

# Agricultural *FINANCE* Monitor

agricultural credit conditions in the Eighth Federal Reserve District

2014 ■ Second Quarter

The ninth quarterly survey of agricultural credit conditions was conducted by the Federal Reserve Bank of St. Louis from June 16, 2014, through June 30, 2014. The results presented here are based on the responses from 45 agricultural banks within the boundaries of the Eighth Federal Reserve District.<sup>1</sup> The Eighth District includes all or parts of seven Midwest and Mid-South states. These data are not adjusted for any seasonal patterns (should they exist). Accordingly, users are cautioned to interpret the results carefully. Users are also cautioned against drawing firm conclusions about longer-run trends in farmland values and agricultural lending conditions.<sup>2</sup>

## Executive Summary

In our survey of 45 agricultural banks in the Eighth District, proportionately more bankers reported lower farm income, farm household spending, and capital equipment expenditures for the second quarter than for the same period a year ago. Forward-looking expectations in this report are similar to those in our previous report: A majority of respondents expect these three variables to remain below their year-earlier levels in the third quarter. Respondents also indicated that agricultural land values continued to decline in the second quarter, as quality farmland and rangeland or pastureland prices were, respectively, 6.7 and 7.5 percent below their peak values reported in the fourth quarter of 2013. In contrast, cash rents for quality farmland increased to their highest level since the survey began (second quarter of 2012). A majority of bankers reported that they had more loanable funds available than at the same time last year, but proportionately more bankers reported weaker loan demand than at the same time last year. Respondents have slightly stronger expectations of greater loan demand in the third quarter relative to the same time last year.

Interest rates rose across all major variable-rate loan types, while yields on fixed-rate loans increased for two of three major loan types.

## Selected Quotes from Banker Respondents Across the Eighth Federal Reserve District

*"Current crop conditions are good to excellent, projecting above-average yields. But it is anticipated that grain prices will decline, keeping net income stable. Highly-leveraged operations should be mindful of a possible downturn for farm income."* (Illinois)

*"Demand has increased significantly for all types of loans over the past three months. Net loans have increased 7 percent since end of last quarter for our bank."* (Missouri)

*"Some expansion by poultry integrators in our region has generated some new building and capital investment."* (Arkansas)

*"Livestock returns are higher, while crop prices for corn are substantially lower than a year ago. Good crop prospects will likely cause crop prices to decline per bushel, but total gross incomes will not be too much lower if above-average yields are realized. Cash rents for 2015 will be dependent on relative profitability, as will land prices. Possibly lower for cropland and higher for pasture/hay land."* (Missouri)

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

## Survey Results

### *Farm Income and Expenditures*

Slightly more than half of respondents reported that farm income had decreased (index value of 98) in the second quarter of 2014 compared with the same period a year earlier. However, the current index did surpass bankers' prior expectations (index value of 80) reported three months earlier. Farm income levels in the third quarter are also expected to be lower than a year earlier (index value of 80). Readers are cautioned that farm income is highly volatile and subject to seasonal patterns that occur in the agricultural sector.



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](mailto: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	
2014:Q2 (actual)	98
2014:Q3 (expected)	80
Household spending	
2014:Q2 (actual)	95
2014:Q3 (expected)	87
Capital spending	
2014:Q2 (actual)	86
2014:Q3 (expected)	73

**Land values (per acre)**

Quality farmland	\$5,473
Expected 3-month trend	95
Ranchland or pastureland	\$2,313
Expected 3-month trend	114

**Cash rents (per acre)**

Quality farmland	\$191
Expected 3-month trend	100
Ranchland or pastureland	\$59
Expected 3-month trend	106

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 second quarter of 2014. 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 1 shows that a majority of survey respondents believe that both farm household spending and capital equipment expenditures declined in the second quarter relative to the same period a year earlier. Consistent with the USDA's outlook for farm income in 2014, a greater majority of respondents expect household spending and capital equipment expenditures to decline in the third quarter relative to a year ago.<sup>3</sup>

