Prospects for the U.S. Farm Economy in 2011

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February 24, 2011

As we enter 2011, the farm economy continues to remain strong with U.S. agricultural exports, farm cash receipts and net farm income projected at or above previous record levels. Farm household debt levels appear to have stabilized despite increasing land values. While prospects generally look bright, recent sharp increases in prices for major crops are generating a range of concerns. I will briefly describe the prospects and recent developments in output and input markets and the challenges and opportunities they present for U.S. agriculture.

Agricultural trade expected to hit record levels

Fiscal 2011 agricultural exports are forecast at a record $135.5 billion, up $9 billion from the November forecast and $26.8 billion above 2010. Exports are forecast to exceed the previous record set in 2008 by $20.6 billion. Sharply higher unit values for grains, soybeans, and cotton account for most of the forecast increase.

Imports too are expected to grow. Fiscal 2011 imports are forecast up $2.5 billion from the November forecast to a record $88 billion. Nearly half of imports are horticultural products while another 25 percent are sugar and tropical products such as cocoa, coffee and rubber. The net trade balance for FY 2011 is forecast at $47.5 billion, a nominal record and the highest trade balance in constant dollars since the early 1980s.

China is now forecast to be the top market for U.S. agricultural exports in FY 2011 at $20 billion, surpassing Canada at $18.5 billion. China is a major importer for a number of commodities, accounting for almost 60 percent of world soybean imports, 40 percent of world cotton imports and about 20 percent of total soybean oil imports. These three commodities accounted for about three quarters of total US agricultural exports to China last year. Other important US exports to China include hides and skins and animal feed and fodder.

USDA’s 10 year agricultural projections suggest that China’s role as a major importer of soybeans and cotton will likely expand in the years ahead. By 2020/21, China is forecast to account for two thirds of world soybean imports and for 45 percent of world cotton imports. While China currently imports only a small amount of corn and other feed grains, increased industrialization of its livestock, dairy and poultry sectors will likely increase demand for feed grains which could result in increased imports over the coming years.

Economic growth and a weaker dollar have been major factors in the strong growth in agricultural trade and these factors are expected to continue in 2011. Inflation remains a source of concern. China, Brazil, India and South Korea have all boosted interest rates this year to combat inflationary pressures caused by higher commodity prices and tightening labor markets. There is a small risk that overly tight monetary policy could slow income growth which could modestly impact exports. In Europe, the bailouts of Ireland and Greece appear to have been thus far successful and have neither curtailed near-term European growth nor brought a stronger dollar relative to the euro.

Farm income to rise

Recently updated forecasts from the Economic Research Service project cash receipts for producers at a record $341 billion in 2011, up $28 billion from 2010 and $57 billion from 2009. Cash production expenses are forecast to be a record $274 billion in 2011, up $20 billion from 2010 and $25 billion from 2009. With receipts rising faster than expenses, net cash farm income is forecast at a nominal record of $99 billion this year, up $7 billion from last year and nearly $30 billion from 2009. After adjusting for inflation, five of the highest income years since 1976 have occurred during 2004-11 (2004, 2005, 2008, 2010, and 2011).

The balance sheet of U.S. agriculture is expected to strengthen again in 2011. Consistent with recent trends, increases in debt are forecast to be offset by larger increases in farm asset values. ERS expects the total value of farm assets to increase by 6.1 percent in 2011 with the value of farm real estate to increase by 6.3 percent. What is astonishing is that in two years, the farm economy has essentially rebuilt the equity lost in 2009. As a result, the farm sector's debt-to-asset ratio should drop further below last year's 11.3 percent in 2011.

High prices will result in strong competition for acreage; total planted acreage expected to rise in 2011

More land is expected to be planted to the major field crops in 2011, reflecting the sharply higher prices for most crops. Total area planted to the eight major field crops (wheat, corn, barley, sorghum, oats, soybeans, rice and upland cotton) is forecast to at nearly 255 million acres, an increase of 9.8 million acres over 2010 levels. If this forecast is realized, planted acreage for the 8 crops would be the highest since 1998 though still well short of the more than 260 million acres planted in 1996. The net increase of 9.8 million acres would be the largest year-to-year change since 1996 when 15 million additional acres were planted to the 8 crops.

