

Domestic demand: The Cinderella of crop demand

In recent columns we have emphasized the message that exports, be they to China or elsewhere in the world are not likely to be the long-term salvation of the U.S. crop sector. It is not an exaggeration to say that, counter to conventional wisdom, exports HAVE NOT been the engine that has been the driving force behind U.S. crop agriculture for the last 25 years.

If it is not exports, then what has been the phenomenon that has helped absorb the great yield increases of the last 25 years? An examination of the data shows that the driving force in absorbing agriculture's increased productivity has been the lowly Cinderella, domestic demand, who has been busy sweeping the hearth and tending to mundane household chores while her sister, exports, has garnered the attention of analysts, legislators, and academics.

Figure 1 shows the trend in domestic demand for the eight major crops grown by U.S. producers. During the ten years before the implementation of the 1985 Farm Bill domestic demand averaged 205 million metric tons (mmt) a year. During the next ten years the average rose to 249 mmt. In the years since the adoption of the 1996 Farm Bill, domestic demand has continued to increase averaging 291 mmt for the 1996-2002 period.

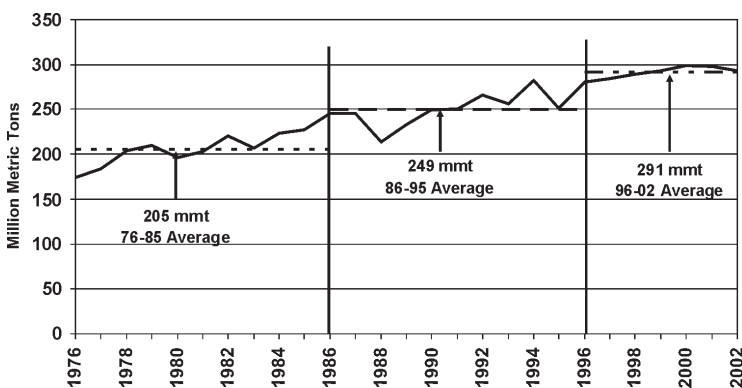


Figure 1. U.S. domestic demand for eight major crops (corn, soybeans, wheat, grain sorghum, rice, cotton, oats, and barley), 1976-2002. Data source: USDA.

We are often told that domestic demand has little significant upward potential because its growth is limited to the population growth rate. Looking at the change over the 27 year period, we can see that domestic demand has grown from 173.8 (mmt) in 1976 to 293.2 mmt in 2002. This represents a 68.7 percent increase in domestic demand during a period in which the U.S. population grew by 27.5 percent.

It would seem that something must be wrong with this data until we look a little further. The first place to look is at changes in the American diet. According to U.N. Food and Agricultural Organization (FAO) food

balance sheets the average daily caloric consumption of Americans has risen from 3,147 to 3,772. This is a 20 percent increase over the 27 years.

The average yearly per capita wheat consumption increased from 156 lbs. in 1976 to 188 lbs in 2000; rice, from 6 lbs. to 21 lbs.; corn from 15 lbs. to 30 lbs.; and oats from 1 lb. to 7 lbs. The average yearly per capita beef consumption has dropped from 128 lbs. in 1976 to 97 lbs. in 2000 while pork has risen from 56 lbs. to 65 lbs. The big gainer among meats, however, is poultry increasing from 50 lbs. per capita per year to 105 lbs. in 2000.

Together, population growth and the increase in per capita caloric consumption raised gross caloric consumption by 53%. While some of this growth comes from food products other than the 8 major crops, it seems clear that the expanding waistline of the average American has been a part of the increase in domestic demand for the 8 major crops. Further study would undoubtedly reveal that domestic industrial and energy use of crops have been important drivers of increased crop demand.

While I am sure that there is an upper limit to per capita caloric consumption, the experience of the last 27 years reminds us that we need to pay attention to domestic demand as a source of growth for U.S. crop markets. If we took some of the money spent trying to make the U.S. more competitive in world markets and added it to investments in research to expand energy and industrial uses for our crops, the payoff could be substantial. And Cinderella would get the attention she so rightly deserves.

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