

Statement of Joseph Glauber, Chief Economist

Before the

Committee on Energy and Natural Resources

United States Senate

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Mr. Chairman, members of the Committee, thank you for the opportunity to discuss the effects of the expansion in biofuels production in the U.S. on commodity markets and food prices here and abroad. In the United States, two commodities, corn and soybean oil account for over 90 percent of biofuels production. From April 2007 through April 2008, corn and soybean prices rose by over 50 percent in response to a variety of factors, including domestic and global economic growth; global weather; rising input costs for energy; international export restrictions; and new product markets, particularly biofuels. Over the same period, global food commodity prices as measured by the International Monetary Fund (IMF) rose by over 45 percent and retail food prices in the U.S. increased by more than 5 percent. I will describe the factors affecting farm commodity prices and the effects of biofuels production on commodity prices, global food prices, and retail food prices in the United States.

Key Factors Behind the Increase in Commodity Prices

Many factors have converged to increase commodity prices. Global economic growth, weather problems in some major grain producing countries, and depreciation in the value of the dollar have increased the demand for U.S. agricultural commodities, leading to higher commodity prices. In FY 2008, the value of U.S. agricultural exports is projected to reach a record \$108.5 billion, up from last year's record of \$81.9 billion.

Global economic growth is boosting the demand and prices for agricultural commodities. Real foreign economic growth was a healthy 4.0 percent in 2007, only slightly below 2006's robust rate of 4.2 percent. Foreign economic growth is expected to be 3.9 percent in 2008, down slightly from 2007, but well above trend, as has been the case beginning in 2004 (Economic Research Service). Asia, excluding Japan, will likely grow at over 7 percent in 2008, above trend for the fifth consecutive year. Higher incomes are increasing the demand for processed foods and meat in rapidly growing developing countries, such as India and China. These shifts in diets are leading to major changes in international trade. For example, China's corn exports are projected to fall from 5.3 million metric tons in 2006/07 to 0.5 million metric tons in 2007/08, as more corn is used for domestic livestock feeding.

Adverse **weather** events in a number of countries have reduced production leading to higher commodity prices. The multi-year drought in Australia reduced wheat and milk production and that country's exportable supplies of those commodities. Drought and dry weather have also adversely affected grain production in Canada, Ukraine, the European Union, and the United States. These weather events have helped to deplete world grain stocks. With world stocks for wheat at a 30-year low, grain importers are increasingly turning to the U.S. for supplies. Furthermore, the tight stocks situation is leading to increasing concerns that prices could move sharply higher if this year's harvest falls below expectations. These concerns are causing some importers to purchase for future needs, pushing prices higher.

Many exporting countries have put in place **export restrictions** in an effort to reduce domestic food price inflation. The United Nations Food and Agriculture Organization recently noted the cereal import bill of the world's poorest countries is forecast to rise by 56 percent in 2007/2008, which comes after a significant increase of 37 percent in 2006/2007. Exporting

countries as diverse as Argentina, China, India, Russia, Ukraine, Kazakhstan, and Vietnam have placed additional taxes or restrictions on exports of grains, rice, oilseeds, and other products. By reducing supplies available for world commerce, these actions exacerbate the surge in global commodity prices. Export restrictions are ultimately self-defeating, reducing the incentives for producers to increase production.

Higher **food marketing, transportation, and processing costs** are also contributing to the increase in retail food prices. Record prices for diesel fuel, gasoline, natural gas, and other forms of energy affect costs throughout the food production and marketing chain. Higher energy prices increase producers' expenditures for fertilizer and fuel, driving up farm production costs. Higher energy prices also increase food processing, marketing, and retailing costs. These higher costs, especially if maintained over a long period, tend to be passed on to consumers in the form of higher retail prices. ERS estimates direct energy and transportation costs account for 7.5 percent of the overall average retail food dollar. This suggests that for every 10 percent increase in energy costs, the retail food prices could increase by as much as 0.75 percent if fully passed on to consumers.

Recent Developments in Commodity Markets

Higher commodity prices are contributing to the increase in food price inflation, even though in the United States the farm value accounts for only about 20 cents of each dollar spent on food. For highly processed foods, such as cereal and bakery products, the farm component of the retail value is less as processing costs account for a higher portion of the retail value. In contrast, for food products that undergo little processing prior to being consumed, such as eggs and fresh fruits and vegetables, the farm value accounts for a much larger share of the retail value.

The index of prices received by farmers for all products increased by 18 percent in 2007, as farm prices for several major crops, beef, milk, broilers, and eggs either reached new record highs or posted large annual gains. Compared to one year ago, the index of prices received by farmers for all products was up 13 percent during the first 4 months of 2008. Over the same period, the prices received for all crops were up 19 percent, reflecting continued strong prices for major crops. Meanwhile, the prices received for livestock and livestock products, while up 7 percent during the first 4 months of 2008 compared to one year ago, have moderated in recent months as record large supplies of red meat and poultry have lowered farm prices for cattle and hogs.