Winter wheat seeded area this past fall totaled 41 million acres, an increase of 3.7 million acres over last year's levels. Yet despite a 70 percent increase in futures prices for spring wheat over year ago levels, it is expected that spring wheat (including durum) area may fall slightly from last year's 16.3 million acres. High prices and more favorable net returns for oilseeds, particularly canola and soybeans in North Dakota, should discourage spring wheat expansion. This would leave total 2011 wheat area at 57 million acres, an increase of 3.4 million acres over last year.

Unlike 2007 through 2009, when cotton prices remained low relative to competing crops, record high cotton prices should result in increased cotton acreage for 2011. Upland cotton area is forecast at 12.75 million acres for 2011, an increase of almost 2 million acres. Improved returns could lead producers to plant cotton on cropland previously planted to corn, soybeans, sorghum, rice and other crops.

Higher prices will result in more corn planted in 2011. Corn planted area is expected to increase to 92 million acres, an increase of 3.8 million acres over 2010 levels, and the highest level since 93.5 million acres were planted in 2007. Unlike 2007, when soybeans fell at the expense of corn, soybean area is expected to hold its own this year, increasing slightly to 78 million acres. One reason for the increase in soybean area is an expected rebound in double cropped area. Because of the late harvest in 2009, 2010 winter wheat seedings were down almost 15 percent. Soft red winter wheat seedings were down more than 35 percent. As result, double cropped soybean area in 2010 totaled approximately 2.3 million acres, the lowest level since NASS began reporting double cropped area in the late 1970s. Double cropped area is expected to increase to 5-6 million acres in 2011, reflecting increased winter wheat area, particularly in the soft red winter wheat areas of the corn belt (up 47 percent from last year) where significant amounts of double cropped soybeans have been planted in the past.

Higher expected returns for soybeans, corn and cotton will likely result in fewer acres of rice being planted in 2011. Rice planted acreage for 2010 is estimated at 2.88 million acres. If realized, this would be the smallest planted area since 2007.

Crop outlook

Higher market prices will encourage greater plantings this year and increased crop production this fall. Assuming normal weather this spring and summer, production of corn, soybeans and upland cotton are expected to be up in 2011. Despite higher planted acreage, wheat production will be affected by dry weather since last fall in the hard red winter growing region and by a return to more normal yields this year. Rice production will likely fall reflecting smaller planted area.

Despite increased production of corn and soybeans, grain and oilseed markets are still forecast to be tight due to strong export demand and strong demand for biofuels. Unless this year's weather is better than normal or plantings increase more than expected, stock levels for corn and soybeans should see only modest rebuilding in 2011/12. This will likely mean continued volatility in those markets.

US wheat market will tighten further. Despite increased wheat plantings, total wheat production is expected to fall to 2.08 billion bushels in 2011/12. Higher abandonment rates in the southern plains will reduce harvested acreage to levels comparable to last year (47.5 million acres) and a return to trend yields (43.8 bushels per acre) will mean wheat production levels will fall about 6 percent from last year. With a lower carryin this year, total supplies are forecast at 3 billion bushels, down 9 percent from last year.

World wheat production is expected to rebound in 2011/12 which will reduce export opportunities. As a result, U.S. wheat exports are forecast at 1.15 billion bushels, down almost 12 percent from this year's 1.3 billion bushels. With domestic food and feed use projected at similar levels to last year, ending stocks are forecast to fall to 663 million bushels. This would mean a stocks-to-use ratio of 28.3 percent, the lowest since 2007/08. The season average farm price is forecast at a record $7.50 per bushel, though prices will likely moderate in the late summer and fall as spring planted crops in the Northern Hemisphere come to market.

Corn market to remain very tight. Despite an anticipated 4 percent increase in planted acreage, the corn market will continue to be tight in 2011/12. Assuming harvested acreage of 84.9 million acres and a trend yield of 161.7 bushels per acre, corn production for 2011/12 is forecast at a record 13.73 billion bushels. Because of this year's smaller carryout, total supply for 2011/12 is estimated at 14.425 billion bushels, an increase of only 250 million bushels over 2010/11 levels.

Total corn use is projected at 13.56 billion bushels. Higher exports and higher corn use for ethanol will more than offset an anticipated reduction in feed use. Feed and residual use is anticipated to fall slightly in 2011/12 as high feed costs limit expansion in the pork and poultry sectors and beef feeding declines with tighter feeder cattle supplies. Exports, however, are anticipated to increase to 2 billion bushels as reduced global use of feed quality wheat boosts world corn trade and consumption.

