive EU natural gas supplies

The subsidies funneled to renewable power generators have further destabilized Germany’s power sector

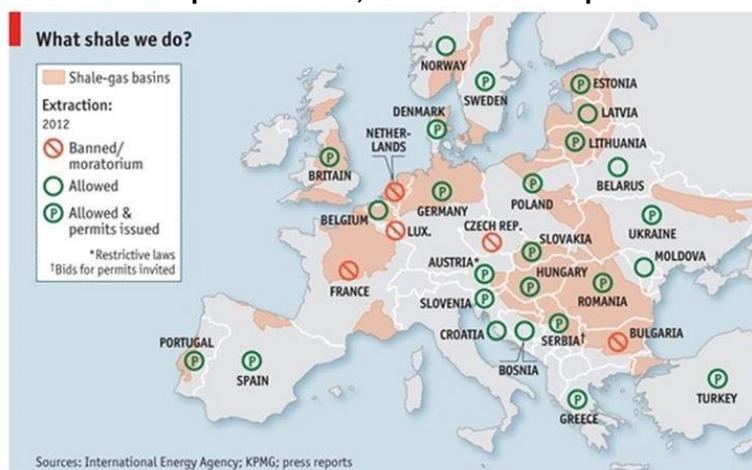
The most logical solution would be to use more natural gas, but in the near-term that is an expensive solution or it requires becoming even more dependent on Russia for gas supplies

trying to attain the framework’s targets, problems are emerging that seem to signal this effort will fail.

Germany was one of the most aggressive in adopting the green-energy policies as manifest in its Energiewende policies. The problem is that the success of its wind and solar energy initiative has resulted in a destabilized electricity supply that has led to a volatile sequence of changing volumes. Everyone agrees that the solution to the intermittent renewable power is a highly flexible backup source of energy, a role envisioned to be played by natural gas. The problem is that cheap coal, especially fed by the supply coming from the United States due to its “war on coal” energy policy, has undercut the more expensive EU natural gas supplies that are largely dependent on Russia and liquefied natural gas (LNG) imports. This battle among the two fossil fuels has largely been won by coal as natural gas-fired power plants are being shut down while new coal-fired ones are being erected. The unpleasant environmental outcome of Germany’s energy policy coupled with global energy market developments is that the country’s carbon emissions are rising.

The Energiewende policy also has produced a deleterious impact on Germany’s utilities that have seen their balance sheets decimated by the forced closure of nuclear power plants and the increase in the amount of power being produced and consumed off the power grid by owners of solar units installed on roof tops. The subsidies funneled to renewable power generators have further destabilized Germany’s power sector because so much of these subsidy costs are borne by homeowners and small businesses in order to protect large, export-contributing manufacturers, critical to the health of the country’s economy. The electricity market chaos in Germany is causing other European nations to turn to national solutions for their future power needs. Whatever choice they make, however, will require lots of money and time to implement. The solutions mean more energy production and more energy consumption, but also more emissions. Finding a cheaper and cleaner power source is the answer.

The most logical solution would be to use more natural gas, but in the near-term that is an expensive solution or it requires becoming even more dependent on Russia for gas supplies, not an attractive solution given the Crimea and Ukraine situations. This condition has triggered cries by politicians to accelerate the approval for exporting cheap LNG from the U.S. to Europe, but that will not happen for several years and even then it is likely the gas will arrive in Europe at a substantially higher price than it trades for on the Gulf Coast. Another alternative would be for EU members to exploit their domestic shale resources, but once again that effort will face a significant time lag besides needing to overcome the reluctance of various governments and the public to allow hydraulic fracturing operations.

Exhibit 9. Europe Has Shale, Needs Will To Exploit

Source: *RealClearEnergy.com*

Cheap coal will undercut the increased use of more expensive LNG and as a result, governments may have to re-address their anti-shale development stances

The conclusion one arrives at about Europe's energy future is that continuing on its current path of shuttering its nuclear power facilities and betting almost entirely on renewables will lead to an electric market characterized by much higher costs and volatile supplies. By avoiding increased reliance on Soviet gas supplies, cheap coal will undercut the increased use of more expensive LNG and as a result, governments may have to re-address their anti-shale development stances. These developments mean Europe will be looking at increased emissions in the future, making its energy framework goals unachievable, without significantly harming its economies.

