Agricultural FINANCE Monitor

agricultural credit conditions in the Eighth Federal Reserve District

2015 ■ First Quarter

The twelfth quarterly survey of agricultural credit conditions was conducted by the Federal Reserve Bank of St. Louis from March 16, 2015, through March 31, 2015. The results presented here are based on the responses from 45 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. These data are not adjusted for any seasonal patterns. 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]

We would like to remind the reader of an important change in the reporting of survey results that we implemented in the previous quarter's survey (2014:Q4). We are now placing more emphasis on the results from the same respondents for two comparative periods. This change largely reflects the fact that the number of respondents has diminished over time. As a result, we will no longer report dollar values for farmland and cash rents. Instead, consistent with other Federal Reserve surveys, we will report year-to-year percentage changes. This change will better illustrate longer-term trends. Readers seeking a fuller explanation of this change are referred to the aforementioned report, which can be found here: http://research.stlouisfed.org/publications/afm/2014/afmq4.pdf.

Selected Quotes from Banker Respondents Across the Eighth Federal Reserve District

"Lower grain prices are finally changing the psychological mindset for producers. Most producers are not able to lower operating expenses significantly and are looking at troublesome cash-flow projections. Grain prices will likely remain in this price range for several years and will have a huge impact on lenders." (Illinois)

"We keep hearing that farmland prices have eased off, but we are not seeing it yet." (Indiana)

"We have no row crop production, so farmland leasing is not an issue. Poultry companies are expanding, which is resulting in good loan demand for capital expenditures." (Arkansas)

"All remains well in the agricultural segment; let's hope that 2015 continues the trend." (Tennessee)

"We are closely watching grain yields, grain prices, and operating expenses." (Missouri)

"Our analysis of year-end financial reports from most customers indicates a slight reduction in working capital due to lower crop prices; however, the above-average yields helped offset the expected downturn. We expect working capital to continue to decline due to production costs being above expected crop revenues based on average yields. Livestock returns have been good due to lower feed costs and strong prices." (Missouri)

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

Executive Summary

According to our latest survey, respondents indicated that farm income, farm household spending, and expenditures on capital equipment continued to decline in the first quarter relative to the same period a year earlier. A larger proportion of bankers expect further declines in these three categories in the second quarter, measured from a year earlier. The average value of quality farmland and cash rents of quality farmland declined in the first quarter relative to a year ago. A majority of bankers expect quality farmland values and cash rents to decline further in the second quarter of 2015 from its value a year earlier. The demand for loans increased in the first quarter, but loan repayment rates declined in the first quarter compared with a year earlier; similar conditions are expected to prevail in the second quarter. Interest rates on most loan types were little changed in the first quarter compared with the previous quarter. For this survey, we asked two special questions about farmland

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.

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 first quarter of 2015. 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

Income and Expenditures (versus year-ago levels)

	Index value
Farm income	
2015:Q1 (actual)	49
2015:Q2 (expected)	38
Household spending	
2015:Q1 (actual)	95
2015:Q2 (expected)	82
Capital spending	
2015:Q1 (actual)	58
2015:Q2 (expected)	46

NOTE: Actual and expected values for indices use all responses from the 2015:Q1 survey.

Table 2

Land Values and Cash Rents (year/year change)

	Percent or index value
Land values	
Quality farmland	–2.5%
Expected 3-month trend	79
Ranchland or pastureland	–1.6%
Expected 3-month trend	105
Cash rents	
Quality farmland	–3.3%
Expected 3-month trend	65
Ranchland or pastureland	2.7%
Expected 3-month trend	113

NOTE: Changes in land values and cash rents are calculated using a common sample of respondents for the most recent survey as well as the survey conducted a year ago. Expected trends of land values and cash rents are calculated using only the banks that responded to these respective questions in both the previous and the current quarters. Expected trends are presented as a diffusion index; see note above for details about interpreting diffusion indexes.

leases. The results suggest that the percentage of farmers walking away from committed leases this year is expected to be relatively small; the vast majority of bankers see little or no impact on their bank or their customers.

