PRICE IMPLICATIONS OF SMALL CARRYOVER STOCKS

The USDA projects that stocks of U.S. corn and wheat at the end of the current year will be the smallest in seven years. Stocks of soybeans are expected to be reduced to the lowest level in six years. Based on the projection of small inventories, and low ratios of projected stocks to projected consumption, some analysts believe that current prices are under-valued. For example, the projected stocks-to-use ratio for corn is 7.5 percent, the lowest since 1995-96 (5 percent) when the U.S. average farm price was $3.24. For the current year, the USDA projects the average price in a range of $2.35 to $2.75. For soybeans, the projected stocks-to-use ratio is about 6 percent, about the same as in 1996-97 when the U.S. average farm price was $7.35. For the current year, the USDA projects the average price in a range of $5.15 to $6.05.

This type of comparison reveals the shortcomings of the simplistic approach of trying to explain average prices as a function of year-ending stocks. In reality, consumption, stocks, and price are simultaneously determined. Once crop size is known, maximum consumption during the crop year is determined, based on the assumption of a minimum level of year-ending stocks (probably between 4 and 5 percent of “normal” annual consumption for corn and soybeans and about 15 percent for wheat). The strength of demand, then, determines the level of price required to match available supplies with consumption. Strength of demand for U.S. crops is determined by a number of factors, including the number of livestock being fed, level of livestock prices, size of crop production in the rest of the world, exchange rates, processing capacity and price of processed goods, and U.S. and world economic conditions.

For corn, the current projection of crop size indicates that if year ending stocks were reduced to about 5 percent of normal consumption (about 500 million bushels), there would be about 9.97 billion bushels of U.S. corn available for use during the current marketing year. The largest annual consumption ever experienced was the 9.817 billion bushels of last year. Unless demand is much stronger than currently anticipated, there is apparently an ample supply of U.S. corn at a “modest” price.

For soybeans, the current U.S. production forecast suggests that consumption during the current year would be limited to about 2.724 billion bushels if year ending stocks were reduced to about 5 percent of “normal” consumption (145 million bushels). That level of consumption is 209 million bushels, or 7 percent, less than last year’s record consumption. The USDA expects that consumption will be reduced as a result of higher prices (an
average of $5.15 to $6.05 compared to last year’s average of $4.35) and weaker demand for U.S. soybeans. Much of the expected weakness in demand is the result of the projection of a 240 million bushel increase in South American soybean production in 2003.

For wheat, the USDA crop estimate suggests that consumption of U.S. wheat during the current marketing year would be limited to about 2.122 billion bushels, if year-ending stocks were reduced to 360 million bushels. That is 47 million (2 percent) less than consumption during the previous year and about 280 million (12 percent) less than the average consumption of about 2.4 billion bushels during the 1990s. Demand for U.S. wheat is expected to remain firm due in part to unchanged production in the rest of the world. The USDA expects that the reduction in consumption of U.S. wheat will be accomplished by higher prices – an average between $3.45 and $4.05 compared to last year’s average of $2.78.

The calculation of the availability of U.S. corn and soybeans for the current marketing year may change with subsequent changes in the projected crop sizes. Strength of demand will be gauged by the rate of consumption as revealed in weekly, monthly, and quarterly reports and by the development of southern hemisphere crops. These developments will determine if current prices and current price projections are too high or too low. The prospects of small year ending stocks of corn, soybeans, and wheat (both in the U.S. and the world) may have more implications for prices next spring and summer than for current prices. Unless U.S. crop size is less than currently projected, or demand is much stronger, supplies are probably large enough to satisfy consumption requirements for this marketing year at current prices. However, the draw down in inventory that is currently expected would leave little or no reserves in case of a short-fall in production next year. Attention will first focus on growing conditions in South America and then to prospective acreage and weather conditions in the U.S.

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