❖ ARKANSAS ❖
AGRICULTURE
1999 SITUATION AND OUTLOOK

Bruce Ahrendsen, Eric Wailes,
Bruce Dixon, and Tony Windham

ARKANSAS AGRICULTURAL EXPERIMENT STATION
Division of Agriculture — University of Arkansas
April 1999 — Special Report 191

Editing and cover design by Karen Eskew

Arkansas Agricultural Experiment Station, University of Arkansas Division of Agriculture, Fayetteville. Milo J. Shult, Vice President for Agriculture and Director; Charles J. Scifres, Associate Vice President for Agriculture. PS1.0499PM65.The Arkansas Agricultural Experiment Station follows a nondiscriminatory policy in programs and employment.

ISSN:0571-0189 CODEN:AUARAN

ARKANSAS AGRICULTURE
1999 SITUATION AND OUTLOOK

Bruce Ahrendsen
Associate Professor
Department of Agricultural
Economics and Agribusiness
University of Arkansas

Eric Wailes
Professor
Department of Agricultural
Economics and Agribusiness
University of Arkansas

Bruce Dixon
Professor
Department of Agricultural
Economics and Agribusiness
University of Arkansas

Tony Windham
Section Leader - Agricultural Economics
Extension Economist - Management
Cooperative Extension Service
University of Arkansas

Arkansas Agricultural Experiment Station
Fayetteville, Arkansas 72701

SUMMARY

Many farmers in Arkansas and other parts of the United States are experiencing financial stress. The purpose of this special report is to highlight the situation of Arkansas farmers and to offer an outlook for 1999. This report emphasizes the price, income, and financial situations of eastern Arkansas crop farmers and considers Federal loan programs and Chapter 12 of the Bankruptcy Code, which affects most Arkansas farmers.

TABLE OF CONTENTS

Executive Summary 5

Price and Income Situation and Outlook 6

Financial Situation and Outlook 12

USDA Farm Service Agency Price Support and Loan Programs 15

Bankruptcy 16

References 17

ARKANSAS AGRICULTURE
1999 SITUATION AND OUTLOOK

Bruce L. Ahrendsen, Eric J. Wailes,
Bruce L. Dixon, and Tony E. Windham [1]

EXECUTIVE SUMMARY

- Price prospects in 1999 for Arkansas crop agriculture are poor. For the major crops produced and marketed by Arkansas farmers—soybeans, rice, and cotton—prices are expected to be substantially lower compared to last year's prices. New crop futures prices facing farmers as of mid-February compared to a year ago are:

  - Soybeans (Sep.'99) $4.75 / bu compared to (Sep.'98) $6.48 / bu
  - Rice (Nov.'99) $3.17 / bu compared to (Nov.'98) $4.36 / bu
  - Cotton (Oct.'99) $0.577 / lb compared to (Oct.'98) $0.694 / lb
  - Wheat (July '99) $2.64 / bu compared to (July '98) $3.42 / bu
  - Corn (Sep.'99) $2.26 / bu compared to (Sep.'98) $2.78 / bu

- Income prospects in 1999 for Arkansas crop farmers are heavily influenced by the bearish price outlook. Even with normal yields, the market net returns per acre to farmers for non-land assets and management, based on anticipated 1999 prices are:

  - Soybeans, dryland $-5 / acre compared to a usual range[2] of $60-100 / acre
  - Soybeans, irrigated $56 / acre compared to a usual range of $80-120 / acre
  - Rice $55 / acre compared to usual range of $40-90 / acre
  - Cotton, irrigated $16 / acre compared to a usual range of $20-80 / acre
  - Corn, irrigated $-18 / acre compared to a usual range of $50-110 / acre
  - Sorghum, irrigated $11 / acre compared to a usual range of $10-40 / acre

- The 1996 Farm Bill increased price and income risks for farmers by decoupling payments from production decisions, leaving only loan rates as price protection.

---

[1] Drs. Ahrendsen and Dixon are principals of the Center for Farm and Rural Business Finance, which is jointly sponsored by the University of Arkansas and University of Illinois. Dr. Wailes is a principal in the Arkansas Global Rice Policy project, jointly funded with the Food and Agricultural Policy Research Institute - University of Missouri. The authors gratefully acknowledge the assistance of Research Specialist Mr. Eddie Chavez.

