
MUSINGS FROM THE OIL PATCH

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Allen Brooks
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

Keystone Decision Reflects Politics And Is Bad For America

Little did we know when we published our article in the last issue of the *Musings* dealing with the looming deadline for the State Department to decide whether or not to ok the construction of TransCanada's (TRP-NYSE) proposed Keystone XL pipeline project, designed to bring as much as 1.1 million barrels a day (b/d) of oil sands bitumen to the U.S. Gulf Coast refining center that the outcome would be known within 96 hours.

The Keystone pipeline construction decision deadline had galvanized the environmental movement to mount a vigorous opposition to the "dirty" oil sands output

The Keystone pipeline construction decision deadline had galvanized the environmental movement to mount a vigorous opposition to the "dirty" oil sands output. Importantly, the pipeline became the rallying symbol for the movement to re-energize its long-term opposition to fossil fuels. While trying to erect hurdles for the increased use of traditional fossil fuels, the movement is also working hard to tilt the energy playing field in favor of green energy sources through legislated mandates and government subsidies.

We opined that President Obama was likely to seek to delay the decision

In our *Musings* article, we dealt with the politics surrounding the pipeline decision as President Barack Obama had only recently waded into the debate and declared he would be making the final decision in contrast to the process that called for the State Department to render the final ruling. As we said in the article, this was a surprising declaration by the President as it not only altered the process but eliminated his ability to duck the political fallout from a ruling that went against one of his two large political constituencies – union workers and environmentalists. We opined that President Obama was likely to seek to delay the decision, but if push came to shove, we thought he would veto the pipeline.

Our belief coincided with views expressed by *Wall Street Journal* columnist Kimberly Strassel, who recently had written a column

We would not expect the administration to take any drastic actions to slow down shale gas drilling

outlining why she expected that President Obama would decide against building the pipeline. Her reasoning was that Mr. Obama's political campaign had determined that his environmental supporters, who tend to dominate the liberal left, are the ticket for his re-election and not the unions. While the President enjoys strong union support, the construction workers are primarily concentrated in three Rust Belt states - Michigan, Ohio and Pennsylvania. The President probably believes his auto bailouts will help him win union support in Michigan and possibly in Ohio, and by encouraging increased natural gas drilling in Pennsylvania he could blunt any negative union reaction to a decision against building the pipeline.

On the positive side of Mr. Obama's re-election strategy, we would not expect the administration to take any drastic actions to slow down shale gas drilling in Pennsylvania or in the Utica formation in Ohio. We further believe that the administration won't make any moves that would hurt the auto industry, and if anything, it will provide even greater support for electric vehicles and the car battery manufacturers Mr. Obama is counting on to add all those green jobs.

Ms. Strassel's column pointed out that the Obama re-election strategy appears to be focused now on putting together an Electoral College majority that could be attained without the votes from those three large Rust Belt states. This strategy means that President Obama has to strengthen his credentials with the liberal left, which means he has to act in order to win over the environmentalists. Rejecting the Keystone pipeline would be, and was, such an action.

This review was being initiated because of concerns the consulting firm was compromised because it had listed TransCanada as a client

During President Obama's interview several weeks ago with an Omaha, Nebraska television station reporter he stated that the State Department would be sending its recommendation about the pipeline construction to him in a couple of months and he would then make the final decision. That statement signaled to us that the State Department would not meet its late November deadline for rendering its final decision. Within days of that interview, the State Department's Inspector General (IG) announced he would examine the details involved in the selection process for the consulting firm that reviewed the pipeline proposal from an environmental viewpoint. This review was being initiated because of concerns the consulting firm was compromised because it had listed TransCanada as a client. Almost immediately following the IG's announcement, the State Department disclosed the details of the selection process showing that the consulting firm never worked directly for TransCanada, but actually had worked five times in recent years for federal agencies reviewing pipeline construction projects proposed by TransCanada. The company provided a description of the credentials required from consultants in order for them to be able to adequately evaluate the pipeline construction project. That information was supplied to the State Department. Armed with that information, the State Department issued a request for consultants interested in performing the analysis. According to our information,

They believe this email shows that the selection process was compromised

We learned many additional details and heard stories about conversations with various government officials, politicians and others that occurred during the process

there were five consulting firms that submitted bids. One of the five was disqualified for failing to meet the necessary requirements. The State Department selected the winning firm from the remaining four qualified firms. The fact that the selected consulting firm had reviewed prior TransCanada projects may have influenced the State Department's selection, but that could have been because it saw the consultants experience as improving the review's speed and quality.

Environmental groups have obtained a number of State Department emails related to the selection of the consultant under a Freedom of Information inquiry. One of these emails shows that representatives of Cardno Entrix, the consulting firm hired, were present at a meeting with TransCanada officials, the company's chief lobbyist and State Department officials. They believe this email shows that the selection process was compromised.

