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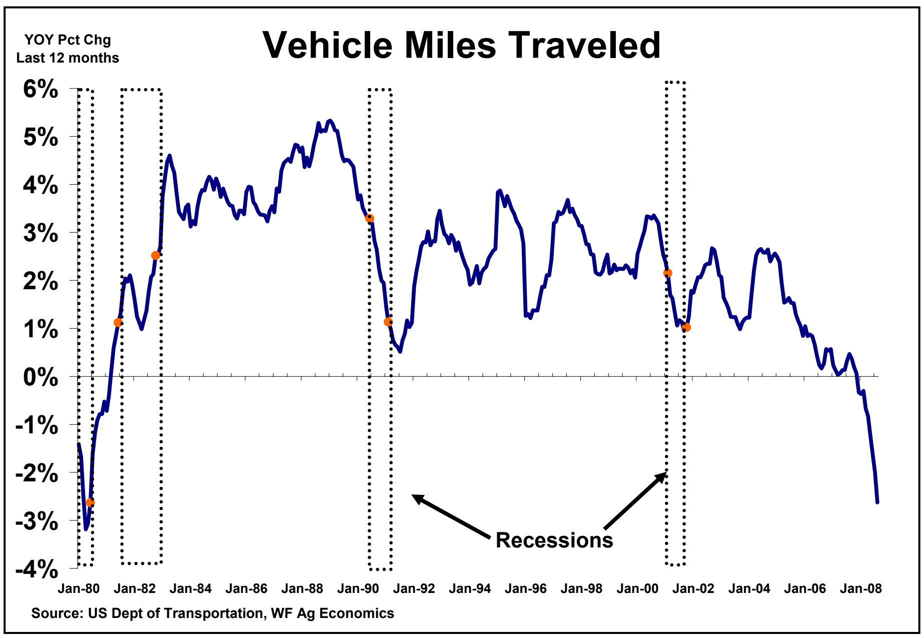
Energy Markets – October 2008

Overall Summary: Driving In the Demand Fog

Price signals to the consumer and supplier do work. Unfortunately, it's the "ceterus paribus" of the assumption that reaches out to wreck your analysis. With the world's economy holding its collective breath, oil demand faces its biggest setback since the 1970s and early 1980s. Oil prices will be weak and volatile until the world economy rights itself on a growth path.

Year-to-date, petroleum products supplied to the US market fell 5% compared to 2007, and the most recent four week period saw that rate fall to 8.5% compared to the same 4 week period a year ago. Given accelerating job losses and low consumer confidence, this rate of reduction could easily deepen. US petroleum utilization peaked at 21 million barrels per day in late 2007. It appears that 2009 could see a utilization rate approaching 18.5 million barrels per day. This 2.5 million barrel demand contraction shows why the market doesn't believe OPEC's announced cuts will be sufficient.

