August 2011 - Livestock Market Update
Department of Economic Analysis

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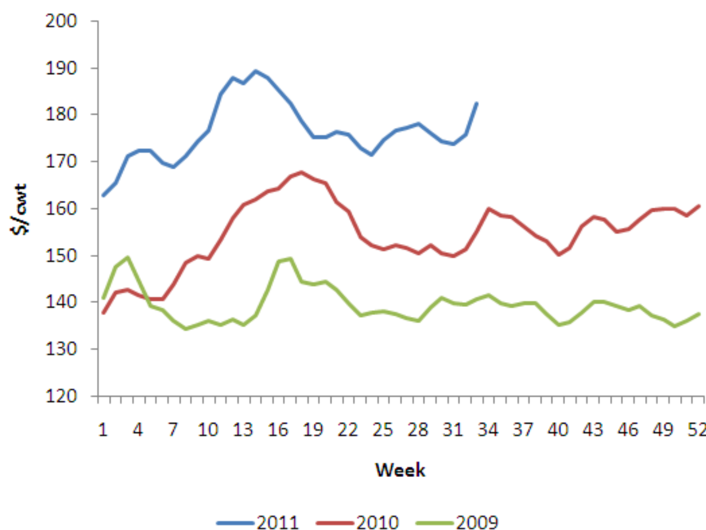
4th Annual AFBF Commodity Outlook Conference
Hilton Portland & Executive Tower, Portland, OR
October 12 – 14, 2011
****Agenda & Registration Information available on SILO****

Livestock Update

Wholesale Meat Prices

Wholesale beef and pork prices continue to impress this summer. Last week, the pork cutout value slipped by a couple of dollars but, at $107.79, it remains very close to an all time high level. Wholesale beef prices have not yet matched their performance from earlier this spring, but at $182.36, last week's comprehensive boxed beef cutout value remains at a historically high level. Figures 1 and 2 illustrate weekly values for the boxed beef cutout and the pork cutout, respectively.

Figure 1. Weekly Comprehensive Boxed Beef Cutout Value: 2009 through 2011 year-to-date
Source: USDA Agricultural Marketing Service through LMIC



These markedly higher wholesale prices year-over-year have held up despite the facts that, so far at least, beef and pork production are about steady with 2010 levels. For example, last week's "Estimated Weekly Meat Production under Federal Inspection" report from USDA Agricultural Marketing Service (SJ_LS712) put year-to-date beef and pork production at 0.5% and 0.8%, respectively, above 2010 levels (with no adjustment for slaughter days). The coexistence of higher prices and higher production is indicative of beef and pork demand improvement in 2011, as has been discussed previously in this space.

For most of this year, we have been pointing out the strength of export demand. While exports remain strong for both meats, they have been less impressive for pork in recent months. Figures 3 and 4 illustrate monthly export quantities of beef and pork (including variety meats for both).

Through June, pork exports were about 14% higher year-to-date than in 2010, but export volumes have been drifting lower following a record-setting month in March. Beef exports also have yet to match their March performance but have at least resumed their upward-trend and have maintained consistent year-over-year growth. Through June, beef exports were a little more than 25% higher than for the same period in 2010. Both beef and pork markets have relied on export growth to support this year's stronger prices. For pork, especially, it will be difficult to maintain current price levels if exports continue to drift lower. For both species, export business will continue to rise in importance as domestic consumption stagnates. Per capita domestic consumption for both beef and pork has declined markedly since 2007. Recovering that market share may prove to be difficult in the short term as relatively inexpensive

Figure 2. Weekly Pork Cutout Value: 2009 through 2011 year-to-date
Source: USDA Agricultural Marketing Service through LMIC

