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Livestock/Corn Price Ratios in the New Era

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April 12, 2011

***farmdoc daily* (1):40**

Recommended citation format: Irwin, S. and D. Good. "Livestock/Corn Price Ratios in the New Era." *farmdoc daily* (1):40, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, April 12, 2011.

Permalink: http://farmdocdaily.illinois.edu/2011/04/livestockcorn-price-ratios-in-1.html

In posts on March 29 and April 5 we examined the changes in average nominal (not adjusted for inflation) price levels for crops and livestock in the most recent era compared to the previous era. Here, we examine the ratio of livestock prices ($ per hundredweight) to corn prices ($ per bushel) in the most recent era of higher crop prices compared to ratios in the previous era. Since feed costs account for a high percentage of livestock production costs, these ratios have long been used as indicators of livestock production profitability. One should of course remember that these ratios are imperfect reflections of profitability since feed and other production efficiencies can change over time.

The most recent era of higher crop prices started in December 2006, so we identify the period December 2006 through March 2011 as the most recent era for calculating price ratios. For both hogs and cattle, we identify the previous era of price ratios as January 1973 through September 2006. For the milk/corn price ratio, we identify the previous period as January 1986 through September 2006.

As indicated in the accompanying three graphs, the average livestock/corn price ratios in the previous era were 19.1 for hogs, 27.7 for cattle, and 6.0 for milk. In the new era, those average ratios have declined to 12.6, 23.5, and 4.5, respectively. These lower ratios are another way to illustrate the conclusion in the previous post that livestock price increases have lagged crop price increases in the new era of higher crop prices, implying that average livestock production profitability has been reduced in the new era of crop prices.

In the accompanying table, we calculate the level of hog, cattle, and milk prices that would be required to restore the livestock/corn price ratios to the level of the previous era based on the average farm price of corn in Illinois in mid-March ($5.60) and the average price of corn in the new era extending from December 2006 through March 2011 ($4.03). The final row of the table shows average farm prices of hogs, cattle, and milk in mid-March. Using a corn price of $5.60, the price of hogs would need to be about $107, the price of cattle about $155, and the price of milk about $34 in order to restore price ratios to the average of the previous era! This translates into price increases above the mid-March 2011 level of 71 percent for hogs, 37 percent for cattle, and 60 percent for milk. With a corn price of $4.03, the price of hogs would need to be about $77 and the price of milk about $24 to restore the ratio. This is a jump in hog and milk prices from recent levels of 23 and 15 percent, respectively. Cattle prices are currently at a level that restores the ratio to corn prices to that of the previous era.