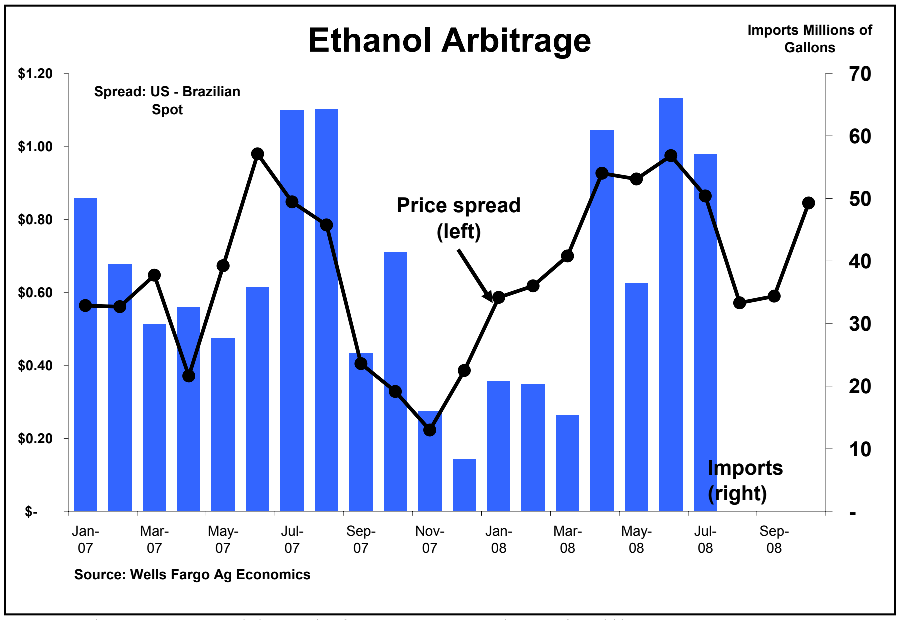


The links between the ethanol/corn complex and crude oil will be vividly highlighted by this economic environment. Driving miles and gasoline consumption continue to contract at the fastest rate since the 1982 recession. This contraction of gasoline/ethanol demand runs head long into the RFS mandated expansion. This collision has set up a monumental battle between crude oil refiners and ethanol producers to compete for pump share.

So far, the beneficiaries of this battle have been fuel brokers and distributors who have played one side off against the other. Both ethanol and oil refiners share a common industry profile. They have expensive fixed cost assets that produce fixed ratio input-output commodities. You couldn't design an uglier fight. The winners will be lowest cost producers from either camp with the greatest financial ability to withstand out-right losses and long-term sub-par returns on equity.

Both participants price their output opportunity relative to crude oil. So far, ethanol has been able to price down corn to keep themselves in a relatively competitive position. Additionally, the VEETC (tax credit) has started to reassert itself with regards to spreads. Ethanol futures and spot are trading above gasoline for the first time since August of 2007. This makes financial sense for the blenders. The 45 cent credit remains constant regardless of the underlying price of gasoline, but it becomes a much larger percentage component with RBOB futures trading between $1.50 and $1.75 a gallon.

Ethanol producers need to be aware of other sharks lurking out beyond the reef. The Brazilian real has weakened 31% versus a year ago versus the US dollar. With that exchange rate, Brazilian spot ethanol trades at $1.52 a gallon versus the current US national blended spot market of $2.31 a gallon. This arbitrage gap of 78 cents per gallon will encourage importation of Brazilian ethanol. The 54 cent import tariff and 2.5% ad valorem tax will not be enough to discourage the arbitrage opportunity. This will add to the pump fight on a regional basis with the southern tier market feeling the biggest impact.



The ripples from the corn/ethanol complex will fall into the fertilizer market. Row crop producers face a very difficult decision with regards to fertilizer utilization. If $4/bushel corn does hold, the OER (optimal economic rate) would push farmers to reduce fertilizer amounts per acre. The resulting expected yield penalty (marginal revenue) would be less than or equal to the expected savings in fertilizer cost (marginal cost). This would be the first self-imposed yield restriction in modern memory.

Fertilizer producers face this real threat from their demand side, but the collapse in the natural gas market will help offset this revenue reduction. This threat and cost saving opportunity has the entire fertilizer complex roiled. No one wants to be the first to blink and accept lower prices, but economics will force their hand sooner or later. Farmers know this, and they are sitting on demand as long as possible for any unpriced fertilizer needs.

This situation demonstrates the irrational pricing of fertilizer company stocks earlier this year. Investors were capitalizing windfall profits into the stock prices as if they would be reoccurring events. The fertilizer manufacturing business remains a volatile commodity business with little technological differentiation and no discernible brand premium. The best companies remain cost focused with good distribution networks. The stock price premium for that type of business will be compressed along with the general stock market.

On a lagging effect, this year will be extremely difficult for grain farmers as they work the overpriced fertilizer through their P&Ls. But, the market will adjust going forward with fertilizer returning to its long-term cost share of 16% in terms of input to output yield. With $4/bushel corn and 154 bushel/acre yield, this implies that $98.56 per acre as a targeted input cost. The fertilizer market will need to fall almost in half to approach this ratio. It will happen, but it will take a lot of fierce pricing battles to be accomplished.

Cash/Futures Price Forecast

Petroleum and Diesel Markets

October 08

Summary: The economic slowdown has hit even the unsinkable Chinese economy for the time being. China bulls think that their economy will only slow to approximately 8% growth. They point to Chinese government stimulus and great fundamentals. If it were only that easy, I would recommend the US go to a command and control economy. But, history has shown that command and control economies are not immune from economic cycles, and China remains tied to exports for a huge (unsustainable) portion of its economic activity.

If the US sees an economic contraction of 2% (strong recession), China will see growth range between 0% and 4%. This forecast is about as bearish an outlook as you will find on China. By the way, decimal points in a forecast only show that you have a sense of humor.

