

U.S. Corn exports show little effect from exchange rates

Although I grew up Iowa, I often take the stance of the neighbors to the south of my boyhood home. Over the years I have seen and heard scores of statements that seem logical, are backed by theories that work extremely well in other venues, but are not supported by data or observable in aggregate agriculture. As a result you might say that I am from the "Show Me" school of agricultural economics.

The exchange rate issue is a case in point. It is asserted that the high value of the U.S. dollar in the world marketplace has provided our export competitors in the grain markets with:

- a price advantage that has enabled them to capture sales that otherwise would have gone to the United States and,
- an extra measure of profitability that has encouraged them to increase their acreage despite falling world prices.

Recently we looked at soybeans to see if we could find data to back up either of these assertions. We found none. Our examination of the international soybean marketplace suggests that exchange rates are not a primary cause of the U.S. soybean trade problems and low prices.

This week let's take time to look at the corn markets and see what we find there. The U.S. is a more dominant force in the international corn market than in the soybean market, generally garnering 60 to 75 percent of total exports. As a result the next larger corn exporter, Argentina, has a much smaller imprint in the market than our soybean competitors.

In soybeans, we saw that the Argentinians floated all of their exportable soybean complex products out of their ports in the year that they were produced. It made no difference whether the exchange rates were favorable or unfavorable, they always exported all of their surplus production, keeping their carryover stocks at minimal levels. Looking at corn, we see the same pattern. If they produce it, they sell and ship it. Yield and area harvested are the determining factors in explaining the varying levels of Argentine corn exports. Like with soybeans, exchange rates do not

appear to be a major determinant of the quantity exported.

When it comes to corn, as compared to soybeans, Argentine acreage shows more variation. Does the relative exchange rate with the United States affect Argentine producers' decisions to move acreage in and out of corn? Do Argentine producers enjoy a greater level of profitability over their U.S. competitors sufficient to encourage them to increase the number of acres planted to corn?

Adjusting for the effects of exchange rates and inflation, the effective price realized by Argentine producers (Figure 1) for their corn crop fell during the 1996-2000 time period. Although the drop was not as steep as for U.S. producers, the effective price for corn provided the Argentinians with little incentive to bring extra acreage into production. Relative to the previous year, planted acreage dropped each year, with the exception of 1999. Even though the effective price dropped by 18 percent during the 1998 standard year, Argentine producers increased their acreage the following year by 15 percent. Clearly, factors other than relative exchange rates are needed to explain that kind of decision on the part of Argentine producers.

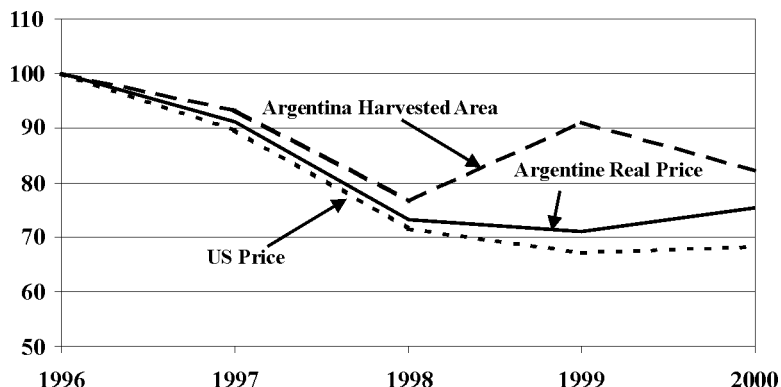


Figure 1. Index of Argentine harvested acreage, Argentine real price, and the U.S. nominal price for corn, 1996-2000. Indexed to 1996=100. Source: Harvested area and U.S. price – USDA PS&D, Exchange rate factors used to adjust price – USDA ERS.

Another major competitor in the corn export market is China, who by many 1996 accounts was supposed to be a net importer. In fact it was projections of growing corn imports in China that led USDA and others to paint a rosy picture of corn markets for the duration of the 1996 Farm Bill. The country that was supposed to be a major purchaser during the 1996-2000 time period turned out to be our third largest competitor after Argentina and the European Union (EU-15).

