

The World's Largest Open Access Agricultural & Applied Economics Digital Library

# This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search http://ageconsearch.umn.edu aesearch@umn.edu

Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.



### United States Department of Agriculture

Economic Research Service

Agriculture Information Bulletin Number 577

# Farm Financial Conditions, by Region, January 1, 1989

Gregory Hanson David E. Banker James D. Johnson

December 1989

U.S. farm financial conditions were relatively stable in 1988 after improving significantly in 1987, according to the U.S. Department of Agriculture's annual Farm Costs and Returns Survey (FCRS). By the end of the year, about 46 percent of all farms represented by the survey were in a favorable financial position with positive net cash farm income and debts equal to or less than 40 percent of assets compared with 49 percent at the end of 1987. Net cash farm income was up by about 3 percent. Farm debt declined by 10 percent while assets increased in value by 2 percent.

Financial results, by region, were mixed in 1988 in part due to the uneven impact of the drought. Net cash farm income rose in the Southeast, South-Central, and West but declined in the Midwest and the Northeast. Farm assets declined in value in the Southeast and the South-Central regions but increased in all other regions.

The share of financially vulnerable farms, with high debt loads and negative income, fell from 10 percent in

 $\mathbf{O}$ 

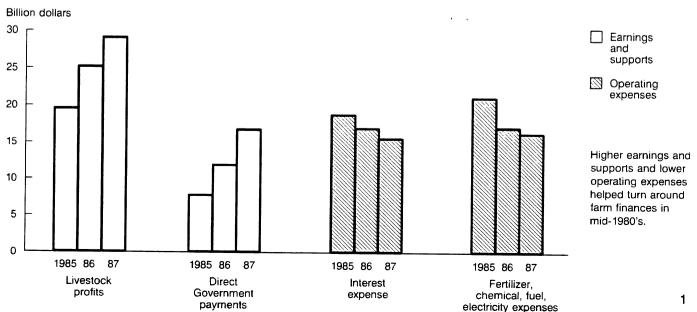
the mid-1980's to 7 percent in 1987 and remained at that level in 1988 (table 1).

# Table 1—Nearly half of all farms were in a favorable financial position in 1988.

| Income/solvency<br>position         | 1984    | 1985     | 1986 | 1987 | 1988 |
|-------------------------------------|---------|----------|------|------|------|
|                                     | Percent | of farms | 5    |      |      |
| Based on net cash farm income:      |         |          |      |      |      |
| Favorable                           | 37      | 47       | 41   | 49   | 46   |
| Marginal income                     | 40      | 38       | 37   | 37   | 40   |
| Marginal solvency                   | 9       | 11       | 12   | 8    | 7    |
| Vulnerable                          | 10      | 10       | 10   | 7    | 7    |
| Based on net cash household income: |         |          |      |      |      |
| Favorable                           | 41      | 45       | 47   | 52   | 49   |
| Marginal income                     | 40      | 33       | 31   | 33   | 37   |
| Marginal solvency                   | 7       | 11       | 11   | 8    | 7    |
| Vulnerable                          | 12      | 11       | 10   | 7    | 7    |

Totals may not add due to rounding.

Source: Farm Costs and Returns Survey, 1984-88, USDA.



#### Figure 1 Snapshot of farm finances, 1985-87

### Farmland Value Increases Meant Healthier Farms in 1988

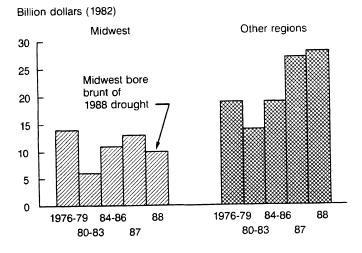
Financially vulnerable farms fell from a 10-percent share of all farms in the mid-1980's to 7 percent in 1988 because of the rise in farmiand values and a further decline in farm debt.

A major reason for the improvement in farm finances was an increase in farmland values in 1987-88, a reversal of the 8- to 12-percent annual declines of 1984-86. Real estate values climbed 9 percent above 1987 levels in the financially hard-hit Midwest. Livestock and crop inventory values also increased. Rising asset values, coupled with further debt reduction, improved the financial condition of farmers by increasing their equity (net worth).

The share of farms with positive incomes declined slightly, reversing a trend that began in 1984 (table 2). Much of this decline was due to the severity of the 1988 drought in the Midwest. Corn production fell 2.2 billion bushels because of the lack of rainfall. But, the drought did not lower cash income overall as 40-percent higher corn and soybean prices and strong earnings in poultry and beef offset crop losses (table 3).

