Corn Prices, Basis, and Transportation

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Corn prices in Iowa are being beaten down by consecutive years of exceptional production, high fuel prices, and the effects of hurricanes Katrina and Rita. Last year’s record national and Iowa corn production has been followed by the second-highest corn production for both the nation and the state. In 2004, the United States produced 11.8 billion bushels of corn, with Iowa producing 2.24 billion. In 2005, the United States is projected to produce 10.9 billion bushels of corn, with Iowa producing 2.15 billion. This increased production has translated into larger corn stocks. In September 2004, national corn stocks stood at 960 million bushels, with Iowa holding roughly 25 percent of the total. By September 2005, corn in storage nationwide had jumped to 2.11 billion bushels and corn stored in Iowa had risen to nearly 500 million bushels.

Managing Overflowing Corn Stocks
This storage left a tremendous amount of corn supply hanging over the corn market, which held down corn prices. The impact of this supply has been felt in several ways. First, a sizable portion of the corn in storage was held under the marketing loan program. At the end of August and beginning of September, many producers in Iowa and across the nation were at or nearing the end of their nine-month loan period, at which time the producer must decide whether to repay the loan or forfeit the crop to the government. In what looks like an attempt to reduce the probability that producers would find crop forfeiture the better choice, USDA began to manipulate the repayment rates (known as posted county prices) on marketing loans in September 2005. When the posted county price is below the crop loan rate, producers who have a marketing loan can capture a marketing loan gain. (This is the difference between the loan rate and the posted county price, which is the same calculation that creates the loan deficiency payment for producers who do not choose to take a marketing loan.)

In Iowa, the usual pattern is that all counties have the same marketing loan gain or loan defi-
ciency payment rate on a given day. Throughout September 2005, the usual pattern did not hold. Posted county prices were set to avoid crop forfeitures and this created county differences in marketing loan gains (MLGs). Figure 1 shows the per-bushel MLGs for corn in Iowa on September 19, 2005. Instead of a uniform rate across Iowa, there were differences of up to 12¢ a bushel across the counties. However, as the harvest season has progressed, the normal MLG pattern has returned.

Large Supply Affects Basis
The corn in storage has also affected the relationships between Iowa cash corn prices and other corn markets. Figure 2 shows the difference between Iowa state-average cash corn prices and the nearby futures contract price (price differences like this are referred to as basis). The black line shows the 1999-2004 average basis levels during the year. Typically, Iowa corn priced on the cash market runs 30¢ per bushel below the Chicago Board of Trade nearby corn futures price. So far, the pricing pattern for 2005 is following the pricing relationship we saw in 1999. Then, the basis widened to nearly 60¢ per bushel around harvest time before recovering at the end of November. But given the potential size of the Iowa corn crop this year and the amount of last year’s crop still in storage, the ability for the basis to strengthen this year is limited.

Figure 3 displays the basis between Iowa cash corn prices and corn export bids out of New Orleans. The black line again shows the 1999-2004 average basis, which ranges from 45¢ per bushel in late April to 60¢ per bushel from harvest time to the end of the year. The thick gray line marks the lowest basis levels over the five-year period. As the graph shows, this basis widened to its largest margin at the end of 2004 and has continued to be extremely weak throughout 2005. Every basis observation for 2005 has been below the lowest basis level for the same date in the 1999-2004 period. The gap in the basis data for 2005 around the end of August is due to Hurricane Katrina and the closing of the export facilities in New Orleans. Following the resumption of activity at the port of New Orleans, this basis widened to over a dollar per bushel, a record gap between Iowa cash corn prices and corn export bids.

Shipping Costs Swell with Supply and Fuel Costs
Much of the weakness in the basis between Iowa cash corn and corn export prices can be linked to the rise in the cost of shipping corn from Iowa to the export markets. Figure 4 shows per-bushel barge rates to move corn from eastern Iowa to New Orleans. The grain barge rates are generally higher during harvest season. Barge rates

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of this concentration on producer groups or small companies that need to segregate cattle in a fully traceable system.

**A Hurdle for Niche Products**

There are two difficulties raised by a lack of competition between packers for developers of niche beef products. The first is that the economic fortunes of today’s packers are driven by maximizing throughput. That is, because of large fixed costs, money is made by moving large numbers of animals through packinghouses quickly and efficiently. Stopping or slowing a production line to process a batch of animals separately simply runs counter to how modern packers operate.

A second potential problem can occur after an agreement is reached with a packer for special treatment of a batch of animals. A traceable and auditable system requires close coordination between all participants in a value chain. Any break or disruption in the chain implies that no product can be sold under that system. This dependence creates the possibility that one participant can “hold up” the value chain by demanding more favorable terms. Of course, the credibility of any such attempt depends on the ease with which a participant can be replaced. If there is only one packer in a state and the niche product requires that livestock be slaughtered in the state, then over time one would expect that most of the value in a value-chain will be captured by the packer.

Iowa’s unique problem of having only a single major beef facility did not result solely from increased packer consolidation. Perhaps the biggest driver of this change was the movement of cattle away from the Corn Belt. Historically, the majority of cattle were fed in the Corn Belt. As shown in the accompanying figure, Iowa once accounted for a relatively large proportion of cattle production. But the feedlot industry gradually migrated to the Southern Plains, leaving less than 5 percent of U.S. cattle-feeding capacity in the hands of smaller-scale farmers. Texas, Kansas, Nebraska, and Colorado now account for 65 percent of U.S. feeder cattle supply and more than two-thirds of U.S. cattle slaughter.

Nobody expects increased development of small-scale slaughter and processing capacity to meet the demands of niche beef markets and small-scale producers. In fact, the economic realities of livestock processing favor continuing consolidation in the number of packers and plants. A key strategic hurdle for niche players in the beef business is the development of business relationships with multiple packers and plant managers to avoid the possibility of a holdup in the chain. In addition, care must be taken in defining the standards for GI certification. In the case of Iowa-80 Beef, for example, requirements may reflect that the animal must be born and fed in Iowa but that it can be slaughtered in Nebraska.

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Agricultural commodities shipped by truck and/or rail face many of the same issues: limited transportation supplies and higher fuel costs.

**Low Prices, Higher Support**

All of these factors point to a continuation of low crop prices in Iowa and the nation over the near term. USDA is currently projecting a season-average farm price of $1.90 per bushel for the 2005 corn crop. This would be 16¢ per bushel below the 2004 crop year price and 52¢ below the 2003 crop year price. Price support government programs, such as the marketing loan and countercyclical payment program, will likely provide a significant amount of support to the farm sector in the coming year.