

Agricultural *FINANCE* Monitor

agricultural credit conditions in the Eighth Federal Reserve District

2013 ■ Third Quarter

The sixth quarterly survey of agricultural credit conditions was conducted by the Federal Reserve Bank of St. Louis from September 11 through September 30; the results presented here are based on the responses from 47 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 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.²

Survey Results

Respondents indicated that farm income in the Eighth District increased modestly from the third quarter in 2012 (see Table 1). This increase (index value of 107) is in line with previous reports, which have generally indicated healthy farm economic and financial conditions in the District. Going forward, survey respondents expect farm income levels in the fourth quarter of 2013 to remain modestly above their levels from a year earlier (index value of 105). In addition, Table 1 reveals that our survey respondents also indicated that capital and household spending increased modestly in the third quarter relative to the same period one year ago. For the fourth quarter of 2013, bankers expect that household spending levels will remain above their year-earlier levels (index value of 105). By contrast, bankers expect that capital expenditures by farmers will fall modestly short of levels seen in the fourth quarter of 2012 (index value of 95).

Table 1 also reports values for farmland and cash rents. Quality farmland values across the District averaged \$5,332 per acre in the third quarter of 2013. As seen in Figure 1, this was a noticeable decrease (6 percent) from the second-quarter average (\$5,672).³ Despite this decline, District quality farmland values have increased by 9.1 percent since

Selected Quotes from Banker Respondents Across the Eighth Federal Reserve District

We anticipate that gross farm revenues in Northeast Missouri will be down \$200 to \$300 per acre this fall—at a minimum—due to poor crops and poor prices. (Missouri)

Most of our agriculture production is vertically integrated poultry and independent cattle producers. This allows us some stability that may not be present in row crop areas. (Arkansas)

This area will be impacted by drought for the second year in a row. It appears that corn yields will be less affected than last year, while beans will be affected more by the dry conditions. (Missouri)

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

the third quarter of 2012. Table 1 indicates that bankers expect a further erosion in District quality farmland values over the next three months (an index value of 88). For reasons noted above, we caution readers not to infer too much from the drop in District quality farmland values in the third quarter. Figure 1 shows—according to survey respondents—that the value of District ranch or pastureland averaged \$2,377 per acre in the third quarter, a gain of 1.4 percent over the past four quarters. Unlike quality farmland, survey respondents expect no change in the value of ranch or pastureland over the next three months relative to a year earlier (an index value of 100).

According to survey respondents, cash rents for quality farmland across the District averaged \$181 per acre in the third quarter, which was down slightly from the second quarter (\$183 per acre). However, cash rents for ranch or pastureland rose modestly in the third quarter (\$62 per acre) compared with their second-quarter average (\$57 per acre). Similar to land values, Figure 2 shows that average cash



The survey is produced by staff at the Federal Reserve Bank of St. Louis: Gary Corner, Senior Examiner, Bank Supervision and Regulation Division; and Lowell R. Ricketts, 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.

Table 1

Income and Expenditures, Land Values, and Cash Rents

Income and expenditures (versus year-ago levels)

Farm income	
2013:Q3 (actual)	107
2013:Q4 (expected)	105
Household spending	
2013:Q3 (actual)	116
2013:Q4 (expected)	105
Capital spending	
2013:Q3 (actual)	105
2013:Q4 (expected)	95

Land values (per acre)

Quality farmland	\$5,332
Expected 3-month trend	88
Ranchland or pastureland	\$2,377
Expected 3-month trend	100

Cash rents (per acre)

Quality farmland	\$181
Expected 3-month trend	113
Ranchland or pastureland	\$62
Expected 3-month trend	103

NOTE: 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 2013. 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.

The results reported in these tables refer to the entire Eighth Federal Reserve District.