[2] Based on the 1995 to 1997 marketing years.

- Capital intensity and export dependency are higher for Arkansas agriculture than for the rest of the United States. This makes Arkansas agriculture more vulnerable to exchange rate, interest rate, and price volatility.
  - Capital requirements of Arkansas crop agriculture are higher than the United States on average.
  - Debt-to-asset ratios for Arkansas farmers are higher than the United States on average.
  - Operating (variable) costs are higher for the key crops (rice and cotton) produced in Arkansas compared to the rest of the United States.
  - Arkansas agriculture is more dependent on exports, which results in more price variability and exposure to exchange rate risk and economic growth in the rest of the world. The annual value of Arkansas farm exports ranges between $2.5 and $3.0 billion. The leading exports are poultry, rice, soybeans, cotton and wheat.
- Debt reorganization in 1999 is expected to be required for 36% of east Arkansas crop farmers and an additional 5% of farmers are expected to be denied credit.
- Farmland values in east Arkansas are expected to decline in 1999 after being stable in 1998 because of projected lower returns to crop farming.
- Additional guaranteed loan funds from the Farm Service Agency are requested by agricultural lenders.
- Emergency loan funds from the Farm Service Agency are exhausted.
- Loans are not substitutes for income.
- Loan loss rates will increase, particularly if prices remain low.
- Chapter 12 of the Bankruptcy Code expires in March 1999. Legislation has been proposed to make Chapter 12 a permanent addition to the Bankruptcy Code and to increase Chapter 12's debt limit.
- Bankruptcy filings are likely to increase.

PRICE AND INCOME SITUATION AND OUTLOOK

The price outlook for Arkansas crop agriculture is worrisome. For the major crops, significant price declines are projected for 1999 compared to 1998. Futures prices as of mid-February for the 1999 crop at harvest, compared to a year ago, are 27% lower for soybeans and rice, 17% lower for cotton, 23% lower for wheat and 19% lower for corn. Net market returns based on these lower price projections and Arkansas Cooperative Extension Service cost of production estimates are shown in Tables 1 and 2. Table 1 shows the range of net returns over the anticipated range of prices for 1999, assuming normal Arkansas yields. The net return estimates presented are calculated as the difference between revenue and variable costs of production and a return to land, based on a 25% crop share rent. Net returns above operating costs and rent reflect payment for

non-land assets (including tractors and equipment) as well as payment for management and other fixed costs such as taxes. Price risks are only part of the complexity facing Arkansas farmers. Weather and pest problems create yield risks. The impacts of higher and lower than normal yields on net returns are reported in Table 2.

Table 1. Market returns to Arkansas producers at normal yields for the anticipated 1999 price range.

Soybeans - Dryland	**25 bu/ac**				
Price $/bu	*$4.87*	*$4.97*	*$5.07*	*$5.17*	*$5.27*
Specified Operating Costs per acre	$100	$100	$100	$100	$102
Returns Above Operating per acre	$22	$24	$27	$29	$32
Returns Above Operating + 25% Rent	-$9	-$7	-$5	-$3	-$1
Soybeans - Irrigated	**45 bu/ac**				
Price $/bu	*$4.87*	*$4.97*	*$5.07*	*$5.17*	*$5.27*
Specified Operating Costs per acre	$115	$115	$115	$115	$115
Returns Above Operating per acre	$104	$109	$113	$117	$122
Returns Above Operating + 25% Rent	$49	$53	$56	$59	$62
Rice	**130 bu/ac**				
Price $/bu	*$3.10*	*$3.30*	*$3.50*	*$3.70*	*$3.90*
Specified Operating Costs per acre	$286	$286	$286	$286	$286
Returns Above Operating per acre	$117	$143	$169	$195	$221
Returns Above Operating + 25% Rent	$16	$36	$55	$75	$94
Cotton - Irrigated	**900 lbs/ac**				
Price $/bu	*$0.49*	$0.52	*$0.55*	$0.57	*$0.60*
Specified Operating Costs per acre	$355	$355	$355	$355	$355
Returns Above Operating per acre	$86	$113	$140	$158	$185
Returns Above Operating + 25% Rent	-$24	-$4	$16	$30	$50
Corn - Irrigated	**150 bu/ac**				
Price $/bu	*$1.89*	*$2.04*	*$2.19*	*$2.34*	*$2.49*
Specified Operating Costs per acre	$264	$264	$264	$264	$264
Returns Above Operating per acre	$20	$42	$64	$87	$109
Returns Above Operating + 25% Rent	-$51	-$34	-$18	-$1	$16
Grain Sorghum - Irrigated	**60 cwt/ac**				
Price $/cwt	*$3.56*	*$3.71*	*$3.86*	*$4.01*	*$4.16*
Specified Operating Costs per acre	$163	$163	$163	$163	$163
Returns Above Operating per acre	$51	$60	$69	$78	$57
Returns Above Operating +25% Rent	-$3	$4	$11	$17	$24

