

# Agriculture In 1991: The Decline Continues

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**F**or the second consecutive year, farm income in inflation-adjusted (real) terms fell in 1991.<sup>1</sup> Declines in crop and livestock receipts and a reduction in government support payments more than offset a slight decline in total farm expenses. Farm income is forecast to decline again this year, although the decline should not be as marked.

This article examines the preceding developments, as well as others—some of which are positive—for the nation and for the Eighth Federal Reserve District in 1991. Forecasts for 1992 and developments thus far are provided as well.

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## Measures of Farm Sector Performance in 1991

### Lower Farm Income

Table 1 lists the two primary measures of real farm income. Net farm income (NFI), which is the most widely watched measure of farm income, declined 20.2 percent in 1991 to \$35.9 billion. This was the largest one-year percentage drop since the drought year of 1983, when real NFI fell 43 percent. Another measure of farm income performance is net cash income (NCI).<sup>2</sup> Although NCI—like NFI—declined in 1991, it declined by much less in percentage terms, falling by 11 percent. Both measures, though, were below their 1985-90 average.

Generally speaking, real farm income at the District level closely parallels the national trend. Individual District states, however, may differ substantially from the national figure when the focus is restricted to the *change* for a specific year. This is shown in table 2, which details farm income statistics for the District states. Although state farm income statistics are available with a one-year lag, table 2 indicates that real NFI in 1990 declined in each of the District states, just as it did at the national level. Inflation-adjusted NCI, on the other hand, rose substantially in Illinois and Indiana, but

declined in every other state. Again, this was consistent with the national numbers as real NCI in 1990 was down from 1989. For 1991, District NCI and NFI will probably track the national average. Reinforcing this prediction is the fact that the total *nominal* value of production for the major Eighth District commodities listed in table 3 declined by 3.3 percent in 1991.

### Why Did Farm Income Fall?

The value of agricultural production in any given year is largely derived from the sale of crops and livestock. As shown in table 1, both livestock and crop receipts declined in 1991 at the national level. Crop receipts, measured at \$69.2 billion, declined 2.8 percent in 1991. Livestock receipts, on the other hand, registered a sharper decline. After reaching a six-year high of \$79.4 billion in 1990, livestock receipts fell 7.4 percent in 1991 to \$73.5 billion; both measures also fell short of their 1985-90 average.

Figure 1 provides one piece of evidence as to why crop and livestock receipts fell last year. Crop prices rose substantially in the first half of 1991 largely because of the California freeze in December 1990 that temporarily inflated many fruit and vegetable prices. As fruit and vegetable prices declined to previous levels, the overall crop prices index fell as well. In fact, as of December 1991, crop prices were about 1 percent lower than a year earlier, as the average price for 1991 was lower than 1990's average for the major crops of corn, soybeans, cotton and wheat; the average price of rice in 1991 was up over 1990.

Figure 1 also shows that although livestock prices had trended upward from early 1986 to mid-1990, they have since subsequently weakened. In fact, despite an increase in early 1991, livestock prices fell 6.1 percent between December 1990 and December 1991; as will be discussed below, the livestock prices index fell because of lower prices received by beef, pork and poultry producers.

### Decline in Farm Expenses

Ameliorating the effects of the decline in farm receipts last year was a 2.3 percent decline in total farm expenses (table 1). Lower energy costs and declines in interest rates, key components of farm expenses, were the primary reasons for this development. Crude oil prices, the major determinant of energy prices, declined 36 percent from fourth-quarter 1990 to fourth-quarter 1991, while the average interest rate on all non-real estate farm loans fell from 11.8 percent to 9.8 percent during the same period. If interest rates and energy prices remain near their 1991 year-end levels for much of

**Table 1**  
**U.S. Farm Sector Income Statement**  
 (Billions of 1987 dollars)

Category	1989	1990	1991 P	1992 F	1985-90 Avg.
Total Farm Receipts <sup>1</sup>	\$155.7	\$155.7	\$148.7	\$136 to \$142	\$152.5
Crops	70.8	71.2	69.2	68 to 71	70.2
Livestock	77.6	79.4	73.5	68 to 73	76.2
Government Payments	10.1	8.2	6.8	6 to 8	11.6
Gross Farm Income	175.6	172.8	160.7	155 to 162	169.5
Gross Cash Income	166.0	164.7	155.6	148 to 155	164.4
Total Expenses	129.3	127.8	124.8	122 to 128	130.7
Cash Expenses	111.3	110.0	106.8	104 to 110	111.2
Net Cash Income <sup>2</sup>	54.8	54.7	48.7	41 to 46	53.2
Net Farm Income <sup>3</sup>	46.2	45.0	35.9	31 to 36	38.8

P = Preliminary F = Forecast

SOURCE: United States Department of Agriculture, *Agricultural Outlook* (May 1992), Table 29. Nominal numbers in original table were deflated by the Gross Domestic Product implicit price deflator, 1987 = 100.

