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What Lies Ahead for Swine Feed Costs?

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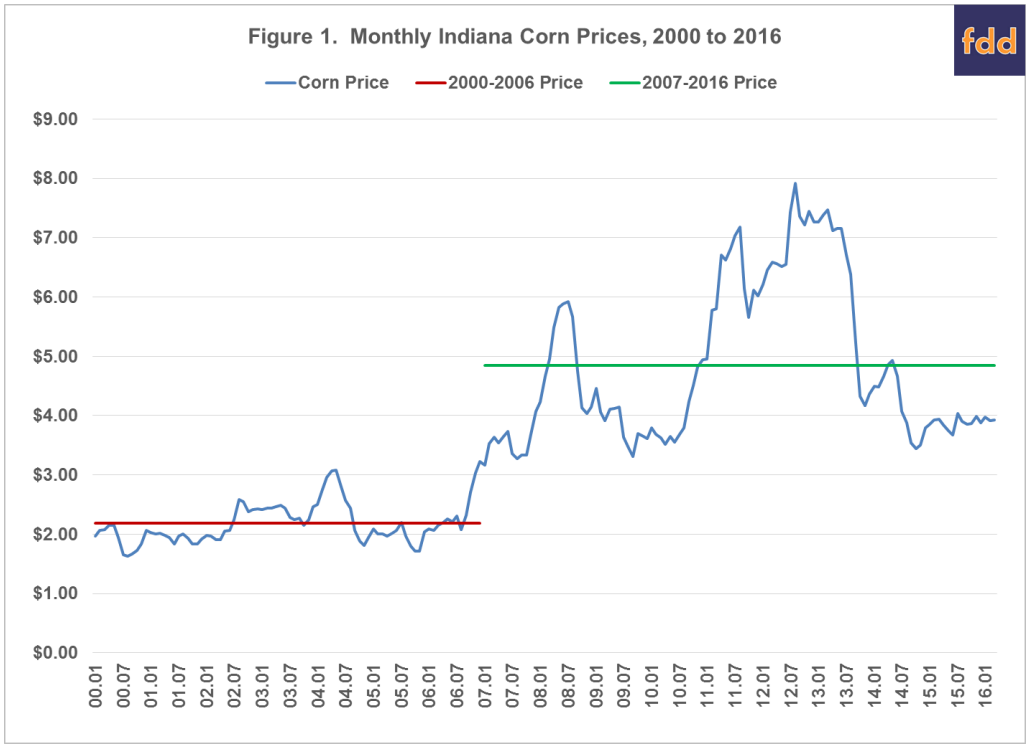
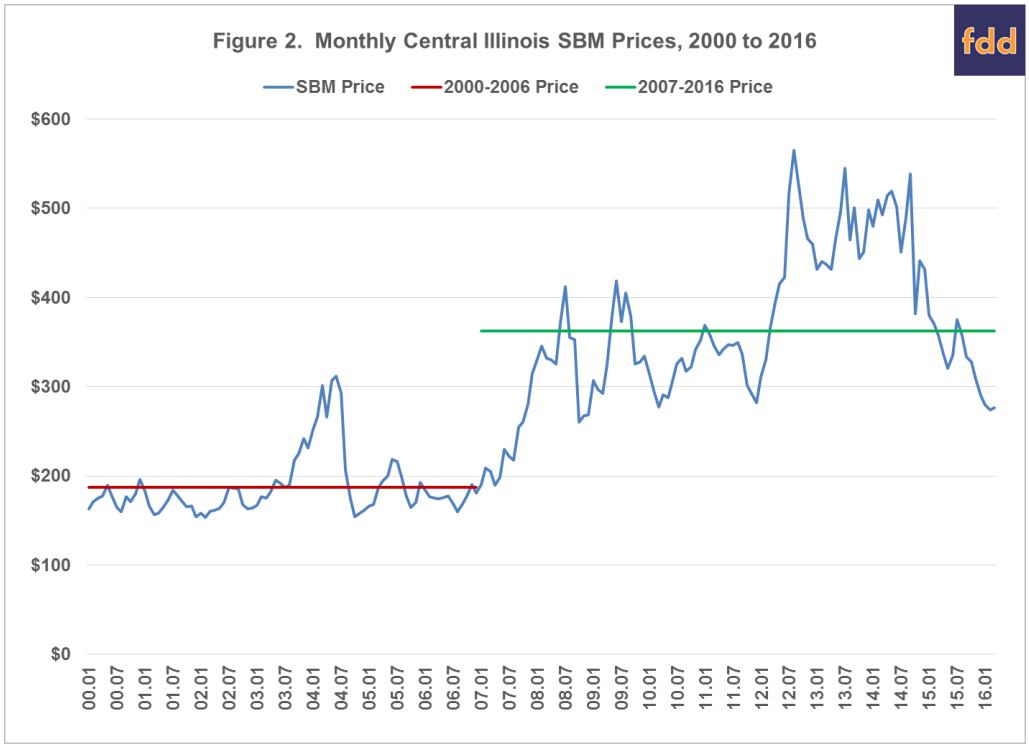
The recent volatility in the corn and soybean markets increases the uncertainty related to swine feed costs and margins. This article documents the impact of corn and soybean meal prices on feed cost indices for a farrow-to-finish enterprise and a hog finishing enterprise, and provides projections for both swine enterprises. It is important to note that the hog finishing enterprise assumes the finishing of an early-weaned pig. Rations for both enterprises consist of corn, soybean meal, dry distillers' grain, and supplements. Corn prices represent averages for Indiana as reported by USDA-NASS. Soybean meal and distillers' grain prices are obtained from *Feed Outlook*, published monthly by USDA-ERS. Information from *Agricultural Prices*, a monthly USDA-NASS publication, was used to compute supplement prices. Future prices for corn and soybean meal are used to project feed indices through 2017. Feed cost indices are reported on a closeout month rather than a placement month basis.