Corn use for ethanol continues to grow. Weekly ethanol production numbers suggest that ethanol production is currently running over 13.5 billion gallons on an annualized basis. This far exceeds levels implied by the mandated levels under the Renewable Fuel Standard (12.6 billion gallons in 2011). On average, production margins for ethanol producers remain positive as many plants appear to have forward-priced their corn requirements below the recent market highs. Incentives for ethanol blending remains strong with the Volumetric Ethanol Excise Tax Credit in place through 2011 and ethanol expected to remain attractively priced relative to gasoline. As a result, corn use for ethanol is expected to grow further in 2011/12 to a record 5.0 billion bushels. At this level, corn use for ethanol would account for 37 percent of total use and 36 percent of corn production.

With total supply at 14.425 billion bushels and total use at 13.56 billion bushels, ending stocks are projected at 865 million bushels in 2011/12, a modest 190-million bushel increase over the level projected for 2010/11 levels. Stocks-to-use levels will remain tight at 6.4 percent. Corn prices are forecast at a record $5.60 per bushel, $0.20 higher than the mid-point of the range forecast for 2010/11.

Higher than trend yields or larger planted area could help rebuild corn stocks, but stock levels are not likely to return to recent levels over the course of one or even two seasons. For example, if 2011/12 yields were to equal the record level of 164.7 bushels per acre achieved in 2009/10, ending stocks would exceed 1.1 billion bushels. And this assumes no increase in use for feeding, ethanol, or exports, an unlikely scenario. Further, assuming this yield and no increase in usage, 2011 planted area would have to increase 8 million acres to return stocks to the 2010/11 level of 1.7 billion bushels.

Soybeans remain tight as well. Soybean planted acreage is forecast at 78 million acres due to strong prices and increased double-cropping opportunities compared to last year. Assuming trend yields and harvested acreage of 77.1 million acres, production is estimated at 3.345 billion bushels. With a carryin of 140 million bushels and imports forecast at 15 million bushels, total supplies for 2011/12 are forecast at 3.5 billion bushels, about 5 million bushels more than total supplies for 2010/11.

Domestic use is estimated to be 1.765 billion bushels, unchanged from 2010/11. Exports, are forecast at 1.575 billion bushels, and, while down from this year's record 1.59 billion bushels, would be the second largest on record. One out of every four soybean rows planted in the United States is currently exported to China and that is expected to continue in 2011/12 though U.S. exports will face renewed competition from South American exports from Brazil and Argentina.

Total use for 2011/12 is estimated to be 3.34 billion bushels, down 15 million bushels from the current year. Ending stocks are estimated to increase by 20 million bushels to 160 million bushels, the highest level of carryout since the 2007/08 marketing year. However, given the increased use since 2007/08, the stocks-to-use ratio is still estimated to be below 5 percent, indicating a tight market. The season average price is forecast to be $13.00 per bushel, a record.

With the restoration of the $1 per gallon biodiesel tax credit on January 1, 2011, biodiesel production is expected to increase. Mandates under the Renewable Fuel Standard call for 800 million gallons produced in 2011 and 1 billion gallons produced in 2012. Assuming that about half of the biodiesel production is from soybean oil, it is forecast that 3.350 billion pounds of soybean oil will be used for methyl ester production in 2011/12 compared to 2.9 billion pounds used in 2010/11. With renewed demand for biodiesel, soybean oil exports are expected to fall to 1.9 billion pounds, the lowest level since 2006/07. Strong domestic and foreign demand for soybean oil should keep prices high with a forecasted price for 2011/12 of 56.5 cents per pound.

Soybean meal demand remains relatively flat reflecting stable total meat production over the past few years. Prices are estimated to remain high at $360/short ton. This will keep feed costs high and margins narrow for livestock producers.

Rice market to tighten marginally with lower plantings. Rice plantings will fall to 2.88 million from 3.6 million acres last year. Almost all of the reduction in rice acreage will come from long-grain plantings. With a return to trend yields, the yield for all rice is forecast at 7,225 pounds per acre. Rice production is projected at 206.5 million cwt., down 36.6 million cwt. from last year. Because of the large carryin from 2010/11, total rice supplies are forecast to be 277.8 million cwt., down 20 million cwt. from last year.