<sup>1</sup>Includes farm-related income such as machinery hire or custom work. Farm-related income is usually less than 5 percent of total farm receipts and relatively invariant over time.

<sup>2</sup>Gross cash income less cash expenses.

<sup>3</sup>Gross farm income less total expenses; includes value of inventory changes.

NOTE: Totals may not add due to rounding.

**Table 2**  
**Eighth Federal Reserve District Farm Income**  
**Statistics (Billions of 1987 dollars)**

State	Net Farm Income		Net Cash Income	
	1990	1989	1990	1989
Arkansas	\$1.07	\$1.15	\$1.28	\$1.38
Illinois	1.51	1.86	2.19	1.85
Indiana	0.93	1.17	1.39	1.14
Kentucky	0.92	1.05	1.28	1.33
Mississippi	0.55	0.60	0.72	0.76
Missouri	0.77	0.99	1.12	1.22
Tennessee	0.41	0.51	0.70	0.75

SOURCE: *Economic Indicators of the Farm Sector: State Financial Summary, 1990*, United States Department of Agriculture (December 1991).

1992, farm expenses will probably hold steady or even decline moderately. If rising interest rates and increased oil demand accompany a resumption in economic growth, which is a more plausible scenario, then 1992 farm expenses will probably rise. A further boost to farm expenses will likely occur from increased expenditures associated with the expected 4 percent increase in corn acreage this year.

### *Lower Government Support Payments*

Another important component of farm income is the level of federal government support. In 1987, government payments in real terms totaled \$16.7 billion, 42 percent of NFI and 30 percent of NCI. Subsequently, the level of government support payments to farmers has declined by more than one-half, falling to an estimated \$6.8 billion in 1991—or 19 percent of NFI and 14 percent of NCI (table 1). While the United States Department of Agriculture (USDA) has forecasted the possibility of a slight rise in government support payments for 1992, barring drastic declines in market prices or severe weather problems, levels of government support in real terms will probably continue to hold to their downward trend.

### *What's in Store for This Year?*

The next-to-last column of table 1 lists USDA forecasts for 1992. Both real NFI and NCI are forecasted to decline in 1992, the third year in a row. Livestock prices are expected to remain relatively weak in 1992 because of expanded production and existing large meat supplies (discussed below). Although 1992 crop receipts are projected to remain approximately equal to 1991, the relatively small levels of grain stocks for many commodities may translate into sharp price increases if

**Table 3**  
Eighth Federal Reserve District and United States Crop and Livestock Production in 1991 as a Percent of 1990

State	Corn	Cotton	Rice	Soybeans	Wheat	Beef	Pork	Poultry <sup>1</sup>
Arkansas	115%	143%	111%	99%	42%	119%	104%	105%
Illinois	89	—	—	96	50	98	109	67
Indiana	73	—	—	101	57	100	105	104
Kentucky	93	—	—	94	54	107	95	857
Mississippi	100	122	86	117	29	99	84	116
Missouri	104	135	125	109	63	97	104	128
Tennessee	100	141	—	93	44	98	97	109
United States	94	113	99	103	72	101	104	105

SOURCE: Agricultural statistics office of each individual state and the United States Department of Agriculture.

<sup>1</sup>Defined as the production of broilers and turkeys and the pounds sold of mature chickens. (Note: Some District states may not produce all three categories of poultry.) Broiler production is measured from December 1 to November 30 of 1990 and 1991, respectively.

weather volatility or sudden export demand arises. Farm expenses in 1992 are forecast to be roughly equal to those in 1991; however, if the aggregate economy grows at a stronger pace than many expect, rising interest rates and farm input prices (for example, wage rates or energy costs) may increase more than expected as well. Since state income and expense measures tend to mirror the national trends, it is reasonable to anticipate that, if the USDA's national forecasts are reasonably accurate, similar changes will occur at the District level.