Returns Above Operating + 25% rent are returns to non-land assets and management.

Source: Authors computations based on University of Arkansas Cooperative Extension Service budgets.

Table 2. Market returns to Arkansas producers at anticipated 1999 prices for alternative yield levels.

Soybeans - Dryland	**$5.07/bu**				
Yield bu/acre	*15*	*20*	*25*	*30*	*35*
Specified Operating Costs per acre	$99	$100	$100	$101	$102
Returns Above Operating per acre	-$23	$2	$26	$51	$76
Returns Above Operating + 25% Rent	-$42	-$23	-$5	$13	$31
Soybeans - Irrigated	**$5.07/bu**				
Yield bu/acre	*35*	*40*	*45*	*50*	*55*
Specified Operating Costs per acre	$114	$115	$115	$116	$117
Returns Above Operating per acre	$64	$88	$113	$137	$162
Returns Above Operating + 25% Rent	$19	$38	$56	$74	$92
Rice	**$3.50/bu**				
Yield bu/acre	*110*	*120*	*130*	*140*	*150*
Specified Operating Costs per acre	$278	$282	$286	$290	$295
Returns Above Operating per acre	$107	$138	$169	$200	$230
Returns Above Operating + 25% Rent	$11	$33	$55	$77	$99
Cotton - Irrigated	**$0.55/lb**				
Yield lbs/acre	*700*	*800*	*900*	*1000*	*1100*
Specified Operating Costs per acre	$355	$355	$355	$355	$355
Returns Above Operating per acre	$30	$85	$140	$195	$250
Returns Above Operating + 25% Rent	-$66	-$25	$16	$58	$99
Corn - Irrigated	**$2.19/bu**				
Yield bu/acre	*130*	*140*	*150*	*160*	*170*
Specified Operating Costs per acre	$258	$261	$264	$267	$271
Returns Above Operating per acre	$27	$46	$64	$83	$102
Returns Above Operating + 25% Rent	-$44	-$31	-$18	-$5	$9
Grain Sorghum - Irrigated	**$3.86/cwt**				
Yield cwt/acre	*40*	*50*	*60*	*70*	*80*
Specified Operating Costs per acre	$160	$162	$163	$165	$179
Returns Above Operating per acre	-$6	$31	$69	$106	$130
Returns Above Operating +25% Rent	-$44	-$17	$11	$38	$53

Returns Above Operating + 25% rent are returns to non-land assets and management.

Source: Authors computations based on University of Arkansas Cooperative Extension Service budgets.

Soybeans. Arkansas is the 8th leading soybean producing state, with an average value of farm production of $688 million over the past three years. The 1999 anticipated price range for soybeans is $4.87/bu to 5.27/bu (the loan rate is $5.26/bu). An assumed yield of 25 bu/acre for non-irrigated soybeans results in negative net returns in the range of -$9 to -$1 per acre compared to more typical net returns in the range of $60 to $100/acre. Higher yields for irrigated soybeans give positive returns in the range of $49 to $62/acre. However, these net returns will be about 28% lower than 1998 returns per acre and the range over the 1995 to 1997 marketing years was $80 to $120/acre. The pressure on soybean prices in 1999 is expected as the loan rate differentials with corn favor soybeans. Therefore, in the major corn-soybean production areas, higher soybean planting and production is expected.

