# WILL THE PLUNGE IN GRAIN PRICES MEAN LOWER FOOD PRICES  AT THE SUPERMARKET?

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By all accounts, the 2008 corn, wheat, and soybean crops are well on their way to being among the largest ever in the United States. According to the U.S. Department of Agriculture's October 10 Crop Production Report, farmers are expected to produce the second-largest corn crop ever, the largest wheat crop in over 10 years, and the fourth-largest soybean crop on record.[1] USDA's most recent report estimated the 2008 corn crop at 12.2 billion bushels with an average yield per acre of 154 bushels. This marks a significant turnaround from July, when USDA projected a crop of 11.7 billion bushels with a yield of 148.4 bushels per acre.

The expectation of increased production, coupled with a decrease in speculative investment in the commodities markets and recent fall in oil prices, has led to sharply lower grain prices in recent weeks. While there was much media attention surrounding the run-up in agricultural commodities prices, coverage of the precipitous plunge has been virtually non-existent.

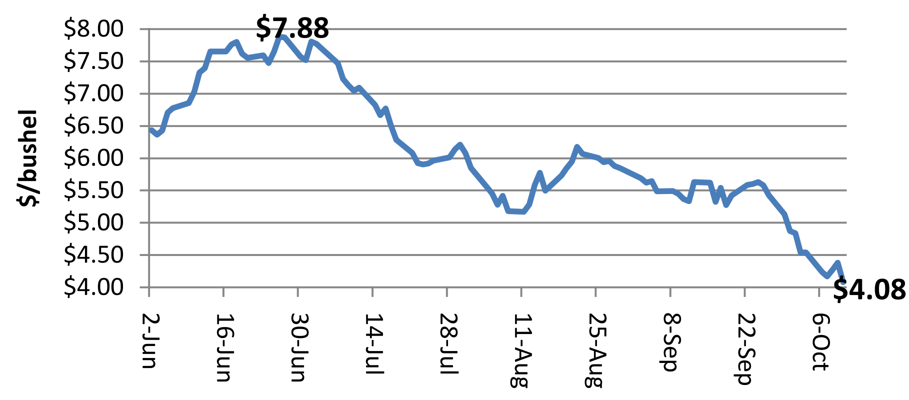
Based on the recent arguments of the grocery industry, meat processors and others, lower grain prices *should* mean lower retail food prices for consumers. Thus far, however, it seems highly unlikely that reduced grain and oilseed prices alone will lead to lower retail food prices, as there are many complex factors that influence retail food pricing. Food inflation in the past three months has continued to increase, despite successive decreases in corn, wheat, and soybean prices. Indeed, as the Chicago Tribune recently reported, "Packaged goods-makers, after suffering through several months of pinched profit margins, will do all they can to keep consumer prices high, even though their costs for wheat, corn and other raw materials are falling."[2]

## GRAIN AND OILSEED PRICES DOWN 50 PERCENT FROM PEAKS

Corn prices have plunged nearly 50 percent since peaking at record highs in late June. The closing price for December 2008 corn futures on October 10 was $4.08 per bushel, $3.80 lower than the peak price of $7.88 on June 26 (Fig. 1). The October 10, 2008 trading session saw December 2008 corn futures close at their lowest point since October 15, 2007—nearly one year ago.

**Figure 1. DEC08 Corn**

CBOT Closing Price (June 2-Oct. 10)




Source: Chicago Board of Trade

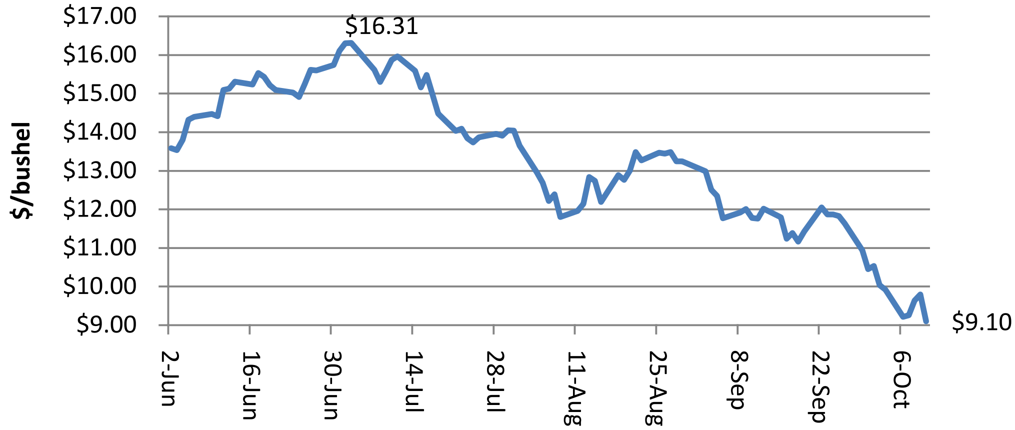
[1] USDA National Agriculture Statistics Service. Crop Production Report. October 10, 2008. http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1046

