



## Prospects for Swine Finishing Costs in 2017

Michael Langemeier

Center for Commercial Agriculture  
Purdue University

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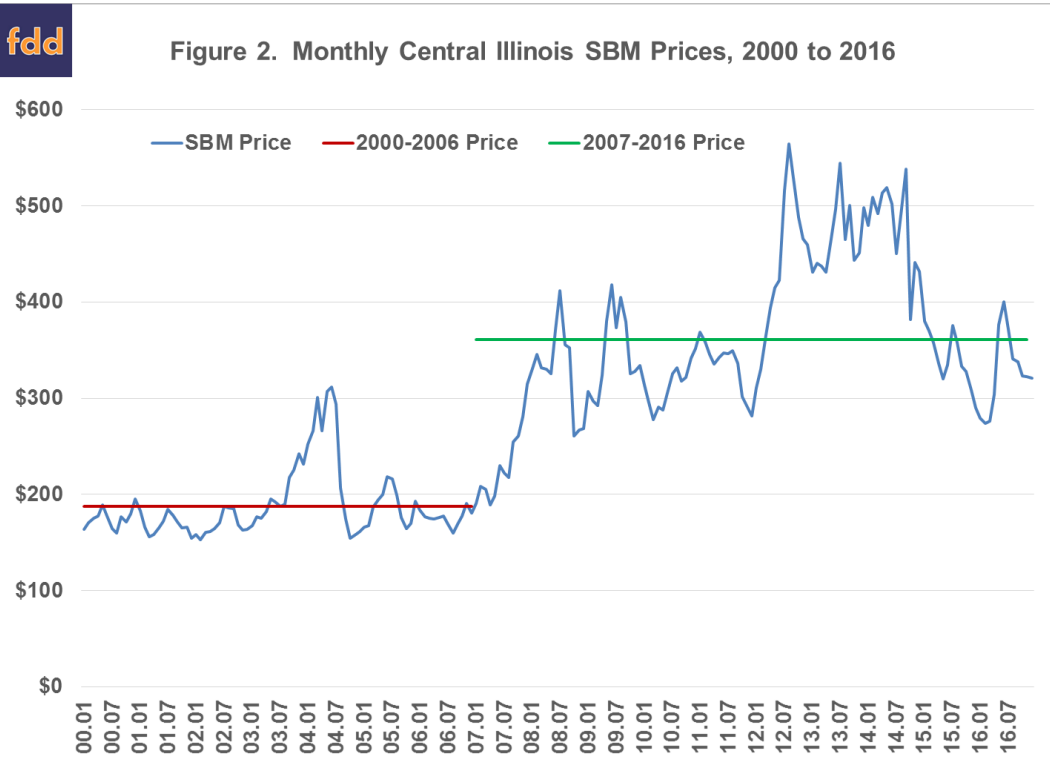
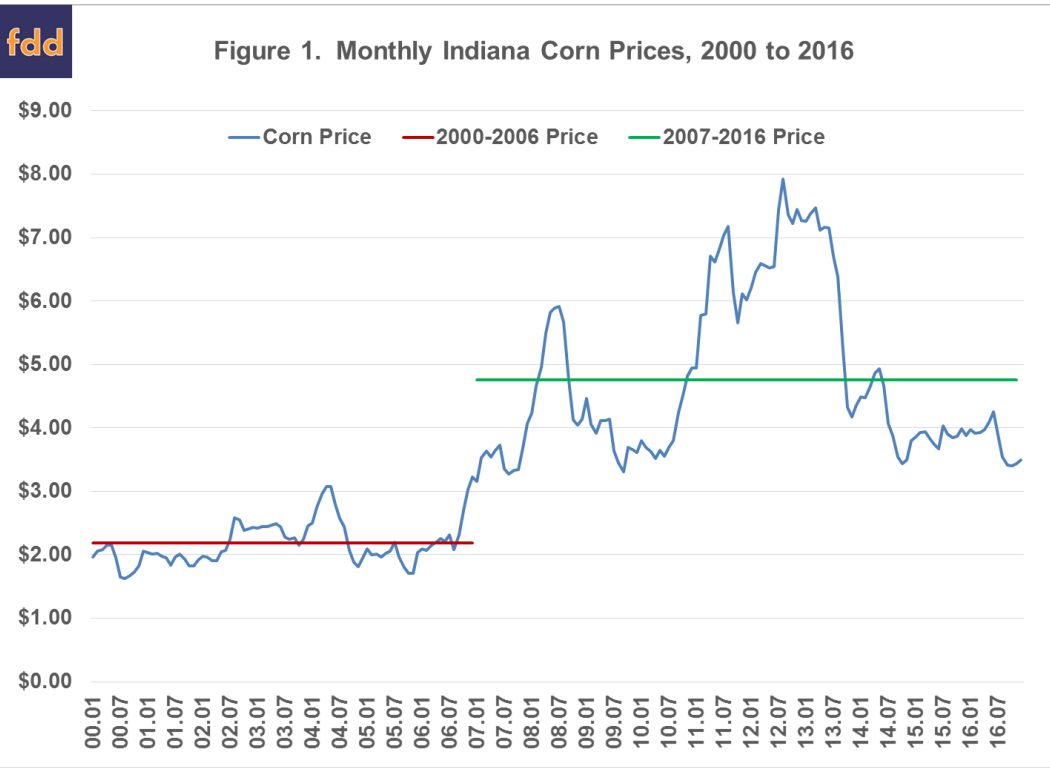
Hurt (*farmdoc daily*, January 3, 2017) notes the challenges facing the swine industry over the next several months. Though certainly not a panacea, feed costs are expected to be relatively low during the next several months. This article examines trends in feed costs as well as the impact of corn and soybean meal prices on swine finishing feed costs. It is important to note that the swine finishing enterprise represented in this article assumes the finishing of an early-weaned pig. The ration for this enterprise consists 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. Mid-January future prices for corn and soybean meal were used to project feed indices through 2018. 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 December 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 \$4.76 per bushel from 2007 to the current month. Soybean meal price averaged \$187 per ton from 2000 to 2006, and \$361 per ton from 2007 to the current month. Corn price was above \$4.76 from March 2008 to August 2008, from November 2010 to September 2013, and in April and May of 2014. Since June 2014, corn price has been below \$4.76 per bushel. Soybean meal price was above \$361 per ton in June and July of 2008, from May 2009 to September 2009, in January 2011, from March 2012 to February 2015, in July 2015, and from May to July in 2016. This illustrates how common it has been since 2007 for corn and soybean meal prices to spike.

