Agricultural *FINANCE Monitor*

agricultural credit conditions in the Eighth Federal Reserve District

2013 ■ Fourth Quarter

The seventh quarterly survey of agricultural credit conditions was conducted by the Federal Reserve Bank of St. Louis from December 11 through December 31, 2013. The results presented here are based on the responses from 49 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 this survey is relatively new, 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.[2]

Executive Summary

Farm income increased in the fourth quarter of 2013 from a year earlier according to a survey of 49 agricultural banks in the Eighth District. Quality farmland prices rebounded in the fourth quarter after falling modestly in the third quarter. Quality farmland prices in the fourth quarter were up 12.2 percent from a year earlier. However, proportionately more respondents expect farm income and quality farmland values to decline over the next three months compared with year earlier levels. Respondents also expect farm household expenditures and farm equipment expenditures in the first quarter of 2014 to be lower than a year earlier. This survey included two special questions. In the first, a modest majority of bankers believe that a reduced federal mandate for biofuel usage will lead to some reduction in quality farmland values. In the second, bankers believe that lower-than-expected commodity prices in 2014, by far, pose the greatest risk to the farm sector.

Survey Results

Farm Income and Expenditures

Farm income increased in the fourth quarter of 2013 compared with the same period a year earlier (see Table 1). However, farm income levels in the first quarter of 2014 are expected to be lower than a year earlier (index value of 76). Although the index for the first quarter of 2014 is the lowest in a little more than a year, readers are cautioned that responses could reflect some normal seasonal patterns that occur in the agricultural sector. Table 1 also shows that a slight majority of survey respondents (index value of 105) report that farm household spending increased in

Selected Quotes from Banker Respondents Across the Eighth Federal Reserve District

Improvements in income at the poultry companies have induced them to allow some expansion in new poultry houses; this has improved loan demand. (Arkansas)

Lower commodity prices, higher input costs, and unusual weather during planting and harvest seasons compose the greatest risks to the farm sector in 2014. (Arkansas)

A substantial reduction of government subsidies to farming operations will constrict profit margins and increase the risk of default. (Arkansas)

There has been too much emphasis on the ethanol mandate. We were headed to lower commodity prices because of increased production and decreased exports. (Indiana)

The greatest risk is actually a combination of lower crop prices, higher interest rates, and steady-to-increasing input costs. (Missouri)

Weather is always the No. 1 risk to farm income in our area. Lower-than-expected commodity prices are close behind. (Missouri)

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

FEDERAL RESERVE BANK OF ST. LOUIS

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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:Q4 (actual)	107
2014:Q1 (expected)	76
Household spending	
2013:Q4 (actual)	105
2014:Q1 (expected)	88
Capital spending	
2013:Q4 (actual)	85
2014:Q1 (expected)	78
Land values (per acre)	
Quality farmland	$5,868
Expected 3-month trend	89
Ranchland or pastureland	$2,500
Expected 3-month trend	98
Cash rents (per acre)	
Quality farmland	$190
Expected 3-month trend	95
Ranchland or pastureland	$65
Expected 3-month trend	100

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 fourth 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:Q4 Variables (versus year-ago levels)

Farm income	
Expected	105
Actual	107
Difference	2
Household spending	
Expected	105
Actual	105
Difference	0
Capital spending	
Expected	95
Actual	85
Difference	–10
Demand for loans	
Expected	98
Actual	93
Difference	–4
Availability of funds	
Expected	112
Actual	116
Difference	3
Rate of loan repayment	
Expected	110
Actual	109
Difference	–1

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.

the fourth quarter of 2013 compared with a year earlier. By contrast, a majority of respondents reported that capital equipment spending in the fourth quarter was below year-earlier levels. Given their expectations for farm income, bankers expect that household and capital equipment expenditures in the first quarter of 2014 will be lower than year-earlier levels.