Remarkably, the night our *Musings* was published, we had the opportunity to have dinner with the TransCanada official who has been heading up the Keystone pipeline project. Without commenting on what we had written, we asked his take on the developments and likely outcome, which proved to be remarkably similar to what we had suggested. In the course of our dinner conversation, we learned many additional details and heard stories about conversations with various government officials, politicians and others that occurred during the process. We also were apprised of a number of facts about the pipeline and the Nebraska aquifer that were brushed aside or distorted by environmental opponents.

Exhibit 1. Keystone XL Pipeline Route



Source: *The New York Times*

This rerouting decision came despite the State Department having indicated it found the final pipeline route selected to be the least environmentally damaging of the seven routes examined

With the IG's claims having been largely dismissed by the State Department's reciting of the facts about the appointment of the consulting firm to review the project, the announcement of the delay in rendering the decision rested on the view that the agency needed to consider rerouting the pipeline in order to minimize the risk of environmental damage to the Ogallala aquifer. This rerouting decision came despite the State Department having indicated it found the final pipeline route selected to be the least environmentally damaging of the seven routes examined. The decision would appear to have been made in recognition of the political landscape President Obama is confronting.

Some of the claims actually strengthen the view that the decision was ALL about politics

The funniest yet saddest aspect of this approval process was watching the explanations by politicians and government officials trying to justify the view that the outcome wasn't about politics. In fact, some of the claims actually strengthen the view that the decision was **ALL** about politics. For example, a spokesman for the National Resource Defense Fund, speaking on a Sunday television talk show the weekend immediately after the decision, praised President Obama's action to kill the pipeline. The last we knew, the President wasn't involved in the State Department decision – or was he? Moreover, the pipeline project hasn't been killed, even though opponents would like us to believe that to be the case. The decision whether to approve or disapprove construction of the pipeline has only been delayed.

So, did President Obama know that at least one agency would appeal whatever the State Department ruled?

There was also vehement denial from State Department representatives that neither the President nor politics were involved in its decision. If that is true, why did President Obama tell his TV interviewer that he would make the final determination once the State Department rendered its judgment? Under the steps of the approval process, once the State Department announced its decision any of the 15 agencies impacted by the pipeline project could appeal, which automatically would send the controversy to the White House. So, did President Obama know that at least one agency would appeal whatever the State Department ruled? It sure sounds so. Did that message get to the State Department who didn't want to see its approval decision overridden because of the international fallout? Maybe that is why the IG announced he would review inconsistencies with the approval process. One need only understand that in politics the rule is that the more vehement the denial, the more true is the claim. It is convenient the State Department's approval decision now won't be announced until sometime after the 2012 election, and most likely not until early 2013 due to the required environmental review.

President Obama said the following after the State Department announced its decision. "I support the State Department's announcement today regarding the need to seek additional information about the Keystone XL Pipeline proposal. Because this permit decision could affect the health and safety of the American

TransCanada reportedly now is willing to discuss moving the pipeline route to avoid the environmentally sensitive sandhills and the Ogallala Aquifer in Nebraska

people as well as the environment ... we should take the time to ensure that all questions are properly addressed and all the potential impacts are properly understood. The final decision should be guided by an open, transparent process that is informed by the best available science and the voices of the American people.” President Obama’s statement makes him appear to be the moderate while making sure all the interests are taken into account.

The latest twist in the approval saga is that TransCanada reportedly now is willing to discuss moving the pipeline route to avoid the environmentally sensitive sandhills and the Ogallala Aquifer in Nebraska. We don’t know whether the company is hoping that their offer will speed up the approval process, but our understanding is that any significant deviation from the original route will require a full environmental review of these new areas to be crossed by the pipeline. Reportedly one of the routes the State Department reviewed in its appraisal paralleled the existing Keystone pipeline. So why should a review that follows that route require 18 months? Since TransCanada has invested nearly three years of management time and expense, it is not surprising the company would be reluctant to just walk away immediately following the State Department ruling.

TransCanada’s president and CEO, Russ Girling, pointed out an obvious fact about the pipeline decision, but one often overlooked by the media and those objecting to the pipeline. “If Keystone XL dies, Americans will still wake up the next morning and continue to import 10 million barrels of oil from repressive nations, without the benefit of thousands of jobs and long-term energy security.” This is one of the largest shovel-ready construction projects that would employ 13,000 construction workers and 7,000 manufacturing workers – high-paying jobs this economy needs right now. Now political concerns have sacrificed these jobs in the name of re-election politics.

The most critical issues about the future of the pipeline project may now have to be decided by Canada

While the next phase of the pipeline approval process in the United States is just beginning, the most critical issues about the future of the pipeline project may now have to be decided by Canada. *Globe and Mail* columnist Claudia Cattano wrote about her interpretation of the fallout from the decision. As she put it:

“Now, the consequences are huge.

“The delay in making a decision, which could still turn out to be a no, threatens the whole project as shippers line up alternatives.