[2] http://www.chicagotribune.com/business/chi-tue-oil-prices-consumers-aug12,0,449918.story

Similarly, wheat futures have dropped more than 50 percent since peaking in March, and soybean futures have declined approximately 45 percent from the high reached in late June (Figs. 2-3). Cash bids for corn were reported well under $4 per bushel in locations across the Midwest October 10.

**Figure 2. NOV08 Soybeans**

CBOT Daily Closing Price (June 2-Oct. 10)




Source: Chicago Board of Trade

**Figure 3. DEC08 Wheat**

KCBT Closing Price (June 2-Oct. 10)


Source: Kansas City Board of Trade

June flooding in the Midwest—and the speculation-fueled price spike that ensued—provided much fodder for critics who seized on the data to wrongfully accuse ethanol production of driving up commodity costs and consumer food prices. Anti-biofuels groups immediately pounced on the apparent misfortune of Midwestern crop farmers, publishing dubious reports and making sensational statements to the media about the role of biofuels production and renewable energy policy in escalating commodity and food prices.[3] The groups funded several questionable studies alleging that increased biofuels

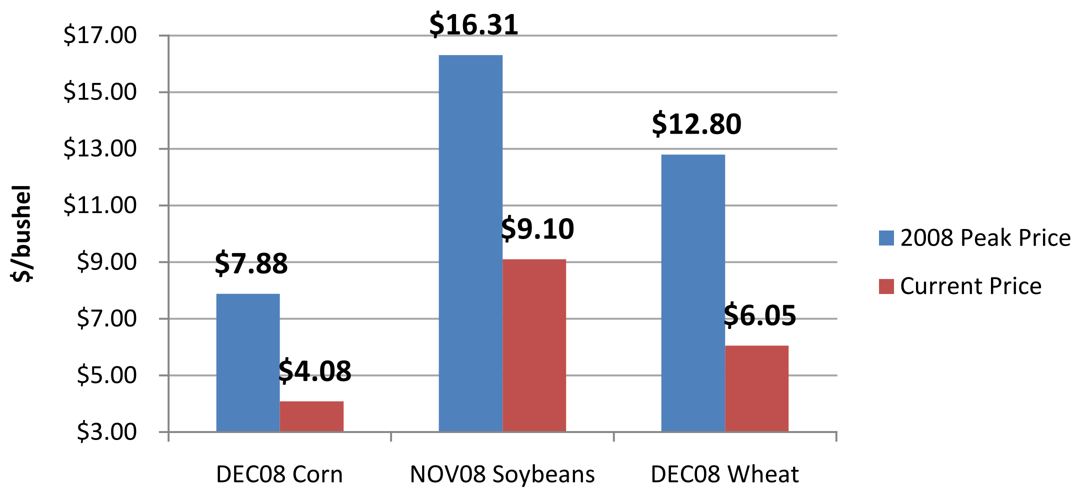
[3] One such report, issued by the Environmental Working Group in June, melodramatically claimed, "With relentless rains, cold temperatures, and record floods pounding the Midwest, the nation's ill-conceived corn ethanol mandate appears headed into a perfect storm (that) is helping to push food and feed prices to record highs, while doing nothing to put a dent in soaring prices at the pump." http://www.foodbeforefuel.org/pressroom/releases/biofuels-and-bad-weather-americas-food-fuel-gamble

production was driving commodity prices, and in turn, food prices. Indeed, this argument served as the foundation for the groups' pursuit of a waiver from the Renewable Fuels Standard (RFS).