Wheat & Coarse Grains: The 2007/08 **wheat** marketing year reflects a third straight year in which global production has fallen short of consumption, driving expected world stocks to their lowest level in 30 years. Back-to-back years of lower production in the major exporting countries, including Australia, Canada, and the European Union, have combined with below-trend yields in the United States to reduce the availability of exportable supplies. Tight supplies in competitor countries and restrictions on exports in major producing countries such as Argentina, Ukraine, and Russia have boosted export demand for U.S. wheat. U.S. ending stocks are projected at their lowest level in 60 years. As a consequence, wheat prices have increased to record levels. Farm prices for 2007/08 are estimated at a record \$6.50 per bushel, sharply higher than last year's \$4.26 and the previous record of \$4.55 per bushel.

Wheat producers indicated in March they intend to plant 63.8 million acres in 2008, up 6 percent from 2007. Yield prospects for the 2008 crop remain mostly favorable, but persistent dryness remains a concern in the southwestern portions of the hard red winter wheat belt in western Kansas and the panhandle areas of Texas and Oklahoma. In addition to higher

production in the U.S., wheat production in other major wheat producing countries is expected to rise sharply as planted area is up around the world, spurred by record prices and encouraged by favorable fall sowing weather. If trend yields are achieved, world production could set a new record, rising as much as 50 million tons from 2007/08. Global production is expected to exceed global consumption for the first time in four years leading to some recovery in global wheat stocks. Nonetheless, the average farm price is projected to increase in 2008/09 to \$6.75-\$8.25 per bushel, supported by forward sales made at prices well above last year's level. Cash wheat prices during the first quarter of the marketing year are also expected to be supported by strong competition between domestic mills and foreign buyers.

The U.S. **corn** market in 2007/08 is characterized by record production and farm prices driven by strong domestic and export demand, which is boosting use to record levels. U.S. producers planted 93.6 million acres to corn in 2007, the largest plantings since 1944. Domestic use for 2007/08 is estimated at a record 10.5 billion bushels, up 1.4 billion or 16 percent from last year. Ethanol use, projected at 3.0 billion bushels, is expected to surpass exports for the first time ever, accounting for 23 percent of total corn use. Despite high prices, export demand remains strong with growing world demand for animal protein and tight supplies of feed quality wheat, particularly in the European Union. Exports are projected at a record 2.45 billion bushels, up 15 percent from last year. The farm-level price of corn for 2007/08 is expected to average a record \$4.25-\$4.45 per bushel, up substantially from \$3.04 per bushel in 2006/07.

Corn prices are expected to rise again in 2008/09. Demand is expected to remain strong, supported by expanding use for ethanol, which is forecast to reach 4 billion bushels in 2008/09. Corn area and production are expected to be lower in 2008/09 as record soybean prices and high input costs for corn encourage a rebound in soybean plantings. Producers indicated in March

they intend to plant 86.0 million acres of corn in 2008, down 8 percent from last year. In addition, cool, wet weather slowed planting progress, which could also lead to lower corn plantings and lower yields in 2008. With higher use and lower production, ending stocks are expected to decline, keeping upward pressure on prices. The farm price of corn is forecast to average \$5.30-\$6.30 per bushel in 2008/09.

Rice: Tighter domestic rice supplies, higher global rice prices, and export bans imposed by some major rice exporters have helped to boost U.S. rice prices in 2007/08. Producers cut back on rice area in 2007 by 3 percent, because they could earn higher returns by planting alternative crops such as wheat, corn, sorghum and soybeans. U.S. exports in 2007/08 are projected to increase 23 percent to 112 million hundredweight (cwt). Tight global supplies and self-imposed export bans in Egypt, Vietnam, and India are helping to support U.S. exports. Rice ending stocks are forecast at 21.6 million cwt, down from carry-in stocks of 39 million cwt. The season-average farm price is forecast at \$12.85-\$13.15 per cwt, up from \$9.96 in 2006/07 and the highest since 1973/74. Domestic rice prices in 2008/09 are expected to be higher than in 2007/08 due to tighter domestic and global supplies and higher world prices.

Soybeans: U.S. soybean prices are record high this year, reflecting lower production and strong demand. The farm price received for soybeans is estimated to average \$10.00 per bushel during 2007/08, compared with \$6.43 last marketing year and the previous record of \$8.73 per bushel set in 1983/84. Lower production was brought about by sharply lower planted area as producers shifted some soybean acres to corn in 2007. Lower stocks are projected in part due to strong export demand for U.S. soybeans resulting from record imports by China and limited growth in South American supplies despite high prices.

U.S. soybean crush is also a contributing factor to declining stocks as foreign demand for U.S. soybean meal remains exceptionally strong. Wheat shortages in many parts of the world are leading to strong export demand for soybean meal protein which can be used to replace wheat in feed rations. Soybean crush is also supported by growing demand for biodiesel, production of which is expected to account for 14 percent of total soybean oil use for 2007/08. Strong domestic and export demand have pushed prices for both soybean meal and soybean oil higher. The prices of both soybean meal and soybean oil are up by over 50 percent in 2007/08, compared with one year ago.

U.S. producers indicated in March they intend to plant 74.8 million acres to soybeans in 2008, up 18 percent from last year. If these intentions are realized, soybean supplies for 2008/09 could increase as larger production more than offsets sharply lower beginning stocks. Reflecting the increase in projected soybean production, soybean ending stocks are expected to rebound in 2008/09 from this year's very low level. Forward sales at prices above last year's average and high corn prices are likely to push soybean prices higher in 2008/09. The farm price of soybeans is currently forecast to average \$11.00-\$12.50 per bushel in 2008/09.