“It threatens oil sands growth plans because pipelines are expected to fill up in the next couple of years. It emboldens environmentalists to oppose other pipeline projects to stall the oil sands, but also other energy projects that don’t fit its green agenda. It sours Canada/U.S. relations and it hurts both the Canadian and the U.S. economies.

"It means huge losses for Canada and for producers because lack of pipeline capacity has resulted in a discount for oil piling up in the U.S. The delay has put greens at the wheel of a major economic sector."

U.S. West Texas Intermediate oil prices appear in recent days to be closing the gap with international crude oil prices that have existed all this year due to the glut of oil in the midcontinent region. The price move has been in response to proposed steps to reverse the flow of the Seaway Pipeline, a major crude oil pipeline that extends from the Gulf Coast to the midcontinent region after its purchase by Enbridge, Inc. (ENB-NYSE). The proposal is for 150,000 barrels per day (b/d) by mid 2012 with an increase to as much as 400,000 b/d by early 2013. For Canadian oil sands producers, if there is a convergence between WTI and Brent crude oil prices, as has been the historical pattern, they will not lose as much money shipping their oil to the U.S. versus selling it to Asian or European customers.

Canadian Prime Minister Stephen Harper said, "This does underscore the necessity of Canada making sure that we are able to access Asia markets for our energy products."

Shortly after the State Department's announcement, Canadian Prime Minister Stephen Harper, who was attending the Asian-Pacific Economic Cooperation summit in Honolulu, Hawaii, spoke to reporters. He said, "This does underscore the necessity of Canada making sure that we are able to access Asia markets for our energy products." Mr. Harper went on to say, "And that will be an important priority of our government going forward." Mr. Harper told the reporters that he had made that point in a meeting the day before with Chinese President Hu Jintao. The Canadian government does not want to have limitations placed on the development of its natural resources as it would have a negative impact on government income earned from royalties plus it would hurt the earnings prospects for oil and gas producers, which in turn could impact jobs and income tax revenues for various governmental entities.

We understand a foundation established to promote increased trade between Asia and Canada will be issuing a report next month that will argue for a transportation corridor to the west coast for oil and gas pipelines to allow for faster approval of new lines to move hydrocarbons to Asian markets. At the moment there are concerns about securing approval from the many British Columbia communities that any new pipeline would pass. Also, there are issues with the Kitimat terminal location as ships must travel 40 miles through a narrow and twisting channel requiring tug escorts, reminiscent of Valdez, Alaska, and the Exxon Valdez oil spill. Once a ship leaves the Kitimat terminal, it has to pass through Queen Charlotte Sound, a notoriously rough body of water.

An alternative pipeline export route would involve utilizing excess natural gas pipelines in the east and constructing some new pipeline sections in order to get the oil sands output to the Canadian East Coast allowing for it to be exported globally. This route would be a second all-Canada option, but importantly it would increase Canada's flexibility to sell oil sands output worldwide.

Exhibit 2. Kitimat Terminal Opposite Queen Charlotte Islands



Source: www.Google.com

The Obama administration has determined that the U.S. will continue to be dependent upon oil from less politically stable countries

As political judgments have ruled out any near-term expansion of U.S. import capacity for Canadian oil sands output that is under expansion, the Obama administration has determined that the U.S. will continue to be dependent upon oil from less politically stable countries. This policy means we may be facing greater risk of higher oil prices than we would have if more of our imported oil came from Canada. Don't forget, however, that high oil prices help the green energy agenda because those expensive fuels would be more competitive with traditional fossil fuels. With the Keystone pipeline decision, the U.S. is firmly on the road to a less secure energy future.

The Global Oil Service Industry Shows Up In Strange Places

We have just returned from a nine-day cruise of the western Caribbean in which we saw an interesting sight. It wasn't some offshore platforms or offshore drilling rigs. Nor was it the idle jackup drilling rigs located across from the Galveston cruise terminal. Rather it was what we saw while standing in the back of a jewelry store in George Town, Grand Cayman.

Exhibit 3. Finding Transocean In A Jewelry Store

Source: Betty Brooks

We noticed a directory sign with the Transocean logo

As we glanced down the hallway leading to a set of stairs and an elevator taking visitors to offices on the building's upper floors, we noticed a directory sign with the Transocean (RIG-NYSE) logo. Who would have expected to see this sight? It goes to show how complex the organization of an international energy company must be in order for it to minimize its tax bill and at the same time increase its operating flexibility.