Survey Results

Farm Income and Expenditures

Table 1 shows that, similar to the past few surveys, a proportionately larger percentage of respondents reported that farm income fell in the first quarter of 2015 compared with the same period a year earlier. Indeed, the first-quarter index value (49) was below 100 for the third consecutive quarter, and it is the most pessimistic measure in the survey's relatively short history (see Figure 3). A large percentage of bankers expect that farm income will decline again in the second quarter compared with a year earlier (index value of 38).

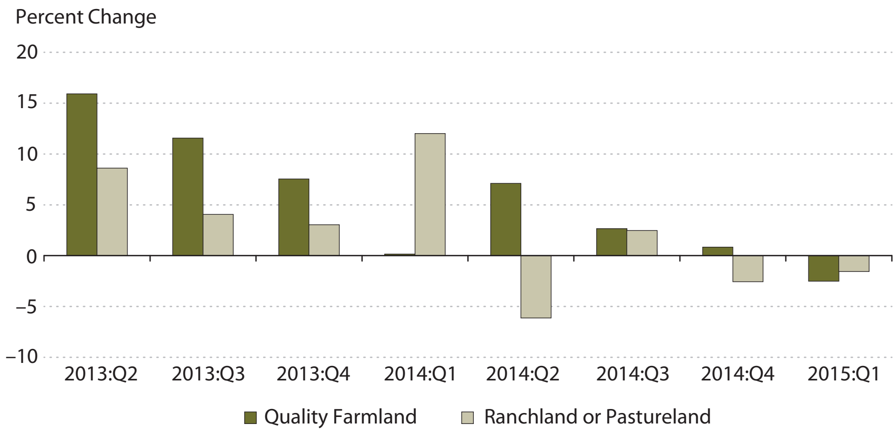
Given recent trends in farm income, it is not too surprising that bankers continue to report a steady erosion in household expenditures and capital spending by farmers and ranchers. In the first quarter of 2015, the index of household spending (95) and capital equipment expenditures (58) suggests that proportionately more bankers believe that farm household and capital goods expenditures were down from year-earlier levels. Table 1 also indicates that respondents expect that farm household spending and capital expenditures will decline further in the second quarter compared with a year earlier. Readers are cautioned that farm income is highly volatile and subject to seasonal patterns that occur in the agricultural sector.

Current and Expected Land Values and Cash Rents

The four-quarter percentage changes in land values and cash rents are reported in Table 2.[3] In the first quarter of 2015, average quality farmland values were down by 2.5 percent from one year ago—the largest percentage decline in the survey's short history. The value of ranch or pastureland also declined in the first quarter, but by slightly less:

Figure 1

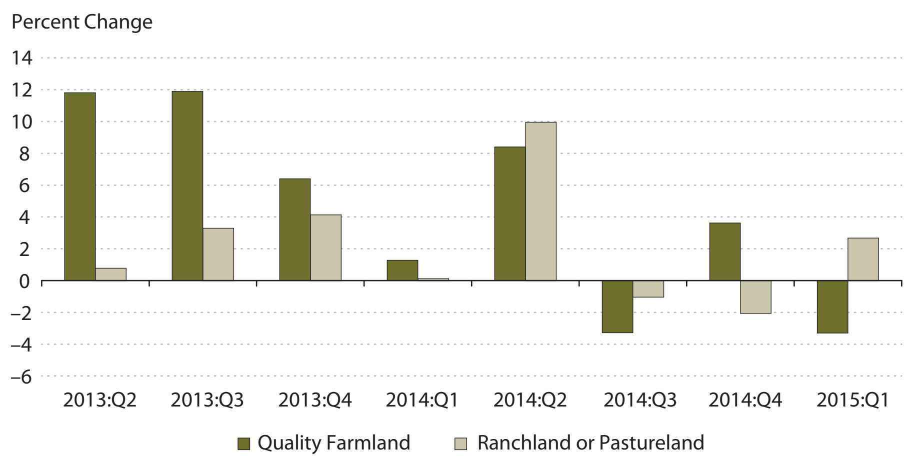
Year-Over-Year Change in Average Eighth District Land Values



NOTE: Percent changes are calculated using responses only from those banks reporting in both the past and the current quarters.

