# Farm Income and Farm Financial Conditions

Net farm income has been maintained near the average of the 1990s over the past few years largely by sizable direct government payments to the sector that balanced lower cash receipts during this period of generally low crop prices. Government payments are projected to decline in the baseline, leading to an initial drop in farm income, but then as commodity prices and market receipts recover, net farm income rises through the remainder of the projections.

**Net Farm Income and Government Payments**

Net farm income prospects for the next decade are on par with the decade of the 1990s. With the production, prices, and government payments projected in the baseline, net farm income during 2001-2011 is expected to average $47.3 billion compared with $47.0 billion during 1990-2000. Net farm income initially declines in the baseline to a low of $40.6 billion in 2002 then gradually increases through the rest of the baseline as farm prices strengthen over the decade. By the end of the projections, income exceeds the record of $54.9 billion set in 1996, a year of both exceptional harvests and market opportunities.

Total cash receipts from farm sales are expected to reach $204 billion in 2002 for the first time since 1997. But government payments are projected to be considerably less in 2002 and beyond. Total government payments, forecast at $21.1 billion for 2001, fall to $10.7 billion in 2002 and $9.8 billion in 2003, then decline to around $7 billion throughout the rest of the baseline period. Under existing farm legislation, production flexibility payments were mandated to trend downward according to a declining fixed allocation budgeted for each successive year of the program. Production flexibility contract payments are assumed to continue at their 2002 level through the remainder of the baseline.

Marketing loan benefits (loan deficiency payments and marketing loan gains), which are intended to be countercyclical with commodity prices, are also projected to have reduced importance as a component of government assistance. Lower prices experienced in recent years reduce loan rates for many commodities in 2002 and beyond as the baseline assumes a return to market-price based, formula determination of loan rates for corn, wheat, and soybeans, lowering loan rates for other feed grains and other oilseeds, as well. The combination of lower loan rates and increasing market prices results in smaller per-unit payment rates in the baseline as well as declining overall marketing loan benefits.

Provisions of the Omnibus Consolidated and Emergency Supplemental Appropriations Act for Fiscal Year 1999 and the Agricultural Appropriations Act of 2000 and 2001 provided supplemental assistance in the form of market loss and crop loss payments, adding to gross income in 1998-2001. On a calendar-year basis, these programs added $2.8 billion to farm revenues in 1998, $7.8 billion in 1999, $8.5 billion in 2000, and about $9.1 billion in 2001. There are no emergency supplemental assistance payments forecast in the baseline.

In total, direct government payments to the farm sector will be down about $10 billion in 2002 from 2001. Government payments then continue to be a less important component of farm sector income through the rest of the decade.

## Farm Cash Receipts

Following a reduction in global trade and U.S. exports at the end of the 1990s, baseline projections indicate exports returning to steady growth through the coming decade. Prices and cash receipts are expected to rise as exports expand. Total cash receipts from sales of farm commodities can be expected to grow at nearly 3 percent per year from 2002 onward. This expected growth will raise projected cash receipts from $204 billion in 2002 to $261 billion by 2011.

Overall, total crop output expands through the baseline. Additionally, recovering crop prices will be important to expanding crop receipts over the next decade. By 2011, crop cash receipts are projected to be $133 billion as compared with the $98 billion forecast for 2002. After adjusting for inflation, crop receipts (in 1996 dollars) range between $88 and $96 billion throughout the baseline, remaining well below the $109 billion record of 1997.

Livestock receipts, in contrast to crops, are forecast at a near-record level of $106 billion for 2002 and will likely continue to grow to $128 billion by 2011. The gain in livestock receipts in the baseline is less than increases expected for crop receipts.

## Farm Production Expenses

Farm production expenses are expected to grow modestly over the entire baseline. Total expenses increase only modestly from 2001 to 2002. From 2002 forward, total expenses rise more steadily. In 2011, they are projected to stand $42 billion higher than in 2001, a 21-percent increase. However, in GDP-deflated dollars, total expenses are projected to be 4.3 percent ($7.8 billion) lower in 2011 than in 2001. Deflated expenses peaked in 1997 and have been falling since then.

Cash operating margins tighten between 2002 and 2005 as total cash expenses range between 78 and 79 percent of gross cash income. After 2005, they gradually improve, falling to 76 percent in 2011. Throughout the decade, cash operating margins are above or at about the same level as in the early 1980s, the previous high point.