Prized European Cars May Not Be All That Fuel-Efficient

The EU wants to replace the 1970s automobile emissions testing regime with a new one by 2017

The push to reduce carbon emissions has led the European Union to announce that it wants to replace the 1970s automobile emissions testing regime with a new one by 2017. The automobile industry is fighting the aggressive timetable, but a delay puts the industry at risk of failing to meet the emissions reduction target the EU has in place for 2021. The battle is over exactly how fast these new emissions rules can be implemented and what it will mean for European auto manufacturers.

European cars are as much as 30% less efficient than manufacturers claim

The auto industry is happy to continue with the old emissions-testing system that was developed over 45 years ago and bears little relation to real-world driving conditions and technologies. According to a report from the International Council on Clean Transportation, European cars are as much as 30% less efficient than manufacturers claim. How can that be you ask? We are familiar with the testing of American cars that occurs in controlled environments with no wind resistance and the vehicle is running on a dynamometer and the exhaust emissions are captured, measured and converted into a fuel-efficiency number. The European

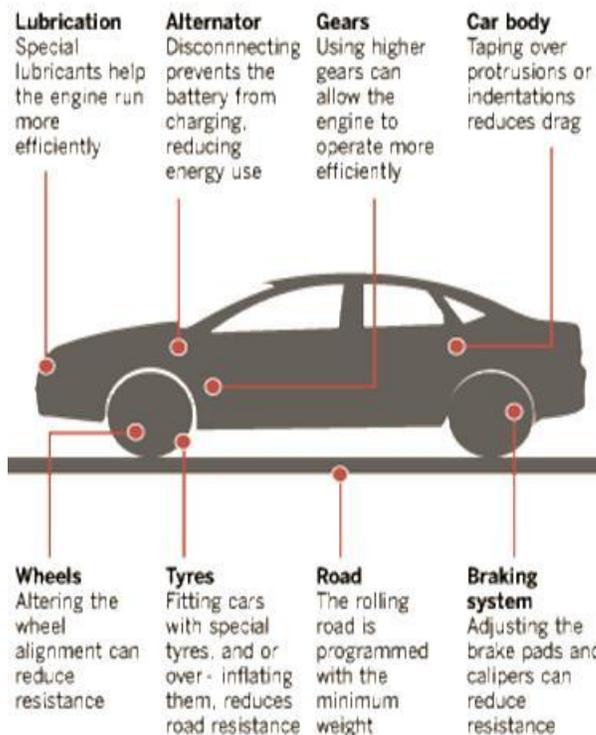
“Research has shown that half of the improvement in efficiency since 2007 has only been achieved in tests, not on the road”

emissions testing system allows car manufacturers to employ numerous loopholes to boost their vehicle’s performance.

The clean vehicle manager at Transport & Environment, a Brussels environmental think-tank says, “Research has shown that half of the improvement in efficiency since 2007 has only been achieved in tests, not on the road.” The reason is because the testing bears little resemblance to real-world driving conditions. Cars are tested with tape over profusions or indentations to reduce drag, the vehicle’s alternator will be disconnected to prevent the battery from charging and increasing energy consumption, and special or over-inflated tires are used, along with adjustments to the alignment and braking system, to reduce rolling friction. But if you drive a normal car, use the heated seats or air conditioning, employ the navigation system, drive at night or sit in traffic jams, your fuel use will soar compared to the manufacturer’s fuel-consumption claim.

Exhibit 10. Boosting Fuel-Efficiency Ratings
Car emissions

CO2 results declared by manufacturers can often be lower than when driven under normal road conditions. Below are details of the way carmakers can manipulate the test data



Source: Transport & Environment
 Source: *Financial Times*

FT graphic

The new system will change how carbon dioxide is measured, which could force manufacturers to make changes to engines and transmissions, along with vehicle designs

The future and health of the European auto industry is at stake in this battle over implementing the new World Light Vehicle Test procedure (WLVT). The new system will change how carbon dioxide is measured, which could force manufacturers to make changes to engines and transmissions, along with vehicle designs. Now manufacturers are concerned with how their vehicles perform in the New European Driving Cycle (NEDC) that was drawn up in the 1970s when cars were less powerful, accelerated more slowly, were not expected to drive long distances and the idea of Bluetooth-enabled sound systems were never imagined. One European auto company investment analyst estimates that the move to the new WLVT procedure could add up to €10 billion (\$13.8 billion) in compliance costs for the industry that would be difficult to pass on to customers in today's economic environment, meaning the companies and their shareholders will be left to absorb the cost.