I'm bullish long-term on global economic growth, but that doesn't mean that a sharp recession in the US won't spread to the global economy. 2009 will see the first global reduction in total oil utilization since the earlier 1980s. If the US drops oil utilization by 2.5 million barrels, the rest of the OECD will add to that reduction. The BRIC axis might be more resilient, but they will not be immune.

OPEC has already announced their first (of several) targeted reduction of 1.5 million barrels. It won't be enough to even offset the US decline. In addition, it is one thing to announce a cut, and it's another to make it stick. Expect Saudi Arabia to be the linchpin as always. Iran and Venezuela want bigger cuts, but they want someone else to do the cutting. This means there will be plenty of supply confusion for the foreseeable future.

We are repeating the cycle of the 1970s and early 1980s in terms of energy and monetary policy. That implies high volatility that ultimately ends in a tough correction of demand and commodity prices.

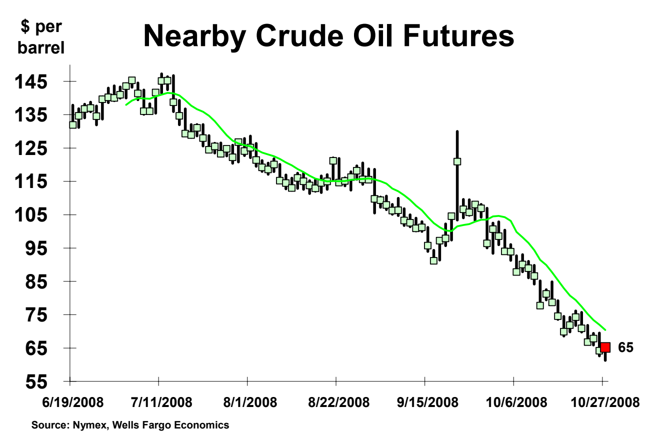
Expected Price Range (next 12 months): NYMEX Crude Futures $45 to $95 a barrel
National Diesel $1.75 to $3.50 a gallon

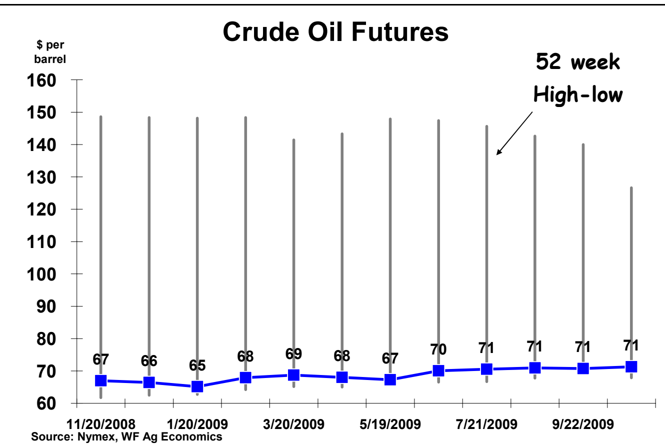
Higher Prices

- OPEC cartel actions
- Middle-east political instability
- Slow non-OPEC supply growth

Lower Prices

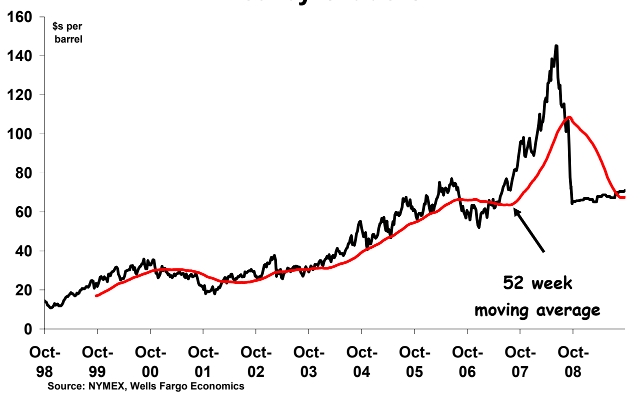
- Slow demand growth in the US
    - Reduced driving
    - Poor GDP growth
- Slowdown in Chinese GDP growth