Many Midwest crop growers and mixed crop/livestock farmers were better able to withstand the drought because of improved earnings in 1987 (fig. 2). Higher livestock profits and record-high direct Government payments combined with lower expenses, contributing

#### Figure 2



### Net farm income over past decade

to debt reduction and land price increases that added more than \$35 billion to the net worth of farmers in 1987. In 1988, net worth climbed by an additional \$50 billion.

Financial conditions improved substantially in 1987 in the Midwest, Northeast, Southeast, and South-Central regions. Between 2 and 6 percent more farms were classified favorable, and between 2 and 5 percent fewer were vulnerable in these regions. Farm finances worsened only in the West, where the share of vulnerable farms rose from 7 percent to 8 percent. Financial results were mixed in 1988 in part due to the

### Table 2--Farms with positive incomes , 1984-88. Increases through 1987 reflect recovery; dip in 1988 reflects drought.

|                                | Farms with positive cash incomes |      |      |      |      |  |  |  |
|--------------------------------|----------------------------------|------|------|------|------|--|--|--|
| Income measure                 | 1984                             | 1985 | 1986 | 1987 | 1988 |  |  |  |
|                                | Percent                          |      |      |      |      |  |  |  |
| Net cash farm<br>income        | 50                               | 51   | 53   | 57   | 53   |  |  |  |
| Net cash house-<br>hold income | 48                               | 56   | 58   | 59   | 56   |  |  |  |

Source: Farm Costs and Returns Survey, 1984-88, USDA.

# Table 3—Improved farm financial conditions reflect gain In farm sector finances.<sup>1</sup>

| Item 1984 1985 1986<br>Billion dolla     | 1987<br>ars | 1988 |
|--|-------------|------|
| Billion dolla                            | ars         |      |
|  |             |      |
| Net cash farm<br>income 39 47 52         | 54          | 57   |
| Livestock receipts 73 70 72              | 76          | 79   |
| Crop receipts 69 74 64                   | 64          | 73   |
| Government payments <sup>2</sup> 8 20 20 | 17          | 9    |
| Farm interest<br>expense 21 19 17        | 16          | 15   |
| Farm net worth 658 575 585               | 622         | 672  |
| Farm debt 191 175 155                    | 143         | 138  |

<sup>1</sup>Data reported are for the farm sector, based on information from USDA, other government agencies, and private industry sources.

<sup>2</sup>Includes direct payments, net Commodity Credit Corporation disbursements to farmers, and purchases of surplus dairy products. uneven impact of the drought (table 4). The share of farms with only marginal income worsened in all regions other than the West. Fewer farms had favorable finances in every region. On the other hand, the share of financially vulnerable farms was stable or declined in all regions except the South-Central region and the Northeast, where dairy farms had higher feed costs and lower milk receipts (fig. 3).

The West gained in the share of farms with positive cash income and exceeded the U.S. average growth in net cash farm income (table 5).

| Financial condition    | United States    | Midwest | Northeast | Southeast | South-Central | West    |  |  |
|------------------------|------------------|---------|-----------|-----------|---------------|---------|--|--|
|                        | Percent of farms |         |           |           |               |         |  |  |
| Favorable <sup>1</sup> | 49 (-3)          | 59 (-2) | 53 (-4)   | 45 (-3)   | 50 (-2)       | 52 (-1) |  |  |
| Marginal income        | 37 (4)           | 32 (4)  | 36 (3)    | 46 (4)    | 38 (2)        | 32 (-1) |  |  |
| Marginal solvency      | 7 (-1)           | 9 (-2)  | 5 (-1)    | 5 (0)     | 5 (-2)        | 10 (2)  |  |  |
| Vulnerable             | 7 (0)            | 9 (0)   | 6 (2)     | 4 (-1)    | 7 (2)         | 6 (-2)  |  |  |

### Table 4--Higher land values reduced solvency problems in the Midwest, Northeast, and South-Central.

Numbers in parentheses are percentage point changes from 1987; for example, 49 percent of all U.S. farms were classified favorable in 1988 compared with 52 percent in 1987.

<sup>1</sup>Classification based on net cash household income measure and solvency.

Source: Farm Costs and Returns Survey, 1987-88, USDA.

