

## Farm Finance



Jack Harrison

# U.S. Farm Income: Down From Record But Strong

While not likely to equal the record set in 1996, farm income estimates for 1997 and prospects for 1998 look quite favorable, despite an expected small decline in real terms. The farm income record set in 1996 was the result of good, though not record, production of major field crops and above-average prices, which remained strong even after harvest. This set of circumstances is unlikely to repeat itself in 1997 and 1998, even though cash receipts will remain relatively high.

The lower farm income forecasts for 1997 and 1998 derive from the small declines in expected receipts from 1996 and a modest increase in expenses. Expectations for 1998 can change, of course, as weather patterns, output, and market and export conditions unfold over the year. Uncertainty regarding the export market, triggered by the unstable economic situation in Asia, will be particularly important in evaluating farm income prospects for 1998.

*Net value added*, the economic returns to all providers of resources to production agriculture—farm employees, landlords, lenders, and the farm operator—is expected to be around \$89 billion in both 1997 and 1998. Net value added is a measure of the farm sector's contribution to the national economy. Compared with the average for the first half of the 1990's (\$79 billion), production agriculture's addition to the national economy in 1997 and 1998 is projected to be relatively strong, though less than the \$95 billion achieved in 1996.

*Net cash income*, the return to farm operators from sales and other cash income minus out-of-pocket expenses, is expected to be about \$54.5 billion in 1997 and 1998. Although slightly better than the average for 1990-95 (\$53 billion), net cash income will be less than the nearly \$60-billion record achieved in 1996. Net cash income, historically less variable than other farm sector income measures, is the best indicator to gauge the funds available from farming for family living expenses and retirement of debt.

When changes in farm inventories and noncash income and expenses are included, *net farm income* is forecast to be around \$46 billion for both 1997 and

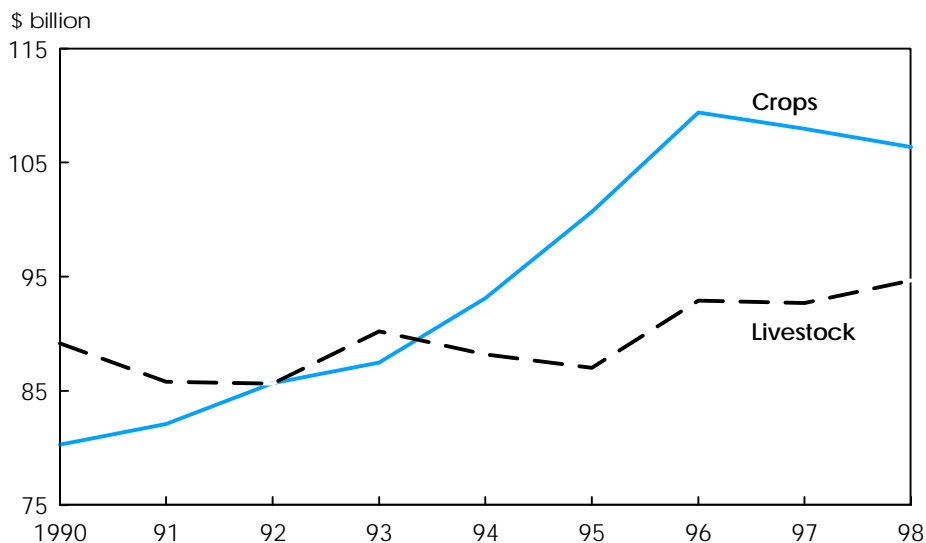
1998. This figure is also above the average for the first half of the 1990's (\$43 billion), but lower than the record \$52 billion for 1996.

### Cash Receipts Expected Down Modestly

The 1997 estimate for crop and livestock receipts, based on production and price observations during the calendar year, is for a modest \$1.6-billion decline from 1996's record of \$202 billion. Farm marketings for 1998, given present crop and livestock production and price expectations, are projected to be about \$201 billion. Lower expected cash receipts for 1997 and 1998 largely reflect the expectation of smaller crop returns. In contrast, livestock receipts are expected to increase for 1998. The upward direction of livestock receipts is a reversal of the downward trend from 1993 to 1995.