Fruits and Vegetables: Retail prices for fruits and vegetables increased 3.8 percent in 2007, as fresh fruit and vegetable prices rose by 3.9 percent and processed fruit and vegetable prices rose by 3.6 percent. Price spikes in these commodities are often linked to drought or freeze damage. In 2008, the CPI for fruits and vegetables is projected to increase by 3.5-4.5 percent.

Livestock and Poultry: Beef production is currently forecast to increase by 1.5 percent in 2008 due to continued strong cow slaughter. Drought conditions in the Southeast led to strong increases in cow slaughter last year and, even with a return to normal weather in 2008, cow

slaughter is expected to remain relatively high in 2008. The January *Cattle* report indicated the cow herd continued to contract during 2007. Beef cow numbers were estimated about 0.6 percent lower than a year ago, and the number of beef cows expected to calve was down 1 percent. In addition, the number of beef heifers to be retained for the breeding herd was down 3.5 percent. Higher feed costs are lowering returns to cattle feeders. Nebraska Direct steer prices averaged a record \$91.82 per cwt in 2007 and are expected to average \$89-\$93 per cwt. in 2008.

Pork production in 2008 is expected to increase 6.6 percent due to expansion triggered by positive returns to producers in 2006 and 2007 and strong productivity gains. However, the growth in production is expected to slow later in the year as producers respond to much higher feed costs. The most recent *Quarterly Hogs and Pigs* report indicated that producers farrowed 5 percent more sows during December 2007-February 2008, but intend to farrow 2 percent fewer sows during June 2008-August 2008. In 2008, hog prices are expected to decline from 2007's \$47.09 per cwt to \$46-\$48 per cwt.

Broiler producers reacted to low returns in 2006 and pulled back broiler production during the last two quarters of 2006 and the first two quarters of 2007. As broiler prices hit record levels in mid-2007, broiler producers responded by expanding production. Since last fall, weekly estimates of chicks placed for growout were consistently 3 to 5 percent above a year earlier, but the increase in placements has dropped below 3 percent recently. However, little to no expansion in broiler production is expected during the second half of 2008, as producers respond to higher corn and soybean meal prices. Broiler prices for 2008 are forecast to average 80 to 83 cents per pound in 2008, compared with a record 76.4 cents in 2007.

Eggs: In 2007, the wholesale price for a dozen grade A large eggs in the New York market averaged \$1.14 per dozen, 43 cents higher than the previous year. The strong increase in egg prices reflected lower production and strong domestic demand. In 2007, table-egg production was down 1 percent, as producers lowered production in order to increase the hatching-egg flock.

Given the current size of the table-egg flock and the number of birds available to add to the flock, no significant expansion in production is expected in 2008. Wholesale table-egg prices (New York area) averaged \$1.59 per dozen in the first-quarter, up 51 percent from the previous year. Prices are expected to decline seasonally in the second quarter and average \$1.21-\$1.25 per dozen in 2008.

Milk: Very strong international dairy product prices, robust domestic demand and modest expansion in domestic production in response to very low milk prices in 2006 were the primary factors pushing up dairy product prices in 2007. The recent increase in feed costs probably had only a minimal effect on milk production in 2007.

Although higher feed costs are expected to temper later-year expansion plans, milk producers are expanding herds in response to generally favorable returns during much of 2007. Production in 2007 increased about 2 percent as the herd increased fractionally. Milk per cow increased but lagged its historical growth. Driven by strong domestic demand and sharply higher international prices in response to declining milk production in Australia due to drought and limited surpluses of dairy products in the European Union, the all-milk price averaged a record \$19.13 per cwt, over \$6.00 above 2006. Cow numbers are expected to increase further in 2008 but high feed costs may slow the growth in milk per cow. Milk production in 2008 is expected to increase about 2 percent and about equal the growth in demand for dairy products

domestically and for export. The all-milk price is forecast to average \$18.90-\$19.30 per cwt in 2008.

Effects of Biofuels Production on Commodity Prices

In recent years, the conversion of corn and soybean oil into biofuels in the United States has been an important factor shaping major crop markets. The amount of corn converted into ethanol and soybean oil converted into biodiesel nearly doubled from 2005/06 to 2007/08. The growth in biofuels production has coincided with rising prices for corn, soybeans, soybean meal, and soybean oil.

While increased biofuels production in the United States is partially responsible for the increase in domestic corn and soybean farm prices, other factors have also contributed to the sharp increase in prices for these commodities. The strength in exports resulting from global economic growth and drought and dry weather in some major grain producing countries has boosted prices for corn and soybeans. For example, corn exports are projected to reach 2.45 billion bushels in 2007/08, up from 2.1 billion bushels in 2005/06, and soybean exports are projected to increase by 18 percent over the same period.

Estimating the effects of increased ethanol and biodiesel production on domestic agriculture and domestic food prices necessitates segmenting the portion of the increase in corn and soybean prices due to the expansion in ethanol and biodiesel production and the increase in corn and soybean prices due to other factors. Various analytical approaches were used to estimate the effects of increased ethanol and biodiesel production on corn and soybean prices. Table 1 compares actual and estimated corn and soybean prices over the period 2005/06-2007/08, assuming corn used for ethanol and soybean oil used for biodiesel production in the United States remained unchanged from the amount used in the 2005/06 marketing year.