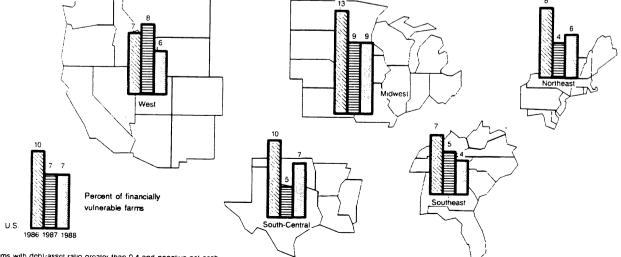
### Table 5--The West had the highest net cash farm inome in 1988.

| ltem                                      | Unit           | United States | Midwest | Northeast | Southeast | South-Central | West    |
|---|----------------|---------------|---------|-----------|-----------|---------------|---------|
| Farms with positive cash household income | Pct. of farms  | 56            | 58      | 58        | 50        | 55            | 62      |
| Returns on assets                         | Pct.           | 3.8           | 3.3     | 1.4       | 4.7       | 3.4           | 4.2     |
| Net cash farm income <sup>1</sup>         | Dols. per farm | 17,600        | 18,400  | 13,900    | 12,700    | 14,000        | 24,700  |
| Value of farm assets                      | do.            | 361,600       | 327,000 | 540,100   | 249,000   | 340,400       | 604,000 |

<sup>1</sup>The 1988 level and change in net cash farm income from 1987 to 1988 in the West is due in part to improved reporting of contractor income and expenses in the 1988 FCRS.

Source: Farm Costs and Returns Survey, 1988, USDA.





Farms with debt/asset ratio greater than 0.4 and negative net cash household income were classified as financially vulnerable

### **Drought Brought Mixed Financial Results**

The 1988 drought produced mixed financial results. Farms in the West, for example, rode strong beef and wheat returns to a favorable earnings year. The Northeast, however, being a major dairy region, showed an increase in financially vulnerable farms because of higher feed costs and lower milk receipts.

In spite of the drought the share of midwestern farms with positive household income exceeded the national average of 56 percent. Average net cash farm income (\$18,400) was the second highest in this key agricultural region. The strong income performance was achieved despite heavy interest burdens, as reflected by a Midwest debt/asset ratio of 0.20, twice as high as in the Northeast, Southeast, and South-Central regions. The problem of too much debt compared with assets contributed to 18 percent of midwestern farms being vulnerable or only marginally solvent in 1988.

The Northeast's gains in asset values in 1988 helped overshadow a 3-percent upturn in farm debt (table 6). The Northeast, the only region showing an increase, continued to have the most stable longrun financial position, with average debt of \$43,600, less than 8 percent of average assets of \$540,100 (tables 5 and 7). Real estate values supported this stability in part because 58 percent of northeastern farms were in metropolitan counties. Proximity to metropolitan communities increases demand for farm real estate by commuters and developers, enhances opportunities for off-farm employment of farm families, and lowers the cost of marketing farm produce in urban markets.

The Southeast saw interest expenses fall the most, down 15 percent. This reflected substantial debt liquidation, also down 15 percent, and debt restructuring by farmers and lenders following the severe drought in 1986 (table 6).

The Southeast's low average net cash farm income of \$12,700 reflected the dominance of small farms (table 5). More than five of every six farms in the Southeast had \$40,000 or less in sales in 1988. With a 4.7-percent rate of return on assets in 1988 (compared with the U.S. average of 3.8 percent), farm earnings in the Southeast have recovered from the region's 1986 drought. Besides the lowest average debt of any region, the Southeast's average interest paid of \$2,300 was about half the U.S. average of \$4,700 per farm (table 7).

South-Central crop, livestock, and poultry farms showed improved earnings in 1988. That, combined

with lower debt service costs, helped limit the financial impact of the drought. Rates of return were below the national average, but the share of farm households with positive cash-flow, 55 percent, equaled the U.S. average (table 5). The South-Central region's net cash farm income was \$14,000, substantially lower than in the Midwest and West. (Nearly four of five South-Central farms reported sales of less than \$40,000). The South-Central region registered the second largest gain in net cash farm income as beef and sheep earnings rose. More than 60 percent of the region's operators specialized in those enterprises. Poultry and rice earnings were above average, but cotton yields declined.

The West's farm interest expenses fell nearly 10 percent due to a reduction in farm debt and moderation in interest rates. With asset values rising at about average rates, improvement was evident in both income and balance-sheet indicators of financial conditions in 1988 (table 6).

