

Agricultural *FINANCE* Monitor

agricultural credit conditions in the Eighth Federal Reserve District

2012 ■ Third Quarter

The second quarterly survey of agricultural credit conditions was conducted by the Federal Reserve Bank of St. Louis from September 15 through September 28; the results presented here are based on the responses from 75 agricultural banks within the boundaries of the Eighth Federal Reserve District.¹ The Eighth District includes all or parts of seven Midwest and Mid-South states. Because these initial data are not adjusted for any seasonal irregularities (should they exist), users are cautioned to interpret the results carefully. In particular, users are cautioned against drawing firm conclusions about longer-run trends in farmland values and agricultural lending conditions.

In addition to our standard survey questions, we asked two special drought-related questions for this edition of the *Agricultural Finance Monitor*. In particular, we were interested in knowing (i) the extent of crop insurance usage this year and (ii) the extent to which crop insurance was able to offset the expected decline in farm incomes resulting from the drought.

Survey Results

District farm income and capital spending were down significantly in the third quarter of 2012 relative to year-ago levels (see Table 1), though there was some disparity across zones. The St. Louis zone showed the largest drop-off from one year ago, while bankers in the Little Rock and Louisville zones also reported declines from a year earlier. By contrast, bankers in the Memphis zone reported both higher income and capital spending relative to 2011. Household spending across the District was more mixed; bankers in the St. Louis and Little Rock zones reported lower levels of household spending compared with a year earlier and bankers in the Louisville and Memphis zones reported higher levels.

Expectations for income and spending in the next quarter, however, display a sharp contrast in responses across zones. Bankers in the Little Rock and Memphis

Selected Quotes from Banker Respondents Across the Eighth Federal Reserve District

Area farmers benefited from established irrigation practices, higher market prices, and weather conditions that led to record yields. Our farmers realize that this will probably not be an ongoing pattern. (Arkansas)

Farmers with crop insurance might make more money per acre than last year. Livestock farmers that need to purchase most of their feed will be hurt the most by this year's drought. (Illinois)

The overall impact of the drought on the level of income for grain producers is going to be minimal. By the time the fall price is set on crop revenue insurance, our producers will see incomes near to slightly above spring income estimates. (Indiana)

Drought will have a large negative impact on row crop (corn and soybean) producers and cattle producers, but at present it looks like tobacco (burley) will be up this year. (Kentucky)

We require crop insurance on all operating loans. We expect to see income decrease from last year's levels. I would also expect less capital spending due to the short crop this year. (Missouri)

Our region was not affected by the drought, and we are currently harvesting one of the best-yielding crops in quite some time. This fact, along with the above-normal commodity prices, will have an incredibly positive impact on the farming situation. (Mississippi)

Most of our producers expect yields to be adversely impacted, down 20 to 25 percent. Prices are better for commodities. Overall net income for most larger producers will be diminished by 8 to 10 percent from previous years. (Tennessee)

NOTE: These are generally verbatim quotes, but some were lightly edited to improve readability.



The survey is produced by staff at the Federal Reserve Bank of St. Louis: Gary Corner, Senior Examiner, Bank Supervision and Regulation Division; and Brett Fawley, Senior Research Associate, and Kevin L. Kliesen, Business Economist and Research Officer, Research Division. We thank staff at the Federal Reserve Bank of Kansas City for initial and ongoing assistance with the agricultural credit survey.

If you have comments or questions, please contact Kevin Kliesen at kevin.l.kliesen@stls.frb.org.

The Eighth Federal Reserve District is headquartered in St. Louis and includes branch offices in Little Rock, Louisville, and Memphis; the District includes the state of Arkansas and portions of Illinois, Indiana, Kentucky, Mississippi, Missouri, and Tennessee.

In the survey, bankers were asked two types of questions: (i) estimates of current dollar values and interest rates and (ii) expectations for future values. Dollar values and rates refer to the third quarter of 2012. Regarding expectations for future values, bankers were asked whether they expect values to increase, decrease, or remain constant (either relative to a year ago or relative to current values; see table descriptions). A “diffusion index” value was then created for “income and expenditures” and for the 3-month trends in “land values” and “cash rents” (per acre). The diffusion index was created by subtracting the percent of bankers that responded “decrease” from the percent that responded “increase” and then adding 100. Index values from 0 to 99 indicate overall expectations of decreasing values; index values from 101 to 200 indicate overall expectations of increasing values; and an index value of 100 indicates an even split.

