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# IFES 2018: The New, New Era of Grain Prices?

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*This is a presentation summary from the 2018 Illinois Farm Economics Summit (IFES) which occurred December 17-21, 2018. A complete collection of presentations including PowerPoint Slides (PPT) and printable summaries (PDF) are available here.*

A crucial question at the present time is whether recent levels of grain prices represent the "new normal" or whether there is the prospect of a return to the much higher prices from 5 to 10 years ago. Our long-held position has been that grain prices moved to a new era of higher average nominal prices beginning in late 2006. We review those new era projections in this presentation and take a fresh look at the data. We conclude that there is a need to decrease price expectations moving forward.

In our earlier work, the projection of average monthly prices in Illinois during the new era was centered on corn since it was believed that the new era of prices that began in late 2006 was associated with the rapid expansion in biofuels (ethanol) production and the impact on corn demand. The first era was the post-war period that extended from January 1947 through December 1972 when the average monthly corn price in Illinois was $1.28 per bushel. The second period, associated with the rapid increase in corn export demand in 1973, extended from January 1973 through November 2006 when the average monthly price of corn was $2.43. The projection of the average price in the new era made the simple assumption of an equal percentage price change that occurred between the previous two eras. The average price projection was calculated as ($2.43/$1.28) X $2.43 = $4.60. Soybean prices were projected at $11.04 using a 2.4:1 price ratio with corn.

These new era price projections proved to be remarkably accurate if one considers the last 12 years as a whole. The average monthly price of corn to date in the new era was $4.43 per bushel and the average monthly price of soybeans was $11.03 per bushel. However, this masks an important pattern, with very high prices during the first eight years of the new era and then much lower prices the last four years.

A review of price patterns in the previous two eras after World War II reveals a similar pattern. The first phase of each era is characterized by a positive demand shock that pushes prices up sharply. The demand shock differs in each era. For example, it was the Marshall Plan and the Korean War in the first era and ethanol and the RFS in the most recent era. The price boom in the early years of each era causes an investment boom in agriculture and the cost structure for grain production is bid up. Inevitably, acreage expansion and increasing trend yields allows supply to catch up with the demand shock and this begins the second phase of each era. In this phase, productivity gains tend to outpace demand growth,

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putting downward pressure on price. This second phase can be considered a return to the post-WWII norm of declining crop prices in both nominal and real terms.

A critical feature of the first two eras of grain prices after WWII is direct government intervention in the markets. As the effects of the demand shock faded and prices declined, there was in each case a massive government effort to keep prices from falling too much below the new higher average levels established in the first phase of the era. Two main tools were used. The first was the CCC loan program, which established minimum selling prices for farmers. Loan rates were raised early on in the first and second eras, but this led to huge surplus stocks of government owned grain. The government then turned to the second tool—supply control thru annual acreage set-asides and conservation reserves. The bottom-line is that grain prices in the second phase of the first two eras did not represent true market equilibrium levels.

This two-phase model of grain price eras can be applied to the latest era that began in late 2006. Phase one of this new era can be dated from November 2006 through July 2014 where the monthly price of corn in Illinois averaged $4.90. Note that this was well above our original new era average price projection of $4.60. In the four years since August 2014, the average monthly price was only $3.56, a decline of more than $1 per bushel or more than 20 percent. This average was substantially below our original average price projection for the new era.

If one projects future prices based on the last four years it would suggest nominal prices declining slightly and averaging around $3.35 the next few years. However, this approach is too pessimistic because it does not account for the exceptionally good growing season weather we have had in the U.S. the last four crop years. Assuming a return to the long-run frequency of significant weather problems of about 1 in 8 years, a long-run average monthly price of about $3.75 in Illinois is more reasonable. The range of monthly prices around this average is projected to be $2.90 to $5.50. Similar analysis for soybeans puts the average price at $9.00 and the range from $7.00 to $13.00.

A key difference between the latest era of grain prices and the previous two eras is the level of government support for prices. There has been no effort to raise loan rates and there is nothing on the horizon to indicate a return to the massive supply control programs of the past. While there is a counter-cyclical/target price feature in the new farm bill and the RFS provides important demand-side support, grain producers in the U.S. are operating with a lower safety-net compared to previous eras. We are in uncharted waters as far as potential downside price risk is concerned.

**Additional Resources**

The slides for this presentation can be found at: http://www.farmdoc.illinois.edu/presentations/IFES_2018

For related analysis, see the following *farmdoc daily* articles:

Irwin, S. and D. Good. "The New Era of Crop Prices — A Five-Year Review." *farmdoc daily* (3):38, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, February 27, 2013.