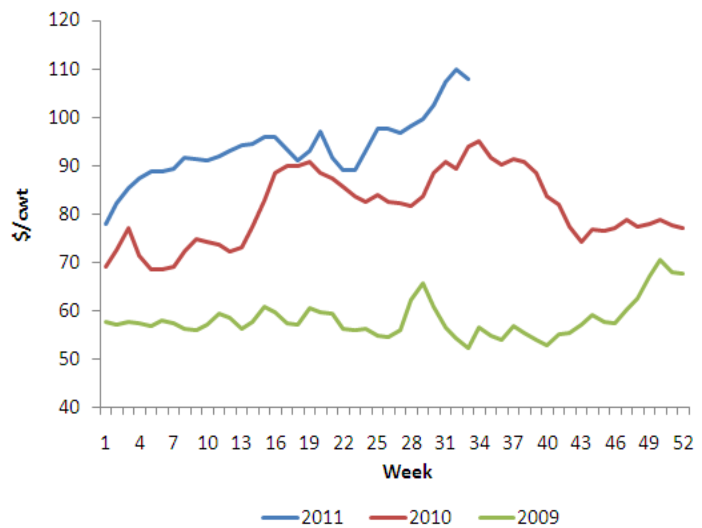


Figure 3. Beef and Beef Variety Meat Exports: 2010 and 2011 year-to-date
Source: USDA Foreign Agricultural Service

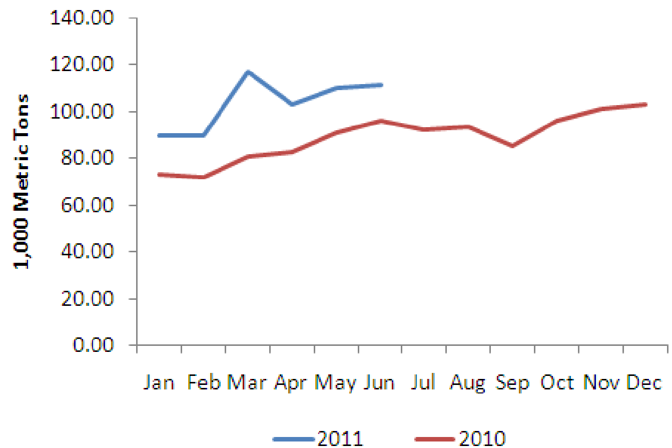
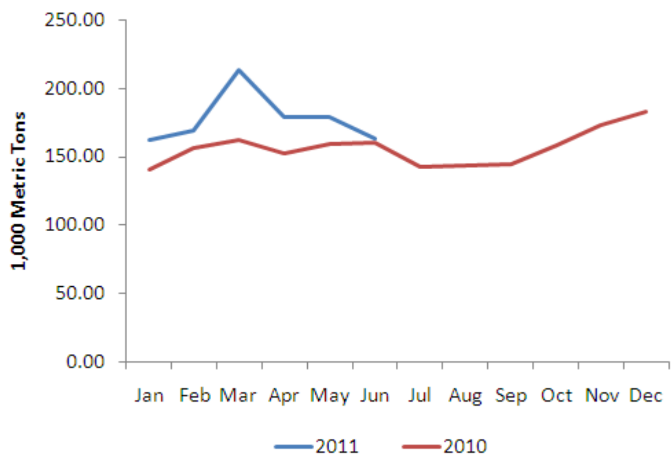
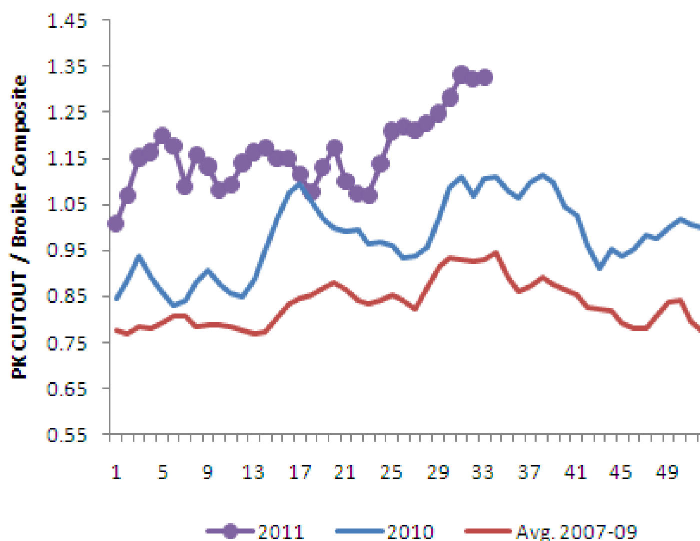


