### **DEMAND**

Natural gas has been surging and may have created a significant bottom that may hold up for a decade or more. It's what could be a historic shift in the commodity cycle. Natural gas has turned from bear to bull. Natural gas has been inspired by a shift from a market where supply was outstripping demand growth to now it is going the other way.

While many may attribute the surge in demand to all of the cold weather, just below the surface something much more significant is going on. In what could be the best long term play in all of the commodities markets, the natural gas may be on track to create a major bottom. The reason is that because of the shale gas revolution and the the low price of natural gas, demand is being created. Low prices at some point always cure low prices and with the abundance of natural gas, it's clear burning properties means natural gas time is here. Natural Gas will become the world's dominate fuel source.

Part of this has been record power generation and signs that the big power generators that switched from coal to gas may not switch back. Bloomberg News reported that power producers including Duke Energy Corp., NRG Energy Corp., Southern Co. and Dynegy Inc. say they plan to run their gas-fired units this year at close to the top rates of 2012. Plants burned 24.96 billion cubic feet of gas a day last year, up 4.21 billion from a year earlier and a bigger gain than in the five previous years combined. Gas futures have rebounded 94 percent since trading at a 10-year low last April as utilities switched from coal and unusually hot weather spurred cooling demand.

The reason that these plants won't switch back is that the EPA has it in for coal. More coal plants will be retired and gas demand will rise as power generators take advantage of locking in these very low prices. Reuters News reported U.S. power companies plan to shut or convert over 50,000 megawatts (MW) of coal-fired plants over the next several years as cheap natural gas prices and strict environmental rules have made coal the more expensive option in some areas. Eventually, the switch away from coal may shut 60,000 MW to 100,000 MW of power generation across the country, according to industry estimates.

Reuters says that "In 2012, low gas prices from record shale production depressed power prices to at least 10year lows, making it uneconomic for generators to install new environmental controls on their oldest and smallest coal plants.

Those controls are needed to keep the units compliant with federal environmental rules proposed since President Barack Obama took office in 2009.

But power generation is just part of the story. We believe that natural gas will not only start displacing coal but diesel and gasoline demand as well. We feel that natural gas is the fuel of the futures and is on its way to being the world's number one fuel source.

It is easy to dismiss this scenario as far-fetched, but it is already starting to happen. According to the Wall Street Journal (WSJ), Burlington Northern-Santa Fe (BNSF) railroad, the second-largest diesel consumer in the United States after the navy, plans to test using liquefied natural gas (LNG) to power some trains this year, and could eventually retrofit its entire fleet of 6,900 locomotives to run on a mix of gas and diesel ("Berkshire's BNSF railway to test switch to natural gas" March 6). Reuters reported on Tuesday that ports in northern Europe are installing refueling infrastructure to enable vessels to run on LNG. Twenty vessels are already running on gas, mostly in Scandinavia, but many more are already on order. An international working group is already developing guidelines for safe procedures for LNG bunkering and includes some of the world's largest container ports and bulk terminals: Antwerp, Amsterdam, Bremerhaven, Hamburg, Los Angeles, Long Beach and Rotterdam. Halliburton, one of the world's largest oilfield service companies, has started to convert some of its hydraulic pressure pumping units, used to fracture shale, to run on a gas/diesel mix, as part of its "frac of the future" cost reduction program. And dual fuel engines are also being deployed widely in offshore oil and gas production. Shell announced on Tuesday it would build two small-scale liquefaction plants in Louisiana and Ontario to "form the basis of two new LNG transport corridors in the Great Lakes and Gulf Coast regions." The company is also working to use more natural gas to fuel its own operations.

#### WHY THE SWITCHING TO NATURAL GAS

Natural gas, as the cleanest of the fossil fuels, can be used in many ways to help reduce the emissions of pollutants into the atmosphere. Burning natural gas in the place of other fossil fuels emits fewer harmful pollutants, and an increased reliance on natural gas can potentially reduce the emission of many of these most harmful pollutants. At now because of the demand shift so far it has been the best performing commodity of the year. You see commodities go in cycles and in gas the cycle has been very clear. Back in 2003 then Fed Chairman Alan Greenspan warned us that our declining production of natural gas was putting the economy at risk. We're going to see some erosion in a number of macroeconomic variables if gas prices stay high, Greenspan told the House Energy and Commerce Committee.

Prices of course soared. Then came the farcing revolution and prices came down. The reason for our call was that we believed that the commodity cycle for the gas market had changed again. That for the first time in two years the growth of demand for the commodity should start to out strip production increases. Low prices cure low prices and because of the cleaner burning properties of gas its future is bright. Warren Buffet of Berkshire

Hathaway owner of the Burlington Northern railroad is looking to switch their locomotives to natural gas. Bloomberg reported that BNSF is working with its locomotive suppliers like General Electric Co. and Caterpillar Inc., to explore buying units that would run on natural gas. Burlington Northern is the biggest consumer of diesel other than the US navy.