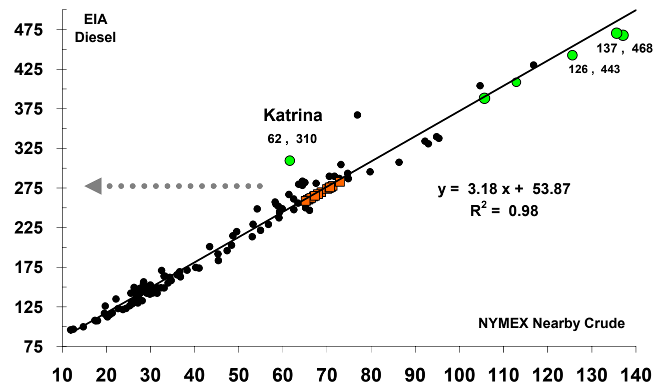


Cash/Futures Price Forecast
Petroleum and Diesel Markets
October 08

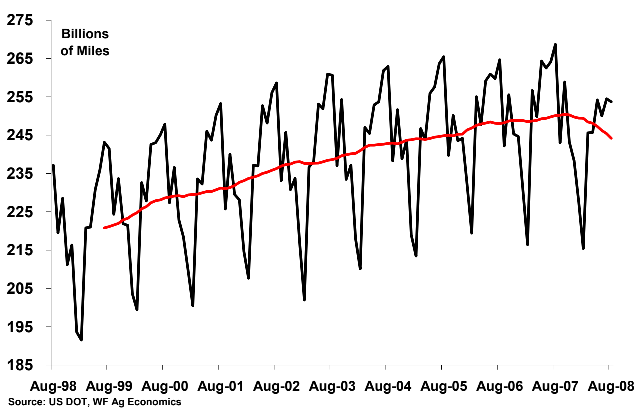
Nearby Crude Oil



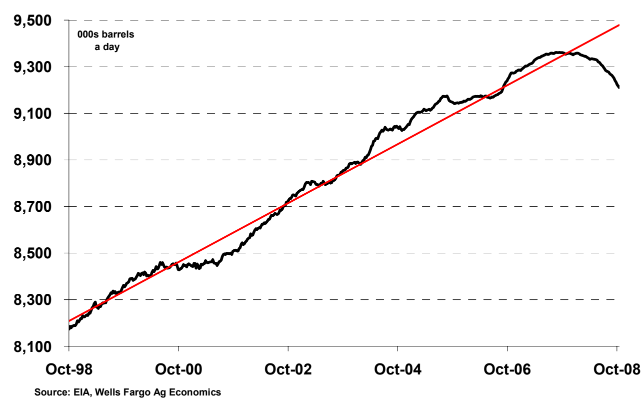
Implied Highway Diesel Prices



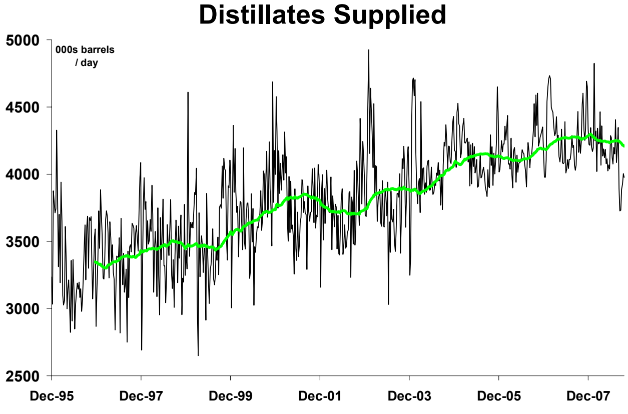
Vehicle Miles Driven



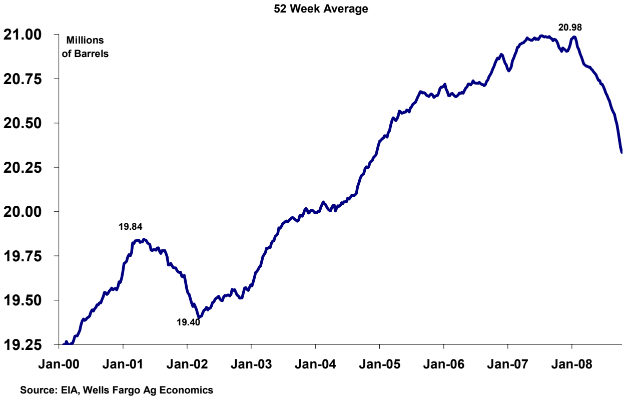
52 Week Average Gasoline Supplied



Distillates Supplied



Petroleum Product Supplied
52 Week Average



Cash/Futures Price Forecast
Natural Gas and Fertilizer
October 08

Summary: US natural gas production has shown an excellent growth trend. The shut-ins from the recent hurricanes will have a negative impact similar to Katrina in 2005. This will be a temporary domestic setback. The longer-term trend for production will be higher thanks to all the exploration in place prior to the domestic market meltdown.