### *Major Eighth District Farm Commodities: 1991 Performance, 1992 Outlook*

The interaction of market demand and market supply generally determines the price the farmer receives.<sup>3</sup> Market supply includes the current year's production, unused production from the previous year(s) and, if any, the quantity of imports. Similarly, market demand is a broad measure that includes human and animal consumption, exports and industrial uses. The following section discusses some of these considerations for those crop and livestock commodities that are most important in the Eighth District.<sup>4</sup>

#### *Corn*

Weather, as usual, had a significant influence on last year's corn production. The nearly ideal

spring growing conditions in many areas gave way to unusual dryness in mid-summer; this was followed by an early freeze in the fall in parts of the upper Midwest. When all was said and done, 1991 corn production was down nearly 6 percent from a year earlier, as a 10-bushel-per-acre yield reduction more than offset a 2.7 percent increase in harvested acreage.

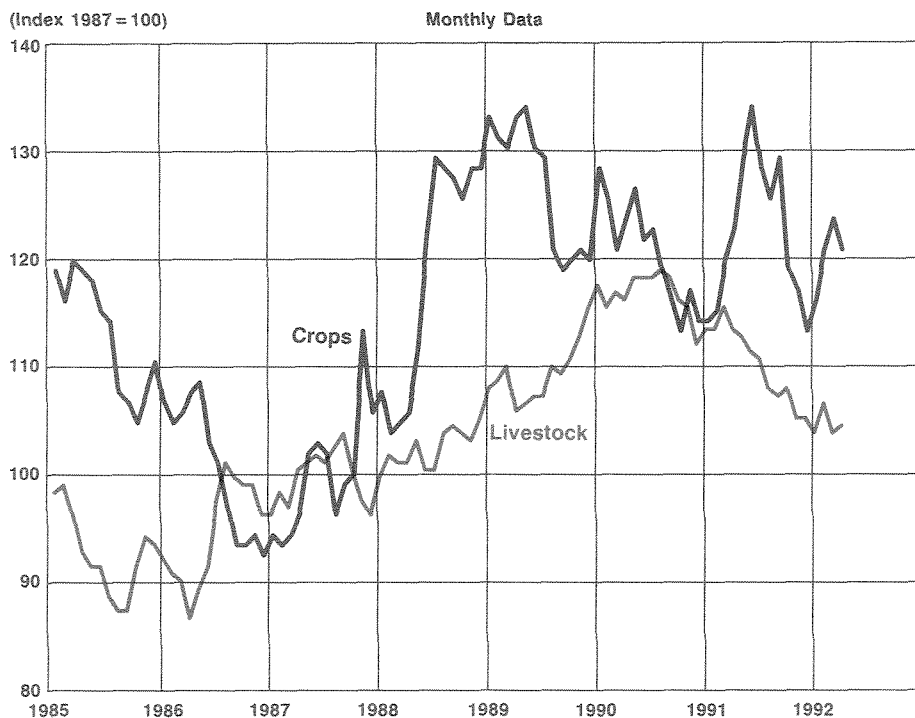
Table 3 lists 1991 crop and livestock production relative to 1990 for District states and for the United States. Corn production declined the most in the traditional Corn Belt states of Illinois and Indiana, and was down somewhat less in Kentucky. On the other hand, Mississippi and Tennessee corn production was unchanged from last year, while Arkansas and Missouri posted year-over-year increases.

Table 4 lists the primary components of the supply and demand of important Eighth District farm commodities, including corn. Although beginning corn stocks rose 13 percent in the marketing year 1991-92, the combination of a 6 percent decline in production and a 5 percent increase in domestic use are expected to push ending stocks in 1991-92 to their lowest level since the drought year of 1983, notwithstanding the expected 10 percent drop in exports. As a result, the USDA estimates that corn prices could rise as much as 14 percent over last (marketing) year's average of \$2.28 to \$2.60 a bushel. Preliminary estimates released by the USDA, however, point to a 4 percent increase in corn plantings this year, which may have a depressing effect on corn prices.

#### *Cotton*

Cotton production in 1991 totaled 17.6 million bales—the second-largest crop on record and

Figure 1  
United States Crop and Livestock Prices



14 percent above 1990. Cotton is an important District cash crop—worth an estimated \$1.4 billion in 1991, up 19.7 percent from the previous year. Last year's crop was substantially larger than in 1990 in all four District cotton-producing states (table 3) and would have been even larger if Mississippi, the nation's third-largest producer, had not suffered from a deluge of spring rains that severely hampered planting and emergence.

