

## Exchange rates: Are they the soybean market's whipping boy or culprit?

The strong dollar has become a favorite "whipping boy" for crop agriculture's price and income problems. Before you and I get out our whips, let's check the data for evidence that the high value of the U.S. dollar—compared to our export competitors' currency—is to blame for crop agriculture's lack of market-based prosperity.

Let's look at soybeans. Focusing on soybeans will allow us to draw on and extend analyses presented earlier in this space. Besides that, soybeans is the bulk commodity that government officials, farm organization leaders and the agricultural press mention most often when blaming the strong dollar for the loss of export markets and share. While exchange rate levels may affect bulk commodities relatively similarly, their impact on high-value agricultural imports, such as pork, beef and poultry, could be considerably different. We will leave an examination of exchange rate effects on high-value agricultural products to another day.

If relative exchange rates of two countries were a major factor in determining which country sold its bulk commodities first, then we would expect the country with the favorable exchange rate would win that race with the other country picking up the leftovers, storing what it could not sell. In earlier columns we saw that whether the exchange rate was favorable to Argentina and Brazil or to the United States, the two South American countries exported virtually all of their exportable surplus soybeans and soybean products in the year of production, leaving carryover levels relatively flat. Aside from the steadily increasing soybean acreage in both countries, we also saw that the level and variation in Brazilian and Argentine exports most closely followed the level and variation in soybean yields.

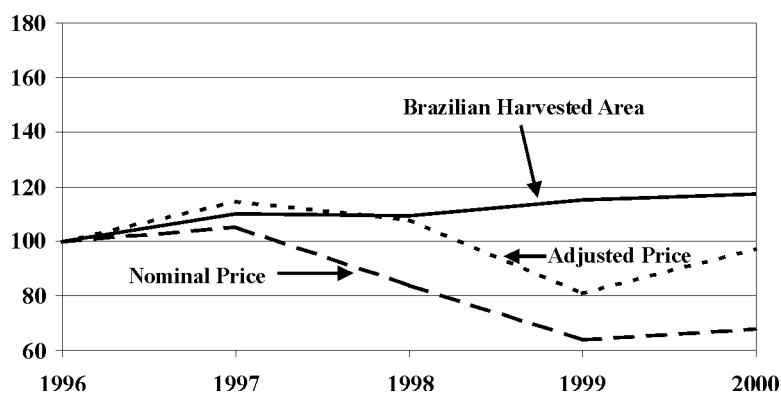
This is especially clear in the case of Argentine soybean complex exports between the years of 1992 and present. During that time the Argentine currency was pegged to the U.S. dollar. Even during those years when it was claimed that the high value of the U.S. dollar led to declining U.S. exports, the Argentines,

who were affected by the same currency pressures, exported all of their exportable production and, as a result, carryover levels remained at very low levels. If the high value of the dollar were a major factor in who gets the export sales, then one would have expected the Argentines to post an increase in carryover levels similar to the U.S. They did not.

Perhaps then, during those years that our export competitors experienced unfavorable exchange rates relative to the United States, their domestic demand increased to use product that was left unsold in the export market. Again a look at the data shows no such variation in the rate of growth in domestic demand for soybeans and soybean products in Brazil and Argentina. Domestic demand has increased steadily and predictably over the last thirty years.

Finding no measurable effect of exchange rates on export levels or domestic consumption, we now move to the next logical question. Did the strong dollar and the corresponding enhanced price competitiveness of Brazilian soybeans encourage them to increase their harvested area at a rate greater than they otherwise would have? What about Argentina? Did Argentine acreage show any effects of the high value of their currency which mirrors the U.S. currency? Let us look at the data.

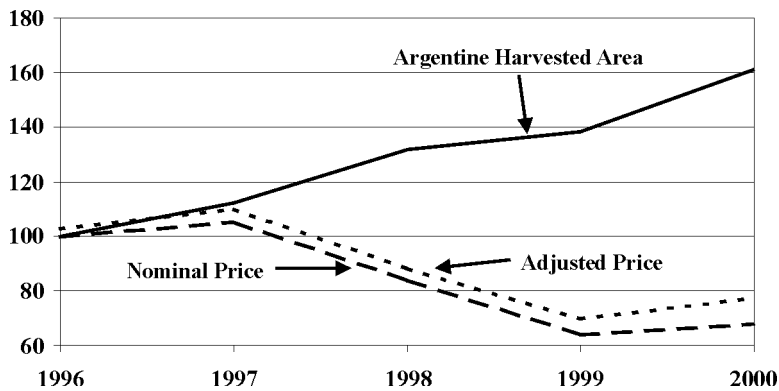
Since 1996, the harvested soybean area in Brazil has increased by 17 percent, (Figure 1) while the real price of soybeans, adjusted for exchange rate and inflation differences with the U.S., has declined by 3 percent. This 3 percent decline is in contrast to a 32 percent decline in the nominal price of soybeans over that same period. The seventeen percent increase in harvested area for the 1996-2000 period compares to a 13 % increase in harvested area for the 1991-1995 period.



**Figure 1. Index of Brazilian harvested acreage, adjusted price, and nominal price for soybeans, 1996-2000. Indexed to 1996=100. The Nominal price is the export price posted by ABIOVE, the Brazilian Vegetable Oil Industry Association. Source: Harvested area – USDA PS&D, Nominal price – ABIOVE, Exchange rate factors used to adjust price – USDA ERS.**

In the case of Argentina, (Figure 2) the soybean price fell by 23 percent in real terms while the harvested area jumped by 61 percent. By comparison in the 1991-1995 time period harvested soybean area in Argentina increased by 25 percent.

The bottom line is that adjusting for exchange rates does not reveal increasing soybean prices in either Brazil or Argentina compared to 1996. In Brazil, where soybean acreage increased by 17 percent between 1996



**Figure 2. Index of Argentine harvested acreage, adjusted price, and nominal price for soybeans, 1996-2000. Indexed to 1996=100. The Nominal price is the export price posted by ABIOVE, the Brazilian Vegetable Oil Industry Association. Source: Harvested area – USDA PS&D, Nominal price – ABIOVE, Exchange rate factors used to adjust price – USDA ERS.**

and 2000 and the nominal soybean price dropped by 32 percent, the real soybean price—after adjusting for inflation and exchange rates—was nearly unchanged. But this of course does not mean that profitability of soybeans has remained at 1996 levels. The same forces that have affected soybean prices also have raised producers' cost of fuel, fertilizer, agricultural chemicals, equipment and other inputs. In Argentina, soybean acreage increased by a whopping 60% between 1996 and 2000 while experi-

encing a 23% decrease in the real price of soybeans.

I concur with Missourians on the exchange rate issue. Someone is going to have to “show me” that exchange rates have been the major driving force affecting recent international soybean supply or demand levels. Our soybean export competitors' carryover levels, domestic demand, and increase in harvested area all appear to show little if any effect from the high value of the U.S. dollar. Just as in medieval times, the whipping boy took the beating for lessons not learned by the young prince, exchange rates may be unjustly taking a thrashing for the poor performance of U.S. crop exports in the international market place.

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