In March the Wall street Journal Reported that "Truck fleets are likely to make a major shift to natural-gas fuels and away from diesel over the next decade, with FedEx Corp. a likely adopter," said Frederick W. Smith, chairman and chief executive of the shipping company. In an interview with The Wall Street Journal, Mr. Smith said he expects between 5% and 30% of U.S. long-distance trucking to be fueled by compressed or liquefied natural gas over 10 years, as the cost of the trucks declines and fueling stations become more common. "If you'd asked me three years ago, I'd have said this is very tough, because the infrastructure wasn't there," he said.

But now, the company is testing four trucks--two using liquefied gas and two using compressed gas--and if those work well the company will look to moving more of its 90,000 motorized vehicles to the fuel, Mr. Smith said, adding, "We'd be remiss if we didn't." Whether the company will make "a big conversion or wait until the economics make sense," he said, will depend in large part on the cost of tractor-trailer trucks.

Though Memphis, Tenn.-based FedEx is famous for its planes, the company's ground-delivery business has been growing rapidly, Mr. Smith said, as jet-fuel costs soared from 67 cents a gallon in 2001 to more than \$3 a gallon today. Hundreds of FedEx's lighter vehicles are now electric or hybrids.

Exports of natural gas, which require federal approval, have become a contentious issue in Washington. Mr. Smith said he favored exporting liquefied natural gas and even oil, as they would give the U.S. a lever to get other countries to open their markets.

"We have so much gas," he said, "it would be foolish and at the end of the day penny-wise and pound-foolish not to export."

We are starting to see demand that hit a record high in November get in better alignment with production. Natural gas rig counts jumped 2 from a 16 year low showing that if we are going to meet the demand expectations of the future we are going to need higher prices.

Yet now as the market is beginning to rise the bulls are coming out of the woodwork. Not only are many raising their calls higher they are now exceeding my call of 700 gas by 2015 which even I have to admit is looking conservative after this explosive run. Commodity funds have been loading up on gas a sea change of attitude when a prediction of 700 gas by 2015 seemed like wild speculation. Now it is starting to look low.

Of course many may wonder how we saw this coming when many were stuck in the natural gas glut mentality. Why we recommended being long on our trade levels from to keep as a possible position trade. We noted that natural gas broke up into its December trading range from its lower first half of January trading range the longer term strips seems to suggest that it might be time to be thinking about Natural Gas from a long term outlook.

We spoke about the increasing odds of natural gas exports. Not only the fact that natural gas prices in Europe and Asia will pressure the US to increase exports As reported by Bloomberg News February 22, "Gas for delivery in three years may rise to between \$5 and \$8 per million British thermal units should LNG terminals from Texas to Oregon start moving cargoes, according to estimates from BNP Paribas, Price Futures Group and Barclays Plc. That's at least 14 percent higher than where markets are pricing 2016 gas today, based on Bloomberg Commodity Fair Values. As much as 10 percent of U.S. output is likely to be earmarked for export as LNG by 2016, according to Goldman Sachs Group Inc. estimates." "Gas for delivery in 2015 costs an average of \$4.21 per million Btu and \$4.40 for 2016, according to Bloomberg Commodity Fair Value data. That may be underestimating the potential price if more export projects are approved, according to Phil Flynn, a senior market analyst at Price Futures Group in Chicago. "The LNG thing is going to happen," said Flynn, who sees gas rising to \$7 per million Btu in 2015 before trading in a range of \$6 to \$8. The market isn't pricing in the LNG export potential yet because "there is a little bit of a denial on how quickly natural gas exports can get done," he said. "We've had this bearish outlook on gas a long time."

And it is! E Science News writes, "The cost of complying with tougher EPA air-quality standards could spur an increased shift away from coal and toward natural gas for electricity generation, according to a new Duke University study. The stricter regulations on sulfur dioxide, particulate matter, nitrogen oxide and mercury may make nearly two-thirds of the nation's coal-fired power plants as expensive to run as plants powered by natural gas, the study finds. "Because of the cost of upgrading plants to meet the EPA's pending emissions regulations and its stricter enforcement of current regulations, natural gas plants would become cost-competitive with a majority of coal plants — even if natural gas becomes more than four times as expensive as coal."

We feel the Era of natural Gas is here. We feel that demand will drive this market. Plus add to that the possibility for inflation we feel that natural gas could very easily double from these curt \$4.00 area levels.

## **HOW CAN I BENEFIT?**

Nat. gas is trading at approximately \$4.00 per million British Thermal units. A 1 cent move =\$100. A dollar move =\$10,000. In the past, Nat. gas has traded over \$13.00 because of demand and supply issues. With demand rapidly expanding, even as supply is increasing, prices can rise significantly.

Depending on risk capital, futures and options can be tailored to reduce risk exposure or to confine to the option premium, even as maximum leverage is realized.

To learn more about Natural Gas, please send Phil Flynn or James Nolan an email.



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