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Farm sector earnings up sharply

USDA estimates of farm sector earnings have been revised sharply higher in recent months. The latest estimates show that net cash farm income reached $47.3 billion in 1985, rose to $52 billion last year, and is expected to range between $54 and $58 billion this year. As recently as May, the estimates had been $44 billion for both 1985 and 1986 and a projection of $46 to $48 billion for 1987. The revisions stem from an annual process whereby the USDA uses updated information and methodology to review estimates of recent years and to refine projections for the current year. The latest revisions extend back to 1982, although the most significant revisions pertain to the estimates for 1985 through 1987. The revisions entailed large cuts in estimates of farm production expenses and modest increases in estimates of gross farm earnings. These changes led to sizeable boosts in the two commonly-used measures that reflect net farm sector earnings.[1]

The revised estimates indicate that total farm production expenses declined $20.6 billion, or 14 percent, over the past two years with a further cut of some $4 to $6 billion projected for this year. The cuts, unparalleled in relative magnitude since the early 1930s, have reduced farm production expenses to the lowest levels since 1978. Expenses for most items except labor, livestock, and repair and maintenance of capital assets have declined over the past two years. Fuel and oil expenses recorded the largest decline, 33 percent. In addition, expenses for feed, interest, and fertilizer all declined about 20 percent over the past two years.

The lower production expenses of the past two years reflect several developments, some of which continue this year. Cuts in planted crop acreage and, to a lessor extent, livestock inventories have reduced the quantities of several inputs used in farming, accounting for a large part of the reduction in production expenses. In addition, lower input prices, particularly for feed, fertilizer, and fuel, have further amplified the cuts in production expenses. Moreover, USDA analysts note that usage rates for some inputs, especially fuel and chemicals, have declined in recent years as farmers have increasingly adopted cost-cutting practices to sustain earnings. With respect to overhead expenses, lower interest rates and declines in outstanding farm indebtedness have cut interest expenses while depreciation charges have been pared as a result of the sharply curtailed capital expenditures by farmers over the past several years. Current estimates show capital expenditures by farmers fell to $8.6 billion last year, down nearly a third from two years ago and less than half the levels of the late 1970s and early 1980s.

Cuts in production expenses have more than offset declines in gross farm earnings, contributing significantly to the more robust net earnings picture. Gross farm income, which combines cash income as well as credits for noncash earnings, fell from a peak of nearly $175 billion in 1984 to less than $160 billion last year. For this year, gross farm income is expected to be unchanged. Most of the decline in gross income the past two years reflected cuts in the noncash component, encompassing a $9.5 billion swing in the value of inventory change and a combined $2.6 billion reduction in the consumption value of self-produced food and the imputed rental value of farm dwellings. Cash farm income dropped only about $3 billion over the past two years as increases in government payments to farmers helped offset a $7 billion decline in cash receipts from commodity marketings. Government payments to farmers[2] —in cash and "in-kind" —rose to $11.8 billion last year, up from about $8 billion the previous two years. This year, government payments are expected to rise to $15 billion.

Cuts in expenses and higher government payments shore up farm sector earnings

	1983	1984	1985	1986	1987
	(billion dollars)				
Gross income	153.1	174.7	166.0	159.5	160
Cash income	150.4	155.1	156.9	152.0	152
Commodity marketings*	136.6	142.3	144.2	135.2	132
Government payments	9.3	8.4	7.7	11.8	15
Other	4.5	4.4	5.0	5.1	5
Value of inventory change	-10.9	6.2	-2.7	-3.3	-2
Other noncash earnings**	13.5	13.4	11.8	10.8	9
Total expenses	140.4	142.7	133.7	122.1	117
Cash expenses	113.3	116.3	109.6	100.1	96
Net cash income	37.1	38.8	47.3	52.0	56
Total net income	12.7	32.0	32.3	37.5	43

*Includes net CCC loans of $-0.7 billion in 1983, $-0.8 billion in 1984, $11.8 billion in 1985, and $8.3 billion in 1986.
**Represents the value of home consumption of self-produced food and the imputed rental value of farm dwellings.

Most farm production expense categories have declined sharply the past two years

	1983	1984	1985	1986 Amount	1986 Change
	(---------billion dollars---------)				(percent)
Farm-origin inputs	33.5	32.8	30.4	28.8	-5
Feed and seed	24.7	23.3	21.4	19.2	-10
Livestock	8.8	9.5	9.0	9.6	7
Manufactured inputs	20.9	21.5	20.8	17.0	-18
Fertilizer and pesticides	11.2	12.2	12.1	10.1	-16
Fuel, oil, and electricity	9.6	9.3	8.7	6.9	-21
Other operating expenses	31.1	31.4	30.6	29.5	-3
Hired labor	9.7	9.7	9.8	9.9	1
Repairs and maintenance	6.5	6.4	6.4	6.4	1
Marketing, storage, and transportation	3.9	4.0	4.1	3.7	-12
Other	11.0	11.3	10.3	9.6	-7
Overhead expenses	54.8	56.9	51.9	46.7	-10
Interest	21.4	21.1	18.7	16.9	-9
Capital consumption	23.9	23.1	20.9	19.0	-9
Taxes and net rent	9.5	12.7	12.4	10.8	-13
Total production expenses	140.4	142.7	133.7	122.1	-9

With the combination of sharply lower production expenses and higher government payments, the two common measures that reflect net farm sector earnings both reached new highs in 1986, with further gains expected this year. Net cash farm income reached $52 billion last year, up more than a third from two years ago. Total net farm income reached $37.5 billion, marking a 17 percent rise from two years earlier and surpassing the previous high of $34.4 billion set back in 1973. For the current year, net cash income is projected to range somewhere between $54 and $58 billion while total net farm income is expected to rise to the $41 to $45 billion range.