A significant proportion of their cars are large sedans and sport utility vehicles that are among the least fuel-efficient vehicles manufactured

The most exposed auto manufacturers are German. A significant proportion of their cars are large sedans and sport utility vehicles that are among the least fuel-efficient vehicles manufactured. One technology German car makers have perfected to reduce their emissions is a stop-start function. In the current NEDC test, the car is stationary for about 20% of the time, thus its fuel consumption is reduced, and its fuel performance enhanced. That technology will not be favored under WLVT, meaning these car makers will see their fuel-efficiency ratings drop. German auto companies are more profitable than their French and Italian rivals and are investing more in low-emission technologies, creating significant benefits for themselves if the implementation of the WLVT is delayed for a few more years. From an energy perspective, any further delay in the implementation of stricter automobile emission testing standards means Europe's oil consumption may not be reduced until sometime in the next decade.

Sad Day For Academic Research, But Maybe They Were Joking?

It would appear that lies in published research are as acceptable as shouting down speakers who talk about unpopular ideas on college campuses

A recent academic paper in a peer-reviewed publication distressingly highlights how real academic research is slowly dying. In this case, its death is being praised because it is furthering politically-correct social agendas. That is unfortunate for those of us who conduct research that strives to maintain intellectual integrity. We wonder how the academic (intellectual) community can condone such deliberate distortions of the truth. The issue that drew our ire was an article in *Natural News* quoting from an article in *Breitbart News* discussing an academic paper suggesting that "lying about climate change in order to advance an extremist environmental agenda is a great idea." It would appear that lies in published research are as acceptable as shouting down speakers who talk about unpopular ideas on college campuses.

The *American Journal of Agricultural Economics*, a peer-reviewed publication, has in its current issue an article by two assistant

The public, we would like to believe, is more sensitive to the fine line between stretching the truth and lying than many think

professors of economics that actively endorse a policy of dishonesty as a way to force through desired policy objectives. As we read about the study, we were struck by the article's conclusion which would endorse President Obama's statements that "If you like your health insurance plan, you can keep your plan" as acceptable because it convinced politicians to vote for the ACA. We understand why politicians are willing to "stretch the truth" in their remarks as a way to motivate people to support them on an issue, however, the public, we would like to believe, is more sensitive to the fine line between stretching the truth and lying than many think.

The professors didn't need to employ mathematical models to prove a point most children learn on the playground

The title of the paper was "Information Manipulation and Climate Agreements," and it was reportedly highly mathematical. An interesting point in researching the paper and its reporting is how shocked the authors were about media coverage. As one reviewer pointed out, the professors didn't need to employ mathematical models to prove a point most children learn on the playground, which is that liars can win friends and influence people until they get caught. They likely resorted to mathematics because it gave the appearance of a more serious research effort. In response to the media coverage, the professors said they were only trying to explain why certain parties (media) have incentives to exaggerate climate change damages, not to justify lying about climate change.

The reviewer believed that the message the professors were trying to deliver is that if you get caught exaggerating how bad climate change is then people won't trust you when climate change turns out to be as bad as you said

The reviewer believed that the message the professors were trying to deliver is that if you get caught exaggerating how bad climate change is then people won't trust you when climate change turns out to be as bad as you said. The reviewer's conclusion was that this idea made little sense. As an example, he pointed to Al Gore whose movie, "An Inconvenient Truth," raised international public awareness about climate change but exaggerated the threat from warming-induced sea-level increases. This effort was acknowledged as propelling the global warming movement to new heights, including the Nobel Prize for Mr. Gore, even though the movie was judged to have many factual errors in a trial in London. The judge ordered the presentation of material correcting those errors to all school children who viewed the movie in classrooms.

So why was this paper published? The professors told *ClimateWire*, "One of us presented this paper in an international academic conference two years ago. The audience found the paper interesting. They raised comments and asked technical questions, but none of them interpreted the paper in a way similar to the media coverage such as the *Townhall.com* article. We are really shocked by the current biased media coverage." The *Townhall.com* article about this paper was headlined "Academics 'Prove' It's Okay to Lie About Climate Change."