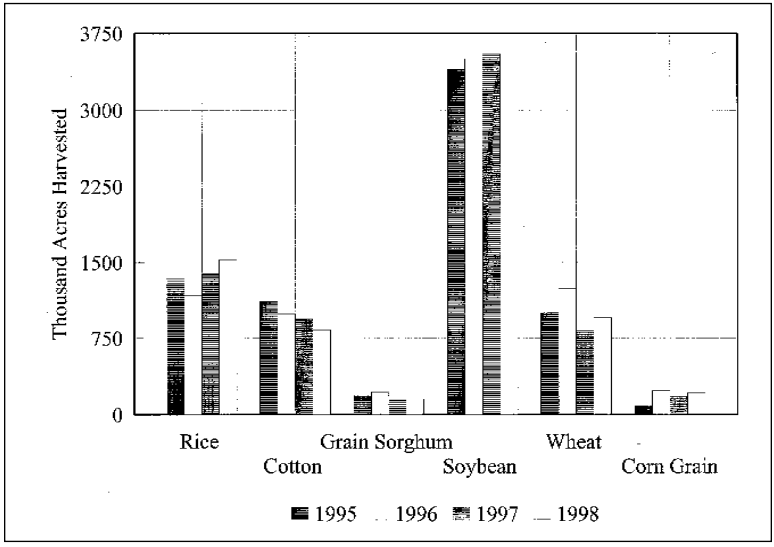
Rice. Arkansas is the leading rice-producing state, accounting for 43% of U.S. output. The value of farm production has averaged $750 million per year over the past three years. Prices for rice have declined since mid-January 1999. This has been a result of newly adjusted 1998 production estimates that will result in higher carry-in stocks for the 1999 market year as well as expectations of more rice acreage planted in 1999. The introduction of income insurance schemes for rice producers in 1999 has also encouraged rice producers to expand 1999 production. The price range used in Table 1 is $3.10/bu to $3.90/bu, reflecting the fact that rice prices have both greater upside and downside variability than soybeans. The upside potential is related to the drought conditions in Thailand and other southeast Asian rice exporting countries. Nevertheless, the anticipated price range results in lower net returns in the range of only $16 to $94/acre down markedly from the more typical range of $40 to $90/acre.

Cotton. Arkansas typically ranks 5th among states in value of cotton production. The annual value of the crop at the farm level has averaged $489 million for 1996-98. Cotton sales in 1998 were down due to significantly lower yields. Even with a return to normal yields and an anticipated price range of $0.49 to $0.60/lb, net returns are expected in the range of -$24 to $50 per acre in 1999. This compares unfavorably with more typical net returns in the range of $20 to $80/acre.

Wheat. Arkansas produces soft-red winter wheat which has had an annual farm level value of $186 million over the past three years. With an average value of production in 1998 of $2.80/bu, somewhat lower futures prices indicate that returns to Arkansas wheat production will be only slightly lower in 1999. However, usual net returns for wheat are in the range of $30 to $60/acre.

Corn and Grain Sorghum. Corn and grain sorghum have had average farm level values in Arkansas over the past three production seasons of $57 million and $29 million. The poor price prospects for 1999 suggest that the anticipated range of net returns to corn in Arkansas for 1999 will be -$51 to $16 per acre compared to a more usual range of $50 to $110/acre. Grain sorghum returns are expected to fall in the range of -$3 to $24 per acre versus the more typical range of $10 to $40/acre.