Table 1
Income and Expenditures, Land Values, and Cash Rents

	St. Louis	Little Rock	Louisville	Memphis	District
Income and expenditures (versus year-ago levels)					
Farm income					
2012:Q3	62	78	71	136	80
2012:Q4	58	111	57	125	77
Household spending					
2012:Q3	85	89	114	136	99
2012:Q4	84	122	129	125	102
Capital spending					
2012:Q3	44	78	57	136	68
2012:Q4	55	122	29	125	74
Land values					
Quality farmland	\$6,003	\$2,807	\$4,138	\$3,082	\$4,886
Expected 3-month trend	124	125	129	136	127
Ranchland or pastureland	\$2,621	\$2,094	\$2,300	\$1,695	\$2,345
Expected 3-month trend	112	111	133	82	108
Cash rents					
Quality farmland	\$208	\$99	\$173	\$122	\$174
Expected 3-month trend	138	114	157	121	134
Ranchland or pastureland	\$60	\$48	\$67	\$48	\$56
Expected 3-month trend	120	89	133	100	113

zones expect income and household and capital spending to all be above year-ago levels in the fourth quarter of 2012. Meanwhile, bankers in the St. Louis and Louisville zones are generally even more pessimistic about the fourth quarter of 2012 than the third quarter. In the one exception, Louisville bankers expect higher household spending in the next quarter relative to the same quarter last year.

Bankers were then asked about land values and cash rents in their area. Compared with the previous quarter’s survey, quality farmland values (nonirrigated) in the third quarter of 2012 were up 5.2 percent from a year earlier in

the St. Louis zone; up 1.6 percent in the Little Rock zone; down 3.4 percent in the Louisville zone; and up 5.9 percent in the Memphis zone.² The average value of land (quality farmland, ranchland or pastureland) across the District was 4 percent higher. In terms of their expectations over the next three months, bankers expect land values and cash rents to continue to rise in the fourth quarter of 2012. Gains in quality farmland are generally expected to outpace gains in ranchland or pastureland (nonirrigated) in almost all zones.

Overall, bankers continue to report improvement in the availability of loans across the District (see Table 2).

Table 2

Lending Conditions

	St. Louis	Little Rock	Louisville	Memphis	District
Loans (versus year-ago levels)					
Demand for loans					
2012:Q3	92	133	100	107	101
2012:Q4	133	122	143	77	122
Availability of funds					
2012:Q3	128	111	114	129	125
2012:Q4	119	122	114	123	120
Rate of loan repayment					
2012:Q3	100	133	71	107	103
2012:Q4	81	111	86	123	94
Interest rates (%)					
Operating					
Fixed	5.31	6.53	5.71	6.28	5.70
Variable	4.88	6.28	5.25	5.50	5.25
Machinery/intermediate-term					
Fixed	5.59	6.69	6.00	6.65	5.99
Variable	5.13	6.22	5.39	5.85	5.46
Farm real estate					
Fixed	5.14	6.11	5.63	5.98	5.49
Variable	4.71	5.84	5.32	5.29	5.04

NOTE: Demand for loans, availability of funds, and rate of loan repayment are reported using a diffusion index. See the note above Table 1 for details about interpreting diffusion indexes.

As seen in the far-right column, loan demand and the rate of loan repayment across the District in the third quarter this year was similar to year-ago levels, though there was some variability across zones. For example, bankers in the Little Rock zone reported much higher loan demand in the third quarter compared with a year earlier. Bankers expect higher demand for loans and lower loan repayment rates (relative to last year) in the fourth quarter. The Memphis zone is a notable exception in terms of expected loan demand in the fourth quarter of 2012. Recall from Table 1 that the Memphis zone also reported the largest gains in farm income of the four zones. Meanwhile, the St. Louis and Louisville zones drive the expected decrease in loan repayment rates going forward. Interest rates remain comparable to the previous quarter, though modestly lower, with fixed rates generally 40 basis points above variable rates.

The third table provides some assessment of whether economic and financial conditions in the current survey evolved in a manner that was expected in the previous survey. Looking at the final column in Table 3, responses

in the current survey suggest that bankers' expectations were generally consistent with those from the previous quarter. There were some exceptions. For example, loan demand and capital spending were uniformly lower than expected. Bankers in Little Rock revealed lower levels of capital spending, fund availability, and household spending than they anticipated, while farm income and capital spending was weaker in the St. Louis zone than originally expected.

Special Questions

The severe drought that affected much of the United States this summer has resulted in significant declines in crop production, particularly in the St. Louis and Louisville zones.³ Weather volatility this year has underscored the importance of crop insurance as a risk management tool. Crop insurance today is a public-private partnership between the U.S. government and private insurance companies. Government subsidies reduce the cost of this program to farmers, which has resulted in its widespread usage.