Corn and Soybean Meal Prices

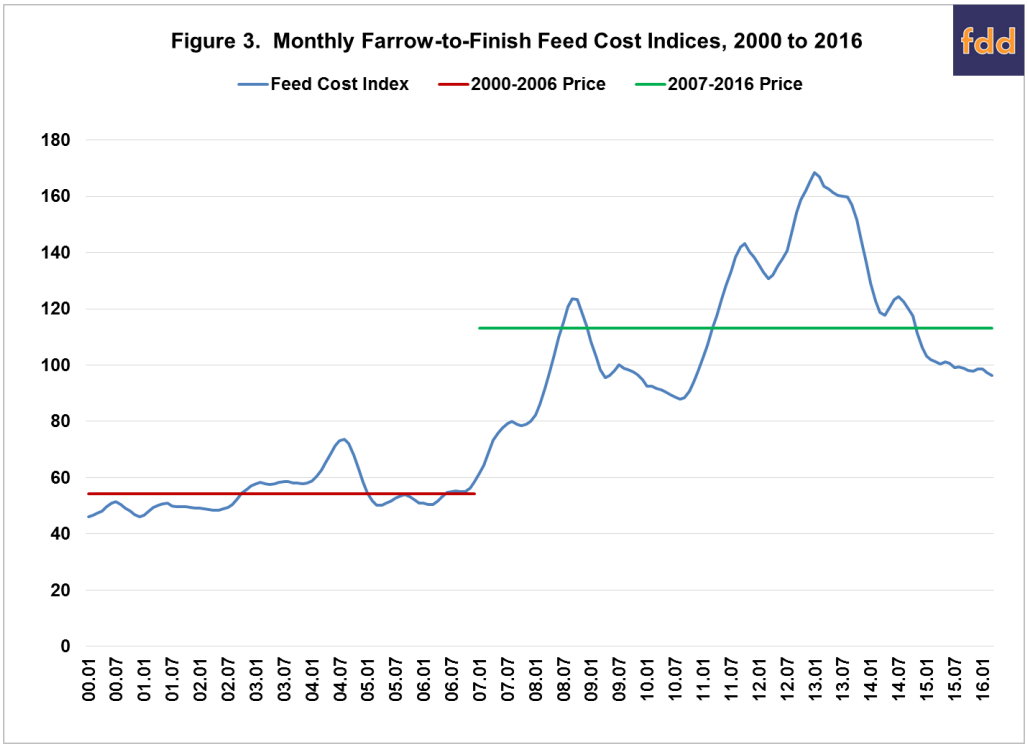
Figures 1 and 2 report monthly corn and soybean meal prices from January 2000 to March 2016. A distinction is made for prices before and after 2007. The period starting in 2007 is often thought to be a new price regime. Corn price averaged $2.18 per bushel from 2000 to 2006, and $4.84 per bushel from 2007 to the current month. Soybean meal price averaged $187 per ton from 2000 to 2006, and $362 per ton from 2007 to the current month. Corn price was above $4.84 from March 2008 to August 2008, from December 2010 to September 2013, and in April and May of 2014. Since June 2014, corn price has been below $4.84 per bushel. Soybean meal price was above $362 per ton in June and July of 2008, from May 2009 to September 2009, in January 2011, and from March 2012 to February 2015. Since March 2015, soybean meal price has been below $362 per ton; and below $300 per ton since December of last year. This illustrates how common it has been since 2007 for corn and soybean meal prices to spike. The recent increase in soybean prices could drive soybean meal prices up to or slightly above the average since 2007.