Current and Expected Land Values and Cash Rents

Table 1 also reports values for farmland and cash rents. Our survey found that quality farmland values across the District averaged $5,868 per acre in the fourth quarter of 2013, which was modestly higher than the third-quarter average of close to $5,300 per acre (see Figure 1).[3] Measured from a year earlier, quality farmland values in the Eighth District increased by 12.2 percent. The value of Eighth District ranch or pastureland averaged $2,500 per acre in the fourth quarter of 2013, an increase of 5.2 percent from the previous quarter and 4.3 percent from four quarters earlier. Cash rents for quality farmland across the District averaged $190 per acre in the fourth quarter, up 5 percent from the third quarter. Cash rents for ranch or pastureland ($65 per acre) also rose modestly in the fourth quarter compared with their third-quarter average ($62 per acre).

For the second-consecutive survey, proportionately more bankers expect quality farmland values to decline over the next three months relative to a year earlier (index value of 89). Similar, but less definitive, expectations exist for the value of ranch or pastureland (index value of 98)

Figure 1

Average Land Values Across the Eighth District

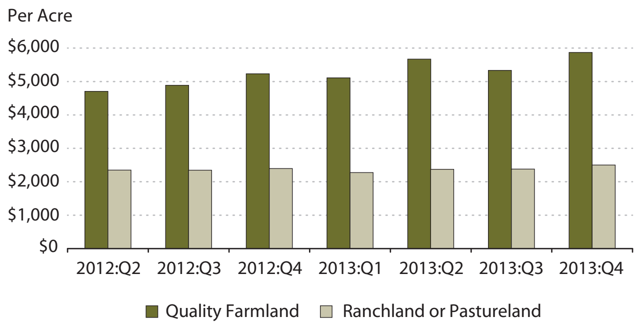


Figure 2

Average Cash Rents Across the Eighth District

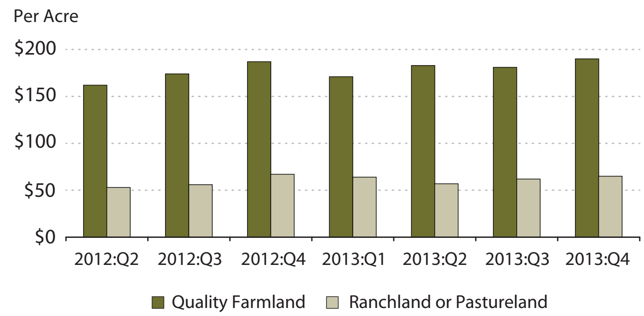


Table 3

Lending Conditions

Loans (versus year-ago levels)	
Demand for loans	
2013:Q4 (actual)	93
2014:Q1 (expected)	114
Availability of funds	
2013:Q4 (actual)	116
2014:Q1 (expected)	108
Rate of loan repayment	
2013:Q4 (actual)	109
2014:Q1 (expected)	100

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:Q4	2013:Q3	Change
Interest rates (%)			
Operating			
Fixed	5.39	5.51	–0.11
Variable	5.01	4.98	0.03
Machinery/ intermediate-term			
Fixed	5.65	5.72	–0.07
Variable	5.21	5.18	0.03
Farm real estate			
Fixed	5.23	5.29	–0.07
Variable	4.93	4.84	0.09

and for cash rents for quality farmland (index value of 95). However, respondents see no change in average cash rents for ranch or pastureland over the next three months relative to a year earlier (index value of 100). Figures 1 and 2 show farmland values and average cash rents since the *Agricultural Finance Monitor*'s first survey (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 fourth quarter of 2013 relative to bankers' expectations from three months earlier: Farm income and household spending in the fourth quarter were roughly in line with bankers' expectations; however, proportionately more respondents indicated that expenditures on capital equipment were less than expected (index value of 85) in the fourth quarter. In terms of financial variables, the supply of funds to extend loans was modestly higher than respondents expected, while the opposite was the case for the demand for farm loans. Repayment rates in the fourth quarter were largely consistent with bankers' expectations. Figures 3 through 8 plot the actual and realized values for the six variables shown in Table 2 since the third 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. Our survey showed that the demand for farm loans in the fourth quarter of 2013 was modestly below its levels from a year ago (index value of 93). However, respondents expect that the demand for farm loans