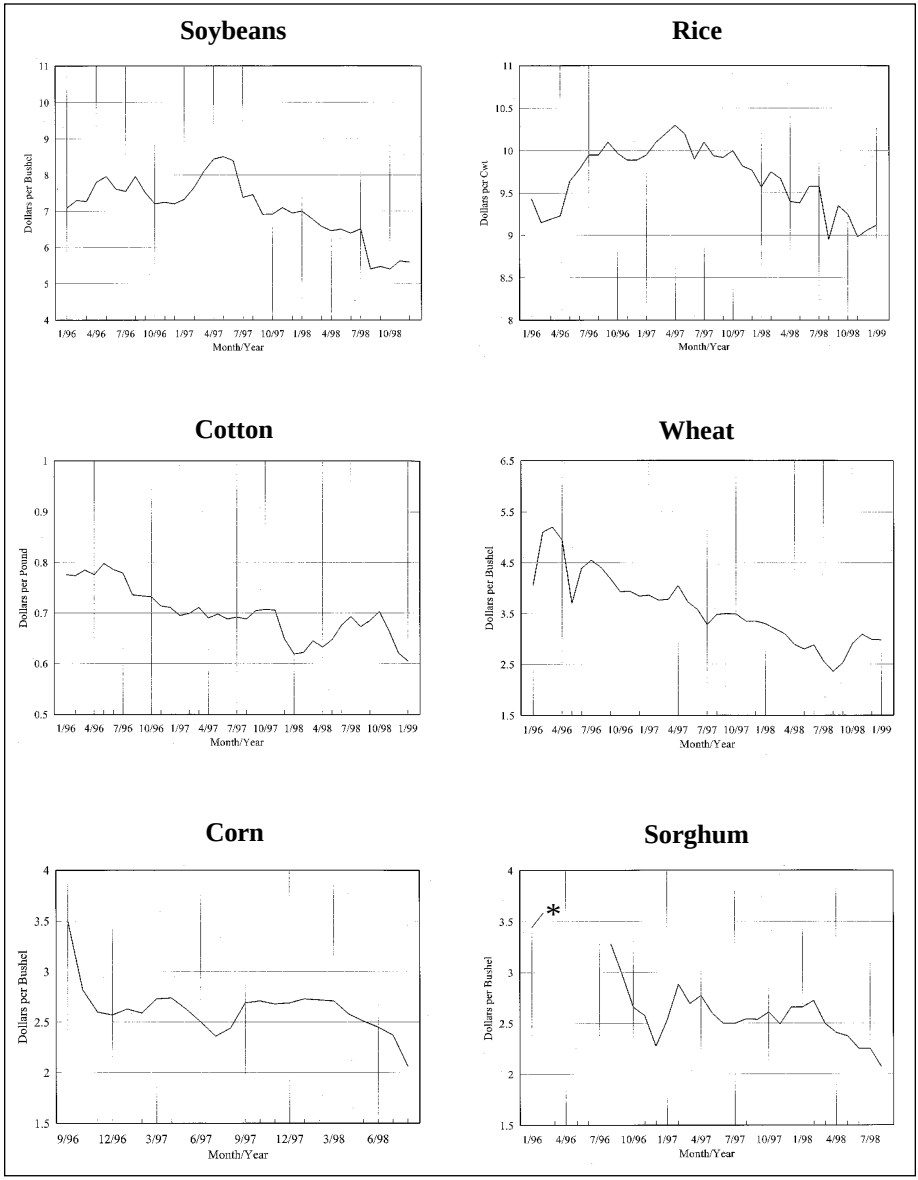
Harvested acreage of major Arkansas crops has been variable the last several years (Fig. 1). Rice and soybeans have seen increases in harvested acreage and cotton decreases, while wheat, sorghum and corn have fluctuated.



Source: USDA/NASS internet website

Fig. 1. Arkansas harvested acreage by major crops.

The price situation for Arkansas crops has been bleak as has already been mentioned. The prices for soybeans and rice have been trending downward since 1997 (Fig. 2). The downward trend in prices for cotton, wheat, sorghum and corn has been occurring since 1996. It may take a fairly major weather-related problem to cause a significant reversal in these prices during 1999.



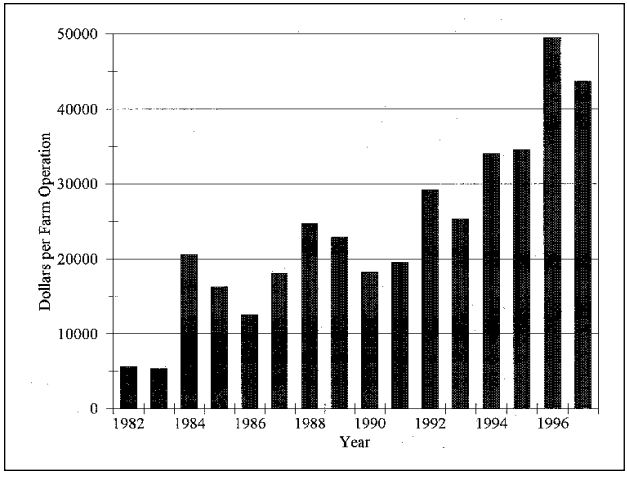
Source: USDA/NASS internet website for soybeans, wheat and sorghum; USDA/ERS internet website for rice; and USDA/ERS and NASS internet websites with Arkansas monthly prices estimated by using the margin between Arkansas and U.S. annual prices for cotton and corn.

