

## Farm Price Impact on Consumer Food Prices and Inflation

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U.S. farm commodity prices have risen sharply over the last year, with the Goldman Sachs Agricultural and Livestock composite rising 44% (Table 1). The price increase reflects poor harvests overseas, dollar weakness, improved global living standards and the growing allotment of farmland for ethanol production. With one third of corn acreage allocated to ethanol, corn prices have risen sharply, pushing up prices for other crops. There is a growing backlash against ethanol, and perhaps over time farmland may revert back to growing food crops. For example, in April, as food riots spread around the globe, the U.N. released a report calling the use of food stocks in fuel programs “a crime against humanity.”

At a symposium outside Washington, U.S. Energy Secretary Bodman said America has no choice but to begin “moving away gradually” from using corn to produce ethanol into other forms of feedstock such as cellulosic ethanol and sugar ethanol originated in Brazil. For now, farm commodity prices are moving higher and pushing

**TABLE 1: CHANGE IN FARM COMMODITY PRICES**

Goldman Sachs Commodity Sub-Indices*	12-month Change as of 4/21/08	3-month Change as of 4/21/08
Agriculture	63%	2.4%
Livestock	-2.5%	4.5%
Agriculture and Livestock	44%	2.7%

\*Agriculture includes: Wheat, Red Wheat, Corn, Soybeans, Cotton, Sugar, Coffee, Cocoa.

\*Livestock includes: Live Cattle, Feeder Cattle, Lean Hogs

Source: Bloomberg, Goldman Sachs

food prices up along with them. However, many in the media are overstating the impact of rising prices on inflation.

Table 2 shows how the share of farm commodity prices as a percent of consumer food costs has steadily declined from 41% in 1950 to 20% in 2004 (the most recent published data). Although sharply rising farm prices have

likely increased the farm price share of food costs, farm prices are still only a small portion of food costs. Distribution and marketing account for the vast majority of food costs. Table 3 on the next page shows the components of the marketing bill, with labor and overhead accounting for the bulk of these costs.

**TABLE 2: COMPOSITION OF CONSUMER FOOD COST\***

Year	Farm Value Share of Food Expenditures	Marketing Bill Share of Food Expenditures
1950	41%	59%
1960	33%	67%
1970	32%	68%
1980	31%	69%
1990	24%	76%
2000	19%	81%
2004	20%	80%

\*Includes retail foods and food away from home

Source: USDA Economic Research Service

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**TABLE 3: COMPONENTS OF THE MARKETING BILL AS PERCENT OF TOTAL MARKETING BILL**

Year	Labor	Packaging	Transportation	Fuels and Electricity	Before-tax Profits	Misc.*
1970	42.9%	10.9%	6.9%	2.9%	4.8%	31.6%
1980	44.6%	11.5%	7.1%	4.9%	5.4%	26.4%
1990	44.8%	10.6%	5.8%	4.4%	3.8%	30.5%
2000	47.0%	9.9%	4.9%	4.3%	5.8%	28.0%
2004	48.0%	10.0%	5.0%	4.4%	5.6%	27.0%

\*Misc. includes depreciation, rent, advertising, interest, taxes, insurance, professional services, etc.  
Source: USDA Economic Research Service

The last table, Table 4, shows the impact of farm prices on CPI. Farm prices account for 20% of food prices and food prices account for 14.9% of the CPI. A 44% increase in farm prices if sustained should add 1.3% to the CPI over time. However, over the last three months, farm prices are only up 2.5% and are down 13% from the February peak.

## Higher prices should lead to increased production

As Chart 1 indicates, agriculture and livestock prices generally moved in a volatile sideways pattern before increasing sharply in 2007. The last spike of this magnitude was in the early 1970's, which was followed by a major collapse. Agriculture and livestock prices tend to be volatile, with sharp increases followed by sharp decreases. Parabolic increases in any price should be viewed with caution; they typically reflect unsustainable bubble conditions or temporary shocks. Any price if left alone tends to self correct, as producers produce more and consumers consume

less. Given improving standards of living around the world, the demand for more and higher protein foods should remain strong, leaving it up to suppliers to increase production.

Farmers as expected are responding to higher prices by planting fence post-to-fence post and putting acreage locked up by government programs back into production. According to the April 9, 2008 issue of the *New York Times*, "Thousands of farmers are taking their fields out of the government's biggest conservation program that pays them not to cultivate. They are spurning guaranteed annual payments for a chance to cash in on the boom in wheat, soybeans, corn and other crops. Last fall

they took back as many acres as are in Rhode Island and Delaware combined." Since the 1930's, the U.S. has paid farmers not to grow crops, but, with prices at these levels, it is too lucrative a proposition to leave land fallow. In addition, farmers globally are responding to the high price bonanza by clearing acreage for new production. According to *Time Magazine's* recent cover story titled "The Clean Energy Myth," the ethanol craze has led to massive deforestation of the Amazon as farmers clear the land to plant sugar and other crops.

Longer term, crop yields should increase as modern farming practices spread globally. In the last forty years, U.S. crop yields have doubled. Some analysts suggest they could double again in an even shorter period of time. Crop rotation, fertilizers, crop protection agents, genetically modified seeds and more crop irrigation have led to the sizable increases in crop yields. As these techniques spread, global crop yields should rise. The biggest obstacles to

**TABLE 4: FARM PRICE IMPACT ON INFLATION**

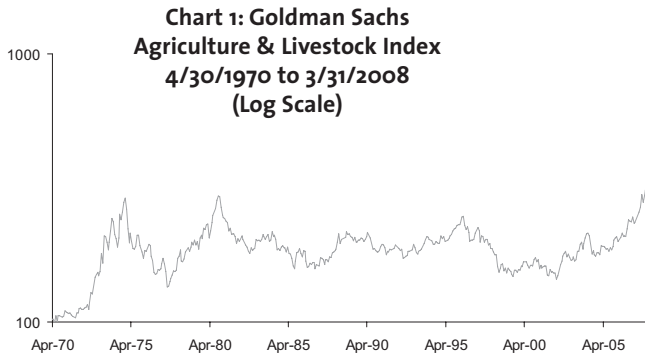
Increase in Farm Prices	X	Farm Prices as % of Food Prices	X	Food Prices as % of CPI	=	Impact on Inflation
44%	X	20%	X	14.9%	=	1.3%

Source: Bailard Research, USDA Economic Research Service, U.S. Department of Labor

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Source: Bloomberg, Goldman Sachs

increasing the food supply are protectionist measures put in place by governments to protect farmers or consumers. Tariffs, subsidies and price controls create market distortions and interfere with the price mechanism that helps to balance market supply and demand. We believe investors should never underestimate the ability of higher prices to set the stage for lower prices as human ingenuity and the profit motive combine to find market solutions.

# Musings from the Chief Economist

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