The western share of small farms was close to the U.S. average (67 percent), but the size of the average western farm, 910 acres, was nearly double the 470acre U.S. average (table 7). About 30 percent of farms in the West were very large operations, averaging 2,250 acres, primarily producing dairy products, beef, sheep, cotton, cash grains, fruits, and vegetables. Nearly 70 percent were small operations, averaging 190 acres, and specializing in production of beef, sheep, fruits, and vegetables.

### Trends in Regional Finances, 1985-88

The 1980's began with several years of financial stress. Farmers' abilities to make debt service payments were weakened, contributing to declining land prices, especially during 1984-86. But, land values stabilized or increased in most regions in 1987 and 1988, and most farms had restructured (lowered or refinanced) their debts. These trends of improving incomes and finances mirrored the success of surveyed farms during 1985-88.

### Table 6--Decline in debt and interest greatest on Southeast, South-Central farms.

| Item                 | United States                | Midwest | Northeast | Southeast | South-Central | West <sup>1</sup> |  |  |  |
|----------------------|------------------------------|---------|-----------|-----------|---------------|-------------------|--|--|--|
|                      | Percent change, 1987 to 1988 |         |           |           |               |                   |  |  |  |
| Net cash farm income | 3                            | -14     | -16       | 6         | 19            | 36                |  |  |  |
| Value of farm assets | 2                            | 2       | -16       | -5        | -8            | 19                |  |  |  |
| Debt outstanding     | -10                          | -7      | 3         | -15       | -7            | -6                |  |  |  |
| Interest expense     | -9                           | -2      | -3        | -15       | -9            | -8                |  |  |  |

<sup>1</sup>See footnote 1 in table 5.

Source: Farm Costs and Returns Survey, 1987-88, USDA.

# Table 7--Large gains in net worth stabilized Midwest, Northeast, and West balance sheets. Cash farm incomes improved most in the South-Central and West.

| Region<br>and year | Acres<br>operated | Interest<br>expense | Operating<br>expense | Net cash<br>farm income | Off-farm<br>income | Debt            | Net worth |
|--------------------|-------------------|---------------------|----------------------|-------------------------|--------------------|-----------------|-----------|
|                    | Acres             |                     |                      | Dollars p               | oer farm           |                 |           |
| Midwest:           |                   |                     |                      |                         |                    |                 |           |
| 1985               | 490               | 10,000              | 67,900               | 18,200                  | 17,400             | 90,700          | 196,500   |
| 1986               | 440               | 7,900               | 59,200               | 17,300                  | 18,900             | 76,600          | 189,500   |
| 1987               | 440               | 6,300               | 55,900               | 21,300                  | 20,100             | 68, <b>9</b> 00 | 250,400   |
| 1988               | 485               | 6,200               | 61,200               | 18,400                  | 21,500             | 64,000          | 263,000   |
| Northeast:         |                   |                     |                      |                         |                    |                 |           |
| 1985               | 200               | 4,800               | 67,400               | 24,200                  | 19,000             | 44,900          | 276,100   |
| 1986               | 180               | 4,400               | 57,500               | 14,100                  | 21,600             | 40,800          | 301,900   |
| 1987               | 180               | 3,500               | 51,200               | 16,600                  | 25,200             | 42,500          | 424,000   |
| 1988               | 180               | 3,600               | 53,200               | 13,900                  | 30,300             | 43,600          | 496,500   |
| Southeast:         |                   |                     |                      |                         |                    |                 |           |
| 1985               | 230               | 3,500               | 44,100               | 4,800                   | 23,400             | 32,800          | 187,100   |
| 1986               | 240               | 4,000               | 46,800               | 10,700                  | 24,600             | 38,100          | 207,700   |
| 1987               | 210               | 2,700               | 38,500               | 12,000                  | 25,800             | 29,900          | 231,400   |
| 1988               | 190               | 2,300               | 34,400               | 12,700                  | 28,300             | 25,500          | 223,500   |
| South-Central:     |                   |                     |                      |                         |                    |                 |           |
| 1985               | 670               | 6,600               | 68,300               | 4,000                   | 32,900             | 61,400          | 319,200   |
| 1986               | 710               | 5,300               | 48,000               | 8,800                   | 31,500             | 52,300          | 276,600   |
| 1987               | 580               | 3,800               | 43,000               | 11,800                  | 32,500             | 40,100          | 328,200   |
| 1988               | 610               | 3,500               | 48,400               | 14,000                  | 37,500             | 37,400          | 303,000   |
| West:              |                   | ,                   |                      |                         |                    |                 |           |
| 1985               | 1,100             | 12,600              | 102,700              | 15,800                  | 29,500             | 106,600         | 438,600   |
| 1986               | 1,000             | 10,700              | 91,900               | 16,100                  | 35,400             | 94,700          | 339,600   |
| 1987               | 820               | 8,100               | 80,500               | 18,200                  | 27,400             | 83,200          | 426,900   |
| 1988               | 910               | 7,400               | 84,400               | 24,700                  | 37,400             | 78,000          | 525,700   |

Source: Farm Costs and Returns Survey, 1985-88, USDA.