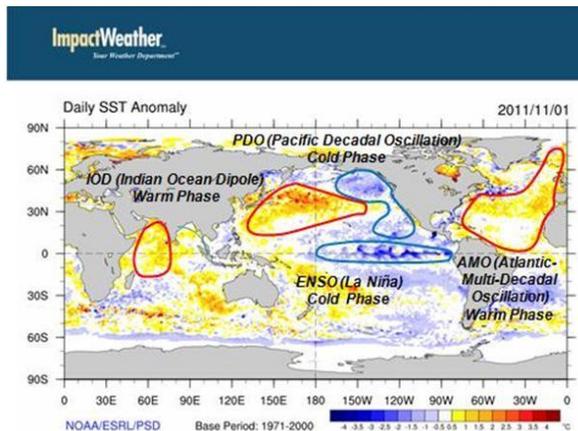
Upcoming Winter Could Be A Repeat Of Last Year's Winter

The developing La Niña in the South Pacific Ocean is controlling the weather patterns

Recently, ImpactWeather, a Houston-based weather forecasting and consulting firm, held a webinar in which they discussed their view of the weather trends that will impact temperatures and precipitation in the United States during both the next 30 days and the winter period of December through February. The bottom line is that the developing La Niña in the South Pacific Ocean is controlling the weather patterns. So far the pattern has allowed an active hurricane season to develop but has contributed to only a few of the storms entering the Gulf of Mexico and making landfall on the U.S. coast.

ImpactWeather showed a chart that contained the various global sea surface temperature (SST) anomalies that are influencing global weather patterns. ENSO (El Niño/La Niña Southern Oscillation) is probably the most prominent SST anomaly, but the Pacific Decadal Oscillation (PDO) Pattern, the Atlantic Multi-decadal Oscillation (AMO) Pattern and the Indian Ocean Dipole (IOD) Pattern are also strong weather influencing factors. As shown in the accompanying chart (Exhibit 3), ENSO and PDO are in their cold phase while the AMO and IOD are in their warm phase.

Exhibit 4. La Niña Dominates Winter Weather

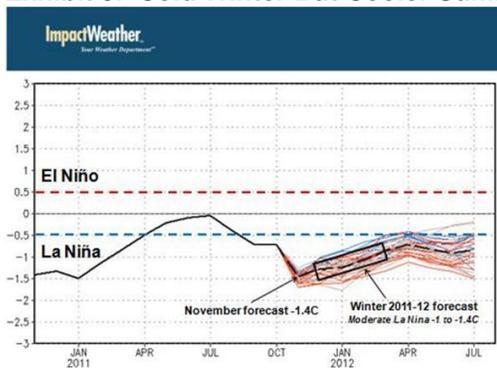


Source: ImpactWeather

The 2011-2012 winter forecast shows that temperatures should average between 1°C and 1.4°C below normal

The impact of the PDO and La Niña phases is best shown by the forecasts showing the deviation in temperatures that can be expected in the future as a result of these patterns. As shown in Exhibit 5, the 2011-2012 winter forecast shows that temperatures should average between 1°C and 1.4°C below normal. The forecast for November called for a 1.4°C lower temperature range, which would seem to be consistent with the cooling that has been experienced since late October. The chart shows a multitude of temperature forecasts generated by computer models, virtually all of them showing negative deviations. If one compares the forecasted temperatures for this winter with the temperatures experienced last winter (the far left side of the chart), they look similar, but the forecasted temperature anomalies don't show the move back to zero as experienced last summer. That would suggest that in the United States we may not experience the extreme heat witnessed last summer. That doesn't mean that the drought conditions will end, but lower temperatures would be a welcome relief.

Exhibit 5. Cold Winter But Cooler Summer?



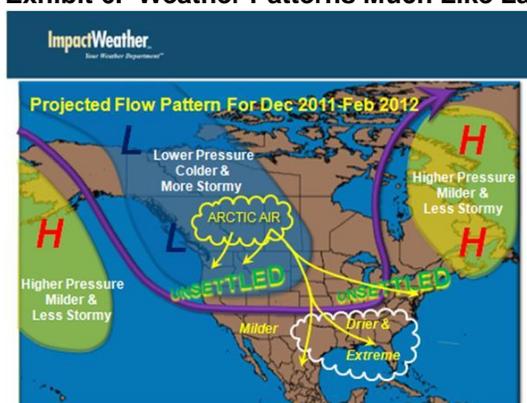
Source: ImpactWeather

The dominant weather influencing patterns for the upcoming winter

A large, strong low pressure mass covering western Canada and the Pacific Northwest and Mountain states will bring arctic air to the region and push the jet stream and colder temperatures lower than normal

include a large, strong low pressure mass covering western Canada and the Pacific Northwest and Mountain states, which will bring arctic air to the region and push the jet stream and colder temperatures lower than normal and across the middle of the United States this winter. At the same time, there will be a large high pressure mass over the tip of New England and the eastern provinces of Canada that has the impact of directing the jet stream virtually straight north into the Arctic region. We suspect that jet stream pattern could help lead to less ice being formed in the Arctic Ocean region this winter that would allow the opening up of an ice-free ocean route to Asia.