*Corn receipts* in 1997 are expected to fall by around \$3 billion from 1996's \$21.6 billion—average 1997 monthly corn prices were well below 1996 levels. Smaller exports have also contributed to the lower corn receipts in 1997. The value of exports to Asia, accounting for almost two-thirds of the corn exports in 1996, ran about 33 percent lower through the third

Livestock Receipts Rising Again, As Crop Receipts Decline



1997 and 1998 forecast.

Economic Research Service, USDA

## Farm Finance

quarter of 1997. A slightly larger 1998 corn crop, and prices similar to 1997, would yield corn receipts close to 1997's estimate of \$18.4 billion. A smaller 1998 harvest might boost prices later in the year, but a considerable share of 1998 corn receipts will already have been derived from corn produced in 1997 and sold in the first half of calendar 1998.

*Wheat receipts* fell about \$1 billion in 1997 from 1996's almost \$10 billion. Production of wheat in 1997 was the highest since 1990, and as a consequence, prices were pressured downward by abundant supplies. Exports could not absorb the additional 1997 production, as overseas sales were down by 25 percent in quantity and 40 percent in value through the first three quarters of 1997, compared with the same period in 1996. Despite some improvement indicated in the fourth quarter, total 1997 wheat exports will fall short of the \$6.2 billion achieved in 1996. With an average or better crop and increased stocks from 1997's large harvest, wheat prices and receipts may be expected to be lower in 1998.

Increased *soybean receipts* prevented total crop receipt forecasts from declining further in 1997 and are expected to add stability in 1998. Soybeans are projected to earn close to \$2 billion more in 1997 than the record \$16.2 billion in sales obtained in 1996. The 1997 increase follows the upward trend of soybean receipts throughout the 1990's and reflects the largest acreage ever planted to soybeans—70 million.

Yet even with the larger crop in 1997, prices remained fairly strong after the harvest. Undoubtedly, a vigorous export market contributed to the increase in soybean receipts for 1997, projected to be the third best export year on record. A return to average output and slower international trade in 1998 could lead to a modest drop in soybean receipts. Weather and acreage planted in the U.S., Argentina, and Brazil, coupled with changing demand in export markets, are key factors that could affect soybean markets in 1998.

*Livestock receipts* in 1997 should be about equal to the \$93 billion attained in 1996 and be even modestly higher in 1998, due mainly to higher beef cattle

prices. Even so, projected cattle and calf receipts will not recover to 1993 levels. Hog production is expected to be at least as high in 1997 as in 1996, and still greater in 1998. Even with lower expected prices, hog receipts in 1997 and 1998 are likely to remain roughly \$12 billion, the level achieved in 1996. Smaller anticipated pork exports to Asian markets are a factor in lower projected pork prices.

### ***Federal Payments & Exports Decline, Expenses Rise***

Already a relatively small portion of cash income (3.3 percent in 1996), direct government payments are expected to begin declining in 1998. In 1997, payments represented a mix of funds from former commodity programs and disbursements based on production flexibility contracts as provided for in the 1996 Farm Act. Payments received in 1998 will be governed wholly by the new legislation, and total government payments will begin to follow the declining levels allocated for production flexibility contract payments through the year 2002.

Throughout the 1990's, the earnings of U.S. farmers have been sustained and augmented by growth in exports. In late 1997, the international economic forces underlying these high levels of export sales deteriorated, with the likely consequence that the growth prospects for U.S. exports in 1998 have been dampened. Recent devaluations of Asian currencies translate into declining effective demand from Asia for exports from countries supplying agricultural products—the U.S., Australia, Brazil, and Canada, among others. The slackening demand will increase competition among exporting countries for remaining markets, putting downward pressure on export prices.