Figure 2

Year-Over-Year Change in Average Eighth District Cash Rents



NOTE: Percent changes are calculated using responses only from those banks reporting in both the past and the current quarters.

1.6 percent. A modestly larger percentage of bankers expect that quality farmland prices will decline further in the second quarter of 2015 (index value of 79). However, similar to our previous survey, a slightly larger percentage of our banker respondents (index value of 105) expect that ranch or pastureland values will increase in the second quarter relative to four quarters earlier.

Cash rents for quality farmland also declined in the first quarter, but by a slightly larger amount: 3.3 percent. By contrast, respondents reported that, on average, cash rents for ranch or pastureland were up 2.7 percent from four quarters earlier. Proportionately more bankers see further downward pressure on quality farmland cash rents over the next three months (an index value of 65), but expect that cash rents for ranch or pastureland will increase over the next three months (index value of 113). Figures 1 and 2 show the history of year-to-year percentage changes in land values and cash rents since the second quarter of 2013.

Outcomes Relative to Previous-Quarter Expectations

The examination of actual data relative to expectations is an important aspect of economic analysis. Table 3 provides such an analysis for farm income, expenditures, and

Table 3

2015:Q1 Variables (versus year-ago levels)

	Index value
Farm income	
Expected	50
Actual	58
Difference	8
Household spending	
Expected	91
Actual	96
Difference	4
Capital spending	
Expected	42
Actual	54
Difference	13
Demand for loans	
Expected	91
Actual	141
Difference	50
Availability of funds	
Expected	115
Actual	110
Difference	–5
Rate of loan repayment	
Expected	91
Actual	86
Difference	–5

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 questions in both the past and the current quarters. Components may not sum to totals due to rounding.

Table 4

Lending Conditions (versus year-ago levels)

	Index value
Demand for loans	
2015:Q1 (actual)	137
2015:Q2 (expected)	121
Availability of funds	
2015:Q1 (actual)	107
2015:Q2 (expected)	100
Rate of loan repayment	
2015:Q1 (actual)	78
2015:Q2 (expected)	82

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. Actual and expected values for indices use all responses from the 2015:Q1 survey.

several other key variables. Compared with the previous survey (2014:Q4), respondents indicated that, on average, the declines in farm income, household spending, and capital spending in the first quarter were not as large as they had expected three months earlier.

Table 3 also indicates that loan demand in the first quarter was significantly stronger than the expectations of bankers from three months earlier: an expected value of 91 versus an actual (realized) value of 141. In fact, the index value of the demand for farm loans in the first quarter was the largest in the survey's history (see Figure 3). By contrast, bankers reported that the availability of funds in the first quarter was slightly less than expected three months ago. Still, there appears to be sufficient funds available for farm loans. Table 3 and Figure 6 suggest that the stresses of lower farm incomes are beginning to adversely affect farm working capital and, thus, loan demand and loan repayment rates. In the first quarter, a modestly larger percentage of bankers reported that loan repayment rates had declined compared with a year earlier. Moreover, the repayment rates were slightly smaller than expected from three months earlier: an expected value of 91 versus an actual value of 86. As seen in Figure 8, the index of loan repayment rates in two of the past three quarters was the smallest since the survey began in the third quarter of 2012.

Financial Conditions

Table 4 reports our survey respondents' assessment of current and prospective bank lending conditions in the Eighth District. According to those agricultural bankers who responded to our survey, loan demand is expected to increase in the second quarter of 2015 relative to a year earlier. However, the expected index value (121) is modestly smaller than it was in the first quarter. For the availability of funds, bankers expect that funds available in the second quarter will be unchanged from a year earlier (an expected index value of 100). By contrast, a larger percentage of bankers expect that loan repayment rates will fall in the second quarter relative to a year ago. [NOTE: The values for some series reported in Table 3 will differ slightly from the values reported in Tables 1 and 4 because the latter tables compute diffusion indexes for all respondents, rather than the common set of respondents that are reported in Tables 2 and 3.]