**Table 2**

**Expected and Actual 2014:Q2 Variables (versus year-ago levels)**

**Farm income**

Expected	80
Actual	98
Difference	17

**Household spending**

Expected	93
Actual	95
Difference	3

**Capital spending**

Expected	73
Actual	86
Difference	13

**Demand for loans**

Expected	107
Actual	95
Difference	-12

**Availability of funds**

Expected	112
Actual	115
Difference	3

**Rate of loan repayment**

Expected	100
Actual	102
Difference	2

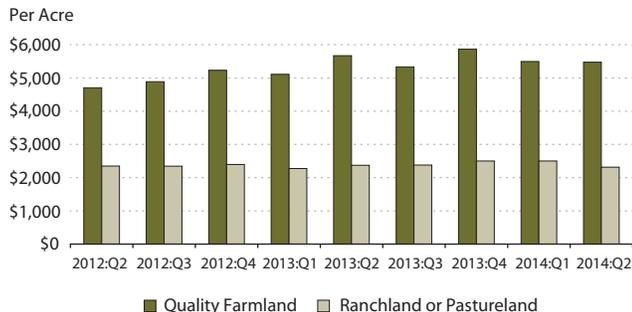
NOTE: All variables are reported using a diffusion index. See the note below Table 1 for details about interpreting diffusion indexes. Components may not sum to totals due to rounding.

**Current and Expected Land Values and Cash Rents**

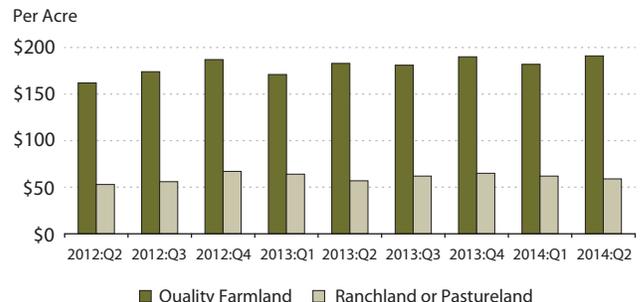
Table 1 also shows land values and cash rents in current dollars. Our survey found that quality farmland values across the District averaged \$5,473 per acre in the second quarter of 2014. The second-quarter average was slightly lower than the first-quarter average of \$5,496 per acre (see Figure 1).<sup>4</sup> When measured from a year earlier, the value of quality farmland in the Eighth District has decreased by 3.5 percent.

The value of Eighth District ranchland or pastureland averaged \$2,313 per acre in the second quarter of 2014, which was 7.4 percent lower than the previous quarter. Compared with a year earlier, the value of ranchland or pastureland decreased 2.5 percent. Cash rents for quality farmland across the District averaged \$191 per acre in the second quarter, up 4.9 percent from the first quarter. Cash

**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	
2014:Q2 (actual)	95
2014:Q3 (expected)	103
Availability of funds	
2014:Q2 (actual)	115
2014:Q3 (expected)	114
Rate of loan repayment	
2014:Q2 (actual)	102
2014:Q3 (expected)	103

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

	2014:Q2	2014:Q1	Change
<b>Interest rates (%)</b>			
Operating			
Fixed	5.37	5.28	0.09
Variable	4.94	4.84	0.10
Machinery/ intermediate-term			
Fixed	5.58	5.53	0.04
Variable	5.15	5.02	0.14
Farm real estate			
Fixed	5.18	5.20	-0.02
Variable	4.82	4.77	0.05

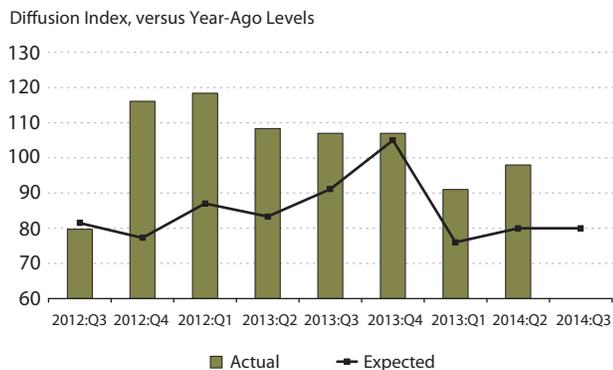
rents for ranchland or pastureland fell slightly in the second quarter (\$59 per acre) compared with their first-quarter average (\$62 per acre).