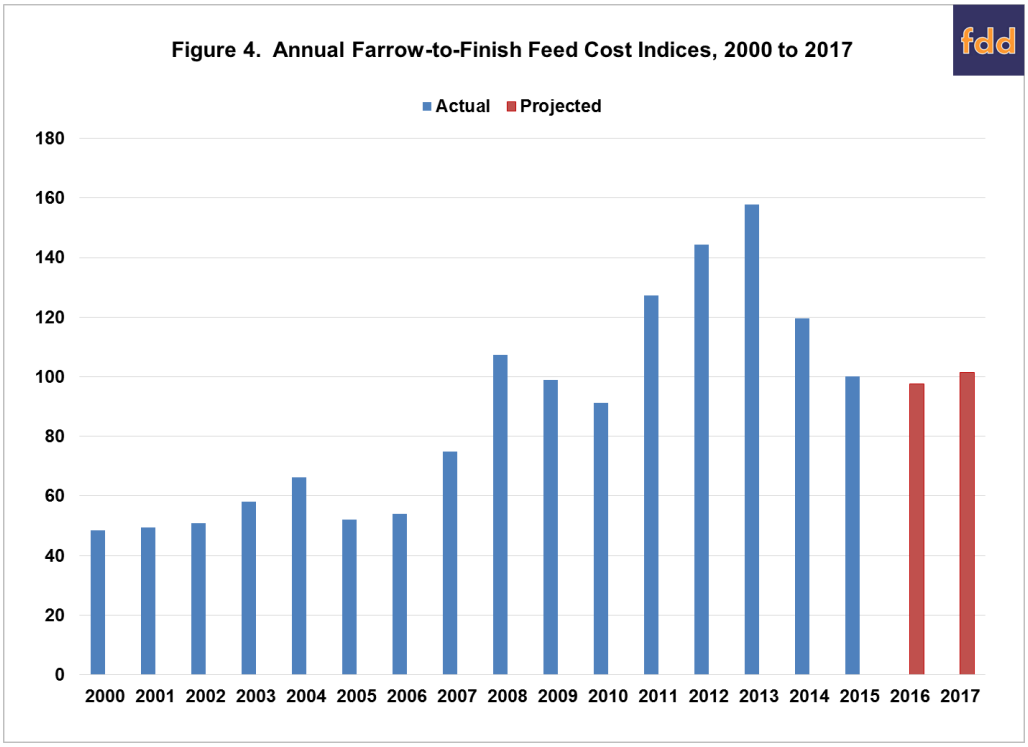


Farrow-to-Finish Enterprise

Figure 3 presents monthly farrow-to-finish feed cost indices from January 2000 to March 2016. The latest full year of indices, 2015, has an index of 100 so all indices outside of this year are expressed in relative terms. As with corn and soybean meal prices, a distinction is made for feed cost indices before and after 2007. The average index from 2000 to 2006 was approximately 54 while the average index since the beginning of 2007 was approximately 113. The index for March 2016 was 96 so current feed costs are 4 percent below the average for 2015.



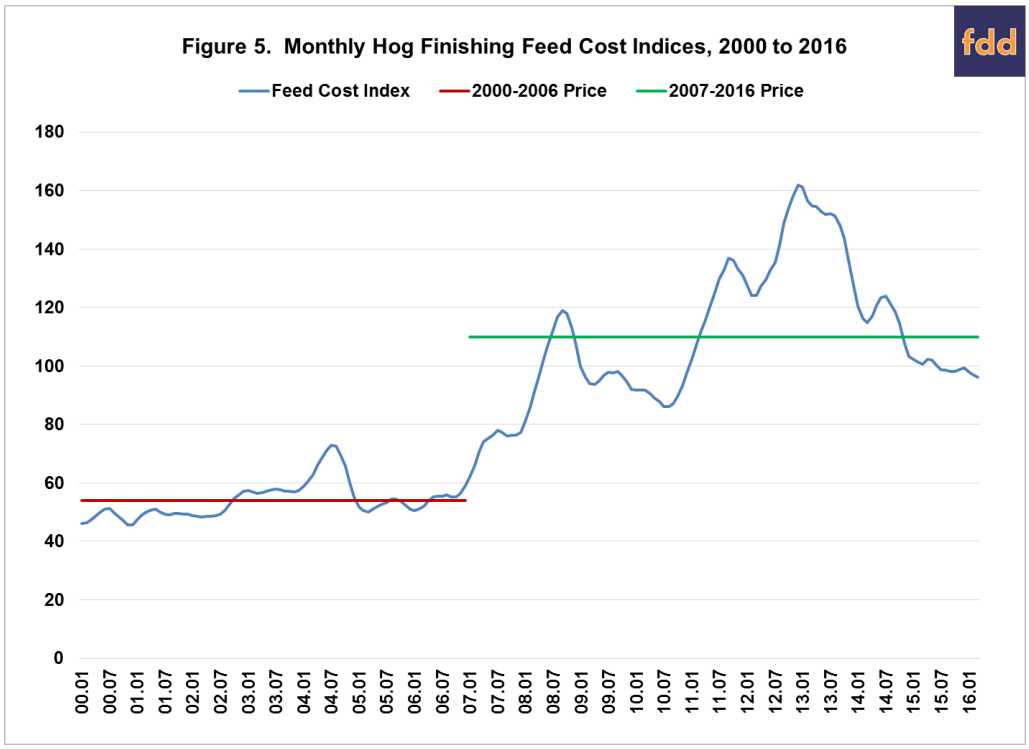
Annual farrow-to-finish feed cost indices are presented in figure 4. The projections for 2016 and 2017 (red bars) used corn and soybean meal futures prices in mid-May. The projected feed cost indices for 2016 and 2017 are 98 and 102, respectively.