But now that grain and oilseed prices have dramatically declined, these groups are, not surprisingly, noticeably quiet. **It remains to be seen whether the stunning drop in grain prices will be accompanied by a comparable drop in food prices at the supermarket**. Because grains like corn are such a minor ingredient in retail food items and represent just a miniscule share of the retail value, it seems highly unlikely that the significant reduction in corn, wheat, and soybean prices will have much effect on food prices. When corn is $4.50 per bushel, the value of corn in an 18-ounce box of corn flakes is just 6 cents. Similarly, there's about 12 cents worth of wheat in a typical loaf of bread at current wheat prices. On average, the value of farm commodities accounts for approximately $0.20 of every dollar spent on food at the retail level. The remaining $0.80 go toward other cost factors, such as transportation, energy for processing, packaging, labor and other expenses. Accordingly, fluctuations in farm commodity prices rarely have a noticeable effect on retail prices for most food items.

This fact was reflected in the Environmental Protection Agency's August 7 decision to deny the Texas governor's request for a 50 percent waiver from the RFS. In issuing the decision, EPA noted a waiver would have **"no impact" on corn or food prices**.

**Figure 4. 2008 Peak Prices vs. Current Price (October 10 Closing)**




Source: Chicago Board of Trade and Kansas City Board of Trade

**FALLING ENERGY COMMODITY PRICES**

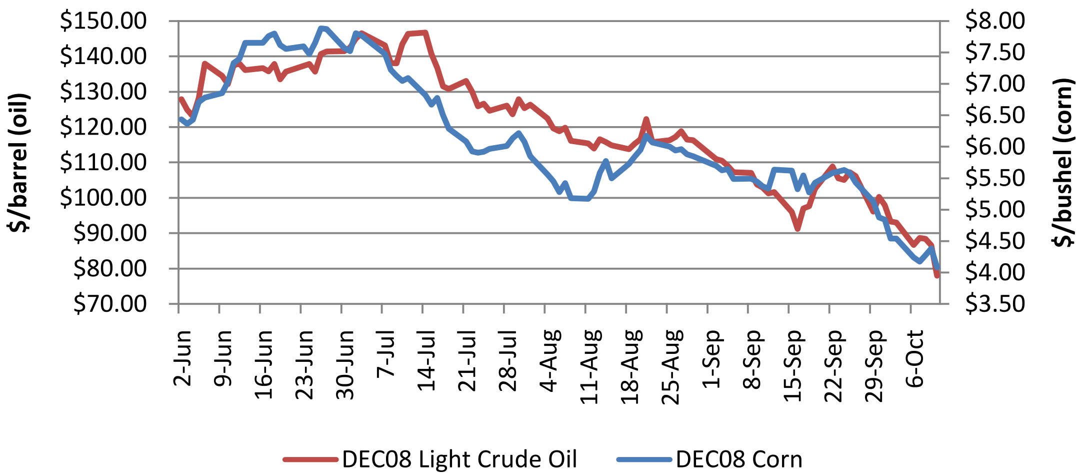
Not surprisingly, the drop in crude oil prices since mid-July has been a major contributor to plummeting grain and oilseed futures. For much of the last year, agriculture commodity futures—especially corn—have consistently followed oil prices up and down (and often have appeared to defy basic supply-demand fundamentals in favor of tracking oil). This pattern (Fig. 5) corroborates the conclusions reached by numerous economists that corn and oil prices are now inextricably linked. Economists at Purdue University recently concluded that higher oil prices were responsible for 75 percent of the increase in corn prices from roughly $2 to $6 per bushel.[4] Since June 1, 2008, December corn and oil futures prices have been almost perfectly correlated, with a coefficient of .91.

[4] Tyner et al. "What's Driving Food Prices?" Farm Foundation Issue Report. July 2008. http://www.farmfoundation.org/news/templates/template.aspx?articleid=404&zoneid=26

Despite the fact that December light crude oil futures have decreased approximately 45 percent since peaking at nearly $147 per barrel on July 14, retail diesel fuel and gasoline prices remain at abnormally high levels. While agriculture commodity and oil prices are lower today than at the beginning of 2008, diesel fuel and gasoline prices remain higher than they were at the beginning of the year (Figure 6).