Exhibit 6. Weather Patterns Much Like Last Winter



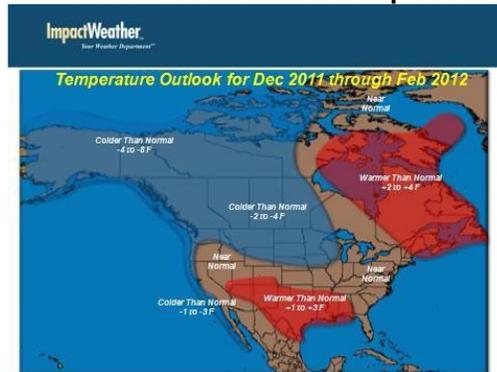
Source: ImpactWeather

For those of us living and working in the oil patch across Texas, Oklahoma and the Southeast states, the winter weather is expected to be drier than normal and slightly warmer than normal. This pattern is best demonstrated by the charts in Exhibits 7 and 8 on the next page.

Western Canada should be -2°F to -4°F colder than normal

In Exhibit 7, we have the expected temperature deviations from normal for North America. The chart shows that western Canada should be -2°F to -4°F colder than normal. The expected temperature trend anticipated for Alaska and across the very northern region of Canada calls for deviation trend nearly twice that of the rest of the region. A large portion of the United States and a small strip of eastern and central Canada are expected to see normal temperatures this winter. The Southwest and Southeast states should see winter temperatures between 1°F to 3°F warmer than normal.

Exhibit 7. 2011-12 Winter Temps To Be Colder

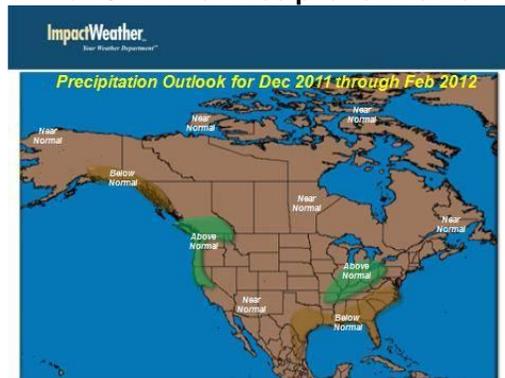


Source: ImpactWeather

The winter outlook for precipitation calls for most of North America to experience normal wet weather

The winter outlook for precipitation calls for most of North America to experience normal wet weather with only some small pockets of above normal precipitation. The coastal region extending from north eastern Mexico around the Texas Gulf Coast and through the Southeast states and up to the Mid-Atlantic states should experience less moisture than normal.

Exhibit 8. Winter Precipitation To Be About Normal



Source: ImpactWeather

The hazards show where there could be greater than expected snowfall, greater rainfall, hard freezes and lower than normal snowfalls

We found one of the last charts prepared by ImpactWeather for its presentation very interesting. The chart showed a range of potential hazards that could be experienced by regions of North America this coming winter. The hazards show where there could be greater than expected snowfall, greater rainfall, hard freezes and lower than normal snowfalls. It will be interesting to watch the winter weather develop and especially how the media covers any of the extreme weather events that might occur. Given the large number of potential weather hazards ImpactWeather foresees, there should be no shortage of extreme weather events for the media to report on.

Exhibit 9. Plenty Of Winter Hazards Exist



Source: ImpactWeather

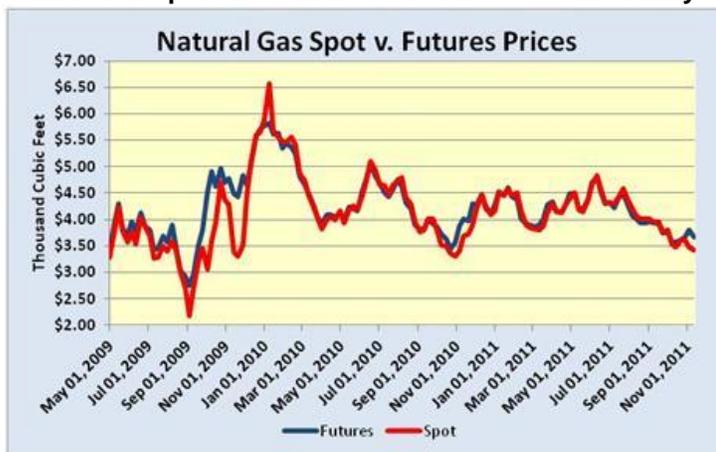
This year the second week in November showed storage volumes had increased from the first week to 3,850 Bcf, now in excess of the peak storage volume registered in 2010

What could another cold winter mean for the natural gas market and gas prices? We went back and looked at natural gas storage volumes over the past two winters compared to where we are today. It is interesting to compare where storage volumes were at the end of the first week of November for each of the three years – 2009, 2010 and 2011. This year there was 3,831 billion cubic feet (Bcf) in storage compared to 3,840 Bcf in 2010 and 3,813 Bcf in 2009. The first week in November 2010 was the peak for that winter, but the peak in 2009 was not reached for an additional three weeks as the total storage volume reached 3,837 Bcf. This year the second week in November, which is the latest data available, showed storage volumes had increased from the first week to 3,850 Bcf, now in excess of the peak storage volume registered in 2010.