Fig. 2. Arkansas monthly average farm prices for crops.

*Data not available.

FINANCIAL SITUATION AND OUTLOOK

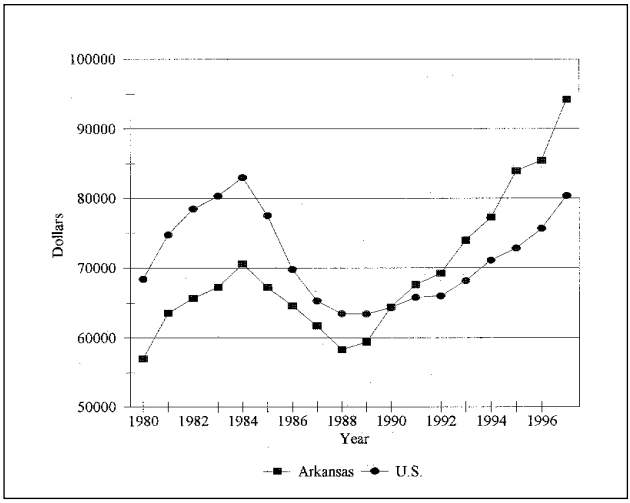
Although there are undoubtedly a number of farmers that are experiencing financial stress, it is not as widespread as it was in the 1980s. On average, Arkansas crop farmers experienced relatively profitable years in 1996 and 1997 when average per farm net farm income was $49,440 and $43,685 (Fig. 3). Many farmers reinvested these returns in land improvements, e.g., land leveling and irrigation, and machinery and equipment. However, circumstances changed during the later half of 1998 for soybean, cotton, wheat, corn / sorghum, and hog farmers and the beginning of 1999 for rice farmers. Prices plunged for these crops and livestock. Farmers who had poor crops and had expanded by making expensive investments after the relatively good years of 1996 and 1997 have been the hardest hit.



Source: USDA / ERS internet website.

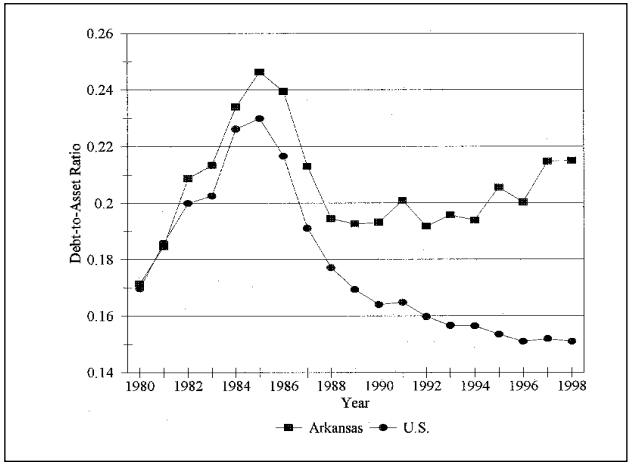
Fig. 3. Arkansas net farm income per operation.

A February 1999 survey of commercial bank and Farm Credit loan officers from eastern Arkansas indicated that their farm borrowers had an average debt load of $365,000 and a debt-to-asset ratio of 0.41, which is a measure of financial risk. The average debts per farm for all of Arkansas and the United States are about $95,000 and $81,000 and debt-to-asset ratios are 0.22 and 0.15 (Figs. 4 and 5). Farm debt per farm has been increasing since 1988 for Arkansas and the United States when farms had about $58,000 and $63,000 of debts on average. However, the rate of growth in debt per farm has been greater for Arkansas than the United States since 1988. Although the debt-to-asset ratio has been falling for the United States except for a slight upturn in 1997, the ratio has been trending upward from 0.19 in 1992 for Arkansas. This indicates that the financial risk of Arkansas farmers has been increasing relative to the rest of the United States.



Source: USDA/ERS internet website

Fig. 4. Average farm debt per operation.