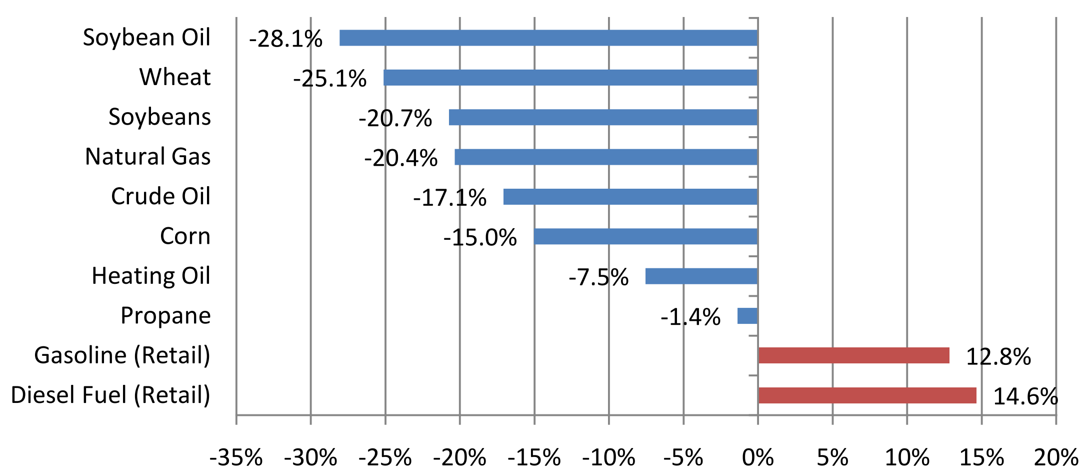
**FIGURE 5.DEC08 Corn & Light Crude**

Daily Closing Price, June 2-Oct. 10 (CBOT & NYMEX)




Source: Chicago Board of Trade and New York Mercantile Exchange

**Figure 6. Commodity Price % Change From Jan. 1 to Oct. 10, 2008**




Source: Chicago Board of Trade, New York Mercantile Exchange, Energy Information Administration

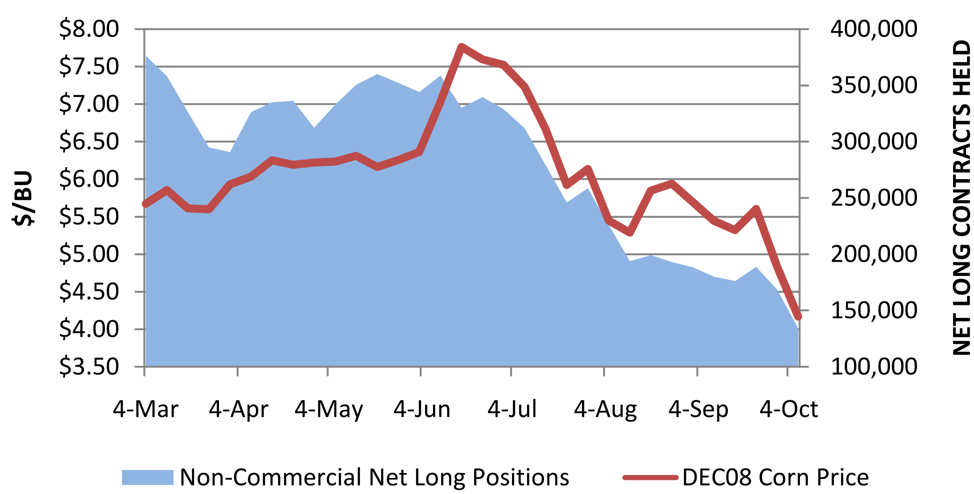
Because the food system is so reliant on energy for processing, packaging, and transportation (the food sector ranks first among all major U.S. manufacturing sectors in ton-miles shipped each year), it seems likely that food prices will remain at elevated levels until prices for diesel, gasoline, and other energy commodities recede to the levels of the last several years.

**SPECULATORS PULL OUT OF THE MARKET**

From corn to copper to oil, experts believe speculative investors played a significant role in the rapid escalation of commodity prices in the first half of 2008. According to the financial publication Barron's, index funds and commodity pools accounted for nearly 60% of bullish positions on all commodities by the end of March.[5] Barron's also suggests that unprecedented speculation has clearly influenced futures prices, stating, "The speculators' bullishness may be way overdone, in the process lifting prices far above fair value."