# Midwest Farmers Hold Down Costs, Improve Earnings

### Cost control by midwestern farmers spurred widespread financial gains.

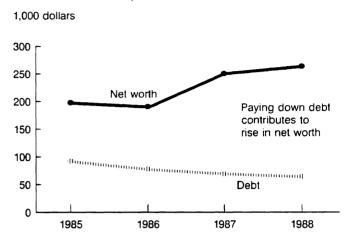
Widespread financial gains among both crop and livestock producers in the Midwest in 1987 were, in part, the product of intense cost-control efforts. Interest and operating expenses declined 37 and 18 percent, respectively, during 1985-87 (table 7). A 16-24 percent rise in off-farm income since 1985 also improved family cash income. While the drought was a factor in lower cash income for 1988, net worth increased by an average of \$13,000 in this region that year.

- The average net worth (\$263,000) of midwestern farms in 1988 was 39 percent above the 1986 value of \$189,500 and more than 34 percent over the 1985 level of net worth (\$196,500).
- Seven of eight small farms in the Midwest had debt/asset ratios of less than 0.40 in 1988, and interest expenses averaged only \$1,640. Average net cash farm income of \$630 for small midwestern farms in 1988 was primarily generated by dairy, cash grain, beef, and hog enterprises.
- Because the Midwest had 55-60 percent of all U.S. commercial farms, the sharp gains in midwestern farm balance sheets and cash income heavily influenced the sharp financial turnaround in the national farm sector since 1987. But, the 23-percent debt/asset ratio for midwestern commercial farms was the highest of any region, indicating continuing high debt loads.

During 1985-86, the financial condition of midwestern commercial farms was notably weaker than among typical commercial farms elsewhere. The prices of two leading midwestern crops, corn and soybeans, fell by one-third during 1984-86. Livestock returns had also

### Figure 4

Midwest farm debt, net worth



declined during 1984-85. Corn and soybean prices, however, both rebounded more than 50 percent in 1988. The Midwest registered record-high corn yields during 1985-87. Steer/corn and hog/corn ratios of 35 and 40, respectively, reached record or near-record levels during 1985-87. These ratios, which show the value of 100 pounds of beef or pork in relation to the cost of a bushel of corn, illustrate the favorable effect of low-cost feed for livestock producers.

Complementing the rebound in crop and livestock earnings were increasing land values, up 8-15 percent, in some Midwestern States in both 1987 and 1988. Declining dairy profits in 1987 and drought-related crop losses in 1988 constituted the major exceptions to improved midwestern farm prosperity.

## **Densely Populated Northeast Raises Value of Farmland**

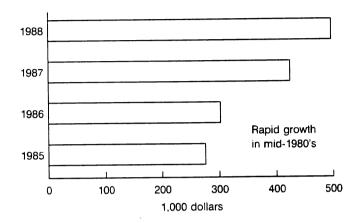
# Northeast farmers profited from steadly rising land values and substantial increases in average farm net worth.

In 1988, as in 1985-87, the Northeast had steadily rising land values and substantial increases in average farm net worth. Combined land and building values per acre increased from \$1,600 to \$2,090 during 1985-88. Real estate gains were robust, chiefly from urban development and growth pressures, since 60 percent of the Northeast's small farms and 53 percent of its large farms were in metropolitan areas in 1988. With ready access to off-farm employment and a strong economy, off-farm income grew by 20 percent during 1988.

- In no recent year has more than 1 percent of northeastern farms been insolvent (debts exceeding assets).
- Nearly two of three small-farm operators considered farming to be a secondary occupation. Off-farm income averaged more than \$35,000 for small farms in 1988. Their average debt/asset ratio of just 0.04 demonstrated the financial strength of small farms in the Northeast.
- The Northeast was the only region where more than four of five commercial farms had a positive cash-flow in 1987-88. The 3.4-percent return on assets was, however, below the 6.5-percent U.S. average for commercial farms. The debt/asset ratio of 0.14 was 60 percent that of commercial farms in the Midwest.