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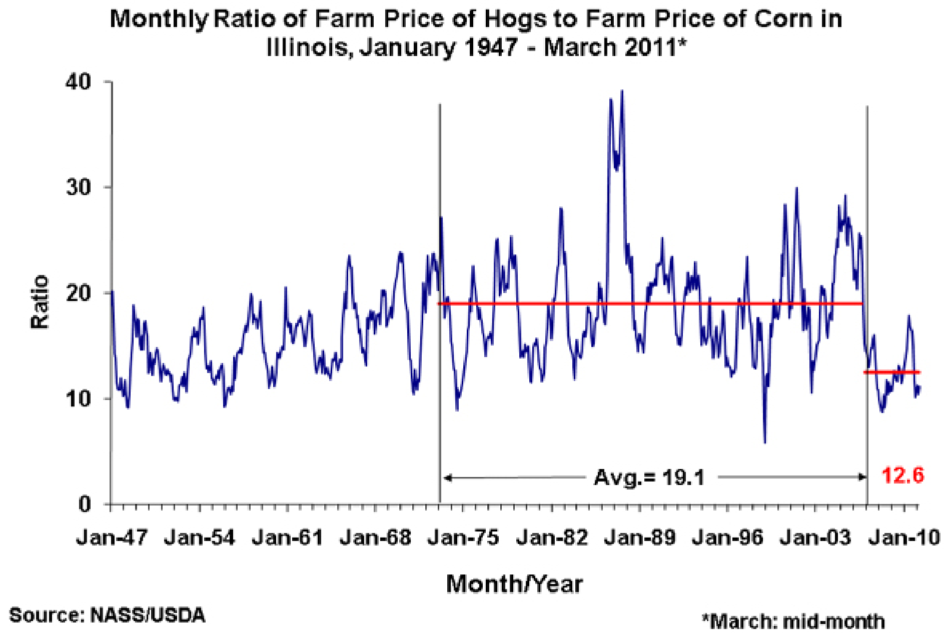
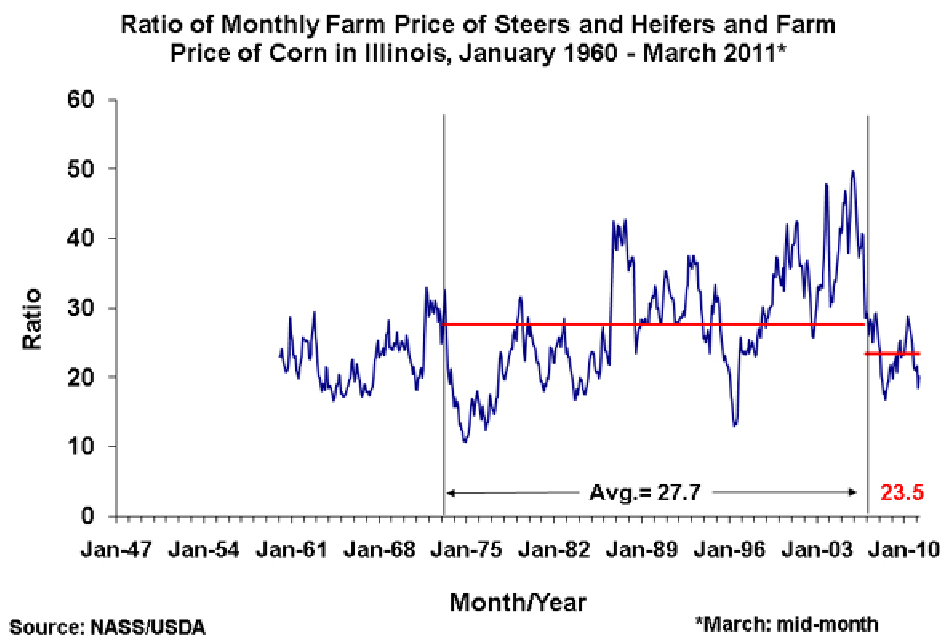
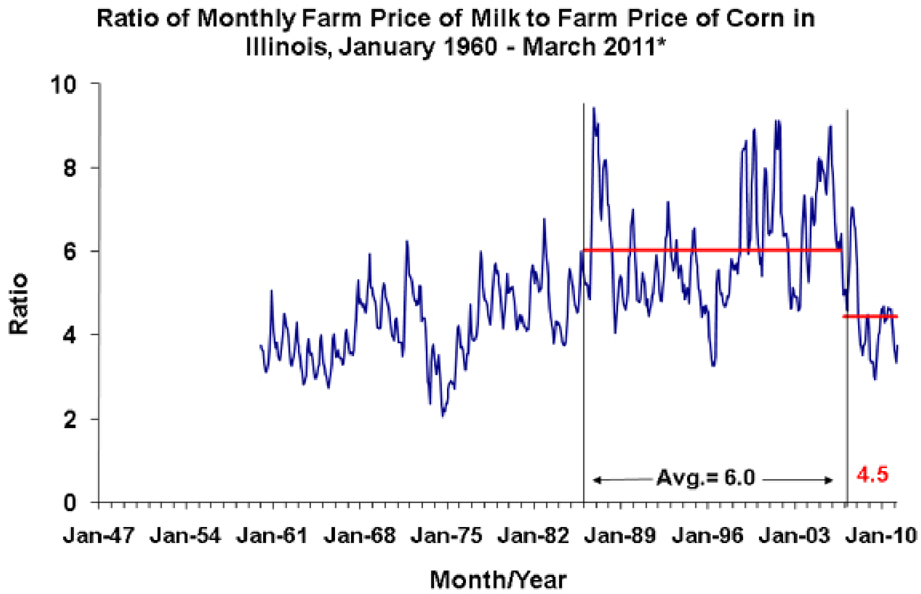
If the ratio of livestock to corn prices in the previous era is a useful benchmark for what we should expect in the new and emerging era of nominal agricultural prices, then it is hard to avoid a conclusion that further increases in livestock prices are forthcoming in the next few years.







Source: NASS/USDA

*March: mid-month

	Hogs	Cattle	Milk
Previous Era Price Ratio with Corn*	19.1	27.7	6.0
Price Needed to Restore Ratio based on March 2011 Corn Price	$106.93/cwt.	$155.02/cwt.	$33.72/cwt.
Price Needed to Restore Ratio based on Average Corn Price in New Era	$76.87/cwt.	$111.44/cwt.	$24.24/cwt.
March 2011 Price	$62.70/cwt.	$113/cwt.	$21.00/cwt.

*For both hogs and cattle, the previous era is January 1973 through September 2006. For milk, the previous period is January 1986 through September 2006.