Figure 4. Pork and Pork Variety Meat Exports: 2010 and 2011 year-to-date
Source: USDA Foreign Agricultural Service



chicken provides a highly competitive environment at the domestic meat counter. Illustrative of this point, Figure 5 shows the wholesale price of pork relative to chicken (i.e., pork cutout divided by the broiler composite wholesale price – the higher this value, the more expensive pork is relative to chicken).

Figure 5. Pork Cutout Value as a percent of the Broiler Composite Price
Source: USDA Agricultural Marketing Service through LMIC



In general, broilers have become cheaper relative to just about everything (certainly to just about all pork and beef cuts) as that industry has struggled to maintain prices in the face of poor exports, struggling domestic demand, and what has turned out to be wildly optimistic production expansion last year and early this year. Sluggish prices and soaring costs have been a recipe for disaster this year for the poultry industry. In response to these difficulties, poultry integrators appear to be moving to cut production. In some cases, these cuts are not exactly voluntary. *Barron's* notes that three small integrators have declared bankruptcy this year. Townsend's in North Carolina is the most recent to announce that it intends to close up shop. Recent figures on egg sets and chick placements suggest that the larger integrators are pulling back on the reins as well in an effort to build some profitability into the industry. Let's hope it works.

Cattle on Feed

USDA released the latest *Cattle on Feed* report on Friday. Key numbers from the report are summarized in table 1:

Table 1. August *Cattle on Feed* (*COF*) Summary: Actual vs. Pre-Report Figures

	1,000 head	% of Previous Year	Pre-Report Estimates* Average	Range
On Feed August 1	10,626	107.6	107.5	103.8 – 109.2
July Placements	2,153	122.5	116.9	106.4 – 126.6
July Marketings	1,908	100.4	96.3	94.7 – 98.0

*Source: Dow-Jones Newswires through the Livestock Marketing Information Center.

The August on feed number was noted to be the third largest since this series was started in 1996. Placements were well above the average pre-report, but once again, there was very little consensus about placements going into the report. A number of the pre-reports were actually at or above the actual figure. Marketings were surprisingly large. This helped to take the bearish edge off the report, and cattle futures managed modest gains in Monday's trading.

The market also took note of the mitigating circumstances behind last month's large placements. Obviously, the drought in the South was a major factor. By far the largest increase in placements was in the light weight (under 600 pound category). Cattle weighing less than 600 pounds accounted for about 29% of July placements nationally. Historically, the under-600-pound class would account for about