The 1991-92 cotton marketing year (August to July) began with a relatively small 2.3 million bales in beginning stocks, down 22 percent from the previous marketing year (table 4). This positive development was mitigated, however, by last year's large crop. On the demand side, domestic cotton mill use is expected to total 9.3 million bales, nearly 9 percent above last year and the highest usage in 25 years. Nevertheless, a 13 percent drop in exports is expected to push ending stocks to their largest level since 1988-89. Accordingly, cotton prices are forecast to decline about five cents in the 1991-92 marketing year to near 63 cents a pound.

#### Rice

Aggregate U.S. rice production is heavily influenced by Arkansas, Mississippi and, to a lesser extent, Missouri. Arkansas is the nation's largest

rice producer, while Mississippi and Missouri are its fifth- and sixth-largest producers, respectively; together, these three states account for a little more than one-half of all U.S. rice production. Last year, Arkansas and Missouri rice production increased significantly from the previous year, while Mississippi's crop was off 14 percent because of planting delays attributed to spring flooding (table 3).

Last year, U.S. rice production decreased 1 percent from the previous year because of a drop in harvested acreage. Nonetheless, at 154.5 million hundredweight (cwt), last year's crop was relatively large—up nearly 7 percent over the 1985-90 average (table 4). This increased production has been stimulated in part because of a steadily increasing domestic demand for rice, which has risen at a 4.2 percent annual rate since 1986. Rice exports, the other primary demand component, are expected to decline sharply in 1991-92, as they have for each year since 1988. For the 1991-92 marketing year, rice prices should average about \$7.50 per cwt, up 80 cents from 1990-91.

#### Soybeans

Soybeans are grown in each of the seven District states, and they are the second-largest crop,

**Table 4**  
Supply and Demand of the Major Eighth District Crops in 1991-92 and Percent Change from 1990-91<sup>1</sup>

Crop	Beginning Stocks		Production		Domestic Use		Exports	
	Amount	Percent Change	Amount	Percent Change	Amount	Percent Change	Amount	Percent Change
Corn (million bushels)	1,521.0	+ 13%	7,474.0	- 6%	6,345.0	+ 5%	1,550.0	- 10%
Cotton (million bales)	2.3	- 22	17.6	+ 14	9.4	+ 9	6.8	- 13
Rice (million cwt)	24.6	- 6	154.5	- 1	94.8	+ 3	60.0	- 15
Soybeans (million bushels)	329.0	+ 38	1,986.0	+ 3	1,335.0	+ 4	690.0	+ 24
Wheat (million bushels)	866.0	+ 62	1,981.0	- 28	1,210.0	- 12	1,250.0	+ 17

<sup>1</sup>Periods are on a marketing year basis; market years are June to May for wheat, August to July for cotton and rice, and September to August for corn and soybeans. Numbers for domestic use and exports are forecasts.

SOURCE: *World Agricultural Supply and Demand*, United States Department of Agriculture (May 1992).

behind corn, in terms of revenue. The value of District soybean production last year was down 3.3 percent to \$4.8 billion, as declines in production occurred in Arkansas, Illinois, Kentucky and Tennessee (table 3).

The weather that affected the nation's corn crop last year also affected the soybean crop. After much early season promise, last year's soybean crop of almost two billion bushels was a little more than 3 percent larger than 1990's crop (table 4). Assisted by increasing meat production, domestic consumption is forecasted to increase nearly 4 percent in the 1991-92 marketing year, while exports are projected to increase 24 percent because of modest declines in world production and agricultural credits extended to the former Soviet Union. As a result, ending stocks are forecast to decline to roughly 300 million bushels and soybean prices are expected to be moderately higher than in the previous marketing year; however, any hint of weather uncertainty or additional export credits to the former Soviet Union could push the average marketing year price to the USDA's top-end estimate of \$5.60 a bushel. Another boost could come from this spring's expected decrease in planted soybean acreage—the smallest acreage planted since 1976.

#### *Wheat*

Largely because of crop diseases in the nation's soft-red winter wheat belt (predominantly the Midwest), U.S. wheat production in 1991 declined by approximately 28 percent from 1990. This resulted in the second-smallest wheat crop since 1978. Winter wheat production was curtailed significantly in all District states, particularly in Mississippi, where last year's production dropped by 71 percent (table 3). Elsewhere, winter wheat crops in Arkansas and Tennessee were less than half that of the previous year, while production in

Illinois, Indiana and Kentucky declined slightly less. Missouri suffered the smallest relative decline, with production falling 37 percent.

Total wheat supply in the United States declined 13 percent last year. In fact, total supply would have dropped much more were it not for 1990's extremely large harvest, which boosted 1991-92 beginning stocks by 62 percent (table 4). The 28 percent decline in 1991 production and the expected 17 percent increase in exports, has 1991-92 ending stocks falling 58 percent to 366 million bushels; this would represent the smallest level of ending stocks since 1974.