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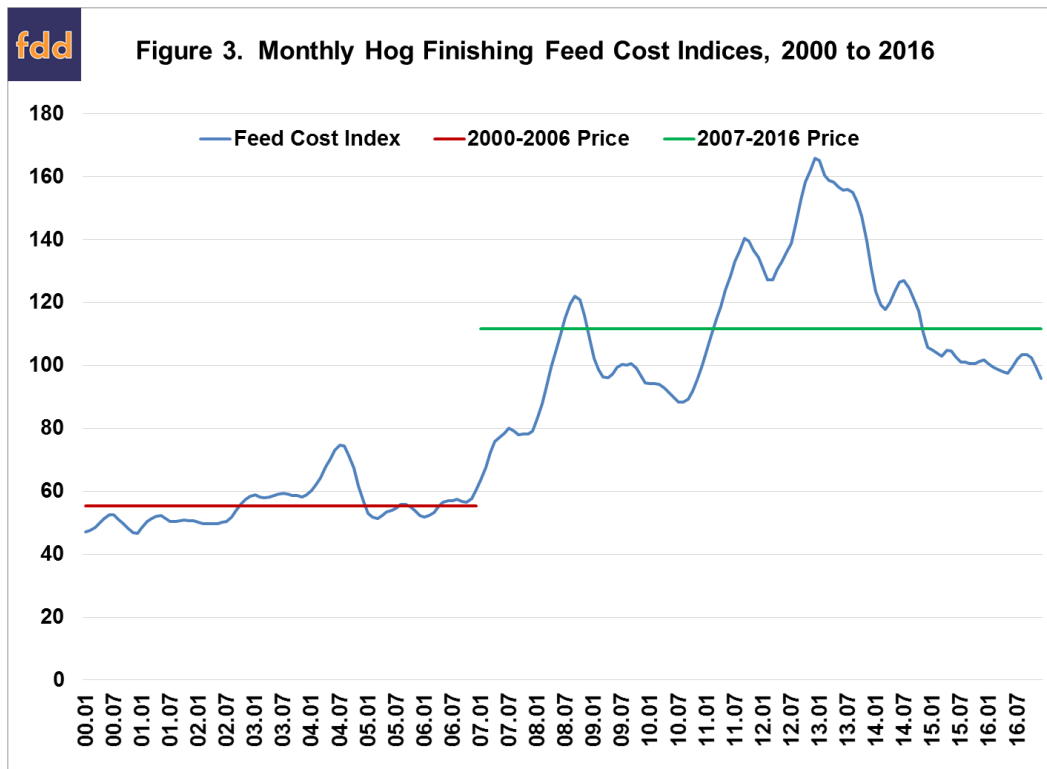
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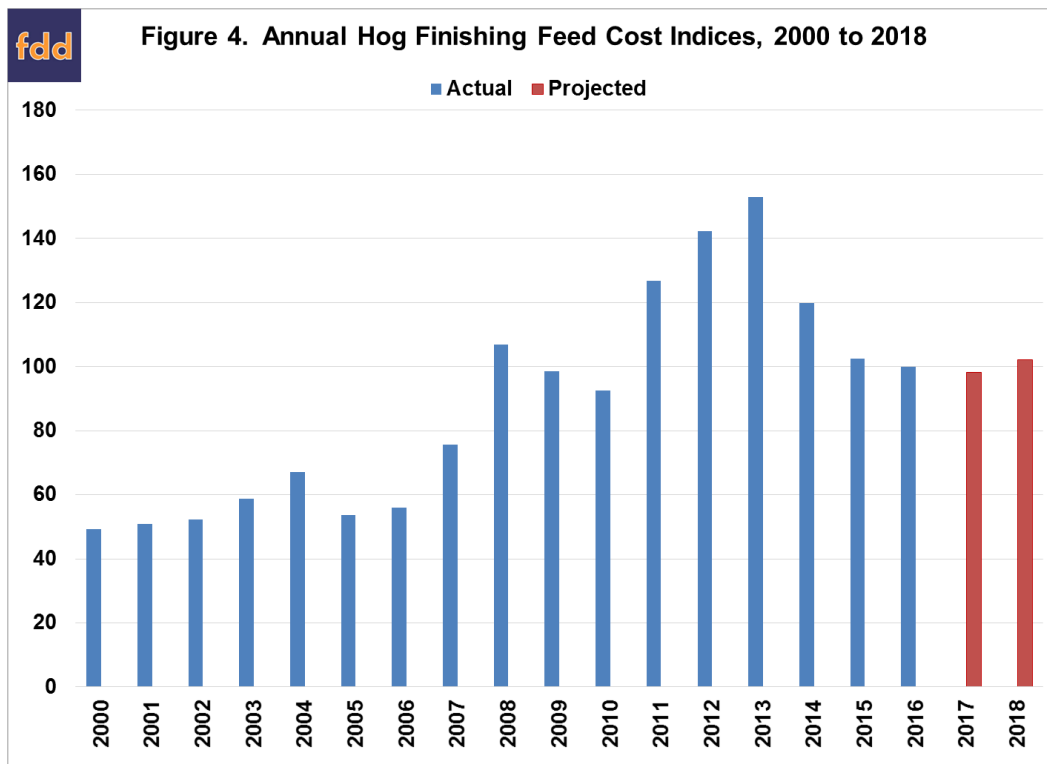
**Swine Finishing Enterprise**