Table 1. Estimated Effects of Increased Ethanol and Biodiesel Production on Corn and Soybean Prices

	2005/06	2006/07	2007/08
Corn Price (\$/Bu.)			
Actual	2.00	3.04	4.25
Alternative <u>1/</u>		2.80	3.60
Soybean Price (\$/Bu.)			
Actual	5.66	6.43	10.00
Alternative <u>1/</u>		6.25	8.25
Soybean Oil Price (cents/lb.)			
Actual	23.41	31.02	52.00
Alternative <u>1/</u>		30.35	45.25
Soybean Meal Price (\$/ton)			
Actual	174	205	315
Alternative <u>1/</u>		201	274

1/Assumes the amount of corn used for ethanol and soybean oil used for biodiesel production in the United States remained unchanged from the amount used in the 2005/06 marketing year. This scenario was selected to depict the effects of increased ethanol and biodiesel production on corn and soybean prices and does not represent a specific policy scenario.

Under the alternative scenario, lower corn and soybean oil use resulting from reduced production of biofuels leads to lower prices for corn, soybeans, soybean oil, and soybean meal. In addition, changes in relative returns for corn and soybeans cause producers to switch from planting corn to planting soybeans. Lower corn and soybean prices could also result in increased plantings and lower prices for other crops and lower feed costs to livestock producers.

The recent increase in corn and soybean prices appears to have little to do with the run-up in prices of wheat and rice. Corn and soybean prices began increasing during the fourth quarter of 2006. By this time, producers had already planted the 2007 winter wheat crop. Rice and spring wheat plantings could have been affected by increasing corn and soybean prices but weather problems, low stocks, and strong global demand likely had a much greater impact on wheat and rice prices than increasing corn and soybean prices in 2007/08. In 2008, U.S. wheat

producers indicate they intend to plant more acreage to wheat while rice acreage is projected to remain flat, suggesting that higher corn and soybean prices have not greatly altered wheat and rice producers' planting decisions.

Effects of BioFuels Production on Global Food Commodity Prices

The International Monetary Fund's (IMF) global food commodity price index is often quoted as an indicator of the change in global food prices. The IMF global food commodity price index includes a bundle of agricultural commodities including wheat, corn (maize), rice, barley, vegetable oils and protein meal, meat, seafood, sugar, bananas, and oranges. A complete list of the commodities included in the index, the percentage change in each commodity price, and the estimated contribution of each commodity to the overall percentage change in the food price index from April 2007 to April 2008 are presented in Table 2. It is unclear how the list of commodities and the prices used in the IMF index relate to the foods purchased and the prices paid for food items by consumers in other countries.

The IMF global food commodity price index increased by 45.0 percent from April 2007 to April 2008. Sunflower oil and rice exhibited the largest price changes, with prices for both commodities increasing by over 200 percent. Prices for corn, wheat, soybeans, soybean oil, soybean meal, palm oil, sunflower oil, and rapeseed oil also exhibited relatively large price increases, while the prices for beef and swine meat actually fell.

Combining the change in corn prices with the corn weight of 8.1 percent, the change in corn prices contributed 5.0 percentage points to the estimated 45.6 percent increase in the global food commodity price index. Soybeans, soybean oil, and soybean meal exhibited larger price increases and play a much larger role in the global food commodity price index, a combined weight of over 15 percent. The combined effects of the increase in soybean, soybean meal, and

Table 2. Contribution to the IMF Food Commodity Price Index, April 2007 to April 2008. ^{1/}

Food Commodity	Weight	April 2007 to April 2008	Contribution to Overall Change
		Percentage Change	Percentage Points
Food	100	45.0	45.0
Cereals			
Wheat	10.9	82.7	9.0
Corn (Maize)	8.1	61.7	5.0
Rice	3.6	215.0	7.7
Barley	2.2	51.0	1.1
Vegetable oils and Protein Meals			
Soybeans	7.5	78.6	5.9
Soybean Meal	4.6	69.3	3.2
Soybean Oil	3.2	80.9	2.6
Palm Oil	6.2	67.9	4.2
Sunflower Oil	0.5	223.5	1.2
Olive Oil	1.3	-4.8	-0.1
Fish Meal	1.6	-8.1	-0.1
Groundnuts	1.5	66.6	1.0
Rapeseed Oil	2.0	87.1	1.7
Meat			
Beef	7.2	-11.8	-0.9
Lamb	1.3	16.9	0.2
Swine Meat	5.6	-6.5	-0.4
Poultry	4.7	5.0	0.2
Seafood			
Fish	15.2	7.2	1.1
Shrimp	3.7	-23.0	-0.8
Sugar			
Free Market	2.8	30.5	0.9
United States	0.2	-1.8	0.0
EU	1.2	-0.4	0.0
Bananas	2.3	49.9	1.2
Oranges	2.5	42.7	1.1

^{1/}Estimated from the International Monetary Fund (IMF) 8 price indices and 49 actual price series. The prices are available from the IMF web site at <http://www.imf.org/>

soybean oil prices contributed 11.7 percentage points to the estimated 45.0 percent increase in the IMF global food commodity price index from April 2007 to April 2008.