In mid-February, non-commercial investors (chiefly speculative index funds, hedge funds, and commodity pools) held nearly 484,000 total long positions in corn futures on the Chicago Board of Trade (*long positions are contracts that are purchased and held in the hope of profiting from an increase in price*). This is the theoretical equivalent of 2.42 billion bushels of corn—enough to produce approximately 6.7 billion gallons of ethanol and 19 million metric tons of livestock feed. Indeed, in testimony before the U.S. Senate Committee on Homeland Security and Governmental Affairs in May, hedge fund manager Michael Masters said, "Right now, Index Speculators have stockpiled enough corn futures to potentially fuel the entire United States ethanol industry at full capacity for a year."[6]

**Figure 7. CBOT Non-Commercial Net Long Positions and DEC08 Corn Price**




Source: Commodity Futures Trading Commission, Chicago Board of Trade

But as crop conditions improved in July and August, amidst weakening equity and credit markets and declining oil prices, non-commercial investors began liquidating contracts at a frenzied pace. By early October, non-commercial investors held about 240,000 long positions in the corn market, less than half of the levels commonly seen in the spring and early summer. As shown in Figure 7, *net* long positions held by non-commercial investors (long positions minus short positions) dropped from 350,000 in late May to about 135,000 in early October. Notably, the decrease in contracts held by non-commercial speculators has corresponded with the drop in futures prices.

[5] http://setup1.barrons.com/article/SB120674485506173053.html

[6] Testimony before Senate Committee on Homeland Security and Governmental Affairs. May 20, 2008. http://hsgac.senate.gov/public/_files/052008Masters.pdf

## CONCLUSION: WHAT HAS CHANGED SINCE JUNE?

The events of the last several months demonstrate that increased use of corn for ethanol is not a major factor driving higher-than-normal commodity and food prices. In fact, as ethanol production has continued to increase in the last several months, corn prices have been falling—a clear signal that ethanol is not a major factor currently driving corn prices. The speculation-fueled increase in agriculture commodity prices in the spring and early summer occurred in conjunction with a pronounced rise in retail food prices, leading critics to rashly assume that the two trends were tightly related. However, food prices have remained at elevated levels despite a dramatic drop in grain and oilseed prices over the past several months, proving that many other factors are behind today's elevated food prices.

The agriculture commodity price run-up culminated with record prices for corn and soybean futures in late June. Since then, prices have fallen roughly 50 percent across the board. So, what changed since late June to facilitate such a rapid plunge in agricultural commodity prices?

While the outlook for corn, wheat, and soybean production improved during the last several months, the basic supply and demand fundamentals haven't changed materially. Though USDA has made minor adjustments to its corn estimates since June, projected supply and demand for the 2008 crop has not significantly changed. Certainly, similar revisions to supply and demand estimates in past years have not ever led to the type of price decreases seen recently in the corn market. Rather, the major changes impacting corn prices in recent months have been in the form of rapidly falling oil prices and frantic liquidation of futures contracts by speculative investors (Figure 8).

**FIGURE 8. What Has Changed Since June?**

| | JUNE | JULY | AUGUST | SEP. | % Change (June-Sep.) |
|---|---|---|---|---|---|
| Est. 2008 Corn Production (m. bu.) | 11.735 | 11.715 | 12.072 | 12.200 | +4.0% |
| Est. 2008/09 Corn Demand (m. bu.) | 12.510 | 12.495 | 12.645 | 12.685 | +1.4% |
| Average Corn Futures Price, DEC08 ($/bu.) | $7.30 | $6.65 | $5.69 | $5.46 | -25.2% |
| Average Oil Futures Price, DEC08 ($/bbl.) | $134.90 | $135.09 | $117.53 | $103.22 | -23.5% |
| Avg. Non-Commercial Net Long Positions in Corn Ftrs. | 343,230 | 284,998 | 203,140 | 180,507 | -47.4% |

Falling oil prices and reduced speculation have caused significant reductions in the prices of corn and other commodities. But it seems doubtful that lower farm commodity prices will lead to lower food prices in the short term. As discussed, numerous cost factors influence retail food prices, and the value of farm commodities represents a small share of the overall cost of food.

Without question, the plunge in commodity prices in the last several months has disproven the unsupported claim that biofuels production was the dominant factor driving grain and oilseed prices higher. Ethanol production has continued to expand dramatically while the price of corn and other agricultural commodities has plummeted in the last four months. Still, food prices have continued to rise, undermining the assertion by biofuels critics that food prices and ethanol production are somehow strongly linked.