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PolicyPennings by Dr. Daryll E. Ray

How does this crop price run-up compare with previous price surges?

How long can this go on? How much higher will corn prices go? Those questions are of concern not only to corn farmers but to producers of other crops as well. In general the price increase for other commodities followed that of corn as crops competed with each other for acreage as, within agronomic and weather limits, farmers shift to the crop with the greatest profit potential.

Leaders of a number of nations are also interested in the answers to those questions. Are they facing decades of tight food supplies? What plans do they need to make to ensure that the citizens of their countries have access to adequate diets?

To get a handle on that question, we examined monthly nearby futures ending corn price data from January 1949 to date. Over that period there were six major run-ups in the price of corn. We looked at those price spikes, to determine their duration from start to finish. The peaks were easy to identify. The identification of the beginning and end of the price peaks were more subjective, but results may still provide some insight into the present market.

The first major price spike in corn following WWII began from a low of \$1.26/bu. closing price in July 1972. This price spike was primarily demand driven, including the strong entry of the Soviet Union into the world grain markets. The monthly closing price peaked in July 1974 at \$3.90/bu., an increase of 308%.

By the next summer, June 1975, the price had fallen to \$2.3575 and then bounced back into the upper \$2 range for 23 months. The price then descended to \$1.9175 for the August 1977 close.

The price rise was 24 months from start to peak and 37 months from peak to bottom with a total duration from start to finish of 61 months (Table. 1). This price rise established a new price plateau that was \$1.08 above the previous period.

Over the next two decades there were four price spikes, all supply (actually lack thereof) driven. The first price spike of that period lasted 31 months from low (a March 1980 close of \$2.5825), to high (a November 1980 close of \$4.09), and back to low (October 1982 close of \$2.1525, a monthly closing price not seen since five years earlier in October 1977). The total duration from start to finish was 31 months.

The second price spike of this period started from the October 1982 low and rose to a double peak in August 1983 (\$3.595) and March 1984 (\$3.5325) before beginning a long descent to a US policy driven low of \$1.5375 as the February 1987 close. This price rise was triggered by the institution of the PIK (Payment In Kind) program combined with a yield drop that combined to produce a drop in production of 49 percent. The 1983 PIK program was an attempt to reduce government stocks by paying farmers with crops from storage in exchange for reducing their planted acreage. Farmers responded with greater reductions in acreage than was anticipated.

The third price spike started from the February 1987 low and peaked 16 months later with a June 1988 close of \$3.455 followed by a low of \$2.205 for the July 1989 close. The duration of the spike from low to low was 29 months.

In October 1994, the first price peak began from \$2.1675 and increased steadily for 18 months to a monthly ending price peak of \$4.52 in April 1996. This price rise was triggered by a 26 percent drop in production. A low was achieved 28 months later when the price bottomed out at the end of August 1998 at \$1.995.

The current price rise began 20 months ago partly over concern that US corn supplies might not be adequate to meet the demand of corn-to-ethanol plants that were in production, under construction, and on the drawing boards. As of April 18, 2008 the nearby

Table 1. Corn Price peaks, January 31, 1949-April 18, 2008.

| Corn | Jul-74 | Nov-80 | Aug-83 | Jun-88 | Apr-96 | Apr-08 |
|-----------------|--------|--------|--------|--------|--------|--------|
| Start to Peak | 24 | 8 | 10 | 10 | 18 | 20* |
| Peak to Bottom | 37 | 23 | 48 | 13 | 40 | |
| Total Duration | 61 | 31 | 58 | 23 | 58 | |
| Percentage Rise | 308 | 158 | 167 | 207 | 209 | 252* |

Time in months

^{*}As of April 2008

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futures close was \$6.26.

For the four supply driven price peaks, the time from start to peak varied from 8 to 18 months and the price rise ranged from 158 percent to 209 percent.

By way of contrast, the demand driven price peak of 1974 took 24 months from start to peak, four months longer than the current run up in prices and triggered a 308 percent price increase. In the current market, the price of corn represents a 252 percent increase above the start.

Because each event is determined by a unique set of circumstances, it is impossible to predict when the current rise in prices will peak. For example, there were wheat and rice production short-falls in 2007 that provided additional price acceleration for grains.

Also, some would argue that this primarily demand-based price run-up is different from other price surges. The ethanol subsidies and mandates do indeed support that position.

Even after ethanol runs its course, there is the argument of increased population and income growth

worldwide, especially in China and India.

But of course those of you who have listened to grain export projections for several decades know that rosy long-term, consistently growing, crop export projections have not materialized heretofore. Only time will tell.

What the historical data does tell us is that gravity seems to hold for prices as well as Newton's apples. How far it will fall is difficult to predict.

The plateau that was established in the 1970s was sustained by a non-recourse loan rate that was no lower than \$2.00 or above from 1978 through 1985. In the current atmosphere there is no floor on prices.

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