For the fourth consecutive survey, a proportionately larger share of bankers expect quality farmland values to decline in the next three months relative to the same period last year (index value of 95). However, expectations were evenly split for cash rents for quality farmland (index value of 100). Despite the recent decline, proportionately more bankers expect the value and cash rents of ranchland or pastureland to increase during the third quarter relative to the same period a year ago. Figures 1 and 2 show average farmland values and cash rents, respectively, since the first survey reported in the *Agricultural Finance Monitor* (second quarter of 2012).

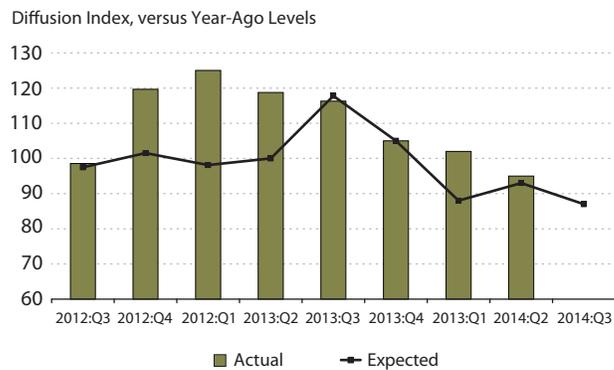
**Outcomes Relative to Previous-Quarter Expectations**

Table 2 provides an assessment of farm income, expenditures, and several other key variables in the second quarter of 2014 relative to bankers' expectations from three months earlier.<sup>5</sup> A smaller share of bankers reported a decline in farm income, farm household spending, and capital equipment expenditure than in the previous survey. (That is, actual values for the second quarter are larger than expectations from the previous survey.) A slightly greater share of bankers reported an increased rate of loan repayment and availability of funds than was expected in the previous survey. In the previous survey, a greater share of bankers expected loan demand to increase in the second quarter compared with the same period a year earlier (index value of 107). However, our current survey found that proportionately more bankers actually reported a decline in

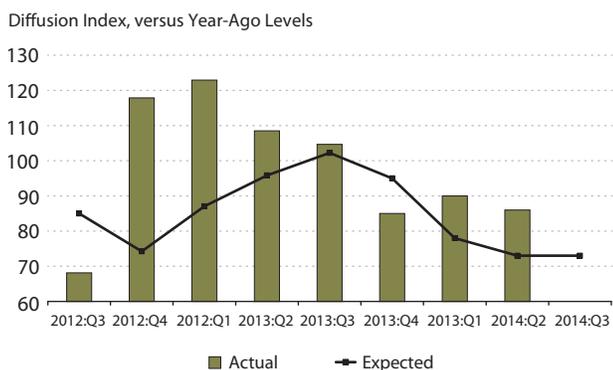
**Figure 3**  
**Farm Income: Expected and Actual Values**



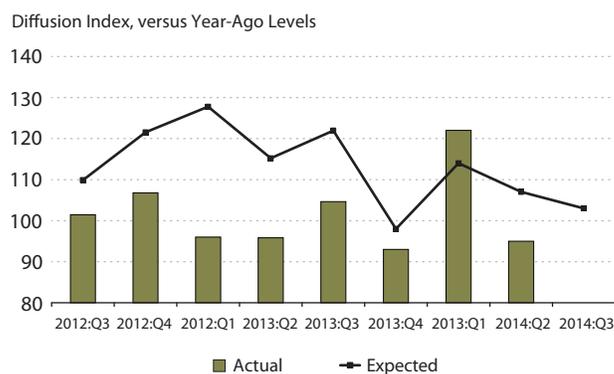
**Figure 4**  
**Household Spending: Expected and Actual Values**