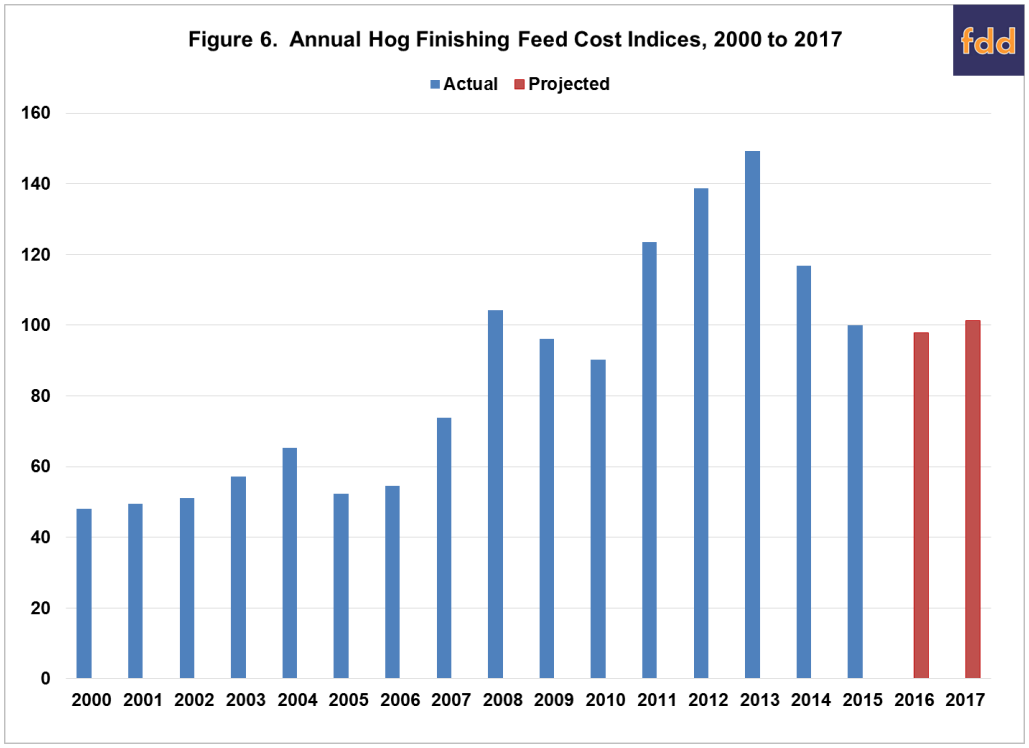
Hog Finishing Enterprise

Figure 5 illustrates monthly hog finishing feed cost indices for the January 2000 to March 2016 period. As with the indices for farrow-to-finish production, 2015 has index of 100, and a distinction is made between the before and after 2007 periods. The average index for the 2000 to 2006 period was 54 while the average

index for the period beginning in 2007 was 110. The index for March 2016 was 96 so current feed costs are 4 percent below the average for 2015.



Annual hog finishing feed cost indices are presented in figure 6. The projections for 2016 and 2017 (red bars) used corn and soybean meal futures prices in mid-May. The projected feed cost indices for 2016 and 2017 are 98 and 101, respectively.



Feed costs are obviously very sensitive to changes in corn and soybean meal prices. Regression analysis was used to examine the relationship between hog finishing costs, and corn and soybean meal prices.

Results are as follows: each 0.10 increase in corn prices increases feed cost per cwt by $0.47, and each $10 increase in soybean meal prices increases feed cost per cwt. by $0.33. Feed cost per cwt. in March 2016 was $31.92. Using expected corn and soybean meal prices, feed cost per cwt. is expected to range from $32 to $34 for the rest of 2016.

Conclusions

This article discussed recent trends in feed costs for hog finishing and farrow-to-finish production. Feed costs have dropped dramatically since the first quarter of 2014. Feed costs are expected to increase slightly in the later part of 2016 and into 2017. Additional information pertaining to feed cost indices for other livestock enterprises can found on the web site for the Center for Commercial Agriculture (here).

References

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