WILL SHORTFALLS IN WORLD GRAIN PRODUCTION CONTINUE?

Chicago wheat futures prices moved above $4.00 per bushel in late summer of 2002 and again last week. Prior to last year, wheat prices had not exceeded $4.00 since late 1996. December 2003 corn futures moved above $2.50 in late October and settled near $2.40 last week. Prices are well above early season lows in spite of a record large U.S. corn crop. Much of the strength in grain prices is related to declining world stocks of wheat and coarse grains.

World coarse grain production reached a record 907 million tons in 1996-97 as the result of very large crops in the European Union, China, Canada, Brazil, and Argentina which more than offset a poor crop in the former Soviet Union. World production exceeded consumption by about 30 million tons that year. World production declined to 876 million tons in 1999-2000 and to 860 million tons in 2000-01. Over the past three years, including the forecast for the current year, production has ranged from 869 to 892 million tons. Country by country production has been very inconsistent, with small crops in the former Soviet Union and Argentina in 1998, in China and Eastern Europe in 2000, in the U.S. in 2002, and in the European Union in 2003. Crops were large in China in 1998 and 1999, in Eastern Europe in 1999, and in Brazil in 2002.

Inconsistency in production over the last several years has resulted in declining inventories as annual consumption has exceeded annual production. Current forecasts make 2003-04 the fifth consecutive year that annual world consumption of coarse grains will exceed production. The annual shortfall in production has increased from 6 million tons in 1999-2000 to a projected 35.5 million tons this year. The cumulative shortfall over the five year period exceeds 106 million tons.

A similar pattern has unfolded with wheat production. World production reached a record 609 million tons in 1997-98, led by large crops in the U.S., the former Soviet Union, and China. Of the major producing countries, only Canada had a small crop in 1997. World production ranged form 581 to 589 million tons over the next four years, dropped to 566 million tons last year, and is projected at only 548 million tons this year. Crop size has
been inconsistent in many of the major producing areas. U.S. production was small in 2001 and 2002; production in the former Soviet Union was small in 1998 and 2003, but very large in 2001 and 2002; Chinese production has declined steadily since 1999; production has been on a roller coaster in Europe, Argentina, and Canada; and Australia had a disastrous crop in 2002.

Current forecasts make 2003-04 the sixth consecutive year that annual world wheat consumption exceeds annual production. The annual shortfall was very modest from 1998-99 through 2001-02, with the four year cumulative shortfall totaling only 13 million tons. The annual shortfall reached 34.4 million tons last year and is projected at 37.4 million tons for the current year.

For coarse grains, world inventories are declining, but supplies are large enough to maintain consumption at a very high level. World consumption during the current marketing year is projected at a record 918 million tons, well above the 902 and 904 million tons of the previous two years. Since rationing of use is apparently not required, coarse grain prices remain at modest levels.

World wheat consumption was maintained at a very high level of 585 to 590 million tons from 1997-98 through 2001-02 and reached a record 600 million tons last year. The smaller harvest this year, however, is expected to push consumption back to about 586 million tons. Some modest rationing of use is required, resulting in prices moving to relatively high levels.

With world inventories of wheat and coarse grains now at relatively low levels, the level of annual production becomes extremely important for prices. Shortfalls will require some rationing and could result in sharply higher prices, while large crops will be price depressing as the world is not interested in maintaining inventories at high levels. In this respect the coarse grain and wheat markets have become a little more like the soybean market, where inventories have never been maintained at consistently high levels. The implication is that wheat and coarse grain prices may remain extremely volatile as the market tries to forecast year to year changes in production and demand.

The difficulty of maintaining world grain production at consistently high levels over the past few years has also raised important questions about agricultural policy and production technology. The focus continues to shift from managing surpluses to addressing other market distorting policies.

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