### Figure 5

Farm net worth in the Northeast



The greater stability of dairy and fruit and vegetable operation earnings and recent gains in beef prices have also improved northeastern farm finances. Between 75 and 85 percent of northeastern producers specialized in these enterprises. Slowly rising feed costs combined with a 50-cent per hundredweight reduction in milk prices, helping to limit growth in net cash farm income to 17 percent in 1987. Higher feed costs resulted in a reduction in net cash farm income for most Northeast dairy and beef producers in 1988.

### Earnings Gains On and Off the Farm Stabilize Southeast's Balance Sheet

Figure 6

A doubling In net cash farm income from 1985 to 1988 and steady gains In off-farm income and farm net worth enhanced financial stability In the Southeast.

Financial progress has been uneven in the Southeast in recent years, with interest expenses, operating expenses, and debt all rising in 1986 (unlike other regions) before falling in 1988 (table 7). Frequent droughts over the past 10 years have hurt individual States. Farmers shifted away from corn and soybeans during the 1980's. Between 1984 and 1987, southeastern corn production declined from 576 million bushels to 369 million bushels, and soybean production declined from 265 million bushels to 138 million bushels.

The more than doubling of net cash farm income during 1985-88 and steady gains in off-farm income and farm net worth now suggest greater financial stability in the Southeast (table 7). The share of farms classified as favorable has held fairly constant at 45 percent since 1985 (table 4). Financially insolvent farms declined from 3 to 1 percent of the total between 1986 and 1988.

- The share of cash grain farms in the Southeast declined from 11 percent to 7 percent between 1985 and 1987, reflecting continuing difficulties in competing with the Midwest in corn and wheat.
- Average net cash farm incomes of \$3,300 for small dairy farms and \$2,500 for small producers of fruits, vegetables, and other specialty crops were much higher than the average net cash income of \$800 for all small producers in this region in 1988.
- The Southeast was the only region where the average asset base of commercial farms fell in 1987, by 3 percent. But, this was erased by 3.4percent asset growth in 1988. Strong cash grain, beef, and poultry profits contributed to a 10.6-percent return on assets for commercial farms, the highest of any region.

#### Southeast net cash farm income and off-farm income 1988 1987 Steady gains hint at new financial stability 1986 Off-farm income 1985 Net cash farm income 20 5 10 15 25 30 35 0 1.000 dollars

The Southeast's average farm size of about 190 acres was 20 percent less than in 1986, and interest expense was, on average, 43 percent less than in 1986 among commercial farms. These changes reflect, in part, the considerable financial restructuring in the aftermath of the severe 1986 drought.

Nearly one of five operators with commercial-size farms considered farming as a secondary occupation, reflecting the importance of off-farm income, which averaged about \$27,400 among southeastern commercial farms in 1988. Sixty percent of the Southeast's commercial farms were in metropolitan areas or next to them, compared with 45-50 percent in the Midwest, South-Central region, and West. In the Southeast, 67 percent of small farms were in or adjacent to metropolitan areas.

# **South-Central Region Reduces Debt**

Debt diminished in the South-Central region as farmers brought tighter controls to operating expenses, beef operations earnings climbed, and crop yields recovered.

The average debt of south-central farms declined by nearly 40 percent between 1985 and 1987, while average net cash income increased markedly. Several factors triggered this improvement: tight control of operating expenses; an increase in beef operation profits; and recovery from widespread, weather-related low crop yields in 1985-86. The large swings in acres operated during 1985-87 and the large declines in interest expense and debt outstanding suggest that farms have extensively restructured their assets and debts.

- Average farm assets, valued at \$340,400 in 1988, were still 10 percent below their 1985 level.
   While the value of livestock rose sharply in this leading cattle-producing region, land and building values per acre as reported by farm operators remained nearly 12 percent less than in 1985.
- Beef, hog, and sheep producers on small farms reported average net cash income losses of \$3,200 in 1987, while cash grain producers reported positive incomes of about \$3,700.

Returns on assets increased from 7.7 percent to 8.7 percent for commercial farms in 1988, the second highest regional level. Cotton, rice, poultry, fruit, vegetable, and beef operations in the region achieved net cash income higher than the U.S. average for commercial farms.