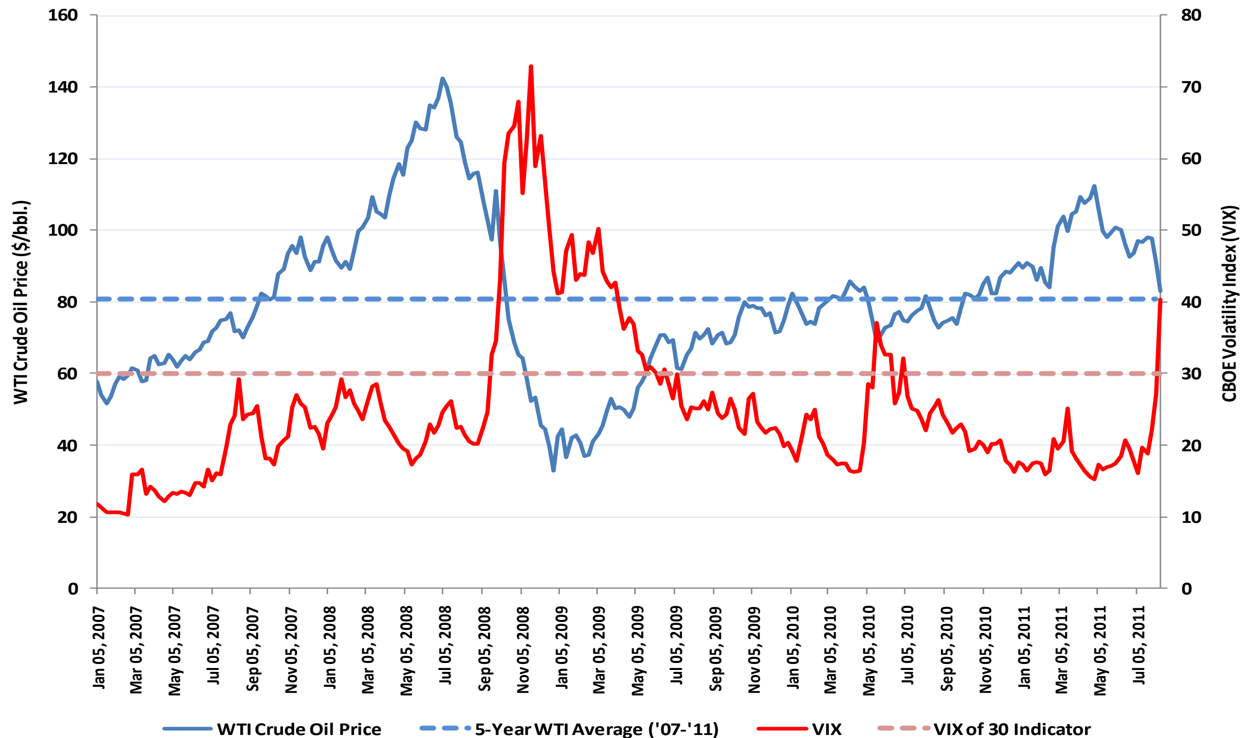
24% of July placements. Using the mid-point of each weight class (as well as 550 pounds for under 600 pounds and 850 pounds for over 800 pounds), the calculated average placement weight works out to 702 pounds. This is fully 17 pounds less than a year ago. In reality, this probably understates how light these cattle really were because more than a normal number of them would have been far below 600 pounds. These light calves will feed for a long time and will come out at lighter finished weights. Also, given the long feeding programs they will be in, the distribution of these light calves will spread out over the feeding period, helping to spread marketings over a wider timeframe than would be the case for heavier-weight placements. As noted last month, the pulling ahead of cattle into the pipeline extends the period of relatively high beef production, but it also means that when it finally comes, the break in production will be even larger – something to consider when thinking about expected beef production in the latter half of 2012.

Energy Update: *Are We Headed For an Oil-Induced Recession?*

Since the beginning of August, we have seen oil prices free-fall approximately 16 percent from $94.98 per barrel to $79.32 per barrel. Without a doubt, we are seeing volatility strike markets with full force. In fact, we saw the CBOE volatility index (VIX) reach 48, which for those of you unfamiliar with this index; the rule of thumb is any number above 30 is considered a sign that investors are becoming increasingly pessimistic with their investments. Putting into perspective, during the latter part of October 2008, the VIX reached above 80 just after the collapse of Lehman Brothers. Now, the current market situation is different than that experienced in 2008. The financial crisis in 2008 was driven by a housing bubble, speculative buying of new debt and the price of commodities skyrocketing to historic levels. During this time, oil prices reached $145 per barrel helping to trigger the worst financial crisis since The Great Depression. Fast forward to 2011 and we are seeing markets driven by the budget crisis in the United States, the European debt sovereign crisis, the loss of 1.6 million barrels per day of Libyan oil to the global marketplace, increased tensions in the Middle East and North African regions and rapid growth from emerging economies. The fact of the matter is that the events of 2011 are not a repeat of that to 2008, but soaring oil prices are the link that connects 2011 with 2008. To be clear, I am not predicting that we are headed for a double dip recession. However, I am predicting that oil prices must come down in order to ease pressure on household expenditure. Now, will this take place by means of another recession? I'm still reluctant on saying "yes," but only time will tell!