Table 3

Expected and Realized 2012:Q3 Variables (versus year-ago levels)

Variable	St. Louis	Little Rock	Louisville	Memphis	District
Farm income					
Expected	74	75	71	115	83
Realized	65	75	71	131	81
Difference	-10	0	0	15	-2
Household spending					
Expected	83	125	86	138	102
Realized	87	88	114	131	100
Difference	3	-38	29	-8	-2
Capital spending					
Expected	71	88	71	131	86
Realized	48	75	57	131	71
Difference	-23	-13	-14	0	-15
Demand for loans					
Expected	103	133	100	129	113
Realized	93	133	100	107	103
Difference	-10	0	0	-21	-10
Availability of funds					
Expected	117	138	129	100	117
Realized	124	100	114	129	121
Difference	7	-38	-14	29	3
Rate of loan repayment					
Expected	103	125	86	86	100
Realized	97	125	71	107	100
Difference	-7	0	-14	21	0

NOTE: All variables are reported using a diffusion index. See the note above Table 1 for details about interpreting diffusion indexes. For comparison purposes, we compute diffusion indexes using only those banks that responded to the given question in both the 2012:Q2 and 2012:Q3 surveys. Components may not sum to totals due to rounding.

Table 4

Impact of the Drought and Prevalence of Crop Insurance

Variable	St. Louis	Little Rock	Louisville	Memphis	District
Loans covered by crop insurance					
Average across respondents (%)	77	35	88	70	73
Share answering 0-50%	16	60	0	31	21
Share answering 51-100%	84	40	100	69	79
Overall effect of drought on farm income					
No effect or increase	8	33	0	50	19
Decrease	92	67	100	50	81

NOTE: Bankers were asked what fraction of their agricultural production loans is covered by crop insurance and how they expected the drought to affect overall farm income in their area in 2012. The top panel reports the average response to the first question, as well as the percent of bankers reporting that crop insurance covered over (less than) 50% of their agricultural production loans. The bottom panel reports the percent of bankers who expected the drought to decrease (increase or not affect) 2012 farm income.

Due to high levels of participation in the federal crop insurance program, systemic losses by crop producers as a result of the 2012 drought will likely be mitigated. This quarter, we asked two special questions to gauge the impact of the drought on farm income across the District. In particular, we asked bankers to estimate the share of their agricultural production loans that were covered by crop insurance. We then asked them how they thought the drought directly impacted farm income in their area. Table 4 summarizes the responses.

Overall, bankers' responses suggest substantial variability in the effects of the summer drought across both geography and enterprise. Close to 100 percent of respondents in the St. Louis and Louisville zones reported that the drought would decrease farm income, while this number was closer to 50 percent in the Little Rock and Memphis zones. Many bankers in these zones responded that the drought would *increase* income.

Much of the geographical discrepancy represents a difference in irrigation practices throughout the District. A larger share of farmland in the Little Rock and Memphis zones is irrigated. One Arkansas banker noted that "area farmers benefited from established irrigation practices, higher market prices, and weather conditions that led to record yields." Still, the drought did have an impact on profit margins in these areas. Another Arkansas banker noted that "while income will not be significantly reduced due to the drought, profits will be greatly reduced due to irrigation expenses related to fuel."

Nonirrigated crops in the St. Louis and Louisville zones were harder hit by the drought, but many bankers expect crop insurance to alleviate the overall impact on income. One Missouri banker declared that "crop insurance is going to be the saving grace for this year." Table 4 shows that bankers in these zones reported that roughly 80 percent to 90 percent of their loans were covered by crop insurance. One banker noted that they require crop insurance on all operating loans. An Illinois banker remarked that "reduced crop yields due to drought will be offset by higher prices and crop insurance. We expect most farmers to come through in good shape." And one Illinois banker even commented that "farmers with crop insurance might make more money per acre than last year." Some Illinois bankers also commented that most crops are sold the year *after* harvest in their areas, so farmers will probably come through 2012 in decent shape but may struggle in 2013 even with a good crop season.



While farmers will benefit from crop insurance, many livestock farmers are facing increasingly high feed costs because of the drought. An Arkansas banker noted that "drought conditions have caused a herd reduction and a major increase in operating expenses for those remaining due to the costs associated with hay acquisition." An Illinois banker similarly concluded that "livestock farmers that need to purchase most of their feed will be hurt the most by this year's drought." ■

Notes

- ¹ An agricultural bank, for survey purposes, is defined as a bank for which at least 15 percent of its total loans outstanding finances agricultural production or purchases of farmland, farm equipment, or farm structures.
- ² When comparing the current survey results with those of the previous survey, we consider only the responses of those bankers who responded to both the current and previous survey.
- ³ For further details on the drought's impact on the Eighth District, see Corner, Gary S. "The Drought's Impact on Eighth District Agricultural Conditions." Federal Reserve Bank of St. Louis *Central Banker*, Fall 2012, pp. 1, 5-10; www.stlouisfed.org/publications/cb/articles/?id=1285.