NOTE: All variables in Figures 3 through 8 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 questions in both the past and the current quarters. Expected values for indices in 2015:Q2 are calculated using only the responses from the 2015:Q1 survey.

Figure 3

Farm Income: Expected and Actual Values

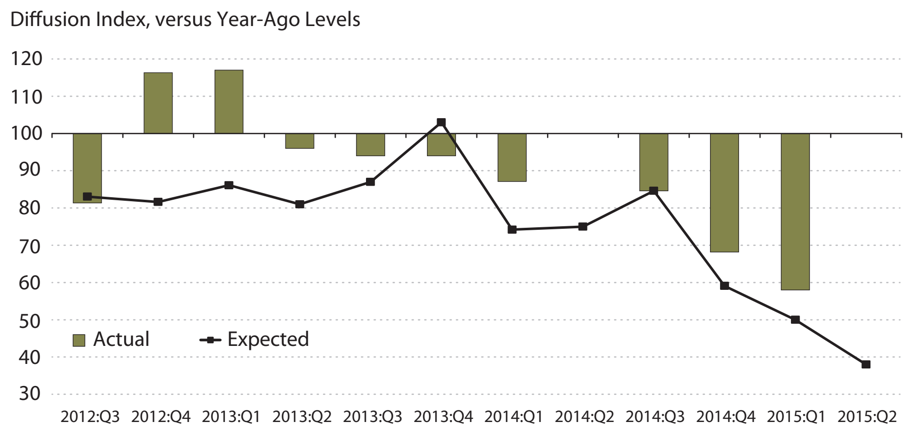


Figure 4

Household Spending: Expected and Actual Values

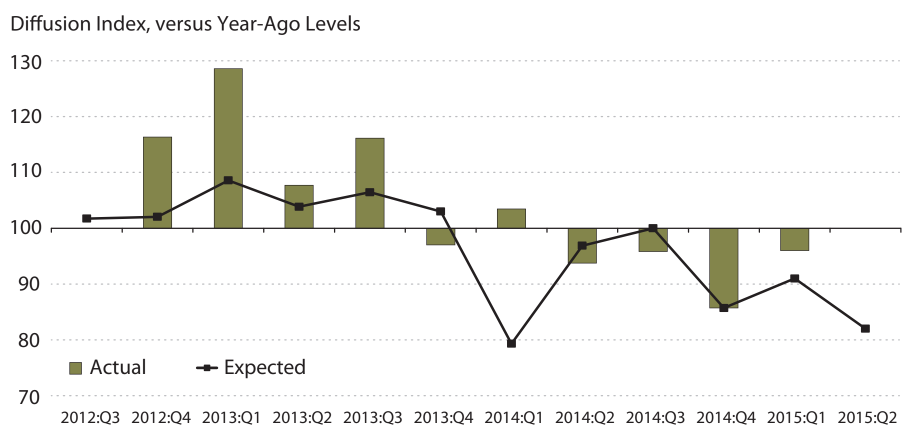
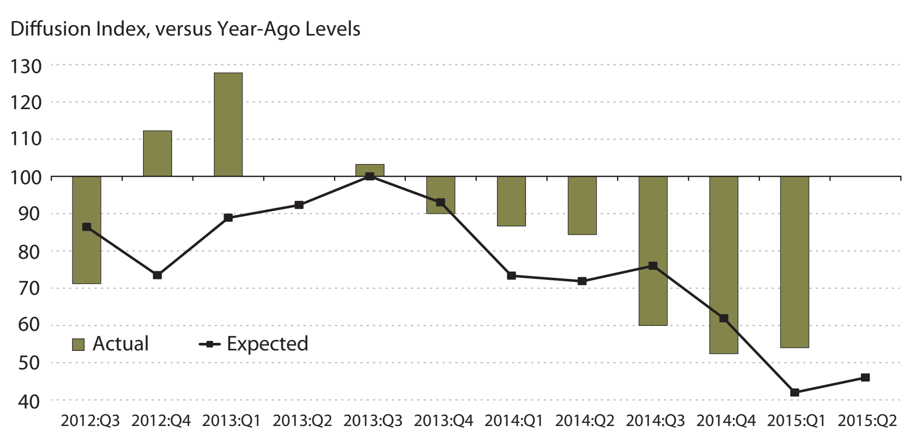