In discussing relative exchange rates, the Chinese Yuan was actually stronger than the "strong" U.S. dollar in 1997, 1998 and 1999 (Figure 2). If one holds to the exchange rate argument then such a factor should have provided the Chinese with little incentive to maintain or increase their corn acreage base. But, that is just what they did. Throughout the 1996-2000 time period, they maintained their corn acreage very close to 1996 levels.

We then looked at Chinese surplus corn production levels (production

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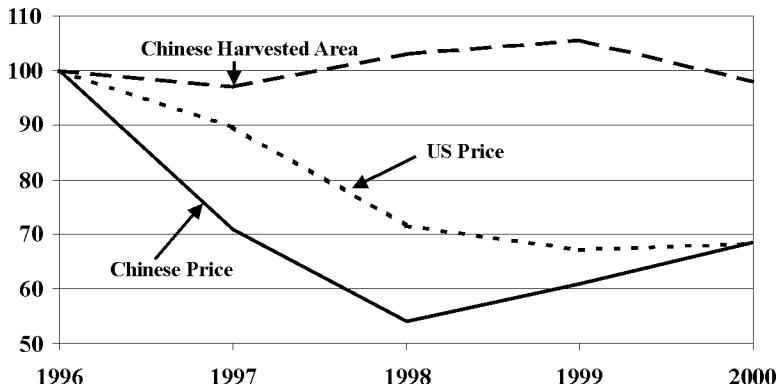


Figure 2. Index of Chinese harvested acreage, Chinese real price, and the U.S. nominal price for corn, 1996-2000. Indexed to 1996=100. Source: Harvested area and U.S. price – USDA PS&D, Exchange rate factors used to adjust price – USDA ERS.

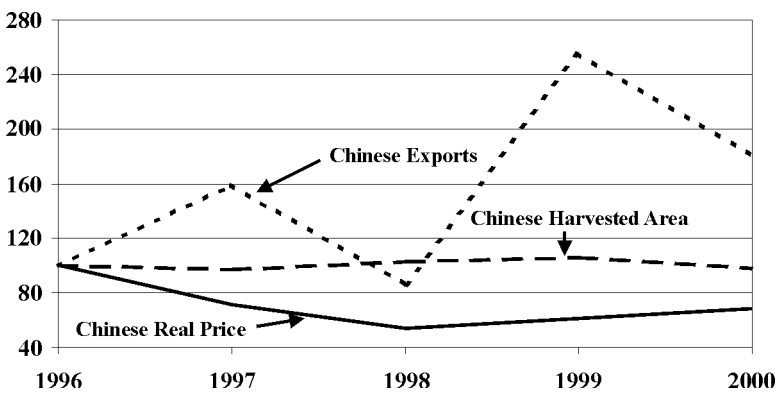


Figure 3. Index of Chinese harvested acreage, Chinese real price, and the Chinese exports for corn, 1996-2000. Indexed to 1996=100. Source: Harvested area and Chinese exports – USDA PS&D, Exchange rate factors used to adjust price – USDA ERS.

minus domestic demand) to see if there was a correlation between that and export levels. What we saw was that, unlike with Argentina, there is very little correlation between surplus production and exports.

If surplus production were not the driving force behind Chinese corn export levels, then perhaps we might expect that they held their surplus when price and exchange rate adjusted returns were low and sold the surplus when adjusted returns would give them the greatest advantage (Figure 3). As is apparent in the chart, the Chinese do not necessarily export their surplus corn when it provides them with the greatest profit.

Once again exchange rates seem to have very little to offer when looking at the behavior of one of our major crop competitors. Again, I am willing to be convinced that exchange rates has had a major detrimental effect on U.S. exports of major crops, but saying the words won't be sufficient-you will have to show me the data/statistical evidence.

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