In order to estimate the impact of the increased production of U.S. biofuels on global food prices, one needs to estimate the direct and indirect effects of the increased use of corn and soybeans on individual commodity prices. Last month, CEA testified before the Senate Foreign Relations Committee about corn-based ethanol's impact on global food prices using this strategy. The analysis below continues in this spirit, but it considers a broader category of factors and costs and a slightly different time period. Here the analysis is updated to the 12 months ending in April and the analysis considers a broader mix of biofuels--focusing on corn-based and soybean oil-based biofuels.

Table 3 presents the estimated effects of increased ethanol and biodiesel production in the United States on global prices for corn, soybeans, soybean oil, and soybean meal as well as the impact on the IMF global food commodity price index. We estimate that the percentage increase

Table 3. Effects of biofuel production in the United States on global food commodity prices.

	With Biofuels	Without Biofuels
	Percentage Change	Percentage Change
Food	45.0	40.6
Corn (Maize)	61.7	47.5
Soybeans	78.6	54.2
Soybean Meal	69.3	51.2
Soybean Oil	80.9	61.5

in the price of corn from April 2007 to April 2008 would have been 23 percent lower in the absence of any growth in biofuel production in the United States. Based on this analysis, we estimate that the price of corn would have increased by 47.5 percent assuming no growth in biofuel production in the United States, down from the actual increase of 61.7 percent, from April 2007 to April 2008. Assuming no growth in biofuel production, the price of soybeans,

soybean meal, and soybean oil in the global food commodity price index would have increased by 54.2, 51.2, and 61.5 percent, respectively, down from actual increases of 78.6, 69.3, and 80.9 percent, respectively, from April 2007 to April 2008.

Assuming no growth in biofuel production in the United States, the IMF global food commodity price index would have increased by 40.6 percent, down from the actual increase of 45.0 percent, from April 2007 to April 2008. Lower corn prices contributed 1.2 percentage points, lower soybean, soybean meal, and soybean oil prices contributed 3.2 percentage points to the total reduction in the global food commodity price index.

However, combining soybeans, soybean meal, and soybean oil in the same index overstates the impact of biofuels on global food prices. Soybeans are processed into soybean meal and oil and by including the effects of biofuels on the prices of all three commodities we magnify the impacts of biofuels on the global food prices. If we exclude the impacts of biofuels on soybean meal and oil prices, the IMF global food price index would have increased by 42.0 percent assuming no growth in biofuels production in the United States, compared to the actual increase of 45.0 percent from April 2007 to April 2008.

Effects of BioFuels Production on U.S. Retail Food Prices

In 2007, the Consumer Price Index (CPI) for all food increased by 4.0 percent, up from 2.4 percent in both 2004 and 2005. In 2007, the retail price of eggs increased by 29.2 percent, retail dairy product prices rose by 7.4 percent, retail poultry prices posted a 5.2 percent gain, and retail beef prices increased by 4.4 percent. In 2008, the CPI for all food is projected to increase by 4.5 to 5.5 percent, with the retail prices of eggs, dairy products, fats and oils, and cereals and bakery products all increasing by more than 5 percent.

It is very unlikely that the retail prices for dairy products, beef, poultry, and eggs were greatly affected by higher corn and soybean prices in 2007. Higher corn and soybean prices increase livestock and dairy producers' feed costs. The increase in feed costs, with no offsetting increase in livestock prices, reduces livestock producers' margins. Livestock producers react to these lower margins over time by reducing the breeding herd. In the short term, higher feed costs lead to an increase in livestock slaughter and lower livestock prices. For milk and eggs, higher feed costs may have lowered production somewhat 2007, partially contributing to the increase in retail prices for these food products. However, other factors, such as low returns in 2006, strong demand, abnormally high international prices, especially for dairy products, and increasing use of eggs for hatching to expand broiler production likely contributed to the bulk of the increase in retail food prices for these commodities in 2007.

The ratio of livestock prices relative to feed costs is a measure of the pressure on livestock producers to adjust future production in response to higher feed costs. In April, the steer and heifer corn price ratio (bushels of corn equal in value to 100 pounds of steers and heifers, live weight) was the lowest since August 1996, the hog-corn price ratio (bushels of corn equal in value to 100 pounds of hog, live weight) was the lowest since December 1998, and the milk-feed price ratio (pounds of 16 percent mixed dairy feed equal in value to 1 pound of milk) and the broiler-feed price ratio (pounds of broiler grower feed equal in value to 1 pound of broiler, live weight) was the lowest since at least 1995.

In 2008, higher feed costs are likely to lead to lower prices for beef and pork as producers react to higher feed costs by reducing the number of breeding animals. In contrast, dairy producers react to higher feed costs by cutting back on the number of dairy cows and adjusting rations. In 2008, higher feed costs are expected to dampen the growth in milk production per

cow but the dairy herd is expected to continue to expand in response to strong milk returns in 2007.