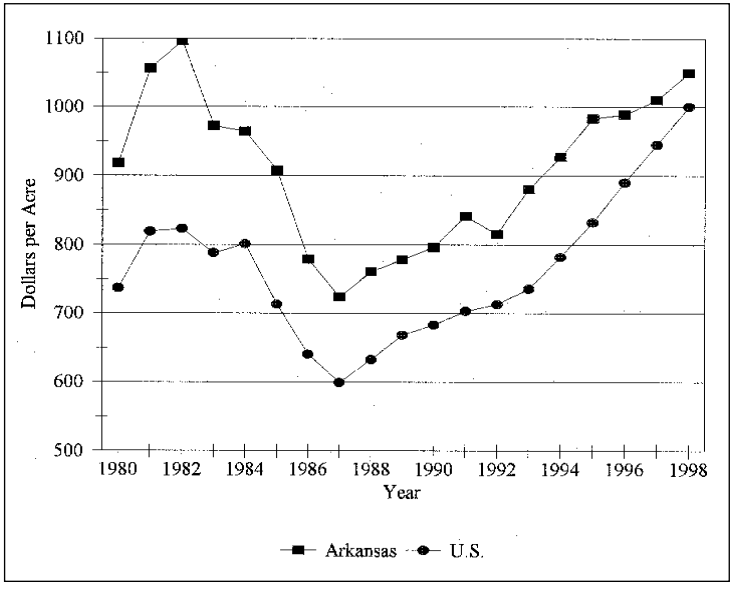


Source: USDA/ERS internet website

Fig. 5. Average farm debt-to-asset ratio.

The loan officers participating in the survey pointed out that 36% of their farm borrowers required some type of debt reorganization in 1999. The debt reorganization included rescheduling payments, refinancing/re-amortizing debt, etc. The loan officers said that they had/would apply to receive Farm Service Agency guaranteed loans for 16% of their borrowers. And most important, the lenders indicated that they would deny credit to 5% of their farm borrowers, although many of these farmers had a history of low or negative profits that preceded 1998.

The level of financial stress for Arkansas farmers is undoubtedly related to the current financial exposure from investments made during a climate of high prices and profits as well from the prospects for sharply lower incomes in 1999. An indicator of how dismal the outlook is for some farm lenders is that several lenders were unable to forecast a positive cash flow for any of their farm borrowers for 1999, indicating that debt servicing is likely to be difficult. With this type of outlook it is not surprising that the lenders forecast farmland values to fall 4.5% in 1999 after being flat in 1998. Arkansas farm real estate values have been following an upward trend from January 1, 1987, when farmland was $724 per acre to $1050 per acre as of January 1, 1998, (Fig. 6). The United States also experienced an upward trend in farm real estate values over this same period, increasing from $599 per acre to $1000 per acre. However, the rate of growth in farm real estate values for the United States has been greater than the Arkansas growth rate.



Source: USDA/ERS AREI updates, agricultural resources and USDA/NASS.

Fig. 6. Farm real estate: average value per acre of land and buildings.

If crop prices persist at low levels and losses mount, debts will grow, asset values will fall and the financial situation will be more like that of the mid-1980s. More farmers will experience credit refusals and, ultimately, leave farming either voluntarily or involuntarily.

USDA FARM SERVICE AGENCY PRICE SUPPORT AND LOAN PROGRAMS

The USDA's Farm Service Agency (FSA) administers a number of programs to benefit farmers. Price support activity in the form of program crop commodity loans essentially provides a price floor for these program crops, although this price is below the cost of production for many farmers. Besides crop commodity loans, the FSA provides other loan programs. These include direct loans, guaranteed loans and emergency loans. Direct loans are made by the FSA directly to farmers. Congressional appropriations to support direct loan programs have been greatly reduced since 1985, although an increase in funding occurred in fiscal year 1999. Direct loan funds are targeted primarily to small, limited resource, socially disadvantaged and beginning farmers.

As Congress decreased support for direct loans, it increased support of guaranteed loans. For guaranteed loans, loan funds are provided by creditors and guaranteed at up to 90 or 95% by the FSA, depending on the type of loan. In past years some Arkansas credit providers have been quite active in seeking loan guarantees while others have not. However, the number of guaranteed loan applications has increased tremendously during fiscal year 1999. As of February 16, 1999, all national appropriations of farm ownership (real estate secured) guaranteed loan funds had been obligated. Also, as of that date, all operating guaranteed loan funds allocated to Arkansas had been obligated. Therefore, additional Congressional appropriations and allocations of guaranteed loan funds are needed for Arkansas to meet demand. The Arkansas FSA State Office estimates $36 million of additional guaranteed loan funds are needed for fiscal year 1999. Nearly 250 guaranteed loans for $50 million have already been used to assist farmers in accessing credit, allowing them to continue farming without major disruptions.