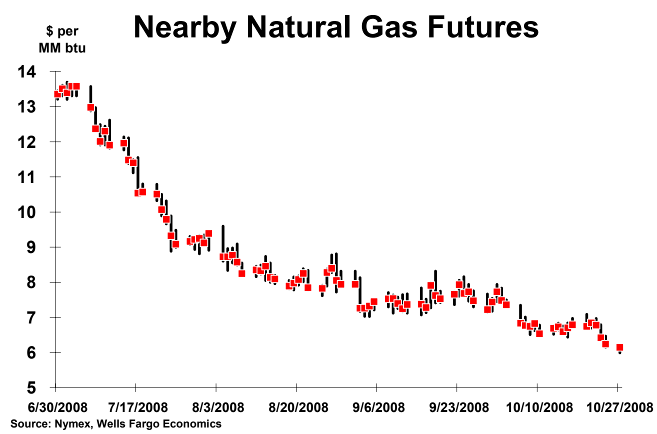
Natural gas markets have settled back towards $6 per million BTU for the time being on the gloomy economic outlook. However, the market is completely underestimating the weather factor. With any number of forecasts for a colder than normal winter, the market has under priced the weather risk on a historical basis. Natural gas buyers should be managing margin and not fishing for a bottom.

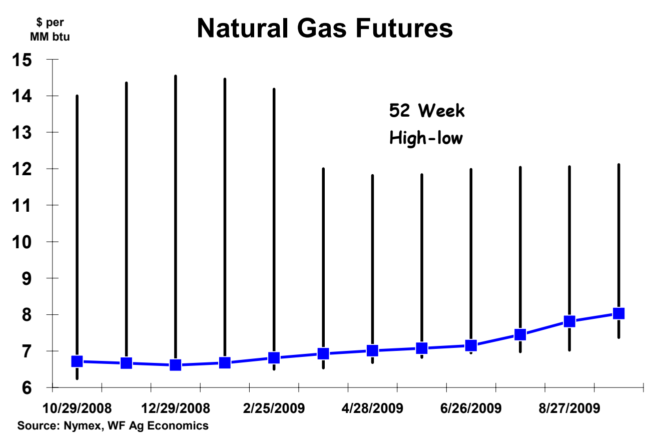
On the other hand, fertilizer buyers should be fishing for the bottom. With the strengthening of the dollar and slowdown in foreign economic activity, global fertilizer markets will bring more fertilizer to the US. This supply and tepid demand based on much weaker corn prices will have sellers struggling to lock up buyers.

The last couple of years, buyers bought early out of fear of not getting their needs covered. This year buyers would be just as happy to go to soybeans if fertilizer prices don't come down. Planting soybeans isn't a slam dunk, but row crop producers will be more risk averse this year when looking at high cost inputs.

Expected Price Range (next 12 months): NYMEX NG Futures $7.45 to $12.60 per MM BTU
Spot Ammonia $635 to $1050 per ton

Higher Prices	Lower Prices
•	• Demand restrained by higher prices • Growth in domestic production • Stronger dollar – weaker foreign competitors • Lower corn prices hurt demand





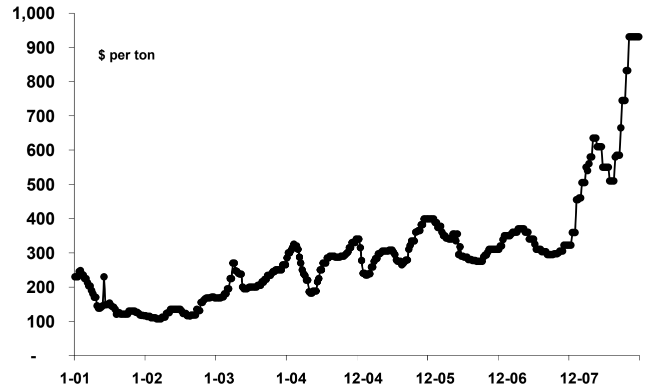
Wells Fargo Economics presents this analysis as a service to its employees and customers. It can not guarantee the accuracy of all the sources of data. And, commodity prices are extremely volatile based on unforeseeable changes. These estimates represent a most likely scenario at this time.