To estimate the effects of growth in ethanol and biodiesel production on U.S. retail food prices, we assume that all of the increase in prices for corn, other feed grains, soybeans, soybean oil and soybean meal presented in Table 1 are passed on to consumers through higher retail food prices. In 2007, the expansion in ethanol and biodiesel production is estimated to have increased the CPI for all food by 0.10-0.15 percentage point. During the first four months of 2008, the all food CPI increased by 4.8 percent, with increased ethanol and biodiesel production in the U.S. accounting for about 0.20-0.25 percentage point of the increase in retail food prices. Over time, livestock and dairy producers will adjust to higher feed costs by reducing production leading to higher retail prices for animal products. In future years, production adjustments by livestock and dairy producers in response to higher feed costs resulting from the expansion in ethanol and biodiesel production could add a total of 0.6-0.7 percentage point to the CPI for all food.

Conclusion

Many factors have converged to increase corn and soybean prices. Some of these factors include domestic and global economic growth; global weather; rising input costs for energy; international export restrictions; and new product markets, particularly biofuels. At this time, the expansion in biofuel production in the United States would appear to be a relatively modest contributor to food price inflation globally and in the United States. Assuming no expansion in biofuel production in the U.S., we estimate the IMF global food commodity price index would have increased by over 40 percent from April 2007 to April 2008, compared with the actual increase of 45 percent. In the U.S., the CPI for all food would have increased by 4.55- 4.60 percent during the first four months of 2008, compared with the actual increase of 4.8 percent,

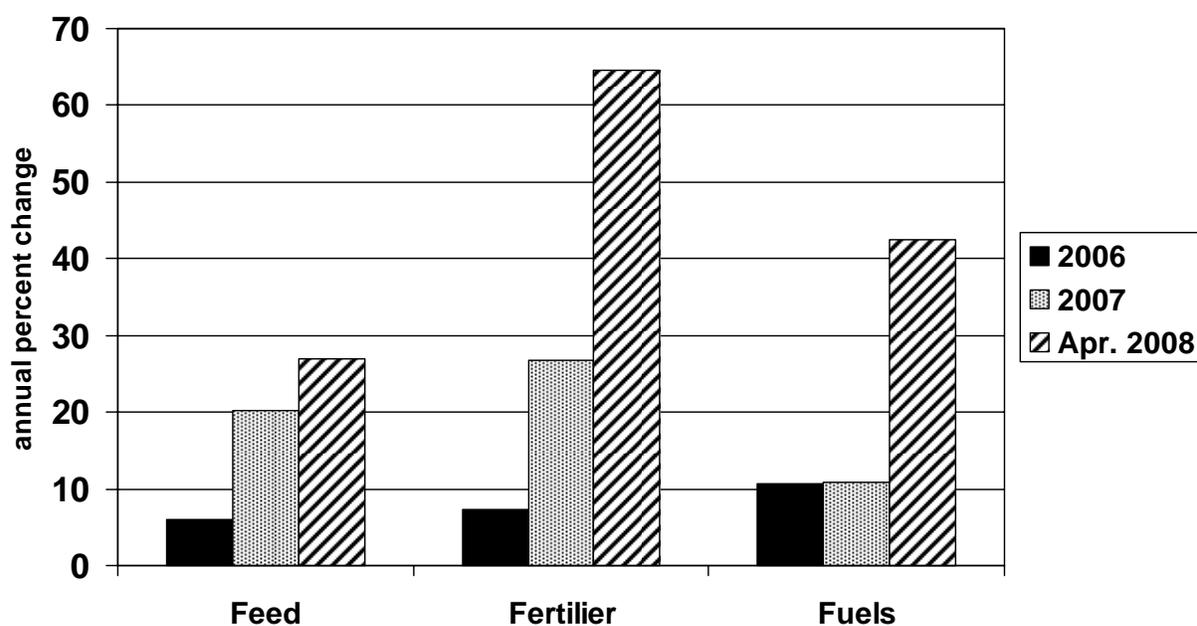
assuming no expansion in U.S. biofuel production. In future years, production adjustments by livestock and dairy producers in response to higher feed costs resulting from the expansion in ethanol and biodiesel production could add a total of 0.6-0.7 percentage point to the CPI for all food.

Mr. Chairman, that completes my statement.

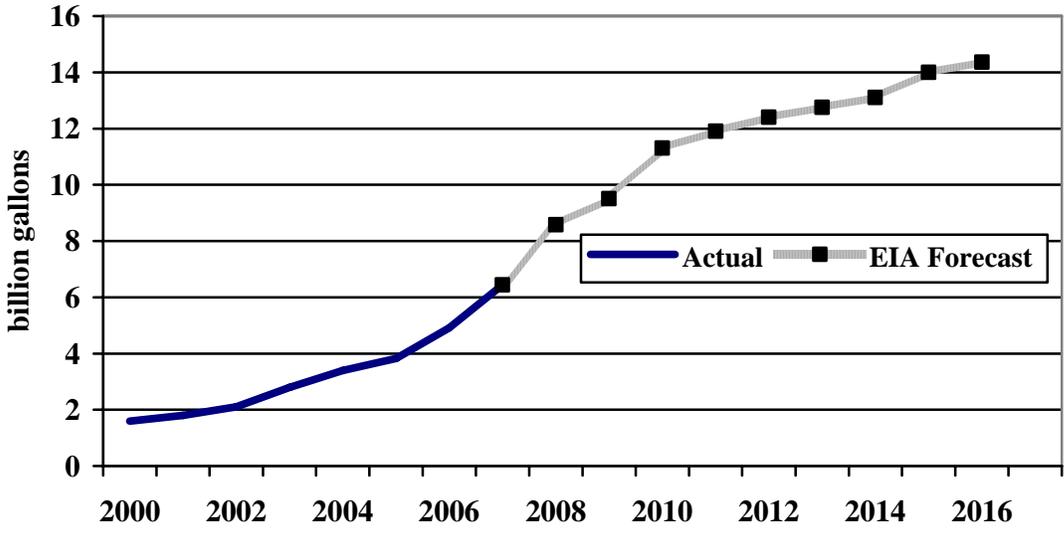
Farm Prices for Crops, Livestock, and Livestock Products, 2006-08.