Low commodity prices during the past few years have made operators more conscious of the costs associated with producing their output. Even as commodity prices rise over the period covered by the baseline, farmers will continue to adjust their costs due to more uncertain income prospects. These efforts will be somewhat hampered, however, by price increases for production items.

No individual expense falls during the baseline period in nominal dollars. The largest percentage increases will be in interest expenses, net rent to nonoperators, and other operating expenses (comprised of marketing, storage, and transportation, and miscellaneous expenses). These expenses each increase more than the general inflation rate.

Feed purchases began to move upward again in 2001 after retreating from a peak in 1997. In both 2001 and 2002, they are forecast to increase more than 7 percent in each year. In the years following 2002, the percentage increases are steady but more modest. In 2011, feed expenses are projected to be $6.6 billion higher than their low point in 2000. These increases will occur as the cattle cycle is projected to move into its expansion phase in 2003-2004, the production of other animal products increase, and feed crop prices rise.

Fuel and oil expenses in the near term are lower than the recent peak in 2000 as oil prices have fallen over the past year. Overall costs of fuel and oil are expected to increase over the decade due to rising oil prices and expanded planted acreage. Larger equipment and machinery-saving field crop practices such as no-till cultivation will restrain these cost increases somewhat.

All crop-related expenses (seeds, fertilizer, and pesticides) will increase during the baseline period, reflecting higher prices and recovery in area planted. Pesticide expenses will increase the most, $2.2 billion (26 percent). Even so, deflated pesticide expenses will be almost the same in 2011 as they were in 2001. One of the factors driving pesticide expenditures is the wider adoption of no-till cultivation, which requires a greater use of herbicides. Other changes in technology and in cropping practices will also affect quantities purchased of agricultural inputs.

Labor expenses, which constitute about 11 percent of total production costs, are expected to be $5.6 billion (26.6 percent) higher in 2011 than in 2001. They are slated to increase between 2 and 3 percent annually, due primarily to a consistent rise in farm wage rates.

Interest expenses are projected to rise more than any other expense from 2001 to 2011. The 34-percent ($5.0 billion) increase will be the result of higher real estate interest rates and greater overall borrowing. Current low prices and expected receipts have prompted farmers to manage debt more carefully and lenders to be cautious in offering credit. Even so, improvements in returns over the next decade will produce lower debt/asset and debt/equity ratios and result in heavier borrowing throughout the period. Total debt is expected to increase about 2 percent per year. Interest expenses will actually fall in 2002 and 2003 as a result of lower interest rates before rising in 2004 and 2005 as a result of an anticipated jump in interest rates in those years. After 2005, interest expenses increase around 2 percent each year, almost entirely due to higher debt levels. As a share of production costs, interest payments, which averaged 13 percent in the 1980s and 7.1 percent in the 1990s, are expected to increase to 7.7 percent over the next decade.

A decline in net rent to nonoperators in 2002 is largely due to the reduction in government payments included in the baseline, mostly reflecting the assumption of no additional ad hoc assistance. With slowly declining government payments projected after 2002 and increasing crop receipts and planted acreage, net rent rebounds in 2003 and increases an average of 4.1 percent per year through 2011. Between 2001 and 2011, net rent rises 33.4 percent ($5.4 billion), the second largest increase in expenses during the period.

**Farm Balance Sheet**

With reduced farm income and cash flow over the next few years, debt management will be crucial to the financial condition of the agricultural sector. Even with the near-term cash flow difficulties facing the sector, a strong basic financial position achieved during the 1990s will help farmers. In the longer run, increasing farm incomes and relatively low interest rates will contribute to asset accumulation and assist in debt management, thus leading to an improving balance sheet.

The value of farm real estate, the largest component of farm assets, is expected to increase more slowly in the next few years as lower potential government payments keep increases in land values low. Average farmland values per acre are forecast to rise modestly on a nationwide basis despite near-term projected declines in farm income. In the past, the value of farmland has been slow to respond to decreases in farm income. Further, pressures from non-agricultural sources such as housing and recreational uses also affect farmland values.

Farm business debt is projected to rise 1.9 percent in 2002, following a 4.8-percent increase in 2001. Thereafter, with farm incomes reflecting greater dependence on market forces and less reliance on government payments, debt growth is expected to average between 1.5 and 2.5 percent through 2011.