Given these bullish fundamentals, the average price for the 1991-92 marketing year is expected to increase to near \$3 per bushel, up from the previous marketing year average of \$2.61 per bushel. Significant purchases by the former Soviet Union have boosted wheat prices since late last year. Ameliorating further price increases, however, are the large stocks possessed by Canada and the European Community and the 12 percent decrease in domestic demand because of a drop in wheat used for feeding purposes. Overall, though, in view of the forecasted increases in exports and the relatively small level of ending stocks, relatively strong wheat prices are expected into mid-1992. In fact, the average price of wheat since June 1991—the start of the wheat marketing year—has averaged \$3.18 a bushel, well above the previous year.

#### *Beef Cattle*

Beef production in the United States last year totaled nearly 23 billion pounds. This was up slightly from 1990 but marginally below that of 1989. In the District, beef production was higher in Arkansas and Kentucky, but was virtually unchanged to down slightly in the remaining District

states (table 3). Because of this increase in production and the relatively large supply of competing pork and poultry meat, beef prices in 1991 declined from about 79 cents a pound to 74 cents a pound.

1992 forecasts point to a 1.1 percent increase in beef production, as recent USDA statistics suggest that cattle producers have responded to the relatively high prices received during the past two to three years by expanding their herds. Total cattle on farms as of January 1, 1992, equaled 100.1 million head—the highest level since 1987 and the third consecutive yearly increase. Furthermore, given the modest downward trend in per capita beef consumption—down 28.5 percent from its 1976 peak—and the large supplies of competing meats, beef producers may see prices fall yet some more.

### *Hogs*

Expansion in pork production nationally began in earnest last year and is expected to continue quite strongly into 1992. Pork production in 1991 was up 4.2 percent from 1990, and it is expected to rise nearly 8 percent in 1992 to an all-time record of 17.2 billion pounds. Likewise, District pork production generally rose last year, particularly in the largest pork-producing states of Illinois, Indiana and Missouri (table 3).

Similar to beef prices, pork prices have been relatively high in the last few years; rising from an average of 43 cents per pound in 1988 and 1989 to 54 cents in 1990. With last year's jump in production, it was not surprising therefore to see the average pork price decline to 49 cents a pound. This price drop occurred chiefly because increases in demand did not keep up with increases in supply. Although pork consumption in 1991 increased 2.3 percent and exports rose modestly, per capita pork consumption only rose six-tenths of a pound to 50.6 pounds; for 1992, the USDA is expecting per capita consumption to rise to 54 pounds. Also, like beef, large supplies of competing meats and expected increases in pork production in the second and third quarters of 1992 should moderate any upward movements in hog prices. In fact, in the first quarter of 1992, pork prices averaged 38 cents a pound, down from 51 cents a pound one year earlier.

### *Poultry*

The other large component of the domestic livestock sector, especially in the Eighth Federal Reserve District, is the poultry industry. In 1991, the District poultry industry produced a little more than \$3.6 billion in broilers, turkeys, mature chickens and eggs. Approximately 80 percent of poultry production is concentrated in broilers, of which Arkansas is the nation's largest producer.

Last year, Arkansas' poultry production rose 5 percent, substantially less than Mississippi and Missouri but slightly above Indiana, the other large poultry-producing states (table 3). Of particular interest was the large jump in Kentucky's poultry production, which was due to a 14-fold increase in broiler production.

Total U.S. poultry production last year equaled 25.3 billion pounds, up 5 percent from 1990. Because of the large supply of beef, pork and poultry expected on the market, the rate of increase of poultry production in 1992 is expected to slow slightly to 4.7 percent. In 1991, broiler prices averaged 52 cents a pound, down two cents from 1990 and seven cents from 1989. For 1992, broiler prices are expected to fall slightly more, as much as four cents a pound to 48 cents.

While competition among meats in 1992 will be intense, poultry products seem to enjoy a consumer advantage because of the perception that they are "healthier" than beef and pork. This preference shows up in per capita poultry consumption, which has increased at a 3.2 percent annual rate since 1970; this compares with a 1.1 percent rate of decline for beef and a 0.4 percent rate of decline for pork. In 1992, per capita poultry consumption is expected to increase 4.6 percent.