Figure 3 illustrates monthly swine finishing feed cost indices for the January 2000 to December 2016 period. The latest full year of indices, 2016, 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 between the before and after 2007 periods. The average index for the 2000 to 2006 period was 55 while the average

index for the period beginning in 2007 was 112. The index for December 2016 was 96, so current feed costs are 4 percent below the average for 2016.



Annual swine finishing feed cost indices are presented in figure 4. The projections for 2017 and 2018 (red bars) used corn and soybean meal futures prices in mid-January. The projected feed cost indices for 2017 and 2018 are 98 and 102, respectively. Thus, swine finishing feed costs are expected to remain slightly below the 2016 levels in 2017.



## Sensitivity Analysis for Swine Feed Cost

Feed costs are 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 \$0.34. Feed cost per cwt. in December was approximately \$31. Using expected corn and soybean meal prices, feed cost per cwt. is expected to range from \$30.50 to \$32.50 for the rest of 2017.

Table 1 presents feed cost per cwt. for corn prices ranging from \$3.50 to \$4.50 per bushel, and soybean meal prices ranging from \$300 to \$400 per ton. At the lower range of prices, feed cost per cwt. would be approximately \$28.25. At the higher range of prices, feed cost per cwt. would be approximately \$36.25.

**Table 1. Sensitivity of Swine Finishing Feed Cost to Changes in Corn and Soybean Prices**

		Soybean Meal Price				
		300	325	350	375	400
Corn Price	3.50	28.29	29.13	29.97	30.81	31.65
	3.75	29.45	30.29	31.13	31.98	32.82
	4.00	30.62	31.46	32.30	33.14	33.98
	4.25	31.78	32.62	33.47	34.31	35.15
	4.50	32.95	33.79	34.63	35.47	36.31

## Conclusions

This article discussed recent trends in feed costs for a swine finishing enterprise, and provided projections for 2017 and 2018. Feed cost is expected to be slightly below 2016 levels in 2017 and slightly above 2016 levels in 2018. However, given the recent volatility of corn and soybean meal prices, it is important to gauge the impact of changes in these prices on feed cost. Each \$0.10 per bushel change in corn price, changes feed cost by \$0.47 per cwt. Similarly, each \$10 per ton change in soybean meal price, changes feed cost by \$0.34 per cwt.

## References

Hurt, C. "[Weekly Outlook: More Pork in 2017 With Higher Hog Prices?](#)." *farmdoc daily* (7):1, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, January 3, 2017.