In the 1980's, U.S. agricultural products became more competitive in import markets around the world. The developing Southeast Asian economies, South Korea, and Japan have been growth markets for U.S. field crops, meats, and specialty products. U.S. exports will grow more slowly in 1998 as the domestic price to Asian customers rises due to a strong dollar and slowing income growth in Asian countries. Moreover, the near-term Asian growth slowdown has spilled over to non-

Asian countries, slowing world growth and further decreasing demand for U.S. farm exports.

Total farm production expenses are estimated to have increased 2.7 percent (\$4.8 billion) in 1997, the smallest rise since total expenses decreased slightly in 1992. From 1993 through 1996, total production expenses rose \$6.7-\$7.6 billion (4-5 percent) each year. During 1994-96, the increased outlays occurred despite drops in feeder livestock and poultry purchases by producers of about \$1 billion each year. In 1997, the largest proportion of the rise in total production costs is due to an increase in livestock and poultry purchases.

In 1998, in response to slightly lower planted acreage and a fall in the number of cattle on feed, total outlays are forecast down around \$600 million, an amount equal to around 0.3 percent. The relatively small increase in forecast prices paid for production items, interest, taxes, and wages—less than 1 percent—will be an important factor in 1998.

### ***Farm Assets, Debt, & Equity To Continue Rising***

The value of U.S. farm business assets will significantly exceed the \$1-trillion mark in 1997 and is expected to continue growing in 1998. The value of farm real estate, the largest share of the sector's assets, increased 5.9 percent during 1997 and is expected to grow by 5 percent in 1998. Farm business debt is expected to grow a little over 3 percent in both 1997 and 1998. The combination of strong growth in the value of farm assets and a modest expansion in farm debt indicates a rising net worth (equity) for the farm sector in 1997 and 1998.

Increased variability in net returns to farm assets under the new, more market-oriented 1996 Farm Act could affect future *farmland values*. With decoupling, more of the price and financial risk is transferred from the Federal Government to the individual producer. Farmland prices will also continue to adjust to account for expected lower government payments. Both the additional risk assumed by producers and the reduction in revenue from government payments will be factored into what purchasers are

## Off-Farm Income Aids Farm Households

Most farm households rely heavily on off-farm income because their farms are too small to support a family. Since the official definition of a farm requires an operation to have only \$1,000 worth of agricultural sales to qualify, many rural households are classified as farm households, despite very low or negative net farm earnings. Limited sales typically result from only modest resources being devoted to farming or from a low return on farm assets.

Data from the 1996 Agricultural Resource Management Study (ARMS) indicate that, on average, farm operator households received only 16 percent of their income from farming. Their household income from both farm and off-farm sources, however, averaged \$50,361, similar to the \$47,123 average for all U.S. households. The ARMS replaced the Farm Costs and Returns Survey (FCRS), which also reported a similar low percentage of earnings from farming between 1988 and 1995. Data from an earlier USDA farm household income series indicate off-farm income has been at least 50 percent of income for farm households, as a group, since the early 1960's.

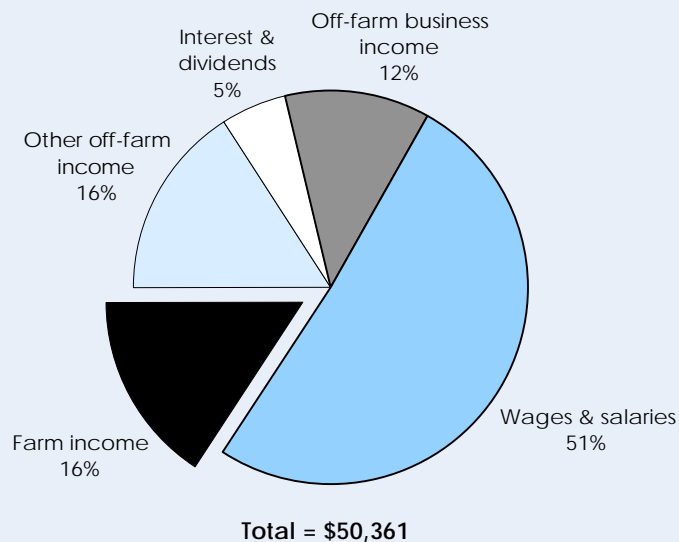
Dependence on farming for household income varies with farm size, as measured by farm sales. For example, households operating commercial farms (sales of at least \$50,000) received 55 percent of their income in 1996 from farming, and net earnings from farming activities averaged \$40,623. Their total household income averaged \$74,519, or 58 percent more than the average for all U.S. households. These households, however, accounted for only about 26 percent of all farm households.