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## *Agricultural Finance: Improving Balance Sheets*

Table 5 looks at the U.S. farm balance sheet since 1988 and what is currently being forecast for 1992. As measured by the debt-to-asset ratio, farmers continue to retire the debt they accumulated in the 1970s and early 1980s. For example, the farm debt-to-asset ratio has decreased by almost one-third since 1985 and has not been this low since 1964.

By definition, a decline in the debt-to-asset ratio entails either a decline in debt and/or a rise in the value of farm assets. In 1991, total farm assets equaled \$722.2 billion, which represented a decline from the previous year of 2.3 percent. In fact, figure 2 shows that real farm assets, of which nearly three-quarters is farmland, have declined sharply since peaking in 1979.<sup>5</sup>

The bright spot in farm finance is that both farm real estate debt and non-real estate debt have declined markedly in recent years. For example, since 1985, real estate debt has declined at an annual rate of 8.5 percent while non-real estate debt has declined at a 6.5 percent rate. Last year, farm real estate debt declined 4 percent, while non-real estate debt dropped by 2.1 percent.

As with state farm income, state balance sheet data are only available up to 1990. Nevertheless,

**Table 8**  
**U.S. Farm Balance Sheet**  
 (Billions of 1987 dollars)

<u>Assets</u>	1988	1989	1990	1991 P	1992 F
Real Estate	\$576.9	\$558.2	\$544.2	\$533.3	\$521 to \$530
Non-Real Estate	198.1	198.1	195.7	188.8	184 to 193
Total Farm Assets	774.9	756.2	739.2	722.2	709 to 717
<b>Liabilities</b>					
Real Estate	74.7	69.5	65.0	62.4	60 to 63
Non-Real Estate	59.4	57.0	55.9	54.7	53 to 56
Total Farm Debt	134.2	126.5	120.9	117.1	113 to 118
<b>Total Farm Equity</b>	<b>\$640.8</b>	<b>\$629.7</b>	<b>\$618.4</b>	<b>\$605.1</b>	<b>\$592 to \$600</b>
<b>Debt-To-Asset Ratio</b>	<b>0.173</b>	<b>0.167</b>	<b>0.164</b>	<b>0.160</b>	<b>0.16 to 0.17</b>

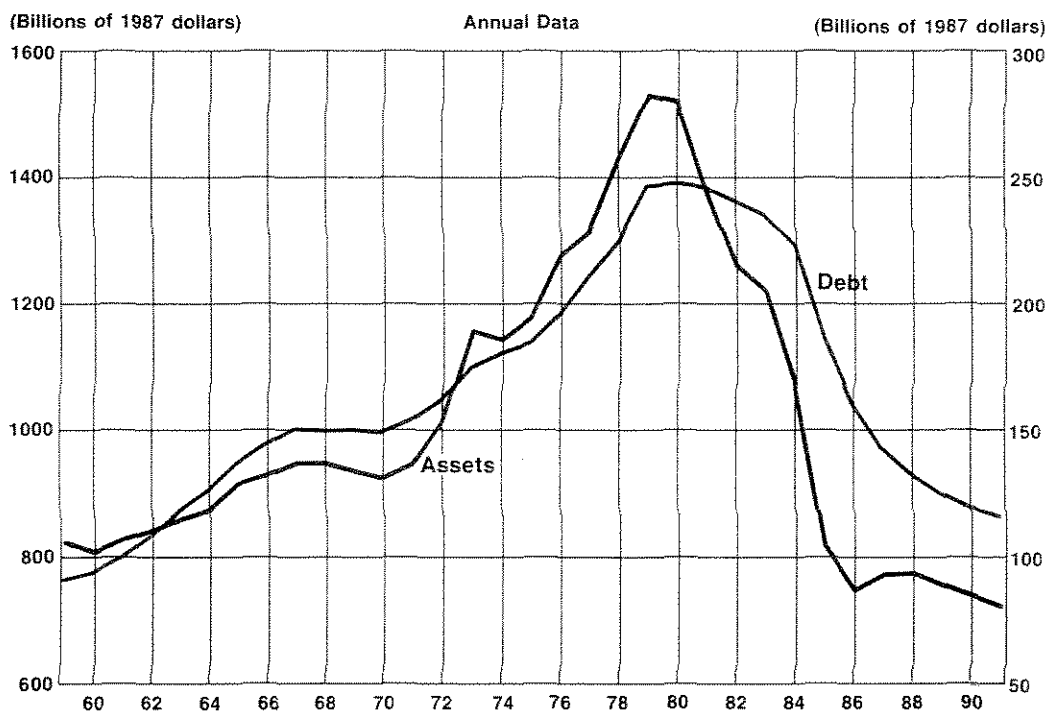
P = Preliminary F = Forecast

SOURCE: United States Department of Agriculture, *Agricultural Outlook* (May 1992), Table 30. Nominal numbers in original table were deflated by the Gross Domestic Product implicit price deflator, 1987 = 100.