Table 2

Expected and Actual 2013:Q3 Variables (versus year-ago levels)

Farm income

Expected	91
Actual	107
Difference	16

Household spending

Expected	118
Actual	116
Difference	-1

Capital spending

Expected	102
Actual	105
Difference	2

Demand for loans

Expected	122
Actual	105
Difference	-17

Availability of funds

Expected	110
Actual	114
Difference	4

Rate of loan repayment

Expected	103
Actual	105
Difference	2

NOTE: All variables are reported using a diffusion index. See the note below Table 1 for details about interpreting diffusion indexes. Components may not sum to totals due to rounding.

rents have moved steadily upward since the second quarter of 2012—though at an uneven pace. Table 1 indicates that bankers expect that cash rents for both quality farmland and ranch or pastureland are expected to increase modestly over the next three months (an index value greater than 100). As detailed at the end of this report, we asked bankers two special questions about the type of flexible or variable cash rents employed by land owners in their area.

Table 2 shows that, for the most part, bankers' expectations for farm income, expenditures, and several other key

variables in the third quarter were exceeded relative to the expectations from three months earlier. In particular, expectations were exceeded for farm income, capital spending, availability of funds to extend loans, and the rate of loan repayment. By contrast, the demand for farm loans and household spending was a bit less than expected in the third quarter—though still modestly above year-earlier levels (index values of 105 and 116, respectively). Finally, expectations of loan repayment rates in the third quarter of 2013 exceeded banker expectations three months earlier (index value of 105). Figures 3 through 8 plot the actual and realized values for the six variables shown in Table 2 since the first publication of the *Agricultural Finance Monitor*.

Table 3 reports key financial market conditions for the farm sector in the Eighth District. In the upper half of Table 3, the demand for agricultural credit in the third quarter was modestly above its levels from a year ago (index value of 105). Banker respondents expect that, on average,

Figure 1
Average Land Values across the Eighth District

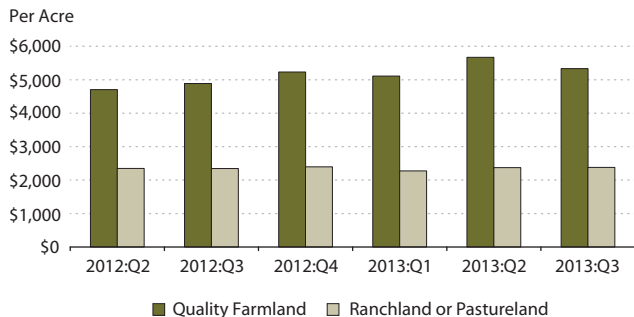


Figure 2
Average Cash Rents across the Eighth District

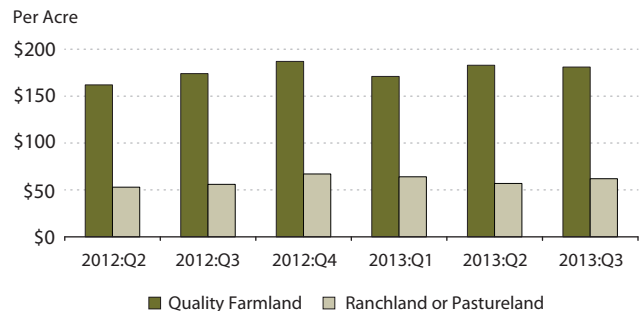


Table 3
Lending Conditions

Loans (versus year-ago levels)

Demand for loans	
2013:Q3 (actual)	105
2013:Q4 (expected)	98
Availability of funds	
2013:Q3 (actual)	114
2013:Q4 (expected)	112
Rate of loan repayment	
2013:Q3 (actual)	105
2013:Q4 (expected)	110

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

Table 4
Interest Rates

	2013:Q3	2013:Q2	Change
Interest rates (%)			
Operating			
Fixed	5.51	5.38	0.13
Variable	4.98	4.97	0.01
Machinery/ intermediate-term			
Fixed	5.72	5.60	0.12
Variable	5.18	5.19	-0.01
Farm real estate			
Fixed	5.29	5.21	0.09
Variable	4.84	4.69	0.15

Table 5
Flexible or Variable Rental Arrangements

Percentage of farmland leases written as flexible or variable rental arrangements

