

Price floor? There is no price floor.

In last week's column we examined the assertion that corn prices moved from the \$1.00 per bushel price plateau in the 1947-1972 period to a \$2.00 price plateau in the 1973-2005 period and ultimately a \$4.00 price plateau following 2005.

Absent any discussion of the influence US agricultural policy might have on prices, the assertion of the existence of successive price plateaus for corn—as well as crops that directly or indirectly compete with corn for acreage—suggests that people hold the implicit and thus untested assumption that there is a natural price floor that limits how low the price of corn can go in any particular time period.

In addition, it is our observation that most non-supply-management policy proposals rest on the same assumption. While no one would deliberately design farm programs that they believed would be inadequate under expected prices, we believe that their expectations are too optimistic, thus the implicit assumption of a natural price floor.

Unfortunately, the lower the price goes the lower the effective level of protection afforded by these programs and the higher the cost to the US government. Certainly, most people would agree that the current programs are inadequate to protect farmers against corn prices that fall into the low \$3.00 or below price range.

So, what would cause people to believe that there is a natural price floor that limits how low the price of corn can go in a particular time-period?

Do they think that the users of corn have silently agreed to a price level below which they will not go in obtaining the corn they need for their industry? To us it seems irrational to believe that industrial buyers consider the welfare of farmers when they are bidding for the delivery of 50,000 bushels of corn, soybeans, wheat, or other crops. We think it is more likely that buyers are motivated to fulfil their grain and oilseed needs at the lowest possible price.

On the other hand, those who hold an implicit belief in natural price floors might think that farmers will respond the same way automobile companies do when they reduce their production in response to unsold vehicles, but that is unlikely. We know of few if any agricultural economists who deny the low price-elasticity of supply and demand for agricultural products when prices are low and declining.

In the face of lower prices, farmers do not reduce their production as some have argued. Rather they have every incentive to increase their productivity so they have more bushels over which they can spread their fixed costs and reduce their losses.

If a farmer goes bankrupt, he or she may leave agriculture, but the land remains in production under a new owner or renter. And typically, that new owner has deeper pockets and the wherewithal to increase the productivity of the land.

Might input costs adjust significantly in the face of low prices? The price of land may decline marginally. But there would have to be a large number of bankruptcies over a wide area to drive land prices low enough to return corn production to profitability when the price remains at the \$3.10 level or lower.

In peri-urban areas, we would see farmers convert farmland to housing and industrial tracts. Even with that source of agricultural land loss, the reduction in available cropland historically has not been sufficient to increase crop prices to any significant degree. Eventually other lands would be drawn out of production but too slowly to prevent sector catastrophe.

Input prices might decline somewhat in the face of softened demand, but in the current setting farmers have little choice but to purchase technology-laden seeds every year. This limits the incentive of seed and chemical companies to drop prices significantly.

If there are inadequate adjustments in production and input costs in response to sustained low prices, what does the future look like? What can we glean from history?

In the post-Civil War era, corn prices declined from \$0.781 per bushel in 1867 to \$0.214 in 1896 a decline of 73 percent. Similarly, between the end of WWI in 1919 and the 1932 crop marketing year, the price of corn declined from \$1.45 to \$0.292, a decline of 80 percent.

In the current period the price of corn has declined from a season average price of \$6.89 in 2012 to the expectation of \$3.60 in the current 2019 crop marketing year, a decline of 48 percent. The USDA forecasts a corn price of \$3.10 for the 2020 crop marketing year, a 55 percent decline from the 2012 peak. Both recent percentages are well below historical “low water lines.”

Between 1867 and 1896, the area under cultivation increased faster than demand while yields remained stable. In the current era, the area under major crop cultivation has remained stable while yields have increased faster than demand creating a surplus that drives prices downward.

Despite the current low prices, we have undernutrition in the US and some 1 billion people around the world who cannot afford to purchase the food they need to survive.

From our perspective, there is no natural (that is: market-driven) price floor capable of sustaining prices that would maintain a new price plateau. The only effective guardrail against precipitous price declines is to let the Commodity Credit Corporation (CCC) take excess supplies off the market.

If we are to avoid a gut-wrenching farm crisis greater than what we saw during the 1998-2001 crop years, agricultural policy needs to establish a non-recourse loan rate set in the range of 95 percent of the full cost of production coupled with the elimination of the Marketing Loan Gain program while allowing the CCC to acquire storable commodities as payment for crop marketing loans.

With that kind of program, we will have an explicit price floor and a sustainable price plateau.

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