The projected gains in farmland value and agricultural assets combined with the moderate growth projected for farm business debt suggest that the financial balance sheet of the aggregate farm sector should weather the near-term projected decline in net cash income and end the baseline period in a strong position. The debt-to-asset ratio for the sector improves from 16.0 percent in 2002 to 14.9 percent in 2011.

Table 30. Farm receipts, expenses, and incomes in nominal dollars

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | *Billion dollars* | | | | | | |
| Cash receipts: | | | | | | | | | | | | |
| Crops | 94.1 | 95.8 | 97.9 | 102.1 | 105.4 | 109.0 | 113.0 | 117.6 | 122.1 | 126.2 | 130.0 | 133.4 |
| Livestock and products | 99.5 | 106.1 | 106.4 | 106.4 | 107.9 | 109.7 | 112.9 | 115.8 | 118.8 | 122.0 | 124.6 | 127.6 |
| All commodities | 193.6 | 201.9 | 204.3 | 208.5 | 213.3 | 218.7 | 225.9 | 233.4 | 240.9 | 248.2 | 254.6 | 261.0 |
| Farm-related income | 13.6 | 13.7 | 13.6 | 13.8 | 14.0 | 14.3 | 14.5 | 14.8 | 15.0 | 15.3 | 15.5 | 15.8 |
| Government payments | 22.9 | 21.1 | 10.7 | 9.8 | 8.7 | 7.6 | 7.1 | 7.0 | 7.0 | 6.9 | 6.9 | 6.8 |
| Gross cash income | 230.1 | 236.7 | 228.6 | 232.0 | 236.0 | 240.6 | 247.5 | 255.1 | 262.9 | 270.4 | 277.0 | 283.6 |
| Cash expenses | 172.6 | 177.2 | 177.6 | 179.5 | 184.7 | 189.5 | 193.7 | 197.9 | 202.8 | 207.3 | 212.1 | 216.7 |
| Net cash income | 57.5 | 59.5 | 50.9 | 52.5 | 51.3 | 51.1 | 53.8 | 57.2 | 60.1 | 63.1 | 64.9 | 66.8 |
| Value of inventory change | 0.5 | 0.9 | 0.9 | 0.3 | 1.3 | 1.3 | 1.3 | 1.1 | 1.4 | 1.6 | 1.6 | 1.6 |
| Non-money income | 11.0 | 11.1 | 11.2 | 11.3 | 11.5 | 11.8 | 12.0 | 12.3 | 12.5 | 12.8 | 13.1 | 13.4 |
| Gross farm income | 241.5 | 248.6 | 240.6 | 243.6 | 248.8 | 253.6 | 260.8 | 268.5 | 276.9 | 284.8 | 291.7 | 298.5 |
| Noncash expenses | 16.6 | 16.3 | 16.4 | 16.6 | 16.7 | 16.9 | 17.0 | 17.2 | 17.4 | 17.5 | 17.7 | 17.9 |
| Operator dwelling expenses | 5.8 | 5.9 | 6.0 | 6.0 | 6.1 | 6.2 | 6.3 | 6.4 | 6.5 | 6.6 | 6.7 | 6.8 |
| Total production expenses | 195.1 | 199.4 | 200.0 | 202.2 | 207.6 | 212.6 | 217.0 | 221.5 | 226.7 | 231.4 | 236.5 | 241.4 |
| Net farm income | 46.4 | 49.3 | 40.6 | 41.4 | 41.2 | 41.0 | 43.8 | 47.0 | 50.2 | 53.4 | 55.2 | 57.2 |
| Farm assets | 1,188.3 | 1,216.6 | 1,228.1 | 1,247.7 | 1,284.0 | 1,314.2 | 1,347.0 | 1,385.7 | 1,430.8 | 1,478.8 | 1,527.4 | 1,577.1 |
| Farm debt | 184.0 | 192.8 | 196.5 | 199.5 | 202.5 | 205.5 | 209.6 | 213.8 | 218.1 | 223.6 | 229.1 | 234.9 |
| Farm equity | 1,004.3 | 1,023.8 | 1,031.6 | 1,048.2 | 1,081.5 | 1,108.6 | 1,137.4 | 1,171.9 | 1,212.7 | 1,255.2 | 1,298.2 | 1,342.2 |
| | | | | | | | *Percent* | | | | | |
| Debt/equity ratio | 18.3 | 18.8 | 19.1 | 19.0 | 18.7 | 18.5 | 18.4 | 18.2 | 18.0 | 17.8 | 17.7 | 17.5 |
| Debt/assets ratio | 15.5 | 15.8 | 16.0 | 16.0 | 15.8 | 15.6 | 15.6 | 15.4 | 15.2 | 15.1 | 15.0 | 14.9 |