	2006	2007	2008P
Livestock			
Steers (\$/cwt)	85.41	91.82	89-93
Hogs (\$/cwt)	47.26	47.09	46-48
Broilers (\$/cwt)	64.4	76.4	80-83
Milk (\$/cwt)	12.97	19.13	18.90-19.30
Eggs (cents/doz)	71.8	114.4	121-125
Crops			
	2005/06	2006/07	2007/08E
Wheat (\$/bu)	3.42	4.26	6.50
Rice (\$/cwt)	7.65	9.96	12.35-12.65
Corn (\$/bu)	2.00	3.04	4.25-4.45
Soybeans (\$/bu)	5.66	6.43	10.00

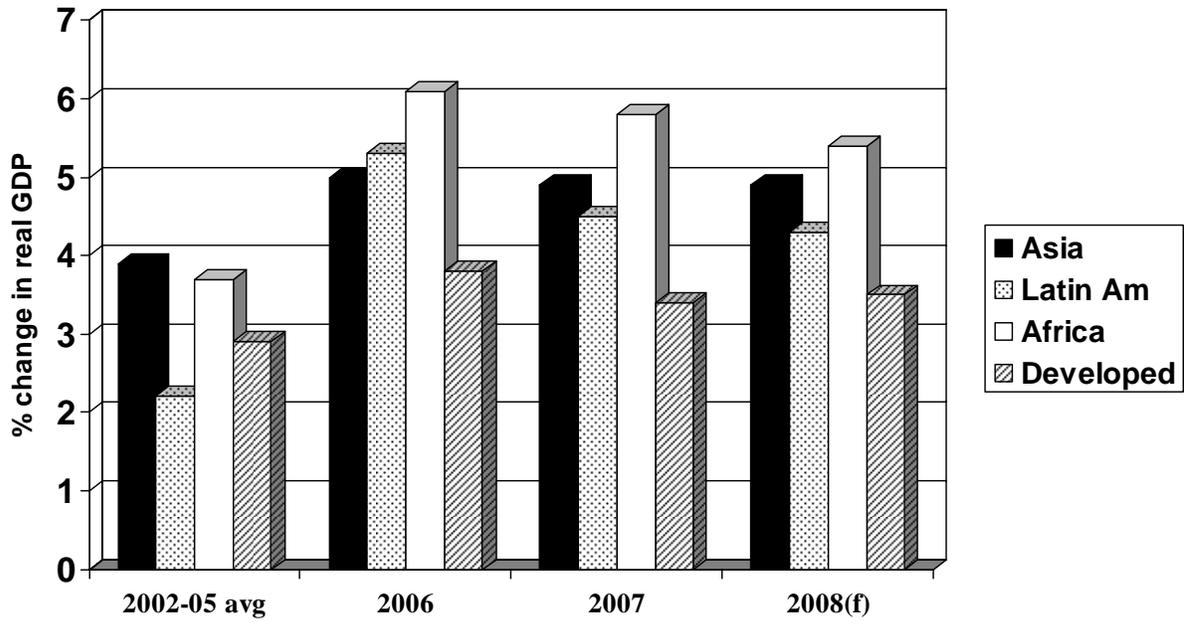
Prices Paid by Farmers for Selected Inputs, 2006-08.



Actual and Department of Energy, Energy Information Agency, Forecast of Corn-Based Ethanol Production, 2000-16.



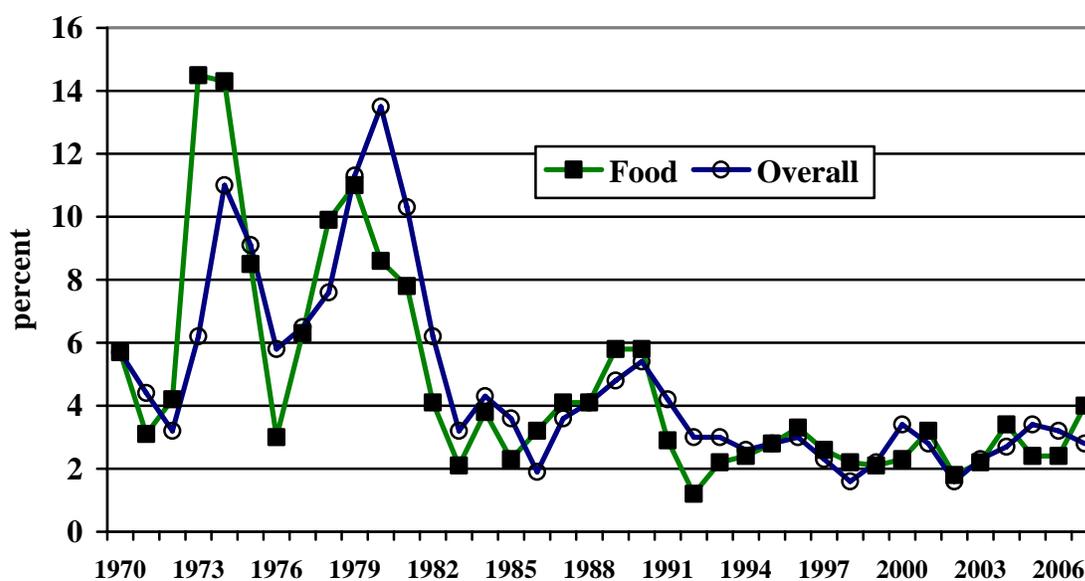
World Economic Growth, 2000-08.