The Volatility Index: The "Fear Factor" Measure in Markets

Since the beginning of August when the S&P downgraded the U.S. credit rating from AAA to AA+, markets have been driven by fear along with the uncertainty of another global recession. With the case, investors began to worry followed by consumers becoming more reluctant to spend, thus decreasing demand. One indicator that measures overall volatility within markets, or overall fear, is the CBOE Volatility index (VIX). Before the S&P downgrade on August 5, the VIX averaged 18.4 for 2011 which is an indicator in favor of investor optimism. However, investor optimism for 2011 came to a screeching halt as the S&P downgraded the U.S. credit rating from AAA to AA+ and increasing worries from the European debt crisis intensified. In fact, from week-ending August 5 through week-ending August 12, the VIX soared 49 percent, oil prices fell 9 percent and oil consumption fell 4.3 percent. Furthermore, we have not seen oil consumption decrease that drastically since 2007 and 2008 levels. Since the 2008 recession, there is a moderate, negative relationship between the price of crude oil (WTI) and the VIX. This indicates that as the price of oil increases, the level of fear in markets decreases – however, we have to remember oil data tends to lag. Now, it is important that I mention that I am not discussing causation as causation cannot be drawn from correlation. However, it is plausible to indicate that higher oil prices reduce consumer spending power which tends to stunt economic growth and thus reduce consumer demand.



Are We Headed For an Oil-Induced Global Recession?

I'm still reluctant to proclaim "yes" to this question. However, one thing is clear – if oil prices remain at near $110 levels (Brent crude oil) this undoubtedly will put unsustainable pressure on household expenditure heading into 2012. Let's put the situation in perspective. According to the United States Department of Transportation and Energy Information Administration (EIA), the average household in the United States purchases approximately 1,100 gallons of gasoline per year. Therefore, when the price of gasoline rises by $1 per gallon [on a yearly basis], that would indicate that the average household in the United States would spend an additional $1,100 per year on gasoline.