Table 31. Farm receipts, expenses, and incomes in 1996 dollars

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | *Billion 1996 dollars* [1] | | | | | |
| Cash receipts: | | | | | | | | | | | | |
| Crops | 87.9 | 87.6 | 87.9 | 89.9 | 90.5 | 91.3 | 92.4 | 93.8 | 95.0 | 95.8 | 96.3 | 96.4 |
| Livestock and products | 92.9 | 97.0 | 95.6 | 93.6 | 92.6 | 92.0 | 92.3 | 92.4 | 92.5 | 92.6 | 92.3 | 92.2 |
| All commodities | 180.9 | 184.5 | 183.4 | 183.5 | 183.2 | 183.3 | 184.7 | 186.1 | 187.5 | 188.4 | 188.6 | 188.6 |
| Farm-related income | 12.7 | 12.5 | 12.2 | 12.1 | 12.0 | 11.9 | 11.9 | 11.8 | 11.7 | 11.6 | 11.5 | 11.4 |
| Government payments | 21.4 | 19.3 | 9.6 | 8.6 | 7.5 | 6.4 | 5.8 | 5.6 | 5.4 | 5.3 | 5.1 | 4.9 |
| Gross cash income | 215.0 | 216.4 | 205.2 | 204.2 | 202.7 | 201.6 | 202.3 | 203.5 | 204.6 | 205.2 | 205.2 | 204.9 |
| Cash expenses | 161.3 | 162.0 | 159.5 | 158.1 | 158.6 | 158.8 | 158.3 | 157.9 | 157.8 | 157.3 | 157.1 | 156.6 |
| Net cash income | 53.7 | 54.4 | 45.8 | 46.2 | 44.0 | 42.8 | 44.0 | 45.6 | 46.8 | 47.9 | 48.1 | 48.3 |
| Value of inventory change | 0.4 | 0.8 | 0.8 | 0.3 | 1.1 | 1.1 | 1.1 | 0.9 | 1.1 | 1.2 | 1.2 | 1.2 |
| Non-money income | 10.2 | 10.1 | 10.0 | 9.9 | 9.9 | 9.9 | 9.8 | 9.8 | 9.7 | 9.7 | 9.7 | 9.7 |
| Gross farm income | 225.7 | 227.3 | 216.1 | 214.5 | 213.7 | 212.5 | 213.2 | 214.1 | 215.4 | 216.2 | 216.1 | 215.7 |
| Noncash expenses | 15.6 | 14.9 | 14.8 | 14.6 | 14.4 | 14.1 | 13.9 | 13.7 | 13.5 | 13.3 | 13.1 | 12.9 |
| Operator dwelling expenses | 5.4 | 5.4 | 5.4 | 5.3 | 5.3 | 5.2 | 5.2 | 5.1 | 5.1 | 5.0 | 5.0 | 4.9 |
| Total production expenses | 182.3 | 182.3 | 179.6 | 178.0 | 178.3 | 178.2 | 177.4 | 176.7 | 176.4 | 175.6 | 175.2 | 174.4 |
| Net farm income | 43.4 | 45.0 | 36.5 | 36.5 | 35.4 | 34.4 | 35.8 | 37.5 | 39.0 | 40.6 | 40.9 | 41.3 |
| Farm assets | 1,110.1 | 1,112.2 | 1,102.8 | 1,098.4 | 1,102.8 | 1,101.2 | 1,101.1 | 1,105.2 | 1,113.3 | 1,122.6 | 1,131.2 | 1,139.5 |
| Farm debt | 171.9 | 176.3 | 176.5 | 175.6 | 173.9 | 172.2 | 171.4 | 170.5 | 169.7 | 169.7 | 169.7 | 169.7 |
| Farm equity | 938.2 | 935.9 | 926.3 | 922.8 | 928.9 | 929.0 | 929.8 | 934.7 | 943.6 | 952.9 | 961.5 | 969.8 |

1/ Nominal dollar values divided by the GDP chain-type price index.