Greater than 50%	5
31% to 50%	20
10% to 30%	22
Less than 10%	41
None	12

Most common flexible or variable farmland rental agreements

Variable based on gross revenue	22
Base rent plus a bonus	27
Variable rent based on crop yield	43
Variable rent based on commodity price	3
Other	5

the demand for farm loans in the fourth quarter of 2013 will fall modestly below their year-earlier levels (index value of 98). Survey respondents reported that more funds were available to prospective borrowers in the third quarter than at the same time last year and that a similar condition is expected to prevail in the fourth quarter of 2013. District loan repayment rates in the third quarter were slightly above year-earlier levels (index value of 105) and, on balance, were expected to improve slightly further in the fourth quarter of 2013 (index value of 110). Table 4 reports average fixed- and variable-interest rates across the District for various types of agricultural loans. For the third quarter of 2013, fixed-rate loans increased by an average of 11 basis points compared with three months earlier. By contrast, interest rates on variable-rate loans were mostly unchanged. The one exception was for interest rates on variable-rate farmland loans, which increased by 15 basis points.

Figure 3
Farm Income: Expected and Actual Values

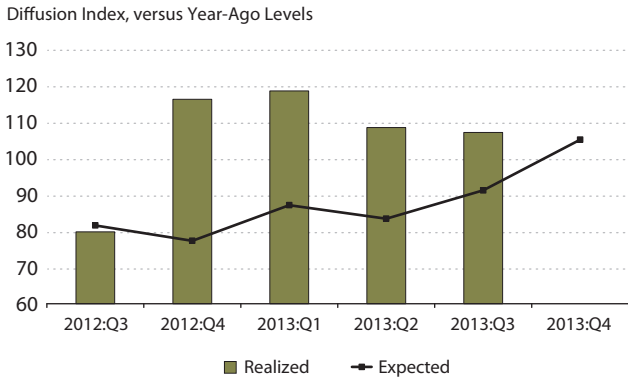


Figure 4
Household Spending: Expected and Actual Values

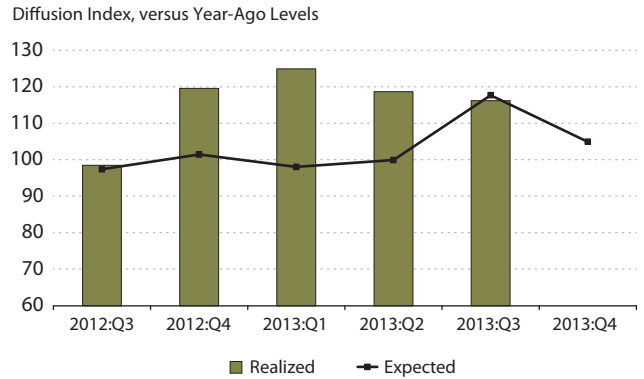


Figure 5
Capital Spending: Expected and Actual Values

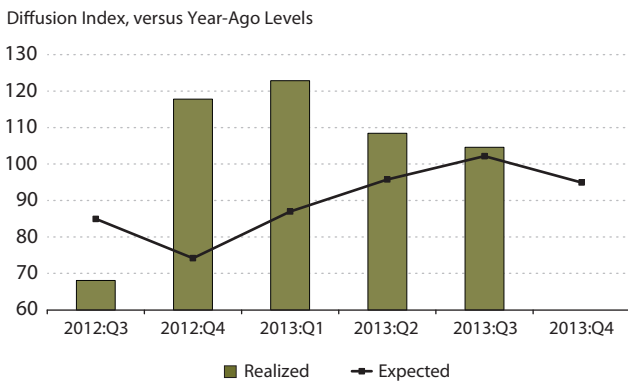


Figure 6
Demand for Loans: Expected and Actual Values

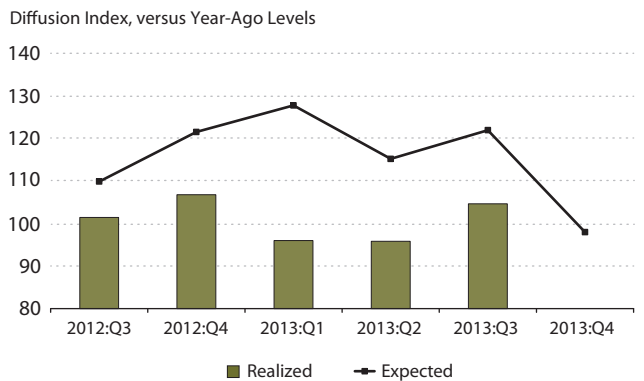


Figure 7
Availability of Funds: Expected and Actual Values

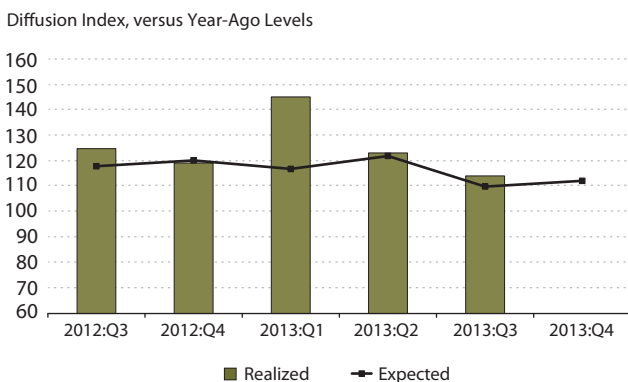
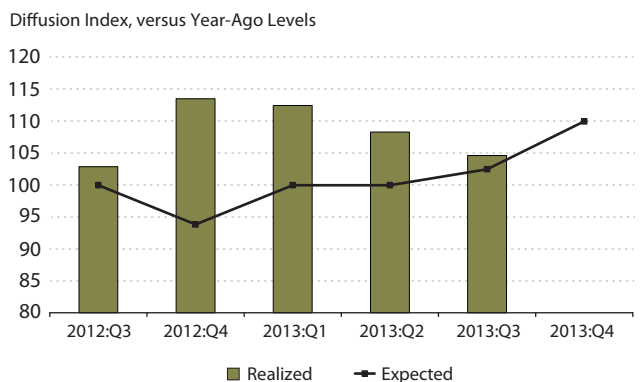


Figure 8
Rate of Loan Repayment: Expected and Actual Values



Special Questions