Spot prices are more sensitive to temperature variations, i.e., short-term supply and demand factors at work, than are futures prices

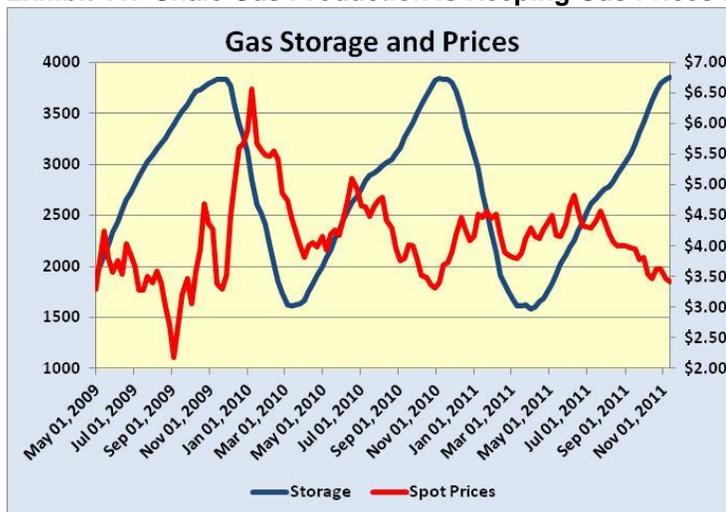
We decided to look at what happened to natural gas prices as gas volumes expanded and contracted. Prices have been, and continue to be, influenced by the growth of shale gas production. Before we looked at the comparison, we plotted weekly spot natural gas prices versus the futures price in order to see exactly how they compared from 2009 to 2011. As shown in Exhibit 10, the two prices moved together for most of the period with the exception of the fall of 2009 and briefly again in late fall of 2010. It is interesting to note that in the past several weeks the two prices appear to be diverging once again. The fact that the divergence in prices coincides with the late fall time frame suggests that spot prices are more sensitive to temperature variations, i.e., short-term supply and demand factors at work, than are futures prices. This is the impact of physical versus financial factors.

Exhibit 10. Spot And Futures Gas Prices Track Closely



Source: EIA, PPHB

Exhibit 11. Shale Gas Production Is Keeping Gas Prices Down



Source: EIA, PPHB

It was quite striking to note the dramatically different pattern experienced in 2009 compared to 2010 and so far in 2011

When we examined the seasonal swings in gas storage volumes with spot natural gas prices it was quite striking to note the dramatically different pattern experienced in 2009 compared to 2010 and so far in 2011. In 2009, as gas storage volumes were climbing, natural gas spot prices were falling. Once winter demand set in and gas storage volumes began being withdrawn at a rapid rate due to the early cold weather, natural gas prices responded by rising sharply. The winter of 2009 was colder than the prior several winters that were unseasonably warm. Commodity market expectations were that the early cold temperatures might signal an extraordinarily cold winter that would deplete gas supplies and impact gas supply availability. As a result, the gas market assigned a large premium to near-term gas supply volumes, hence the sharp jump in spot gas prices.

The 2010 winter did not experience the sharp upward move in natural gas spot prices because shale gas production was rising sharply

In contrast, the 2010 winter, which was also a cold winter, did not experience the sharp upward move in natural gas spot prices in response to falling storage volumes because shale gas production was rising sharply and helping to meet the increased demand. As a result, the natural gas market anticipated there was little chance of a supply crisis even with a colder than normal winter so there was little need to bid spot prices up to bring forth more supply and reduce demand.

Unless the winter of 2011-2012 is much colder than last year, we are likely to be looking at continued low spot gas prices

The current downward spot price trend compared to the new peak storage volumes suggests the gas market anticipates another winter season like last year. The growing shale gas production, coupled with continued strong gas-related drilling activity – both for dry gas and associated gas from liquids-rich prospects, is being translated into lower spot prices. This pattern suggests that unless the winter of 2011-2012 is much colder (not the current weather forecast) than last year, we are likely to be looking at continued low spot gas prices. If gas-directed drilling begins to fall, maybe by sometime next fall we could see sharply higher spot gas prices. Pray for a colder winter if you want to see higher natural gas prices, but until producers become more religious about the economics of their gas drilling spending, it will be hard for gas prices to rise to levels everyone is counting on.

Are Battery Fires A Stumbling Block For Electric Vehicles?

The fire, determined to have been caused by the lithium ion battery in the Volt, was hot enough to cause damage to nearby cars

A Chevy Volt electric vehicle (EV) sitting at a National Highway Transportation Safety Administration (NHTSA) facility in Wisconsin caught fire three weeks after the car had been used in a side-crash test. The fire, determined to have been caused by the lithium ion battery in the Volt, was hot enough to cause damage to nearby cars. Recently, the NHTSA sent representatives to a home in Mooresville, N.C., to investigate a Volt that caught fire while being charged in a garage. That investigation is still underway. The agency has contacted all the auto manufacturers of EVs and those manufacturers planning to introduce EV models in coming years to participate in an \$8.8 million study of the fire hazard caused by lithium ion batteries.