Households operating noncommercial farms (sales less than \$50,000), which made up 74 percent of all farm households in 1996, relied on off-farm sources for virtually all of their income. On average, farms with less than \$50,000 in sales lost money farming, but received \$45,418 in off-farm income. Wages and salaries were the largest component of their off-farm income and accounted for 61 percent of their total off-farm income. Because of off-farm income, the total average household income for this group of farmers was on a par with the average for all U.S. households.

Lower average operator household income forecast for 1997 and 1998 is not significantly different from 1996. Any forecast decline in earnings from farming, however, would be expected to have the greatest effect on households operating commercial farms. Households operating noncommercial farms will continue to rely heavily on off-farm income, particularly wages and salaries, for their livelihood.

Earnings of the operator household from farming activities is not a complete measure of economic well-being provided by the farm. For example, a farm-owned dwelling represents a contribution to household income because it frees up cash that would otherwise be spent on housing. Households with noncommercial farms may also focus on an economic benefit from farming other than cash income: accumulating wealth by increasing farm assets and equity. Earnings from farming activities do not necessarily reflect the large net worth—the difference between assets and liabilities—of many farm operator households.

### Income From the Farm Only 16 Percent of Average Farm Household Income



Economic Research Service, USDA

Real estate accounted for most (69 percent) of the assets of farms held by operator households. Real estate made up a larger share of the assets of noncommercial farms (79 percent) than commercial farms (61 percent), reflecting commercial farmers' greater propensity to rent land and their likelihood of holding other assets such as equipment, machinery, and inventories.

The farm accounted for most of the net worth of both commercial and noncommercial farm households in 1996, and not surprisingly, net worth was substantially more for households with commercial farms (\$713,800) than for their counterparts with noncommercial farms (\$297,400). Households with commercial farms had a net worth close to the average for all U.S. self-employed households (\$731,500) and above the average for all U.S. households in 1995, the most recent year for which data are available for all U.S. households. Operator households with noncommercial farms had a smaller net worth than the average for all self-employed households, but their average net worth was still above the average for all U.S. households.

Noncommercial farm households may consider living a farm lifestyle more important than either wealth accumulation or farm income. In response to questions in the 1995 Farm Costs and Returns Survey, about 57 percent of operators of noncommercial farms rated a rural lifestyle as very important, well above the 31 percent who rated increasing the equity and assets of the farm as very important and the 29 percent who rated as very important that the farm provide adequate income without off-farm work.

Robert A. Hoppe (202) 694-5572 and Penni Korb  
(202) 694-5575  
rhope@econ.ag.gov  
pkorb@econ.ag.gov



## Farm Finance

prepared to pay for farmland in the future. However, the effects of nonagricultural factors, such as urban pressure on farmland values, could mitigate the expected slower growth.

*Farm business debt* is estimated to have reached \$162 billion by the end of 1997, up from \$156 billion in 1996, and is expected to rise another 3 percent in 1998. Rising debt levels do not signal pending financial distress in the farm sector. Despite the increase in debt, farm business balance sheets have shown steady improvement throughout the 1990's. Debt-to-asset ratios have improved, as the 16-percent increase in farm business debt from 1992 through 1997 has been more than offset by the 25-percent rise in the value of farm business assets.

The value of farm real estate has risen by a third from 1992 through the end of 1997, while farm mortgage balances have increased less than 12 percent. As a result, the degree to which U.S. farmland is leveraged has declined substantially, providing most producers with *added equity* to cushion the impact of short-term declines in income. Nevertheless, a 9-percent decline in sectorwide net cash income in 1997 will not be evenly distributed across all U.S. farm operations, and producers specializing in wheat, corn, other grains, and dairy will likely face relatively greater income reductions in 1998.

