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Agricultural Trade Opportunities with China

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Demand for Iowa's Agricultural Products

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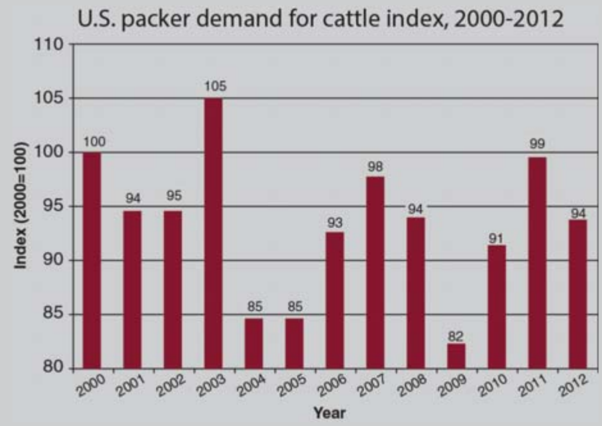
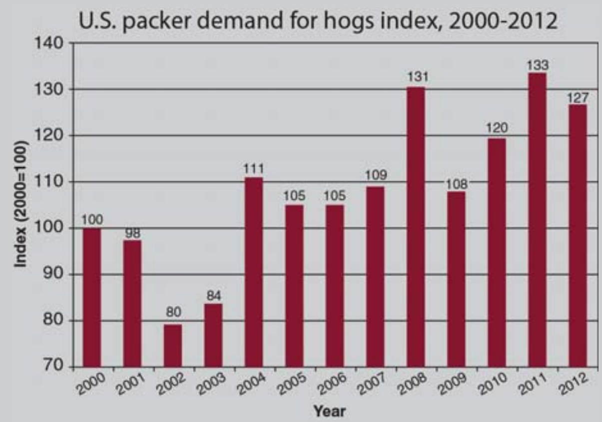
DEMAND IS a subject talked about a lot in agricultural circles—moving farm products through wholesalers to retail markets, demand can shift based on economic conditions, trade policies, and consumer tastes and preferences. For the livestock side of agriculture, demand is typically evaluated at two levels—the wholesale level for animals and retail level for meat. For livestock, demand is usually measured in terms of inflation-adjusted value of the industry. For meat, demand is measured in terms of inflation-adjusted value of per capita meat consumption. For crops, tracked by the bushel, demand is measured at the product's first use. As a regular feature of the Ag Policy Review, we will track agricultural demands for livestock and crops and explore the reasons for shifts in demand. First, we will look back over the last decade to see how agricultural demand has already changed.

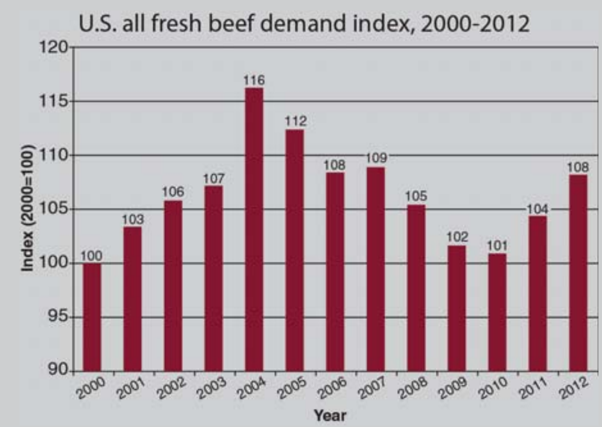
In the cattle industry, the general trend has been for slightly lower demand. Overall, there has been a 6% decrease in cattle demand from packers since 2000. While cattle prices have increased, especially over the past couple years, the price increases have not been high enough to offset the quantity loss. As Figure 1 shows, the biggest hits to cattle demand came in 2004 and 2009. In both years, commercial cattle slaughter dropped sharply with little reaction in cattle prices. While cattle demand has rebounded some recently, high cattle prices are becoming a drag to the packing industry.

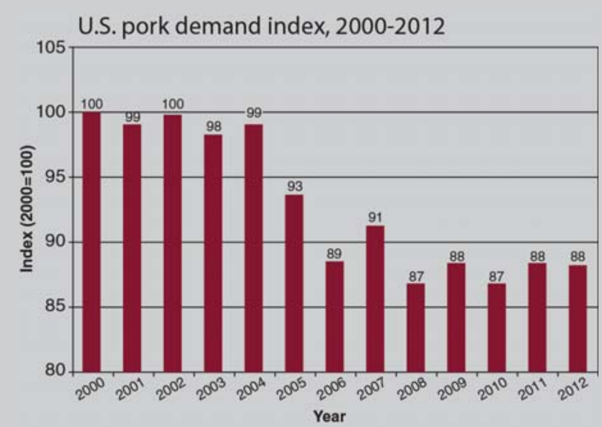
The trend for hogs has been moving in the opposite direction. Hog demand has moved higher, especially with stronger export opportunities for pork. Since 2000, there has been a 27% increase in hog demand from packers. This increase is related to a 15% increase in hog slaughter and increasing hog prices. The large demand jump in 2004 occurred as both commercial hog slaughter and hog prices rose simultaneously. The jump in 2008 was quantity driven as pork exports surged. As pork exports have continued to remain strong, recent hog demand has held.