Figure 3

Farm Income: Expected and Actual Values

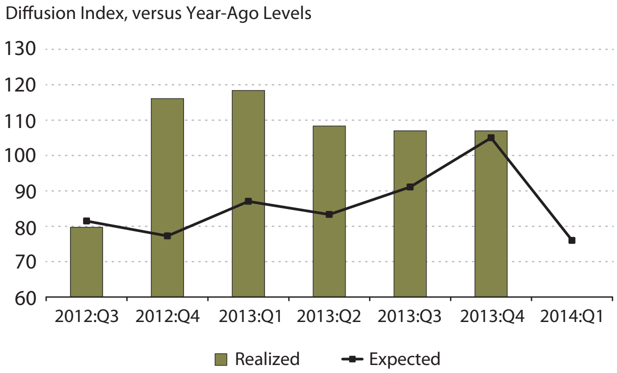


Figure 4

Household Spending: Expected and Actual Values

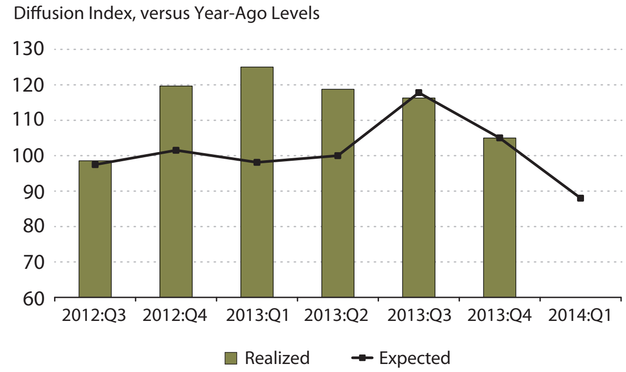


Figure 5

Capital Spending: Expected and Actual Values

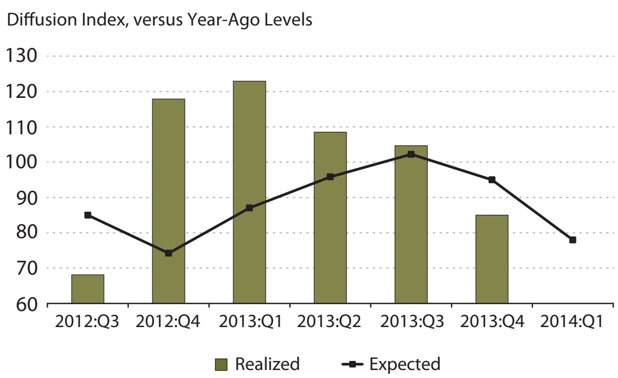


Figure 6

Demand for Loans: Expected and Actual Values

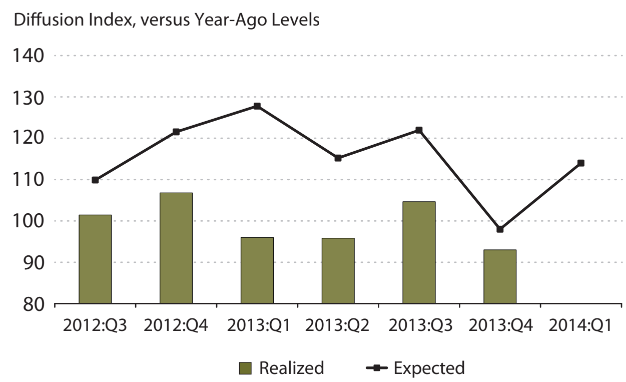


Figure 7

Availability of Funds: Expected and Actual Values

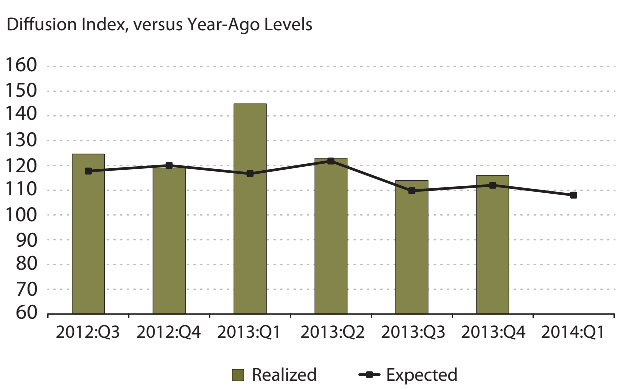
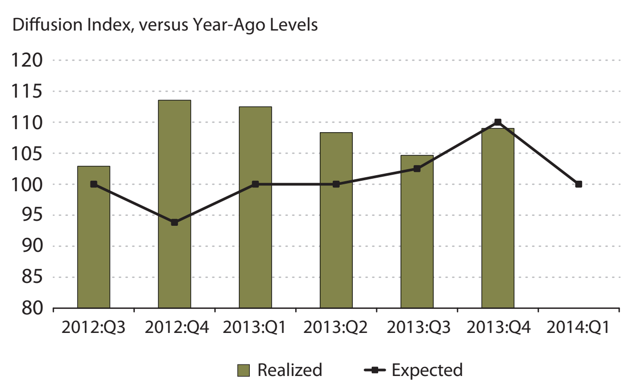


Figure 8

Rate of Loan Repayment: Expected and Actual Values



will pick up in the first quarter of 2014 compared with a year earlier (index value of 114). There appears to be ample funds available for agricultural loans. Survey respondents reported that more funds were available to prospective borrowers in the fourth quarter than at the same time last year (index value of 116); adequate funds are also expected in the first quarter of 2014. District loan repayment rates in the fourth quarter were slightly above year-earlier levels (index value of 109), but repayment rates are expected to return to year-earlier levels in first quarter of 2014 (index value of 100).

Table 4 reports average interest rates on fixed- and variable-rate loan products across the District. During the fourth quarter of 2013, interest rates on fixed-rate loans declined modestly from their third-quarter averages across the three major loan types. By contrast, interest rates on variable-rate loans were up slightly from three months earlier for the three loan types.

Special Questions

We asked our agricultural bankers two special questions in this quarter's survey. These are reported in Table 5. The first question pertains to how farmland values would be affected by a reduction in the federally mandated level of biofuels (ethanol and soy diesel) that are produced as petroleum substitutes and/or fuel additives. All else equal, a reduction in biofuel production would be expected to reduce the demand for corn and soybeans, thereby lowering their price and, potentially, the value of quality farmland used to grow these crops. Forty percent of our respondents believe that a reduction in biofuel production would have no effect on quality farmland values, while 60 percent thought otherwise. Of those who contend that a reduction in biofuel production would result in lower prices for quality farmland, about a quarter believe that a decline of between 5 and 10 percent is most likely, with another 14 percent expecting quality farmland prices to fall between 10 and 20 percent.