Beef, hog, and sheep producers with commercial-size operations averaged a net cash income of \$103,900 in 1988, the highest average for this group of producers in all regions. Ninety percent of commercial beef, hog, and sheep farms had a positive cash-flow, and only 1 percent had debt greater than assets. The average net cash income of commercial cash grain farms, at \$53,400, remained substantially lower than the \$78,100 average for all commercial farms. Commercial-size dairy producers averaged a 3.4-percent rate of return on assets, compared with 2.8 percent for commercial dairy producers in this region maintained debt levels below 40 percent of their asset base.

# Farmers in the South-Central region benefited financially from:

- Exerting tight control on operating expenses
- Higher prices and profits from beef operations
- Raising crop yields

### Assets Climb, Debt Falls To Improve Western Farms

Higher asset values and stable debt levels improved the financial status of western commercial farms.

Net cash farm income for western farms rose steadily during 1985-87, and then increased 36 percent in 1988. Farm survey information suggests average farm asset values also increased rapidly, by about \$100,000 in 1988 (table 7). The gradual decline in interest, operating expenses, and farm debt suggests a less difficult financial transition than in most other regions. Much of that may be because cash grain farms, which are more dependent on volatile export earnings, constituted only 9 percent of this region's farms in 1988, down from 12 percent in 1985.

Interpreting financial conditions in the West is complicated by the wide range of farm sizes and commodities. Thirty percent of the large farms produced primarily beef and sheep. These farms operated an average of 5,900 acres in 1988. More than 40 percent of the small farms in the West, however, produced fruits and vegetables and other specialized high-value commodities. These high-value-product farms operated an average of only 80 acres in 1988.

 Western beef, hog, and sheep operations were slightly less likely than other types of western producers to be financially vulnerable in 1988.

- While 14 percent of the West's small farms showed marginal solvency or a vulnerable financial condition in 1988, only 2 percent were insolvent, implying very limited future debt restructuring for operations with less than \$40,000 in annual sales.
- Spurred by higher values for farmland, buildings, and livestock, assets of commercial farms in the West grew 25 percent in both 1987 and 1988, more than any other region.

Higher asset values and stable debt levels improved the financial positions of commercial farms in the West as demonstrated by a decline in the debt/asset ratio from 0.20 in 1987 to 0.14 in 1988. Earnings of commercial-size beef, hog, and sheep operations were the second highest following South-Central producers, and five of six had debt of less than 40 percent of assets. The average net cash income of commercial dairy farms in the West, \$88,000, was more than twice as large as the \$40,400 average for all commercial dairy farms in the Nation, contributing to a 6-percent return on assets for western dairy farms.

# After steady increases during 1985-87, net cash farm income in the West climbed 36 percent in 1988.



### Small farms depend on off-farm earnings for over half their household incomes.

Over two-thirds of the farms covered by the survey sold less than \$40,000 worth of farm commodities in 1988. The average net cash farm income of these small farms in 1988 was a negative \$600 (table 8), while their off-farm income averaged \$32,610 per farm household. Thus, small-farm households depended primarily on off-farm income to provide most of their family income.

Although less important in terms of their numbers, farms with sales of \$40,000 or more accounted for over 90 percent of gross cash farm income in 1988 and depended primarily on agricultural sources of income. The average net cash farm income of these commercial-size farms was \$56,800 in 1988, compared with \$20,300 of off-farm income.

Small farms exhibited strong equity positions, on average, with debts averaging less than 8 percent of assets in 1988. Commercial farms were more dependent on debt financing, with debt/asset ratios averaging 0.18. Because of their stronger reliance on debt financing and farm sources of income, commercial farms were more than twice as likely as small farms to be financially vulnerable in 1988. Commercial farms had over seven times more debt on average than small farms in 1988 and owed nearly \$4 of every \$5 of total farm debt.

| ltem   | 1985    | 1986         | 1987    | 1985/87 | 1988    |
|--|---------|--------------|---------|---------|---------|
| o 1 1  |         |              | Percent |         |         |
| Small farms: <sup>1</sup>                        |         |              |         |         |         |
| Share with positive net cash<br>household income | 48      | 54           | 53      | 10      | 51      |
| Return on assets                                 | •       | 1.7          | 2.7     | *       | 2       |
|  |         | Dollars      |         | Percent | Dollars |
| Net cash farm income                             | 3,100   | -1,800       | -100    | NA      | -600    |
| Interest expense paid                            | 1,900   | 2,100        | 1,400   | -25     | 1,400   |
| Debt outstanding                                 | 18,900  | 19,600       | 17,900  | -5      | 16,600  |
| Assets   | 169,600 | 168,200      | 218,800 | 29      | 215,300 |
| Commercial farms: <sup>2</sup>                   |         |              | Percent |         |         |
| Share with positive net cash<br>household income | 65      | 67           | 72      | 11      | 67      |
| Return on assets                                 | •       | 4.8          | 6.5     | •       | 6.5     |
|  |         | ·····Dollars |         | Percent | Dollars |
| Net cash farm income                             | 38,100  | 42,700       | 52,200  | 68      | 56,800  |
| Interest expense paid                            | 17,400  | 15,300       | 12,900  | -26     | 12,000  |
| Debt outstanding                                 | 154,000 | 45,600       | 134,500 | -13     | 122,800 |
| Assets   | 557,700 | 532,000      | 627,900 | 13      | 676,400 |