Farmers are expected to use their available credit lines more fully in 1998, as evidenced by the rise in *debt repayment capacity utilization*. For farm operators, income available for debt service can be used to determine the maximum loan payments a farmer could make. Given current market interest rates and an established repayment period, the maximum debt a farmer could carry with the maximum loan payment can be determined.

Farm debt repayment capacity utilization (actual debt expressed as a percentage of maximum feasible debt) measures the extent to which farmers are using the

amount of debt their incomes could support. In 1998, farmers are expected to use over 57 percent of the debt that could be supported by their current incomes. Use of debt repayment capacity rose from 45 percent in 1993 to 56 percent in 1995. Despite the 1996 rise in farm business debt, high net cash income levels and lower interest rates resulted in a drop in the use of debt repayment capacity to 49 percent. The effects of expected favorable interest rates throughout 1997 and 1998 will not be sufficient to offset the combined effects of rising debt and lower net cash income.

*Farm business equity* is expected to continue rising in 1998 as farm asset values rise more rapidly than farm debt. In current dollars, \$1.132 trillion in assets minus \$168 billion in farm debt yields a sector net worth of nearly \$964 billion. Farm business equity by the end of 1998 is expected to be almost \$90 billion more than in 1996, and over \$300 billion greater than in 1985.

Indicators used to measure the solvency of the farm sector remain favorable for 1997 and 1998. The *debt-to-asset ratio* indicates the relative dependence of farm businesses on debt and their ability to use additional credit without impairing their risk-bearing ability. The lower the debt-to-asset ratio, the greater the overall financial solvency of the farm sector. The debt-to-asset ratio is forecast to be 14.8 percent in 1998, compared with 15.0 percent expected in 1997. Over the last decade, this ratio declined steadily from 23 percent in 1985 to 15.6 percent in 1995.

Current income rates of return on farm assets and equity, indicators of the profitability of farm sector investments, remained near 1996 levels in 1997. Total returns on farm business assets, including capital gains, declined from 6.5 percent in 1996 to an estimated 5.7 percent in 1997, with 3.7-percent growth in current income and 2-percent growth in capital gains. The lower farm income forecast for 1998, combined with a continued rise in farm

sector asset and equity values, suggests slightly lower rates of return on farm assets and equity. Total *returns on farm business assets* are forecast at 5.2 percent in 1998, reflecting both the lower expected returns to farm assets from current income and somewhat slower appreciation in farm asset values.

Jim Ryan (202) 694-5586 and Dave Peacock (202) 694-5582  
jimryan@econ.ag.gov  
dpeacock@econ.ag.gov **AO**

### February Releases—USDA's Agricultural Statistics Board

The following reports are issued electronically at 3 p.m. (ET) unless otherwise indicated.

#### February

- 3 *Catfish Production*  
*Egg Products*  
*Poultry Slaughter*
- 4 *Broiler Hatchery*  
*Dairy Products*
- 6 *Cheddar Cheese Prices*  
(8:30 a.m.)
- 11 *Cotton Ginnings (8:30 a.m.)*  
*Crop Production (8:30 a.m.)*  
*Broiler Hatchery*
- 12 *Farms and Land in Farms*
- 13 *Cheddar Cheese Prices*  
(8:30 a.m.)  
*Cattle on Feed*  
*Crop Values*  
*Potato Stocks*  
*Turkey Hatchery*
- 17 *Milk Production*
- 18 *Broiler Hatchery*
- 20 *Cheddar Cheese Prices*  
(8:30 a.m.)  
*Cold Storage*  
*Cold Storage, Annual*  
*Farm Labor*  
*Livestock Slaughter*
- 23 *Honey*
- 24 *Catfish Processing*  
*Chickens and Eggs*
- 25 *Broiler Hatchery*
- 27 *Cheddar Cheese Prices*  
(8:30 a.m.)  
*Agricultural Prices*  
*Peanut Stocks and*  
*Processing*