Adjusted for inflation, the revised figures portray a level of farm sector earnings that has rebounded substantially from the first half of the 1980s and returned to a level more comparable with the norms of the past 30 years. The average of the net cash farm income estimates for 1985 through 1987, adjusted for inflation, is up 22 percent from the 1980-84 average and slightly above the averages that prevailed from the mid 1950s through 1971 and again in the late 1970s. Relative to the "boom" conditions during the early-to-mid 1970s, however, the 1985-87 average of real net cash farm income is off about 20 percent.

The recovery in farm sector earnings, coupled with the substantial decline in farm sector asset values the past several years, has been a major factor behind the emerging evidence that farmland values are starting to firm (see *Agricultural Letter* #1713). For instance, adjusting the revised farm sector earnings estimates to reflect the residual income return to farm sector equity, reveals an average rate of income return to equity capital for the 1985-1987 period that, except for the boom period from 1972-76, exceeds the average of all other years since the mid 1950s. Since land accounts for the bulk of the farm sector equity capital, the improved income returns have been a vital factor behind the recent firming in land values.

Higher farm earnings and the firming in farmland values are also helping to ease the financial distress among farmers and their lenders. Outstanding farm indebtedness, excluding CCC loans, has declined 18 percent over the past three years and USDA analysts are projecting a further decline of about 8 percent this year. While the decline partly stems from large write-offs of problem loans and more conservative lending policies, it also reflects the improved cash returns that have contributed to faster repayments on existing loans and, relative to the cuts in operating expenses and capital expenditures, led to a proportionately large decline in the demand for new loans.

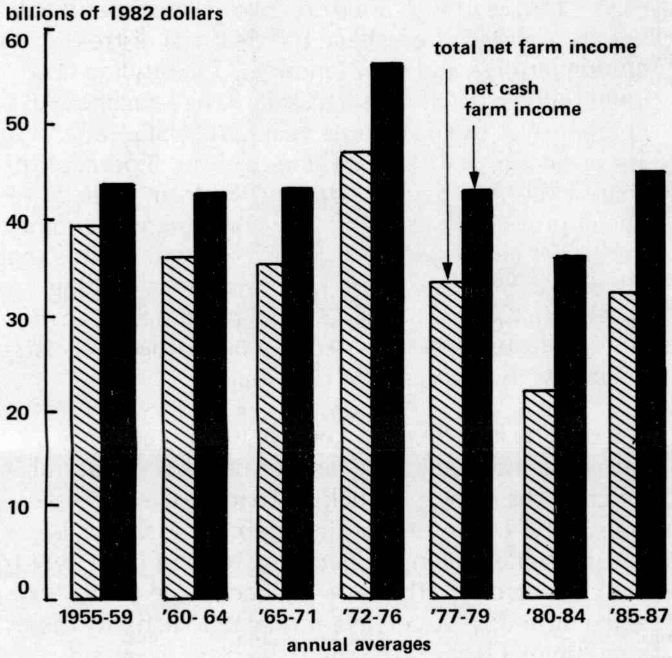
The decline in farm debt, the rise in farm sector earnings, and the firming land values that collateralize much of the debt have helped to improve the "serviceability" of the remaining indebtedness. This is partially reflected in the declining ratio of farm debt to net cash income. The ratio peaked in the early 1980s when farm debt exceeded annual net cash income by a multiple of five. Since then, the multiple has declined, dropping to 3 at the end of 1986. And based on current projections, the multiple could decline to 2.6 by the end of this year, a level comparable to that which prevailed in the late 1960s and early 1970s.

The improving serviceability of farm debt is also evident in recent reports from agricultural lenders. At commercial banks nationwide, the amounts of delinquent farm loans and bad farm loans actually written off both peaked in early 1986 and have since trended downward. Estimates compiled by the Board of Governors of the Federal Reserve System show that net write-offs of nonreal estate farm loans at banks fell to about $170 million in the first quarter of this year. That marked a decline from $235 million in the same period a year ago and was the lowest first-quarter write-off of farm loans for banks since 1984. Despite the declining write-offs, the amount of delinquent nonreal estate farm loans still on the books at banks at the end of March was down more than a third from a year earlier and the lowest for that date since 1984.

More recently, similar developments have been reported by the deeply troubled Farm Credit System. Following a surprisingly improved second-quarter performance, net write-offs of bad loans in the FCS narrowed to $355 million during the first half of this year, down 50 percent from the first half of 1986. Moreover the amount of nonaccrual loans within the FCS as of mid year had fallen 15 percent from the year before.