Cash/Futures Price Forecast

Natural Gas and Fertilizer

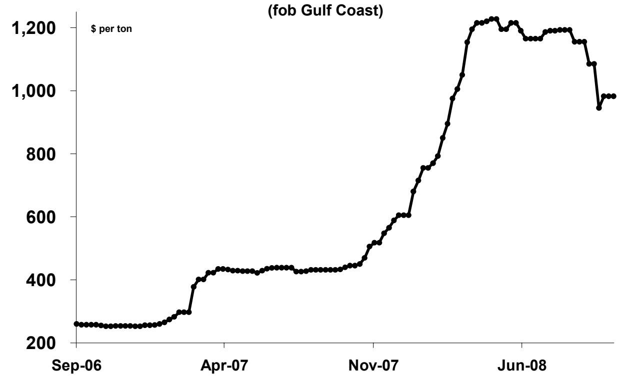
October 08

Spot Ammonia Fertilizer



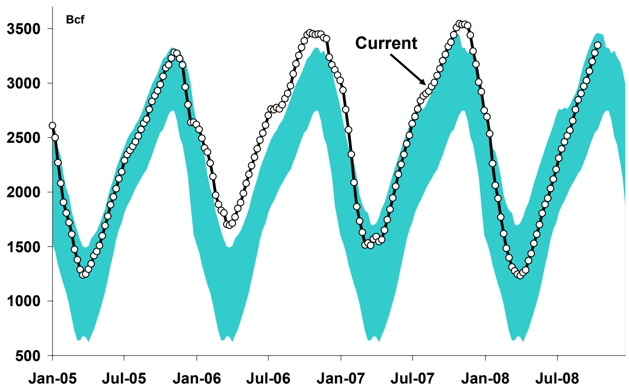
DAP Fertilizer

(fob Gulf Coast)