The FAA issued the warning after a United Parcel Service cargo plane carrying thousands of lithium ion batteries crashed in Dubai after catching fire, killing both pilots

EVs have been designed to protect the lithium ion batteries because they are at risk of fire if the battery cases and several cells are pierced by metal in an accident. The metal causes a chemical reaction within the battery that makes it extremely hot and eventually can cause the car to catch fire. Numerous lithium ion battery fires have been reported in laptop computers that caused consumer safety concerns several years ago. The Federal Aviation Administration (FAA) issued a warning to airlines in October 2010 about the risk of fire from lithium ion batteries that are used in cell phones, digital cameras and other electronic devices. The warning pointed out that these batteries are “highly flammable and capable of ignition,” adding that fire suppression systems on airplanes aren’t

effective when that happens. The FAA issued the warning after a United Parcel Service Inc. (UPS-NYSE) cargo plane carrying thousands of lithium ion batteries crashed in Dubai after catching fire, killing both pilots.

A NHTSA spokesperson said, "Based on the available data, NHTSA does not believe the Volt or other electric vehicles are at a greater risk of fire than gasoline-powered vehicles. In fact, all vehicles -- both electric and gasoline-powered -- have some risk of fire in the event of a serious crash." Following the Volt fire, both GM (GM-NYSE) and the NHTSA crashed a Volt car but were unable to re-create the fire. As a result of the new side-crash test mandated for all new cars starting in 2011 and the recent fire, manufacturers and the agency are concerned about developing safe-handling procedures for first responders, tow truck drivers and salvage yard operators in order to reduce the risk of fires caused by crashed EVs.

Even the large subsidies have not moved the needle on EV demand, so we expect that the federal government will move to enact mandates for automakers to have to sell EVs

Both GM and Nissan (NSANY.PK), who are selling EVs, have emphasized that their cars are built with adequate safety measures to protect the lithium ion batteries from damage during accidents. Thru October, GM has sold 5,003 Volts while Nissan has sold 8,048 Leafs. These cars have yet to stir public demand making it hard to see how the auto industry will be able to reach President Obama's goal of selling one million EVs in 2015. Even the large subsidies have not moved the needle on EV demand, so we expect that the federal government will move to enact mandates for automakers to have to sell EVs. Safety concerns about the lithium ion batteries will not help interest in these EVs.

Increased structural protection around batteries would add weight to the car and reduce the range of EVs

As we have written about before, the newly agreed to fleet fuel-efficiency rules are structured to incentivize automakers to build and sell EVs in order to meet the new stricter standards because of the disproportionate mileage value assigned to EVs in the fleet average efficiency calculation. Since the NHTSA is just now kicking off a safety study of the fire risk of lithium ion batteries involved in crashes, we wonder what they will conclude. Increased structural protection around batteries would add weight to the car and reduce the range of EVs, adding to the number one reason people are less inclined to buy EVs. Of course, as we saw in how EVs were treated in the new fuel-efficiency standards – the Environmental Protection Agency made up the rating for these vehicles – their fuel-efficiency ratings can be arbitrarily increased to offset the impact of the heavier vehicle weight. Of course, as soon as people find out that their EVs don't go as far on a battery charge, they will be less than enchanted with these vehicles. That will be especially true in winter time in northern states where cold weather already cuts the range of EVs.

The Volt battery fires have not received much media attention

The Volt battery fires, while not receiving much media attention, represent a new stumbling block for the acceptance of EVs by Americans. By failing to render a decision on the Keystone XL pipeline, the Obama administration is forcing America to remain

highly dependent on crude oil from less reliable international suppliers. This strategy helps to insure higher gasoline pump prices, which helps the green agenda that includes a growing role for EVs. Minimizing the publicity of battery fires in EVs until a study can report that there is little risk for EV buyers would seem to be another aspect of the administration's energy strategy.

Canadian Insurers Blame Climate Change For Rate Hikes

Today 44% of claims are due to severe storm-related water damage compared to only 22% in 1992

A recent story in the *Globe and Mail* highlighted that Canadians are being hit with large residential insurance premium rate increases that the insurance companies are attributing to climate change. The claim is that climate change has created many more extreme weather events and that the insurance claims are higher because of the magnitude of the events. As one insurance executive pointed out, city sewer systems were never designed for the rainfall associated with storms forecast to happen only once in 50 years. Michael Tremblay, director of research with the Insurance Bureau, says that today 44% of claims are due to severe storm-related water damage compared to only 22% in 1992. He further pointed out that in the past 23 years in Toronto there have been seven storms equivalent to what would be expected from the largest one in 50 years. There have also been two storms equal to the one projected to occur every 100 years.

He stated his belief about global warming, "Not only do we believe; it's a proven fact"

TD Insurance, one of the largest companies in the residential insurance business, has already warned its customers that the reason their rates have increased is because of the climate change issue. In a letter to customers, the company wrote, "Due to changes in the climate and weather patterns, residential insurance providers are seeing an increase in weather-related claims, resulting in increases to insurance premiums for residential policies." The chief underwriter for TD Insurance, Henry Blumenthal, was interviewed for the article and he stated his belief about global warming. "Not only do we believe; it's a proven fact. It's the number one headache issue the property and casualty industry is facing."

