PolicyPennings by Daryll E. Ray & Harwood D. Schaffer

So how did prices fare following other "golden eras" in agriculture?

What are crop prices going to look like over the next 5 years? That is the question on farmers' minds as they make their election between two commodity programs, Price Loss Coverage (PLC) and Agricultural Risk Coverage (ARC). Prices over that period make a difference because if the season average price remains below the reference price, the PLC will likely provide farmers with higher government payments than ARC over the tenure of the farm bill. If prices remain above the reference price, PLC will provide farmers with nothing while those who elect ARC will receive payments when the revenue per acre at the county level declines below the five-year Olympic average. If the revenue per acre increases they get nothing.

We think it is instructive to look back at the three previous periods that farmers have seen as golden eras in agriculture World War I, World War II and the export-led boom of the 1970s to see what lessons they might offer about subsequent-year price levels.

During the 1916-1919 period, US corn prices averaged $1.35 per bushel, a price not seen again until 1946. This price was 135.6 percent higher than the $0.57 average price over the prior ten years. With the end of WWI and the recovery of agriculture in Europe prices fell precipitously.

Over the next four years, US corn prices averaged $0.61 per bushel, a decline of 54.7 percent and over the full 1920-1940 interwar/Depression period the price was not much different averaging $0.65 per bushel. There is some real justification for the complaint of farmers that they entered the Great Depression, 10 years before the rest of the nation.

The 21-year average includes two years where the price was $0.29 per bushel, reflecting the failure of the Federal Farm Board's attempt to remove excess supplies from the market without including any provision for reducing production. Prices could fall that low because there were no programs to provide a floor on prices.

Corn prices increased to an average of $0.99 per bushel during WWII, the 1941-1946 crop marketing years, an increase of 53.5 percent over the interwar/Depression period. Though the price was not as high as those seen during WWI, the rising prices during the war were a welcome relief for farmers.

Determined not to make the same mistake that was made following WWI, Congressional policy makers established floor prices in the post-WWII period though the price in the 1950-1970 period averaged only $1.24 per bushel and never fell below $1.03.

When the export boom of the 1970s hit, corn prices peaked at $3.20 in 1974 and averaged $2.33 per bushel over the 1975-1995 period, a decline of 20 percent from the 1974 peak. An increase in the loan rate to over $2.00 per bushel provided a higher floor on prices. Without the new higher floor prices, it can be argued that marketing year prices for corn would have fallen closer to earlier levels.

The latest sustained period of profitable corn prices began in 2006 in response to the increase in demand for corn by ethanol plants. In 2012, the season average price peaked at $6.80 per bushel in response not to additional ethanol demand but rather to a major drought in much of the US corn production area. Two years later the projected price for a bushel of corn is $3.65, a drop of 47 percent.

Looking at the three previous periods of sustained crop profitability, the current situation is more like the situation after WWI than WWII or the export boom of the 1970s. The similarity with the interwar/Depression period is the current lack of a price floor—that was eliminated with the 1996 Farm Bill.

That raises the question, how would the ARC compare to the PLC if they had been in effect in the 1920-1940 period? We used national data to give tentative answer to that question.

To compute the reference price for the interwar/ Depression period we used the percentage difference between the average of the corn price for 2011 and 2012 and the current reference price. We then multiplied it times the average of the corn price for 1919 and 1920 yielding a reference price for the earlier period of $0.67 per bushel. For yield we used the average yield for the 1910-1919 period (25.9 bushels per acre).

To make the calculation for the ARC we computed the olympic average of price—using a $0.67 plug for prices below that—and the olympic average of yield for each year.

The PLC paid out during the 12 years where the marketing year price paid to farmers was lower than the reference price with a total payment of $44.43 per acre over the 21-year period. ARC payments would have been made in 14 years for a total of $7.82 per acre. While the current law only locks farmers in for 5 years, this exercise gives an inkling of the problems ARC faces during long periods of low prices.

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