Figure 5

Capital Spending: Expected and Actual Values



NOTE: All variables in Figures 3 through 8 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 questions in both the past and the current quarters. Expected values for indices in 2015:Q2 are calculated using only the responses from the 2015:Q1 survey.

Figure 6

Demand for Loans: Expected and Actual Values

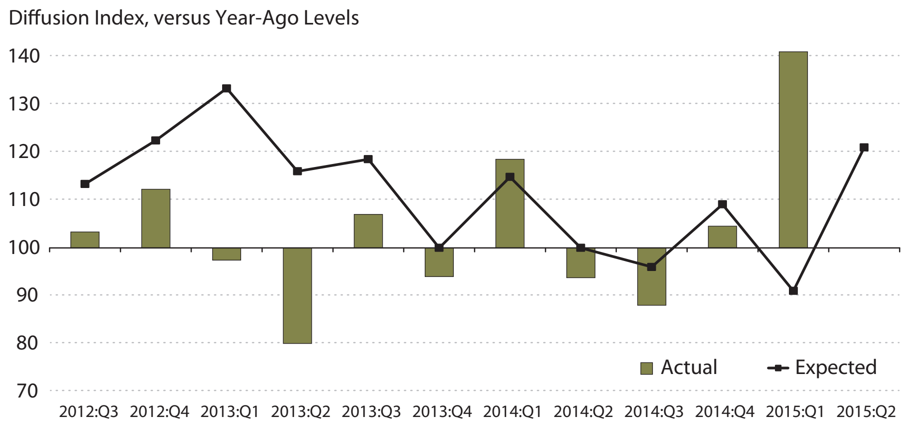


Figure 7

Availability of Funds: Expected and Actual Values

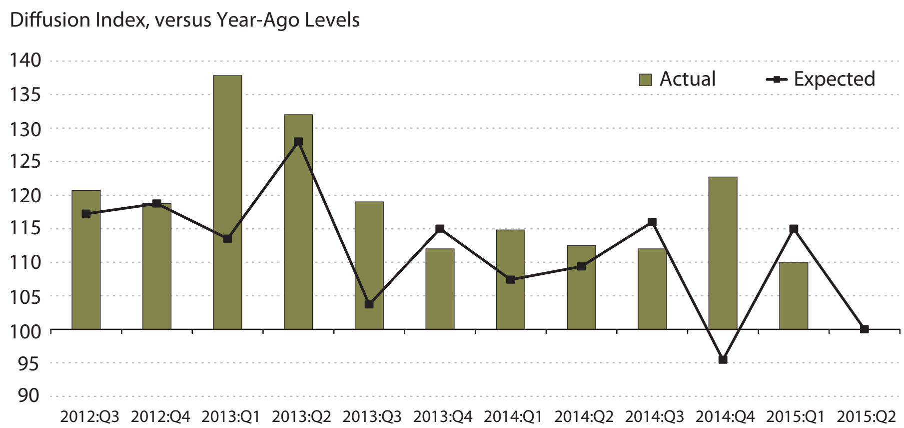


Figure 8

Rate of Loan Repayment: Expected and Actual Values

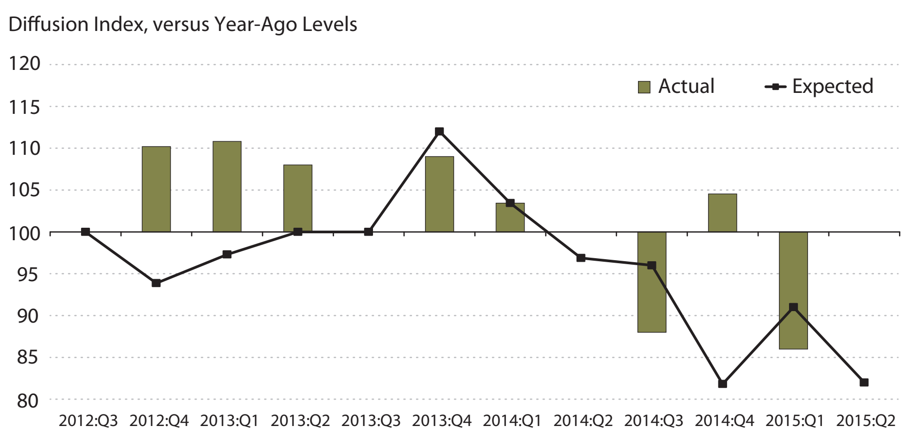


Table 5

Interest Rates (%)

	2015:Q1	2014:Q4	Change
Operating			
Fixed	5.37	5.28	0.09
Variable	4.91	4.89	0.02
Machinery/ intermediate-term			
Fixed	5.60	5.55	0.05
Variable	5.00	5.02	–0.02
Farm real estate			
Fixed	5.17	5.28	–0.11
Variable	4.68	4.77	–0.09

NOTE: For comparison purposes, we calculate interest rates in both periods using a common sample of banks that responded to the given questions in both the past and the current quarters.

Table 6

Special Questions

In your trade area, what percentage of farmers do you estimate will walk away from committed farmland leases this year?

Share of total respondents	
Less than 1 percent	66.7
More than 1 percent but less than 5 percent	28.2
5 percent to 10 percent	5.1
More than 10 percent	0

Overall, how important of an economic issue is this potentially to your bank customers?

Share of total respondents	
It is not a signficant issue for our bank's customers at this time.	76.9
It may have a small impact; our bank is somewhat concerned.	12.8
We are moderately concerned and may alter certain loan underwriting criteria.	5.1
It is potentially a significant economic issue for our customers; significant credit tightening may be necessary.	5.1