Domestic use for all rice is forecast at 126 million cwt., largely unchanged from last year. By class, long-grain domestic use is forecast down 3 million cwt., or 3 percent, while medium and short-grain use is forecast to be unchanged. Exports will be pressured by large global supplies and are expected to drop to 111 million cwt., down 5 million cwt. from 2010/11 levels. Ending stocks are expected to decline to 40.8 million cwt. A stocks-to-use ratio of 17.2 percent means the U.S. market will tighten, particularly for long-grain rice. The season average price for all rice is expected to rise marginally to $13 per cwt., up from $12.40 per cwt. in 2010/11. For long grain rice, the season average price is expected to rise to $11.50 per cwt. while the season average price for combined medium- and short-grain rice is estimated at $17.75 per cwt., up 4.4 percent from 2010/11 levels.

Cotton stocks to show some rebuilding. Record prices for cotton will prompt increased cotton plantings worldwide in 2011/12. Global production is forecast at a record 127.5 million bales, an increase of 10.6 percent over this year's levels. With larger cotton supplies and strong world GDP growth, consumption is expected to rise to 120 million bales, an increase of about 3 percent. Production gains will outstrip use leading to a rebuilding of global stock levels to over 50 million bales, the highest since 2008/09, but still tight relative to consumption and historical stock averages.

Planted area for upland and extra-long staple cotton is forecast at 13.0 million acres. In 2010/11 cotton farmers enjoyed low abandonment rates and high yields. With drier conditions in the southern plains, the abandonment rate for the 2011 crop should be closer to its long run average rate of 11.2 percent. Assuming a trend yield of 810 pounds per acre and normal weather, total cotton production is estimated at 19.5 million bales, an increase of almost 7 percent over 2010 levels.

Domestic mill use for 2011/12 is estimated at 3.5 million bales, down slightly from 2010/11 levels. Exports are forecast to decline 5 percent to 15 million bales, reflecting the larger global supplies. Ending stocks are forecast to increase by 1.0 million bales to 2.9 million but remain at a relatively tight 16 percent of total use. As a result, prices are anticipated to remain high. The season average price paid to producers is estimated at a record $1.10 per pound, which, if realized, would exceed this year's near record price of 81.5 cents per pound, by 35 percent.

Livestock and livestock products

Total U.S. production of meat and poultry is forecast to remain flat in calendar year 2011, with slight growth forecast in supplies of pork and poultry but reduced supplies of beef. Stable production, increased exports and some recovery in domestic demand should help maintain livestock prices near last year's historic highs.

For livestock and poultry producers, increasing feed costs will be an important component of producer production decisions in the upcoming year. In January, the price-feed cost ratios for cattle, broilers, hogs and milk, as reported by NASS, were all well below year ago levels. While livestock prices are expected to remain strong and further improvement in milk prices is likely in the months ahead, higher feed costs could lead to below average margins for livestock and dairy producers in 2011.

Cattle prices forecast record high. Commercial cow slaughter maintained a high pace during all of 2010. Cow slaughter was the largest in well over a decade, even though the U.S. cow herd on January 1, 2010 was the smallest since 1949. While cattle marketings for the last half of 2011 are expected to be lower year-over-year, large net placements in feedlots during late 2010 and January 2011 will likely maintain beef supplies during the first half of 2011 near previous year levels. For all of 2011, beef production is currently forecast to decrease 1.5 percent, following a 1.4 percent increase in 2010. Steer prices are expected to average a record $102-$109 per cwt. this year, compared with $95 per cwt. in 2010.

Total North American cattle inventories are at their lowest levels in decades. With smaller Canadian and Mexican inventories expected in 2011, U.S. cattle imports are forecast at 2.1 million head for the year, down from 2.3 million in 2010.

Pork production to increase slightly. Pork production in 2011 is estimated to increase by 0.4 percent after falling by 2.4 percent in 2010. While hog prices were up 34 percent in 2010 and are expected to average higher in 2011, increases in feed costs are expected to temper expansion over the next several months. The *Quarterly Hogs and Pigs* report released by USDA on December 27, 2010, showed lower swine inventories and lower farrowing intentions for the first half of 2011. During the first-half of 2011, sow farrowings could be about 1.4 percent lower than in the same period last year.