As reported in our previous survey (2013:Q2), there was some anecdotal evidence that the method of determining cash rents may be changing. In particular, there were reports that rents have become more variable over time, in part because of profit-sharing arrangements. In an attempt to gauge the validity of this conjecture, we asked survey respondents two special questions. These questions are reported in Table 5. The first question asked bankers to assess the percentage of cash rental agreements that were written as flexible or variable rental arrangements. Respondents indicated that most rental arrangements in their area did not have these flexible or variable features. For example, 75 percent of the respondents estimated that a third (30 percent) or less of the rental arrangements involved these special features. The second question asks respondents to assess the main pricing features of flexible or variable cash rental arrangements in their area. A little less than half (43 percent) indicated that rents were based on crop yield. Roughly one-quarter (27 percent) were based on a base rent plus a bonus, with roughly one-fifth (22 percent) tied to a variable-rent arrangement based on gross revenues generated by the crop. Very few cash rental agreements are tied to a commodity-pricing scheme. ■



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 The number of responses from each zone has been relatively small, which entails a higher-than-normal margin of error. Therefore, we have decided to discontinue publishing the zone-by-zone results. The results reported here refer to the entire Eighth Federal Reserve District. Please contact us if you would like to participate in our survey.

³ Since the composition and number of survey respondents tends to change each quarter, it might be more accurate to compare the results reported from the same respondents to this survey and the previous survey (second quarter of 2013). Such an exercise reveals that the average land price of quality farmland in the District was \$5,803 per acre in the third quarter of 2013, which is a 4.4 percent increase from the \$5,557 per acre average reported in the second quarter of 2013.