Table 5 presents average interest rates on fixed- and variable-rate loan products in the first quarter of 2015. Overall, the results in the table suggest that the pricing of most farm-related loans was little changed from three months earlier. Although average interest rates on fixed-rate operating and machinery loans rose slightly in the first quarter, they declined modestly for farm real estate loans. For variable-rate products, the average interest rate change varied from 2 basis points (operating loans) to –9 basis points (farm real estate loans).

Special Questions

Table 6 reports the results of two special questions we posed to our bankers for this survey. Since cash rent rates depend on expectations of farmland values and incomes, among other things, these questions attempt to assess whether the expectation of a further softening of farmland values and farm incomes are causing some renters to walk away from existing leases.

Question one: Two-thirds of banker respondents reported that they expect that less than 1 percent of the farmers in their area will walk away from their committed farmland leases in 2015. A little more than one-quarter (28.2 percent) estimated that only about 1 to 5 percent of farmers will walk away from their leases this year.

Question two: The second special question asked agricultural bankers how important of an economic issue this is to their bank's customers. A little more than three-quarters (76.9 percent) reported that it is not a significant issue at this time, while another 12.8 percent indicated that it may have a small impact.

Overall, with the planting season completed or underway in most areas of the District, our results suggest that bankers do not believe this issue is a pressing problem for them or their customers. ■

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. As of March 31, 2015, there were 231 banks in the Eighth Federal Reserve District that met this criteria.

[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 are eliminating the zone-by-zone responses until the response rate improves.

[3] The annual percentage changes in land values and cash rents are based on common responses. That is, a respondent must have been in both the 2015:Q1 and 2014:Q1 samples.

Posted on May 14, 2015

Eighth Federal Reserve District