The second special question asked agricultural bankers to assess the greatest risk to the farm sector in 2014. A little less than two-thirds (63 percent) agreed that the greatest risk stems from lower-than-expected commodity prices. According to our respondents, the second-largest risk to the farm sector in 2014 would be higher-than-expected input costs, such as seed, fuel, or fertilizer. This was mentioned by 15 percent of respondents. Unusual weather was ranked as the next-largest risk. Very few bankers, if any, believe that higher-than-expected interest rates or an unexpected decline in quality farmland values pose a significant risk to the farm sector this year. ■

Table 5

Special Questions

The EPA recently proposed to lower mandated production of biofuels in 2014. What is the likely effect on quality farmland values in your area?	**% of responses**
No effect	40
Values decline by 5% or less	17
Values decline between 5% and 10%	24
Values decline between 10% and 20%	14
Values decline by more than 20%	5
What is the greatest risk to the farm sector in 2014?	
Lower-than-expected commodity prices	63
Higher-than-expected interest rates	2
Higher-than-expected input costs (e.g., seed, fuel)	15
An unexpected decline in quality farmland values	0
An unusual weather pattern	12
Other	7

NOTE: Values may not add up to 100 due to rounding.

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] 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 will not provide zone-by-zone responses until the number of survey participants increases.

[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 (third quarter of 2013). Such an exercise reveals that the average land price of quality farmland in the District was $5,821 per acre in the fourth quarter of 2013, which is a 3.7 percent increase from the $5,614 per acre average reported in the third quarter of 2013.

Posted on February 13, 2014

Eighth Federal Reserve District