Fortunately, the author of the article sought some alternative explanations for the cause of the premium increases. The principle cause is inflation in the claims, which is largely due to the growth of population in areas hit by storms. Another reason is that more people are building larger homes and using more of the homes space than homeowners did in the past – in particular, basement use has grown as a living space and more valuable items are stored there.

"Climate change is someone else's problem, your investment strategy is yours."

Jim Christie, president of the Canadian Institute of Actuaries, was interviewed for the article. He points out other factors could be increasing costs for the insurance industry, including lower returns on investments. "There may be five things but if they can talk about the ones you can relate to, they will," said Mr. Christie. "Climate

In the past, earnings from investments helped offset higher loss ratios and enabled insurance companies to keep premiums low

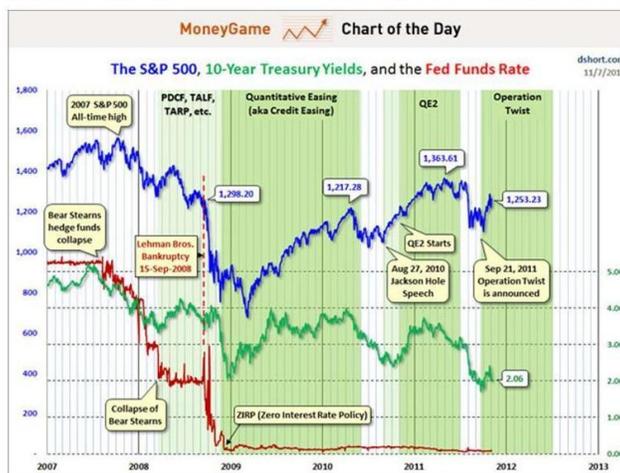
For insurance companies, many have increased their investment risk profile by chasing higher yields with corresponding higher risks

change is someone else’s problem; your investment strategy is yours.”

Record low interest rates have impacted the amount of cash insurance companies are earning on their premium income. As a result, company margins are being squeezed adding pressure to raise premiums. In the past, earnings from investments helped offset higher loss ratios and enabled insurance companies to keep premiums low. Without the cushion of investment income, the premium needs to be higher to account for the increased risk element of the insurance.

While Mr. Christie suggests that companies need to be responsible for their investment strategy, the current era of low interest rates globally has significantly impacted investment returns. (The impact can be seen in the chart in Exhibit 11 where short-term and 10-year bond rates are plotted against the performance of the Standard & Poor’s 500 Index since 2007.) For insurance companies, many have increased their investment risk profile by chasing higher yields with corresponding higher risks. That has led them into more equity investments – both public and private – and into commodities and real estate. Often these higher risk investments have experienced their own problems that have negatively impacted overall investment returns.

Exhibit 12. Low Interest Rates Boost Riskier Investments



Source: Moneygame.com

The companies are forced to acknowledge that increased population adds to the amount of rainwater that needs to be moved through sewers

But a bigger problem for insurance companies that are trying to talk about the increased frequency of severe storms is that they are ignoring the increased concentration of populations. As was pointed out when talking about the inadequate condition of sewers in neighborhoods, the companies are forced to acknowledge that increased population adds to the amount of rainwater that needs to be moved through sewers rather than be absorbed by the open ground.

The fee is based on the percentage of a property covered by buildings and structures such as patios, swimming pools, driveways and sidewalks

Most municipalities do not have a way to offset this population growth except by instituting strict building restrictions. The City of Houston recently has instituted a tax to raise money for improving sewers and flood control facilities. The fee is based on the percentage of a property covered by buildings and structures such as patios, swimming pools, driveways and sidewalks. The idea is that a property with a greater covered area, which will send more rainwater to municipal sewers and flood control systems, should pay more in tax than a similar property with a lower covered ratio. While no one wants to pay more taxes, this fee structure appears to be a fair system where those who contribute the most to the rainwater runoff issue should pay more.

People's desire for more "stuff" further adds to claim costs

While it is easy to blame climate change for increased severe storm-related insurance claims, the incidence of severe storms has not been shown to bear any relationship to global warming. However, it is much easier for companies to blame issues outside of their control for the problem rather than to suggest the increased claims are due to the actions of their customers – wanting to live in urban areas and to have more living space. Inflation in homebuilding costs is a function of increased populations and greater concentrations of population. People's desire for more "stuff" further adds to claim costs. Low investment returns due to low interest rates are just another problem for insurance companies, again something outside of their control. It is very tempting to take the easy road and blame it all on climate change, when in reality it is about insurance company risk tolerance and risk management.

**Contact PPHB:
1900 St. James Place, Suite 125
Houston, Texas 77056
Main Tel: (713) 621-8100
Main Fax: (713) 621-8166
www.pphb.com**

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