Another loan program administered by FSA to assist farmers is the emergency loan program. Farmers qualify for an emergency loan from the FSA if they have a 30% loss in a designated emergency area. All of Arkansas was declared an emergency area for 1998. Losses occurred in cotton, corn, hay, and pasture as a result of early excessive moisture and a summer drought, but the primary losses have been by cotton farmers. Also, losses occurred from tornados causing property damage. As of February 9, 1999, 137 emergency loans for about $9.5 million had been obligated. Since a farmer qualifies for a loan of up to 80% of his or her loss, these farmers experienced an average loss of $86,000 if they qualified for the maximum rate. All of Arkansas' emergency loan allocations have been obligated, so additional funds are needed. The FSA State Office estimates that another $15 million is needed for about 150 loans.

Loan programs can be used to help farmers receive credit, continue farming, and spread out losses over a number of years for farmers who have ample equity in assets to

be offered as collateral. However, a loan is not a substitute for income. Loans are not grants, and it will take time for farmers to recover from the losses. Also, it is anticipated that loss rates for guaranteed loan and other loan programs will increase, particularly if crop prices remain low.

BANKRUPTCY

Chapter 12 bankruptcy is one of the primary vehicles for allowing financially stressed family farmers to reorganize their financial life. It offers several forms of financial relief including lowering debt levels and lowering interest rates and extending terms on existing loans.

Chapter 12 also serves a major purpose by setting the negotiating framework for debtors and creditors, even when Chapter 12 is not formally utilized. Thus, even though most farmers do not use Chapter 12, its existence provides financially stressed farmers with alternatives. Formally going through a Chapter 12 reorganization is costly because of attorneys' and trustees' fees. Thus, if debtors and creditors can resolve differences outside of Chapter 12, it may be possible to save some money.

Currently only family farmers with total farm debts of less than $1,500,000 can use Chapter 12. This limit was set with the creation of Chapter 12 in 1986. Chapter 12 has never been a permanent part of the Bankruptcy Code. Chapter 12 is due to sunset at the end of March 1999. Senator Grassley has introduced S.B. 260 to make Chapter 12 permanent. This legislation would increase the limit on debt to $3,000,000. Rep. David Minge of Minnesota has introduced identical legislation in the House as H.R. 763. The original $1,500,000 limit fixed since 1986 would be equivalent to at least $2,500,000 in current dollars when inflation is taken into account. As part of making Chapter 12 a permanent part of the Code, it would be useful to farmers for the debt limit to automatically increase each year by an appropriate index like the Index of Prices Paid by farmers.

Renee Williams is the Arkansas Chapter 12 Bankruptcy trustee. She states that seventeen Chapter 12 cases were filed in 1998 and this is consistent with the past few years. Through February 1999, only two cases had been filed for 1999. She cannot state how many other farmers are going bankrupt because such data simply are not collected. Furthermore, a farmer can go out of business by surrendering collateral without formally going through a bankruptcy proceeding. Consequently, it is impossible to say how many farmers are going out of business because of financial stress. Ms. Williams related that people she has interacted with about the financial stress in Arkansas believe that bankruptcies may become more numerous in the spring of 1999 once farmers meet with their lenders in an attempt to arrange input financing. This would happen because some lenders might not be willing to work with farmers with weak financial characteristics.

REFERENCES

U.S. Department of Agriculture, Economic Research Service. "Agricultural Resources." AR-31, June 1993.

U.S. Department of Agriculture, Economic Research Service. "Updates on Agricultural Resources and Environmental Indicators." AREI Updates, No. 15, December 15, 1996.

U.S. Department of Agriculture, Economic Research Service. Internet Website. Farm Business Economics Briefing Room. March 1999.

U.S. Department of Agriculture, National Agricultural Statistics Service. Internet Website. March 18, 1999.

University of Arkansas, Division of Agriculture, Cooperative Extension Service. "Estimating 1999 Costs of Production." Various issues of AG publications by Tony E. Windham and Kelly J. Bryant. November 1998.