The thrust of the research paper was to investigate the "free rider problem" in which one nation could benefit from global efforts for reducing carbon emissions even if the country itself does not pay for

If climate change damages were exaggerated there might be a short-term benefit because the media accounts might shock some countries to become more involved in the negotiations

the costs of that benefit. In theory, that would prevent other countries from signing international climate agreements. The paper concluded, mathematically, that if climate change damages were exaggerated there might be a short-term benefit because the media accounts might shock some countries to become more involved in the negotiations. This conclusion is similar to what H.L. Mencken, the Sage of Baltimore, wrote years ago: “The whole aim of practical politics is to keep the populace alarmed (and hence clamorous to be led to safety) by menacing it with an endless series of hobgoblins, all of them imaginary.”

It was also suggested that the paper was to avoid retaliation by local authorities

Some reviewers wondered whether the paper was written because the authors were desperate to demonstrate their methodical expertise. However, it was also suggested that the paper was to avoid retaliation by local authorities. A recent U.S. State Department human rights report stated: “Some scholars suggested Hong Kong-based academics practiced some self-censorship in their China-related work to preserve good relations and research and lecturing opportunities in the mainland.” As one professor was from Hong Kong and the other from China, maybe the paper employed mathematics as the most prudent format for writing about the uses and limitations of propaganda and preserve their teaching credentials in China.

The Skyscraper Index Goes Global – Should Saudi Beware?

The key message may have been the observation by one speaker that “we missed out on the prior booms”

A while ago we wrote about the launching of the leasing effort for a 58-story tower for the West Texas energy center of Midland. The Energy Tower at City Center will become the tallest building in West Texas and will dwarf the current tallest high-rise building there – the 24-story Bank of America Building. The tower will be a combination of a hotel, office and retail space, along with having restaurants and park space. At the introduction of the tower to real estate professionals, observations were made about the desperate need in Midland for new, upgraded office space and hotel rooms. But the key message may have been the observation by one speaker that “we missed out on the prior booms.” In our career we have visited Midland many times, in both good and bad times. We distinctly remember when the new Hilton hotel was built in downtown Midland, marking a significant upgrade in accommodation options. Maybe even more memorable in our view was the evolution of the Midland Petroleum Club. The club once occupied a collection of one-story buildings next to each other with different floor elevations that had been connected with doors and walkways to accommodate the growth in membership and use. At the tail end of the last oil boom, the club’s members elected to sell the old property and build a new, modern facility. It was opened shortly after the boom ended.

We are always cognizant of the tendency of Texans, who always seem to want to build bigger and better monuments in the state, to top off every boom with the latest tallest building. We won’t list all

Exhibit 11. Energy Tower At City Center Rendition

Source: www.mrt.com

All the tall buildings were completed in 1981-1983, just in time to catch the unraveling of the 1970s energy boom

“We took the index back as far as the late 1800s and found that even going back that distance we could find correlations between economic crises and the completion of the world’s tallest buildings”

the statistics of the tall buildings in Houston, but the 75-story Chase Tower (formerly the Texas Commerce Bank Building), the 71-story Well Fargo Plaza (formerly the Allied Bank Plaza and First Interstate Bank Plaza) and the 64-story Williams Tower (formerly the Transco Tower) were all completed in 1981-1983, just in time to catch the unraveling of the 1970s energy boom and immediately ahead of the 1985 energy business collapse.

In 2012, Andrew Lawrence of Barclays Capital Hong Kong, discussed the Skyscraper Index that he had developed some 13 years earlier in January 1999 when he was a property analyst at Dresdner Kleinwort Wasserstein, which showed that the world's tallest buildings have been built on the eve of economic downturns. In an interview a couple of years ago, Mr. Lawrence said, “We took the index back as far as the late 1800s and found that even going back that distance we could find correlations between economic crises and the completion of the world’s tallest buildings.” Among the buildings he included in the index was the first skyscraper built in the United States, the 1873 Equitable Life Building in New York City that stood 142 feet tall. Its completion coincided with the five-year depression extending from 1873-1878, which was referred to as the Long Depression. Other notable skyscrapers included the 269-foot-tall Auditorium building (1889) and the 309-foot-tall New York City World building (1890) that coincided with the British banking crisis of 1890 and a world recession. In the early 1900s, the completion of

Building 40 Wall Street (1929), the Chrysler Building (1930) and the Empire State Building (1931) all coincided with the start of the Great Depression

both the 612-foot-tall Singer building and the 700-foot-tall Metropolitan Life building in 1907 coincided with the Bankers' Panic that was a financial crisis that occurred after the New York Stock Exchange fell nearly 50% from its peak. The building of 40 Wall Street (1929), the Chrysler Building (1930) and the Empire State Building (1931) all coincided with the start of the Great Depression.