NOTE: Totals may not add due to rounding.

*Figure 2*

### Total United States Farm Assets and Farm Debt\*



\*Includes operator households.

Table 6  
Eighth Federal Reserve District Farm Finance Statistics  
(Billions of 1987 dollars)

State	Farm Assets		Farm Debt		Debt-to-Asset Ratio	
	1990	1989	1990	1989	1990	1989
Arkansas	\$12.79	\$13.03	\$2.60	\$2.61	0.18	0.185
Illinois	42.75	43.67	6.23	6.59	0.129	0.139
Indiana	21.94	22.60	3.94	4.25	0.159	0.173
Kentucky	14.82	15.50	2.21	2.37	0.132	0.141
Mississippi	10.05	10.42	2.16	2.43	0.19	0.215
Missouri	23.41	23.87	3.86	4.07	0.146	0.158
Tennessee	12.83	13.47	1.73	1.81	0.12	0.124

SOURCE: *Economic Indicators of the Farm Sector: State Financial Summary, 1990*, United States Department of Agriculture (December 1991).

the same trends in asset values seen nationally are present for each of the District states. Table 6 indicates that real asset values declined in 1990 in each District state. The average decline was 3.1 percent, ranging from 1.8 percent in Arkansas to 4.8 percent in Tennessee. While real asset values declined, the value of real farm debt fell much more, so that debt-to-asset ratios declined in 1990 from 1989. On average, farm debt in the seven District states declined by 5.8 percent.

The USDA expects this pattern to persist into 1992 (table 5). Farm real estate assets are expected to drop from 0.6 percent to 2.3 percent; the range of non-real estate assets goes from an increase of 2.2 percent to a decrease of 2.5 percent. Total farm debt in 1992 is expected to drop about 3.5 percent or rise slightly. In accordance with the national trends, there is little reason to believe that the District will not follow suit.

### Agricultural Lenders

Performance of agricultural lenders in the U.S. and the District were mixed last year. Bank performance, like most other industries, suffers during periods of recession and slow economic growth—conditions that were certainly indicative of 1991's economy. In addition, agricultural lenders are directly affected by the agricultural economy.

Various bank performance measures are listed in table 7 for the United States and for the individual District states.<sup>6</sup> Return on assets (ROA) and return on equity (ROE) were marginally higher for all U.S. banks and for those agricultural banks in Kentucky, Mississippi and Missouri last year, but were generally unchanged to lower in the remaining District states. Agricultural loan losses at U.S. and most District banks increased in 1991, although agricultural loan losses as a percent of

total agricultural loans increased much more at District banks. Agricultural nonperforming loans as a percent of total agricultural loans, while decreasing slightly for U.S. farm banks, increased at most District farm banks. It is typical for loan losses and nonperforming loans to rise (relative to total loans) in a recession because reduced economic activity causes a slowing in sales, thereby increasing default risk—especially for small businesses that are common to the rural economy.

In addition to commercial banks, the federal Farm Credit System (FCS) is an important lender to the agricultural sector. The FCS continues to recover from some of the difficulties it encountered in the early- to mid-1980s. In 1991, net income of the FCS was \$811 million—up significantly from the previous year's \$608 million. Net interest income, which is the primary source of the FCS's income, has grown for four consecutive years, rising to \$1.6 billion in 1991. Continued loan restructuring, improved lending practices and a goal to aggressively compete in the agricultural loan market has enabled the FCS as a whole to prosper in recent years. Income performance, however, was mixed in 1991 at the District's two Farm Credit Banks (FCB). The Louisville FCB reported net income of \$70.9 million, down 25 percent from 1990; the St. Louis FCB, on the other hand, reported 1991 net income of \$54.8 million, a jump of 28 percent from 1990.<sup>7</sup>

### Summary

The U.S. agricultural sector experienced a second consecutive year of declining real farm income last year. Declines in crop and livestock receipts were the primary reasons, although government support payments also dropped slightly. In 1992,

Table 7  
United States and Eighth Federal Reserve District Agricultural Banking Data