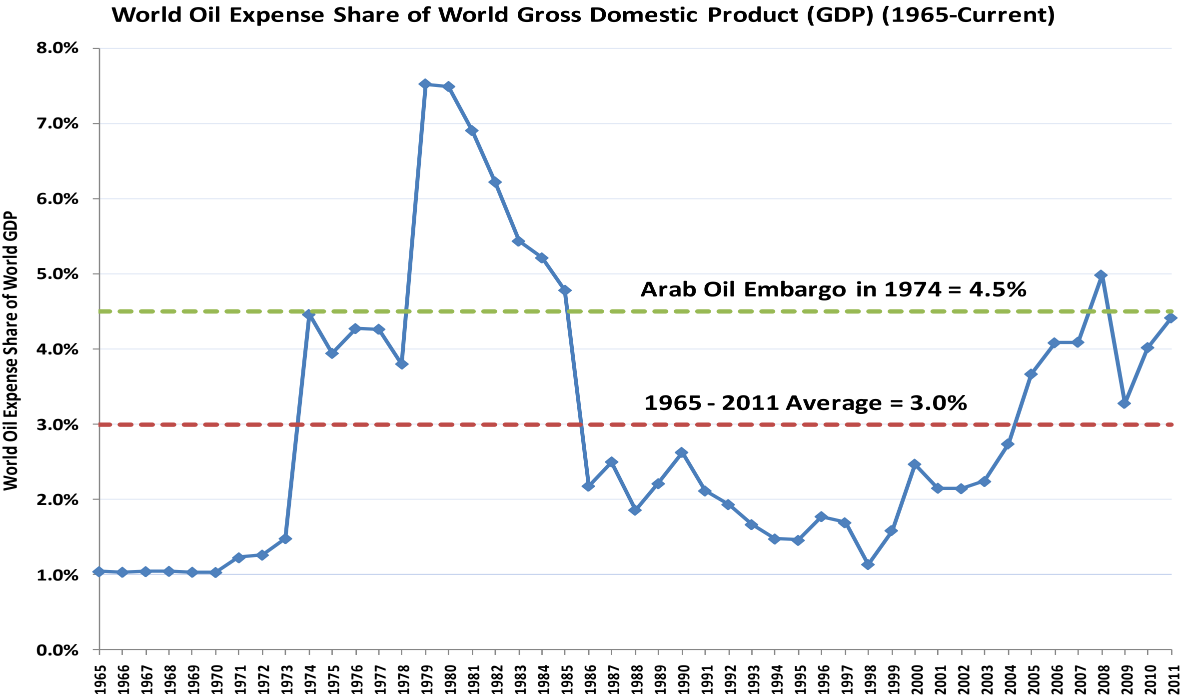
However, let's take the situation a step further. The median household income in the United States is $52,029. At the beginning of 2011, the national retail price for gasoline was approximately $3.08 per gallon. At $3.08 per gallon, the typical U.S. household would spend about 6.5 percent of its annual income on gasoline. Now, when gasoline reached $4 per gallon in most parts of the country in the spring of 2011, the typical U.S. household would spend approximately 8.5 percent of its annual income on gasoline. For most U.S. households, there is no substitute for gasoline. Regardless, consumers have to continue to purchase gasoline and drive on a regular basis. The rule of thumb from many economists indicates that every $10 drop in the price of a barrel of oil increases economic growth by 0.2 to 0.3 percent. However, don't forget that high oil prices just don't affect consumers, but they also affect many industries reliant on oil such as agriculture, transportation and manufacturing.

The question still remains: Are we headed back toward a global recession? If history is any guide, the potential has to be mentioned with serious consideration. Analyzing historic oil prices relative to global economic output in the chart below, every time that the cost of oil relative to global output has hit current levels it has resulted in a global economic slump. Currently, oil consists of approximately 4.4 percent of world gross domestic product. Since 1965, the world oil expense share of world gross domestic product has been approximately 3 percent. Following the same time period since 1965, this

average has only exceeded 4.5 percent during three periods: 1974, 1979 through 1985 and in 2008. All three of these periods have something in common – they have all experienced stern global recessions and substantial oil price shocks.

From 1973 to 1974, international oil prices increased substantially from $3.29 per barrel to $11.58 per barrel, a 252 percent increase. Oil prices skyrocketed from 1973 to 1974 after an Arab oil embargo in response to an Israeli-Arab war disrupted oil flows which brought about panicked buying. Approximately 5 years later, in 1979, the Iran revolution began which cut-off much of the country's oil output and brought about a long and enduring war between Iraq and Iran. From 1978 to 1979, international oil prices increased substantially from $14.02 per barrel to $31.61 per barrel, a 125 percent increase. Finally, we all remember 2008. In 2008, a housing crisis, speculative buying of new debt and a major increase in commodities brought about a recession and international oil prices peaked just below $150 per barrel. From 2007 to 2008, average international prices for oil increased from $72.39 per barrel to $97.26 per barrel, a 34 percent increase.

And now we move on to 2011. In 2011, oil prices have increased 33 percent due to uncertainty flooding the markets from the Middle East and North Africa conflict, the loss of 1.6 million barrels of Libyan oil to the global marketplace and rapid economic growth from emerging countries such as China, India, Brazil and Russia. Currently, the share of oil to the world gross domestic product is 4.4 percent and international crude oil prices have averaged $95.43 per barrel. In order to keep this share of oil to world gross domestic product under the 4.5 percent threshold, international oil prices would need to be in the



low-to-mid $90 per barrel range. The fact of the matter is that I am not predicting a double dip recession because there are a lot of other economic variables that can potentially trigger a recession. In fact, since the beginning of August, we have seen WTI oil prices decrease below $80 per barrel which could be a strong support to the economy. However, the message that I am trying to convene here is that oil prices in 2011 are putting unsustainable pressure on household expenditure. Regardless, oil prices must come down. Will it occur by means of a recession? Perhaps not, but oil prices must come down to ease the burden on household expenditure and the energy intensive economy in general.