Exhibit 12. Proposed Kingdom Tower Skyscraper In Saudi



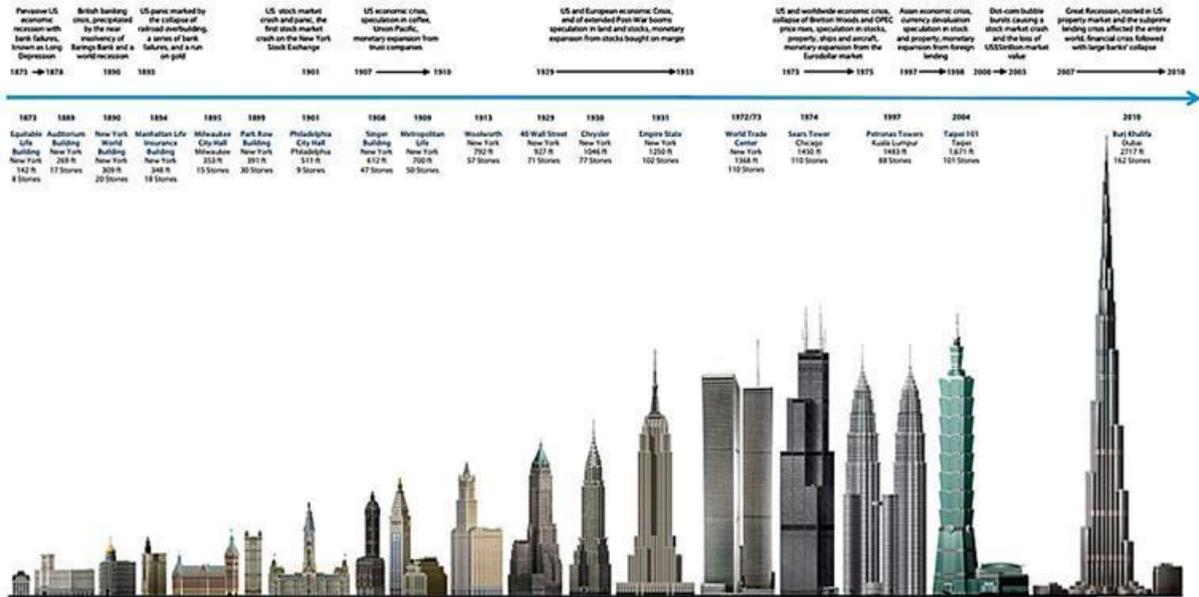
Source: *Business Insider*

The question analysts are asking is whether the Kingdom Tower will follow the pattern of close association with an economic downturn

More recent examples of this building phenomenon include the 1,483-foot-tall Petronas Towers built in Kuala Lumpur in 1997 that coincided with the Asian property and currency crisis. The 1,671-foot-tall Taipei 101 building was finished in 1999, just in time for the bursting of the dot.com stock market bubble in 2000-2003. The current tallest building in the world, the 2,717-foot-tall Burj Khalifa building in Dubai, was finished in 2010, which coincided with the 2008-2009 global financial crisis and recession. Currently under construction is the building that will assume the mantle of the world's tallest building in the near future – Sky City, outside of Changsha, China. The building is expected to rise to 2,749 feet with 220 floors and house 30,000 people. But what has many people curious with regard to the Skyscraper Index is the new Kingdom Tower scheduled to be built in Jeddah, Saudi Arabia by the Bin Laden Group (Osama Bin Laden's father). The \$1.23 billion building will stand 3,280 feet tall and have 200 floors according to the *Saudi Gazette*, which will make it 568 feet taller than Dubai's Burj Khalifa. The question analysts are asking is whether the Kingdom Tower will follow the pattern of close association with an economic downturn. If so, could that signal that oil markets may be heading for a dramatic change soon? One belief is that the Kingdom Tower is scheduled to be completed in 2019, which would coincide with some estimates of when the kingdom's Ghawar oil field is due to run dry. Another scenario might link the tower with an economic or political event internal and unique to Saudi Arabia - possibly a civil war or

significant social unrest that ends the royal family's rule such as happened in other Middle East/North African countries run by despotic leaders. How will another Arab Spring play in the Middle East or globally for that matter?

Exhibit 13. The Skyscraper Index Appears To Signal Economic Distress
SKYSCRAPER INDEX



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