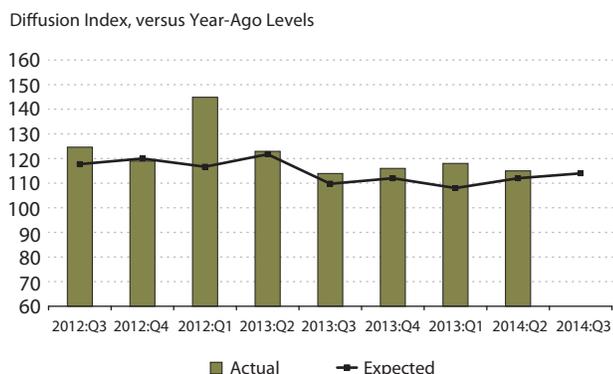
**Figure 5**  
**Capital Spending: Expected and Actual Values**



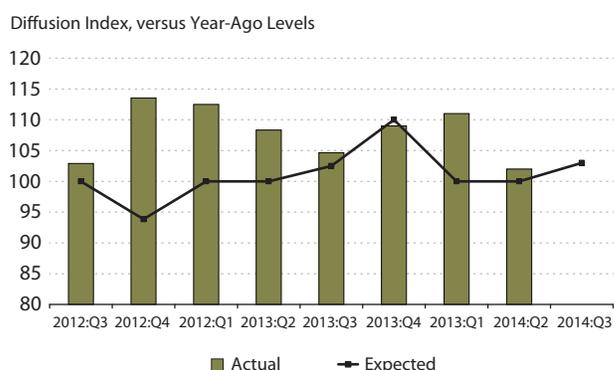
**Figure 6**  
**Demand for Loans: Expected and Actual Values**



**Figure 7**  
**Availability of Funds: Expected and Actual Values**



**Figure 8**  
**Rate of Loan Repayment: Expected and Actual Values**



loan demand for the second quarter (index value of 95). Figures 3 through 8 plot the actual and realized diffusion index values for the six variables shown in Table 2 since the second quarter of 2012.

**Financial Conditions**

Table 3 reports our survey respondents’ assessment of key commercial lending indicators for the farm sector in the Eighth District. Proportionately more bankers cited weaker loan demand in the second quarter of 2014 relative to the same period a year ago (index value of 95). However, respondents have a slightly stronger expectation of increased loan demand over the next three months relative to a year ago (index value of 103). A proportionately larger number of bankers (index value of 115) had more loanable funds available in the second quarter than they did a year ago. Further, on balance, more respondents expect that the higher availability of funds will continue in the third quarter of 2014 compared with a year earlier. Slightly more bankers reported that loan repayment rates were higher in the second quarter than at the same time last year (index value of 102), while a similar margin expects a higher rate of repayment in the following three months.

Table 4 reports average interest rates on fixed- and variable-rate loan products across the District. During the second quarter of 2014, interest rates on variable-rate loans increased modestly from their first-quarter averages across all three major loan types. Furthermore, interest rates on fixed-rate loans increased for both operating and machinery/intermediate-term loan types. In contrast, the interest rate on fixed-rate farm real estate loans declined by 2 basis points from the average value in the first quarter. ■

NOTE: There were no additional questions in this survey.

**Notes**

<sup>1</sup> 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.

<sup>2</sup> Readers are also cautioned that the number of responses in each zone is relatively small. Statistically, this tends to suggest that the responses in each zone have a larger plus-or-minus margin of error than for the District as a whole. We have eliminated the zone-by-zone responses until the response rate improves.

<sup>3</sup> See <http://www.ers.usda.gov/topics/farm-economy/farm-sector-income-finances/2014-farm-sector-income-forecast.aspx#.U-FNAPldV8E>.

<sup>4</sup> 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 (first quarter of 2014). Such an exercise reveals that the average value of quality farmland in the District was \$5,320 per acre in the second quarter of 2014, which is a 1 percent increase from the \$5,266 per acre average reported in the first quarter of 2014.

<sup>5</sup> See <http://research.stlouisfed.org/publications/afm/2014/afmq1.pdf>.