### Table 8—Lower debt and higher assets for commercial farms in 1988, but most improvement from 1985 to 1987.

\* = Not available. NA = Not applicable.

<sup>1</sup> Annual farm sales are less than \$40,000.

<sup>2</sup> Annual farm sales of \$40,000 or more.

Source: Farm Costs and Returns Survey, 1985-88, USDA.



### How to Measure Farm Financial Performance

Measuring financial conditions reveals how well the Nation's farms are doing.

### The Farm Costs and Returns Survey

FCRS data analyzed in this report were collected through personal interviews with farmers by the National Agricultural Statistics Service (NASS). Because the FCRS is a probability-based survey, each farmer respondent represents a predetermined number of other farms with similar farm size and type of commodities produced. The sample is drawn from a list of known farm operations that is segmented by farm size and other farm characteristics, and from representative geographic areas segmented by land use. In the latter case, every farmer residing in the selected area is contacted. This helps to ensure that the overall sample does not omit farm operations for which there is little or no prior information.

**Net Cash Farm Income**--Gross cash income, less all operating expenses including interest. Measures funds generated by the farm business for principal repayment, family living expenses, business expansion, and savings.

Net Cash Household Income--Net cash farm income, plus family nonfarm income, less principal repayment and an allowance for annual family living expenses (based on the average income of nonmetro households after adjustment for taxes and the net rental value of the farm dwelling). Includes all sources and uses of cash income, except for capital transactions, so farm families often use it in borrowing decisions.

Net Farm Income--Net cash farm income, plus annual change in inventory values, plus nonmoney income, less depreciation. Measures the net value of agricultural production from an accrual accounting perspective.

### **Solvency Measures**

Equity or Net Worth--Value of farm assets, less debt owed by the farm business. Provides an estimate of what the farm operator might receive if all assets were sold and all debts were repaid. **Debt/Asset Ratio**--Current dollar value of farm debt divided by farm assets. Shows the share of farm assets owed to lenders. The higher the debt/asset ratio, the greater the vulnerability of the farm.

#### Farm Size Measures

**Small Farms**--Farms with annual sales totaling less than \$40,000.

**Commercial Farms**--Farms with annual sales of \$40,000 or more.

### **Classification of Financial Condition**

USDA's Economic Research Service uses positive or negative net income and high or low debt to classify farms into one of four financial categories. A debt/asset ratio of more than 0.4 indicates a high debt load; less than 0.4 indicates a low debt load.

**Favorable**--Positive net income and low debt load. Positive current year net income combined with low debt indicates a solid financial position from both a current year as well as a longer term perspective.

**Marginal Income**--Negative net income and low debt load. Indicates a solid position in terms of net worth but short-term (current year) income difficulties.

**Marginal Solvency**--Positive net income and high debt load. Current year net income is positive but the operation could experience further erosion of an already weak equity position if future income turns negative.

**Vulnerable**--Negative net income and high debt load. The farm may be forced out of business by a continuation of negative annual income and/or further devaluation of farm assets.

### For additional information...

Contact Gregory Hanson, Agriculture and Rural Economy Division, Economic Research Service, USDA, Room 937, 1301 New York Avenue, NW., Washington, DC 20005-4788 (phone 202-786-1807).

### Another Copy is Easy To Order. Just dial 1-800-999-6779. Toll free.

Ask for *Farm Financial Conditions, by Region, January 1, 1989* (AIB-577). The cost is \$3.00 per copy. For non-U.S. addresses, add 25 percent (includes Canada). Charge your purchase to your VISA or MasterCard, or we can bill you. Or send a check or purchase order (made payable to ERS-NASS) to: ERS-NASS, P.O. Box 1608, Rockville, MD 20849-1608. We'll fill your order by first-class mail.