	U.S.		Arkansas <sup>2</sup>		Illinois <sup>2</sup>		Indiana <sup>2</sup>		Kentucky <sup>2</sup>	
	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990
Banks with negative earnings	161	205	4	2	6	0	0	0	2	5
Return on assets (ROA)	1.05	1.02	1.17	1.24	1.04	1.03	1.01	1.02	1.12	1.11
Return on equity (ROE)	11.25	10.96	11.75	12.36	10.84	11.10	10.36	10.75	11.88	11.65
Ag. loan losses/Total ag. loans	0.30	0.23	0.61	0.17	0.34	0.16	1.16	0.90	0.24	0.17
Ag. nonpf. loans/Total ag. loans <sup>1</sup>	1.67	1.74	0.92	1.34	2.59	2.88	2.86	1.68	2.11	1.59
Number of banks	3935	4043	108	102	125	127	19	20	61	62
					Mississippi <sup>2</sup>		Missouri <sup>2</sup>		Tennessee <sup>2</sup>	
					1991	1990	1991	1990	1991	1990
Banks with negative earnings					0	1	3	4	3	1
Return on assets (ROA)					1.32	1.17	1.14	1.02	0.79	0.96
Return on equity (ROE)					14.19	12.77	12.61	11.45	8.50	10.43
Ag. loan losses/Total ag. loans					0.34	-0.08	0.35	0.30	0.79	1.07
Ag. nonpf. loans/Total ag. loans <sup>1</sup>					3.21	2.47	2.02	1.99	1.77	1.08
Number of banks					22	25	115	120	15	14

NOTE: Agricultural banks are defined as those banks with a greater-than-average share of total agricultural loans to total loans.

<sup>1</sup>Nonperforming loans include loans past due more than 89 days and nonaccrual loans.

<sup>2</sup>State data only include banks within the Eighth District; see the inside front cover of this publication for a map of this area.

SOURCE: Fourth-quarter FDIC Reports of Condition and Income for Insured Commercial Banks.

crop receipts are forecasted to decline slightly, but weather, as always, will be a key determinant. Livestock receipts will probably fall again in 1992 because of declining prices stemming from large supplies of beef, pork and poultry. While declining farm expenses last year contributed positively to farm income, expenses will probably rise this year because of a pickup in the national economy and

an increase in expenses associated with an expected larger 1992 corn acreage. While farmland values seem to have stabilized in nominal terms, they have yet to stabilize in inflation-adjusted terms; thus, total farm assets continue to decline in value. Conversely, farmers continue to retire debt at a fast pace and reduce their debt-to-asset ratios accordingly.

<sup>1</sup>Unless noted otherwise, farm income statement and balance sheet numbers will be referred to in inflation-adjusted terms using the Gross Domestic Product (GDP) implicit price deflator; all real values are reported in 1987 dollars.

<sup>2</sup>The two series differ because net farm income includes noncash income (for example, consumption of home-

produced products) and noncash expenses such as depreciation; it also accounts for the value of inventory changes. Net cash income, on the other hand, is simply gross cash income less cash expenses and excludes noncash income and noncash expenses; it is the income farmers use to purchase farmland and farm equipment, retire debt and meet family expenses.

<sup>3</sup>The framework of existing federal farm programs is such that, with most of the food and feedgrains, market prices respond primarily to those factors which influence supply and demand for the product. Thus, while farm programs for such crops as corn, cotton and wheat do not directly control market prices, they do significantly influence supply. The price the farmer receives, however, will probably differ from the market price if he is in fact enrolled in the appropriate farm program, simply because he will be entitled to a "deficiency payment" if the market price does not equal the program "target price."

<sup>4</sup>The following discussion for Eighth District crops refers to measures of supply (production) and demand (usage) on a marketing year basis, as opposed to a calendar year basis for livestock (January to December). See the footnote to table 4 for the definition of the market year for each crop. Although production takes place in a given year (for example, corn and soybeans are harvested in the fall of each year), the crop is consumed during the period from one harvest to the next.

<sup>5</sup>For a discussion of the recent trends in U.S. and Eighth District farmland values, see Kevin L. Kliesen, "Where Are Farmland Prices Headed?" *Pieces of Eight*, Federal Reserve Bank of St. Louis (September 1991), pp. 5-8.

<sup>6</sup>For a more in-depth analysis of the U.S. and Eighth District agricultural banking sectors in 1991, see Kevin L. Kliesen, "District Agricultural Banks Ride High in the Saddle," *Pieces of Eight*, Federal Reserve Bank of St. Louis (March 1992) pp. 9-13.

<sup>7</sup>The St. Louis and St. Paul Farm Credit Banks merged to form AgriBank, FCB, and commenced operations in St. Paul, Minnesota, on May 1, 1992.