Shifting to the domestic meat side of the livestock industry, fresh beef demand has gone through a couple of waves since 2000. Overall, US fresh beef demand is 8% higher than it was in 2000. Again, when looking at meat demand, we are looking at the combination of per capita consumption and inflation-adjusted prices. While per capita consumption has fallen 15% since 2000, fresh beef prices have risen significantly over the same period. In fact, the price increase has been enough to offset the quantity loss and allow overall fresh beef inflation-adjusted values to climb. From 2000 to 2007, per







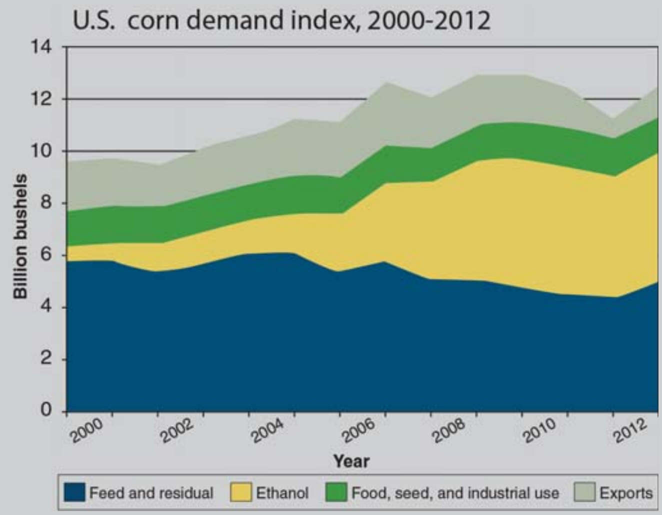


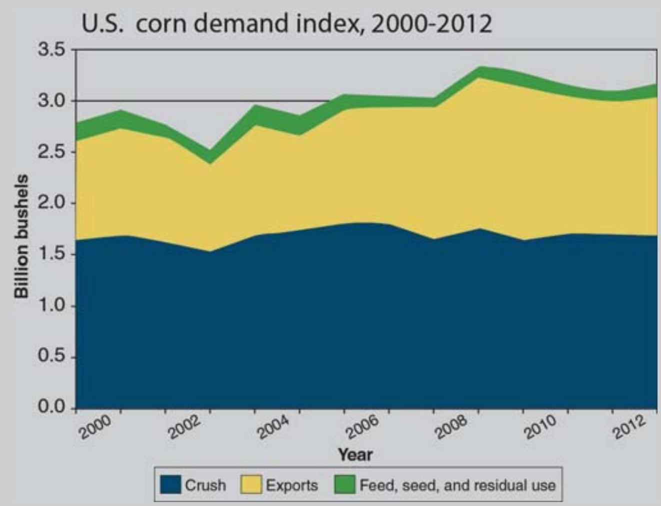
capita fresh beef consumption remained steady around 66 pounds per year. However, the "Great Recession" of 2008 and continuing decline in cattle supplies have pushed consumption lower and prices higher. Today, per capita fresh beef consumption is around 57 pounds per year, and fresh beef prices have increased 24% since 2007.

For domestic pork demand, the trend has been in decline. While pork exports have taken off, domestic pork consumption has moved out of the way to make room. Overall, there has been a 12% decrease in pork demand from US consumers, and per capita consumption has fallen by 10% since 2000. Pork prices have risen over that time, but not enough to offset the quantity loss, and overall pork inflation-adjusted values have fallen. In fact, inflation-adjusted prices for pork are up less than 1% from 2000. Per capita pork consumption was just over 51 pounds per year in 2000, and is now under 46 pounds.

The demand picture for livestock is very mixed. Hog demand from packers and fresh beef demand from US consumers is higher, but cattle demand from packers and pork demand from US consumers is lower. The main drivers have been strong export sales for US pork and the relative strength of US beef consumption in the face of higher beef prices. Meat demand, in general, took a hit with the 2008 recession, but recent figures indicate domestic demand has stabilized and, in some sectors, has begun to recover.

For the crop sector, demand since the turn of the century has really strengthened. The markets are handling more bushels than ever before and recent corn and soybean prices have been at record levels. Much of this strength came from the biofuel boom, as ethanol grew dramatically from 2006 to 2010 increasing corn demand via ethanol 678%. However, export demand for soybeans has also supported the crop sector. For corn, overall demand is up 30% from 2000—over 12 billion bushels of corn have moved through the market over several years. Feed demand for corn has dropped 12% as cattle herds declined and livestock feeders shifted rations to incorporate a variety of lower cost feeds. As of January 1, 2000, there were 54 ethanol plants across the country capable of producing roughly 1.75 billion gallons of ethanol per year. By January 1, 2013, there were 211 ethanol plants across the country capable of producing 14.7 billion gallons of ethanol per year. The food, seed, and industrial demand for corn is up 8% as the corn sweetener market has held fairly steady over the past decade. The biggest downward shift, 37%, has been in export demand for corn.





Much of that drop occurred with the 2012 drought and the accompanying record high corn prices.

For soybeans, overall demand is up 13%. The market moved through roughly 3 billion bushels of soybeans in each of the past several years, with demand support coming from both domestic and international sources. US domestic use of soybeans (referred to as "crush" since the soybeans are crushed to separate the oil from the meal in the soybean) is 2% higher than in 2000. Export demand for soybeans is up 39% since 2000. Most of the international shift is linked to China as the Chinese market has expanded greatly over the past decade. US shipments of soybeans into China have increased by a factor of four since 2000. Now, roughly one out of every four soybean pods grown in the United States ends up in China. ■