The evidence that farm sector earnings have returned to earlier norms, helping to firm up land values and

Net farm sector earnings, adjusted for inflation, have recovered to earlier norms



ease the financial stress in agriculture, suggests that the farm sector has made considerable progress in adjusting to, and recovering from, the depressive conditions of the first half of the 1980s. But the problems in U.S. agriculture are not over. The farm sector still faces the problem of excess production capacity relative to current and foreseeable commercial market needs. Given the size of federal budget deficits, it is doubtful that government subsidies will be sufficiently large to retain the complement of resources now employed in production agriculture. This implies that the process of scaling down on resources used in agriculture will continue. The process for, and the consequences of, scaling down will be heavily influenced by government programs. But owners and producers of all types of resources used in production agriculture, including capital, labor, and other operating inputs, will be affected to some degree by the process. And over time, the amount of scaling down that will be needed could be aggravated by continuing gains in resource productivity that may cause agricultural output to grow faster than demand for that output.

While bleak, this outlook is similar to conditions that prevailed from the mid 1950s through the early 1970s. The legacies of relatively flat real farm sector earnings and rising farmland values were well established in that earlier period, while at the same time farm numbers were declining steadily and government programs idled large acreages from annual production. In assessing current and prospective conditions in U.S. agriculture from this perspective, perhaps more than just farm earnings have recovered to the "norms" of the past few decades.

Gary L. Benjamin

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[1] Both measures of net farm sector earnings are structured to reflect a return to the labor, management, and capital of farm operators. Apart from that similarity, however, there are differences between the two measures that are important for a proper interpretation of those returns. Net cash farm income reflects the farm-generated net cash returns available to farm operators to use in repaying debt, purchasing capital assets, or paying for family living expenses. Total net farm income is a more comprehensive measure. In addition to cash earnings and expenses, it provides a more refined measure of the net farm business returns by including a noncash earnings credit to reflect changes (positive or negative) in the value of farm inventories, as well as noncash expenses to reflect depreciation of farm capital assets and perquisites paid to hired labor. In addition, the net farm income measure also attempts to capture the close ties that exist between farm business records and certain farm-related benefits and expenses applicable to many farm operator households. As such, it includes noncash earning credits that reflect the value to farm operator households of consuming self-produced foods and living in farmstead dwellings. In the same vein, it also includes certain expenses, such as taxes, interest, depreciation, repair, etc. that pertain more directly to the farmstead dwelling than the farm business per se. With these inclusions, total net farm income more nearly reflects the net value of farm commodities produced by farm operators in a given year, regardless of whether those commodities are sold, consumed by the producing farm operator household, or added to inventory.

[2] Under the USDA's accounting system, government payments to farmers do not include the net receipts from commodities put under loan with the Commodity Credit Corporation. Instead, net receipts from CCC loans are included with all other cash receipts from farm commodity marketings. Together, direct government payments and net CCC loans totaled about $20.5 billion in 1986, up from $19.5 billion in 1985 and $7.6 billion in 1984.

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Selected Agricultural Economic Indicators

	Latest period	Value	Percent change from: Prior period	Year ago	Two years ago
Receipts from farm marketings *($ millions)*	April	10,412	-7.0	-20	-20
Crops*	April	2,360	-19.7	-42	-50
Livestock	April	6,328	4.5	13	9
Government payments	April	1,724	-21.8	-50	-31
Real estate farm debt outstanding *($ billions)*					
Commercial banks	March 31	13.1	3.5[†]	12	27
Federal Land Banks	March 31	35.9	-5.1[†]	-18	-27
Life insurance companies	March 31	10.4	-1.3[†]	-10	-14
Farmers Home Administration	March 31	10.3	-0.8[†]	-1	0
Nonreal estate farm debt outstanding *($ billions)*					
Commercial banks	March 31	28.8	-7.7[†]	-15	-25
Production Credit Associations	March 31	9.63	-10.2[†]	-25	-42
Farmers Home Administration	March 31	16.3	-0.4[†]	-3	0
Commodity Credit Corporation	March 31	18.8	0.0[†]	-5	88
Farm loans made *($ millions)*					
Life insurance companies	March	83	-34.3	-45	99
Interest rates on farm loans *(percent)*					
7th District agricultural banks					
Operating loans	July 1	11.01	1.1[†]	-7	-15
Real estate loans	July 1	10.47	2.0[†]	-7	-17
Commodity Credit Corporation	August	6.63	-3.6	4	-15
Agricultural exports *($ millions)*	June	2,071	-5.0	23	1
Corn *(mil. bu.)*	June	121	-29.7	113	12
Soybeans *(mil. bu.)*	June	99	164.1	245	444
Wheat *(mil. bu.)*	June	126	74.9	47	40
Farm machinery sales[p] *(units)*					
Tractors, over 40 HP	July	3,932	-15.8	32	-7
40 to 139 HP	July	3,129	-21.9	25	-8
140 HP or more	July	803	21.1	72	-2
Combines	July	749	91.1	-3	33

*Includes net CCC loans.
†Prior period is three months earlier.
pPreliminary

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