August 2011 EIA Short-Term Energy Outlook Highlights

Forecasts for crude oil from July to August for 2011 and 2012 continue to decrease. Crude oil prices fell following the S&P announcement on August 5, downgrading the U.S. credit rating from AAA to AA+. EIA remains bullish on yearly forecasted oil prices led by expectation of global oil demand growth outpacing the growth in supply from countries outside of OPEC, pushing markets to rely on both a drawdown of inventories and production increases in OPEC to close the gap. In addition, the potential for substantial upside and downside risk for oil prices remain significant. Major upside risk in crude oil prices for the rest of 2011 and 2012 involve additional supply disruptions in the Middle East and North Africa region and higher than expected demand growth. On the other hand, downside risk in crude oil prices for the rest of 2011 and 2012 involve the rate of global economic recovery and fiscal issues facing national governments. The August outlook forecast has prices for WTI spot crude oil averaging $95.71 per barrel for 2011 and increasing to $101 per barrel in 2012. Comparing the current 2011 average crude oil price against the August forecast for 2011 and 2012, respectively, EIA expects average crude oil prices to decrease 1.5 percent for the rest of 2011 and increasing 4 percent heading in to 2012.

Gasoline prices are projected to average $3.53 per gallon while diesel prices are projected to average $3.83 per gallon for 2011. From May to July, retail prices for gasoline decreased from $3.91 per gallon to $3.65 per gallon reflecting the decline in crude oil prices from their April high and a recovery from unexpected refinery outages that occurred over the summer. Weekly national retail prices for gasoline for 2011 are currently averaging $3.56 per gallon, which is currently $0.03 per gallon higher than the August forecasted average for 2011 and $0.08 per gallon lower than the August forecasted average for 2012. In addition, current weekly diesel prices are averaging $3.83 per gallon, which is currently on pace with the August forecasted average for 2011 and $0.13 per gallon lower than the August forecasted average for 2012.

Natural gas prices for 2011 continue to be relatively inexpensive and continue to average below 5-year levels (2006 – 2011: $5.96 per MMBtu) at $4.28 per MMBtu. Price projections for the rest of 2011 are forecasted to be around similar levels at $4.24 per MMBtu. Hot weather in July contributed to an increase in natural gas consumption for electricity generation on a year over year basis. However, the estimated 246 billion cubic feet increase in working inventories in July was 21 billion cubic feet higher than last year, helping to off-set the higher natural gas consumption this past month. Inventories for natural gas continue to maintain healthy levels and ended July 2011 at 2.8 trillion cubic feet. Inventories are expected to further increase as the natural gas inventory building season is soon approaching. Natural gas prices are expected to be relatively cheap heading into 2012, but inventories are expected to begin to tighten as average prices for 2012 are projected to increase to $4.41 per MMBtu, which is well below the 5 year average level as indicated above.

	2011 Current Average	July Outlook 2011 Forecast	August Outlook 2011 Forecast	July Outlook 2012 Forecast	August Outlook 2012 Forecast
WTI Crude ($/barrel)	$97.12	$98.43	$95.71	$102.50	$101.00
Gasoline ($/gal)	$3.56	$3.56	$3.53	$3.65	$3.64
Diesel ($/gal)	$3.83	$3.86	$3.83	$3.95	$3.96
Natural Gas ($/MMBtu)	$4.28	$4.27	$4.24	$4.54	$4.41

All Prices for "2011 Current Average" Column end August 12 and August 15, respectively

Source: EIA