While smaller breeding animal inventories and lower farrowing intentions often translate into lower pig crops, continued gains in sow productivity are expected to largely offset lower farrowing numbers in 2011. Although hog weights are expected to average above last year, higher feed costs may limit gains later in the year. Nevertheless, average dressed weights will be slightly ahead of last year's average, helping to push pork production ahead of last year's level. Hog prices are forecast to average $58-$61 per cwt. in 2011, up from $55 in 2010 and $41 in 2009.

Broiler production to post modest increase in 2011. The outlook for growth in broiler meat production for the beginning of 2011 has changed considerably over the last several weeks, due to sharp changes in both the weekly number of broiler eggs placed in incubators and the number of chicks being placed for growout. At the end of November, the number of chicks being placed for growout was averaging 5.5 percent higher than the previous year. By the first week of January, the average number of chicks placed for growout was only 0.8 percent higher than in the same period the previous year. This abrupt slowdown is likely the result of sharp increases in feed prices, especially coming at a time when wholesale prices for many broiler products have been declining. Reflecting this slowdown, broiler production is projected to increase by about 1 percent in 2011 following a 4 percent increase in 2010. The price of broilers is forecast to range from 80-85 cents per pound in 2011, compared with 83 cents in 2010 and 78 cents in 2009.

Milk prices to move higher. Milk production is estimated to increase by 1.8 percent in 2011 to 196.1 billion pounds. While feed costs are up considerably in recent months, a decline in cow numbers may not occur until later this year because of the large number of replacement heifers available. Milk per cow is forecast to increase again this year but at less than the pace for 2010. The gain in output per cow last year was due to good weather in addition to moderate feed prices.

In recent weeks, both the domestic and international markets for dairy products have tightened considerably leading to a sharp increase in wholesale dairy product prices and futures prices for milk. Milk output has been affected by cold weather in the U.S. and Europe and heavy rains in Australia. Since early January, the wholesale prices of cheddar cheese, butter and nonfat dry milk have increased by 25-50 percent.

The all-milk price is forecast to average $17.70-$18.40 per cwt. this year, compared with $16.29 in 2010 and $12.93 in 2009. While milk prices are forecast to be higher in 2011, increasing feed costs could continue to put financial pressure on dairy producers, especially those producers that purchase feed at current price levels.

Food Prices to Rise

After two years of relatively low inflation, higher prices for crops and livestock will again pressure food prices. In 2010, the Consumer Price Index (CPI) for all food increased by 0.8 percent, the lowest annual food inflation rate since 1962. The CPI for food-at-home (grocery store) prices increased 0.3 percent, while food-away-from-home (restaurant) prices increased by

1.3 percent. Higher commodity and energy prices are expected to lead to a stronger increase in retail food prices in 2011. During the previous spike in commodity and energy prices in 2007 and 2008, the CPI for food rose by an average of 4.7 percent over the two years. The Economic Research Service has increased its forecast for the all food CPI to 3-4 percent for 2011. This could mean year-over-year inflation rates in excess of this average in the latter part of 2011.

Conclusions

At the Agricultural Outlook Forum in 2008 there was much consternation about high commodity prices, increasing energy costs, food price inflation, and the strength of domestic and foreign demand. Three years later, markets are again very tight, particularly for feed grains and oilseeds. While it is often said that the cure for high prices is high prices, even with additional supplies expected this year, it is likely that the tight stocks to use situation will not be entirely mitigated over the course of one or even two growing seasons. This will mean continued high costs for feed which will keep margins for livestock producers at low levels.

In the short run, much uncertainty remains and with tight markets, price volatility is expected for most markets. In part, the outlook for 2011 will depend on the progress in global economic growth. The International Monetary Fund is projecting would output will grow by 4.4 percent with advanced economies projected to grow at 2.5 percent and emerging and developing economies projected to grow at 6.5 percent. Leading the way is China with a projected growth rate of 9.6 percent. Similarly, the Economic Research Service projects world per capita real income will increase by 2.3 percent in 2011, double the average growth rate of 1.1 percent from 2001 to 2010.

Looking over the longer term, the past 6o years have been characterized by increased agricultural productivity and declining real prices for most agricultural commodities. Whether the current period marks a turning point will depend largely on whether over the long run productivity gains will continue to offset the growth in demand caused by rising population and income.