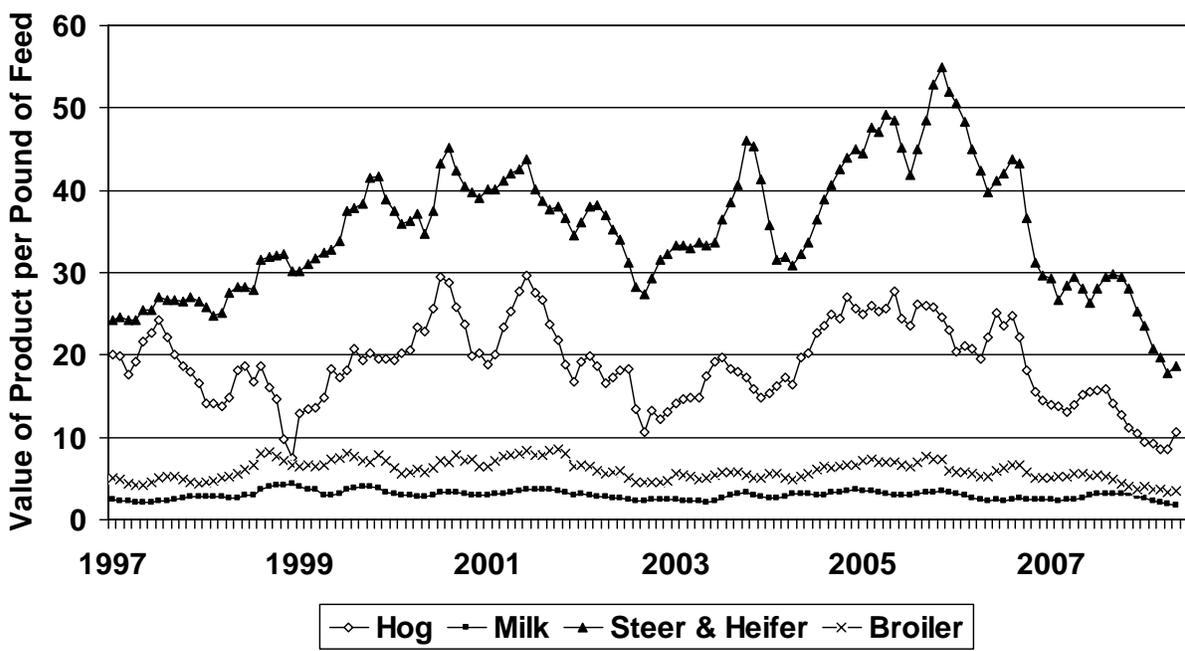
Changes in Retail Food Price Indexes, 2006, 2007, and 2008 Forecast.

	Relative Importance	2006	2007	Forecast 2008
All food	100.0	2.4	4.0	4.5 to 5.5
Food away from home	44.6	3.1	3.6	3.5 to 4.5
Food at home	55.4	1.7	4.2	5.0 to 6.0
Meats, poultry, fish	12.2	0.8	3.8	2.0 to 3.0
Eggs	0.9	4.9	29.2	10.0 to 11.5
Dairy products	6.4	-0.6	7.4	5.0 to 6.0
Fats and oils	1.5	0.2	2.9	10.5 to 11.5
Fruits and vegetables	8.4	4.8	3.8	3.5 to 4.5
Sugar and sweets	2.0	3.8	3.1	3.5 to 4.5
Cereals and bakery products	7.4	1.8	4.4	7.5 to 8.5
Nonalcoholic beverages	6.7	2.0	4.1	4.5 to 5.5
Other foods	9.9	1.4	1.8	3.0 to 4.0

Annual Percentage Change in the CPI for All Food and All Items, 1970-2007.



Broiler, Hog, Steer and Heifer, and Milk Feed Price Ratios, January 1997-May 2008.



Broiler-Feed: Pounds of broiler grower feed equal in value to 1 pound of broiler, live weight.
Hog-Corn: Bushels of corn equal in value to 100 pounds of hog, live weight.
Steer and Heifer-Corn: Bushels of corn equal in value to 100 pounds of steers and heifers, live weight.
Milk-Feed: Pounds of 16% mixed dairy feed equal in value to 1 pound of whole milk.