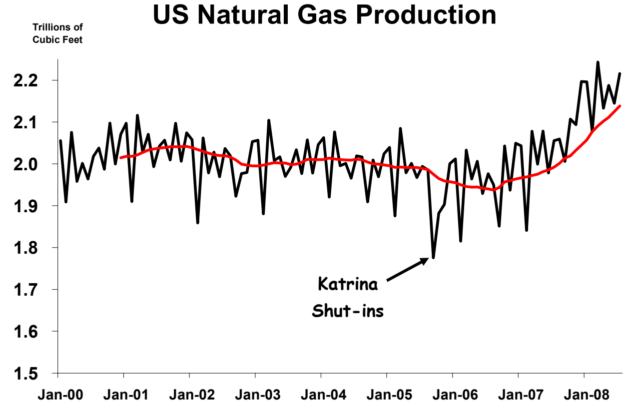


Source: Decyfer, Wells Fargo Ag Economics

Natural Gas Storage

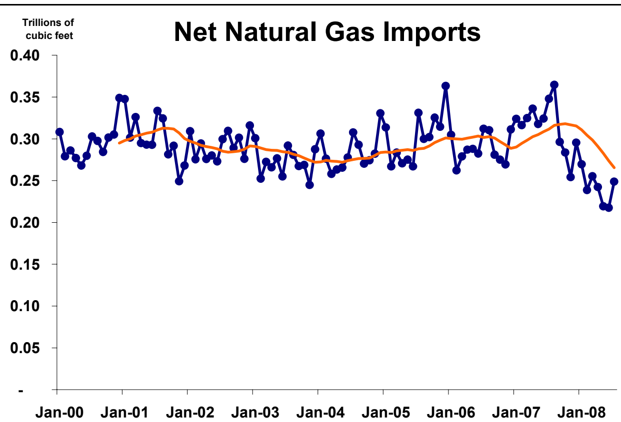


US Natural Gas Production



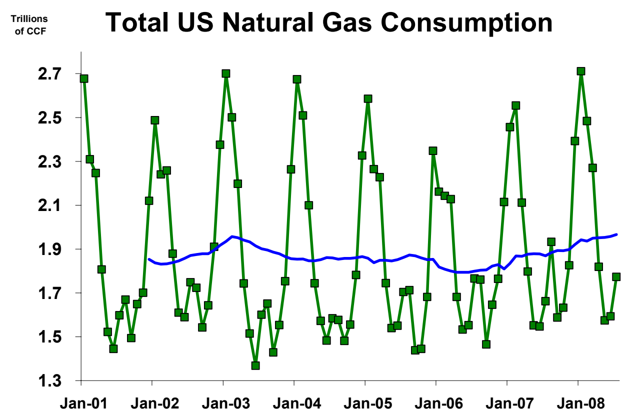
Source: EIA, WF Ag Economics

Net Natural Gas Imports



Source: Wells Fargo Ag Economics, EIA

Total US Natural Gas Consumption



Source: EIA, WF Ag Economics

Cash/Futures Price Forecast
Ethanol
October 08

Summary: It's hard to know what the price of ethanol really is at any point in time. A survey of October 24th rack prices showed Geneva, Nebraska with a rack price of $2.93/gallon while Des Moines, Iowa (255 miles away) with a rack price of $1.93/gallon. At a $1/gallon arbitrage, I think more trucks would be moving ethanol between these two markets. This calls into question whether the posted numbers really mean what they claim for the spot market.

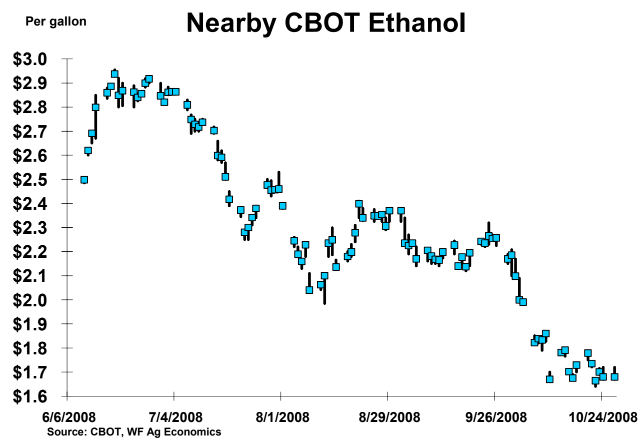
With the "spot" market showing an average of $2.28/gallon for ethanol, ethanol has a 78 cent positive spread to nearby RBOB futures. This represents the highest spread since January of 2007. The spread of nearby ethanol to nearby RBOB is much narrower at 22 cents a gallon, much improved from its recent discounts.

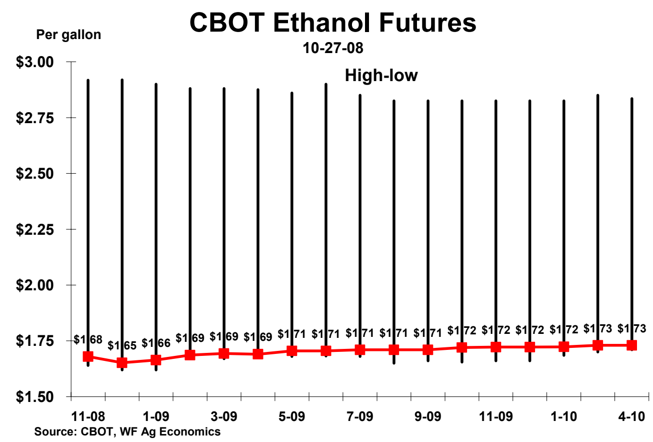
The pricing question is central to finding out whether ethanol will continue to expand production, or whether it will start to slow from its projected growth path. Recent distributions of gasoline with ethanol have been essentially flat between September and October. This slowdown in production could explain the strengthening (temporarily) of the spread.

If the ethanol industry does depart from its current growth rate, the corn market will find itself with much weaker than anticipated demand. The current rate of distributions would only be 10.4 billion gallons on an annual basis, which would utilize 3.7 billion bushels of corn. This would force the USDA to cut ethanol utilization by 400 million bushels and raise carry-out stocks.

Expected Price Range (next 12 months): Spot prices $1.55 to $2.30 a gallon
CBOT Futures $1.45 to $2.15 a gallon

Higher Prices	Lower Prices
• Slowdown in expansion rate • VEETC helps maintain spread	• Falling fuel demand • Falling gasoline prices • Stronger dollar attracts foreign supply





Cash/Futures Price Forecast

Ethanol

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