Agricultural *FINANCE Monitor*

agricultural credit conditions in the Eighth Federal Reserve District

2015 ■ Second Quarter

The thirteenth quarterly survey of agricultural credit conditions was conducted by the Federal Reserve Bank of St. Louis from June 15, 2015, through June 30, 2015. The results presented here are based on the responses from 39 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]

Executive Summary

Measured from a year earlier, values for ranch or pastureland exhibited positive growth in the second quarter of 2015, while quality farmland values were largely unchanged in the second quarter of 2015. In comparison, both measures recorded declines in the previous survey. Cash rents declined for both quality farmland (6.4 percent) and ranch or pastureland (5.2 percent) as compared with the same time last year. Bankers expect both land values and cash rents for quality farmland to decline in the next three months. Farm income continues to weaken according to a strong consensus among bankers. Household spending and expenditures on capital goods for farmers and ranchers also continued to decline in the second quarter. All of these variables, as well as the rate of loan repayment, registered the lowest index values yet seen over the brief history of our survey. Bankers expect these downward trends to continue for the next three months. Interest rates, both variable and fixed, declined across most loan products, with the exception of fixed rates for farm real estate loans. As indicated by responses to a set of special questions, the agricultural sector appears to be coping well with a period of weakening farm income growth. However, the average District

Selected Quotes from Banker Respondents Across the Eighth Federal Reserve District

"Cattle prices are good and herds are beginning to be rebuilt. Poultry firms are expanding production of all types." (Arkansas)

"Payments associated with the 2014 Farm Bill will probably be too little and too late to head off severe financial damage to most grain operations. Lenders, suppliers, and equipment dealers will also be adversely affected." (Arkansas)

"Our trade area is primarily cash grain and the lower grain prices will have a negative impact on farm income, prompting producers to reduce spending for both business and household. The past few years have been good income years and most producers have some working capital built up and have reduced debt from continued pay down. The demographics of our customer base (not many young farmers) result in a mindset of paying down debt and being less aggressive for expansion and incurring new debt. The current cash flows are more typical of farm operations (historically) and the past few years have been above the norm for cash grain operations. I would expect cash grain to continue to be slightly above breakeven for the next few years." (Illinois)

"This crop season is a disaster in northeast Missouri because it rains every day. Farmers that are conservative will survive, but the young farmers just starting out with a lot of payments will be in trouble." (Missouri)

"Excessive moisture has severely delayed and/or prevented planting of soybean crop. Almost no hay has been baled. Wheat harvest will soon be affected. All these factors will likely negatively affect farm income this year and next." (Missouri)

"Strong cattle prices are definitely helping repayment ability of area farmers." (Missouri)

"Farm segment remains solid and in good condition. Future prospects remain encouraging." (Tennessee)

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

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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 second 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:Q2 (actual)	31
2015:Q3 (expected)	35
Household spending	
2015:Q2 (actual)	76
2015:Q3 (expected)	71
Capital spending	
2015:Q2 (actual)	48
2015:Q3 (expected)	49

NOTE: Actual and expected values for indices use all responses from the 2015:Q2 survey.

Table 2

Land Values and Cash Rents (year/year change)

	Percent or index value
Land values	
Quality farmland	0.5%
Expected 3-month trend	68
Ranchland or pastureland	3.2%
Expected 3-month trend	100
Cash rents	
Quality farmland	–6.4%
Expected 3-month trend	80
Ranchland or pastureland	–5.2%
Expected 3-month trend	100

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 all responses from the 2015:Q2 survey. Expected trends are presented as a diffusion index; see note above for details about interpreting diffusion indexes.

agricultural bank has a small share of borrowers that need to resolve repayment problems and/or have lost access to their lines of credit due to deteriorating financial conditions.

Survey Results

Farm Income and Expenditures

Table 1 shows that, for the fourth consecutive survey, a much larger percentage of bankers reported that farm income declined in the second quarter of 2015 compared with the same period a year earlier (index value of 31). In fact, bankers' assessments were so overwhelmingly negative that the index value reached its lowest level in the short history of this survey (see Figure 3). A similar share of respondents expect that farm income will continue to decline in the third quarter (index value of 35). [NOTE: Numbers in parentheses indicate diffusion index values, unless otherwise noted.]

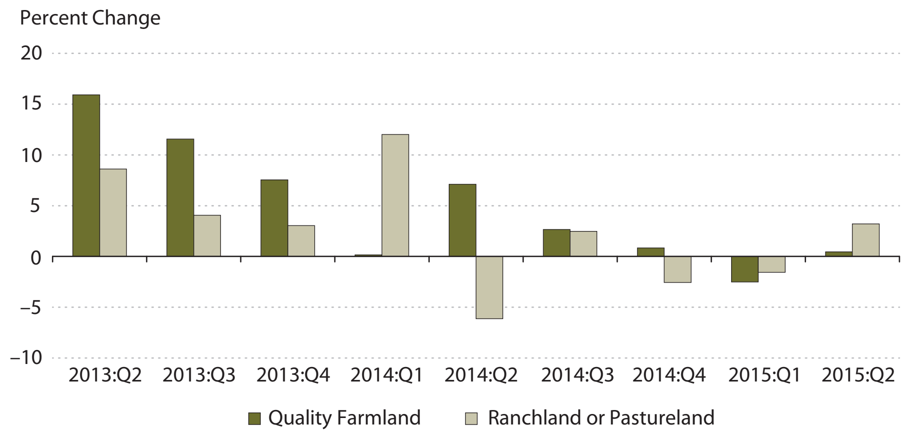
Consistent with the steady deterioration of farm income, bankers also reported declines in both household expenditures and capital spending by farmers and ranchers. Similarly, the indexes of both household spending (76) and capital equipment expenditures (48) also registered their lowest levels since our survey began. This suggests a strong consensus among bankers that farm household and capital goods expenditures were down from the same time last year. Table 1 also indicates that a similar share of respondents expect that farm household spending (71) and capital expenditures (49) will decline further in the next three months. 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] Land values for ranch or pastureland increased from levels seen during the second quarter of last year. The change in the value of quality

Figure 1

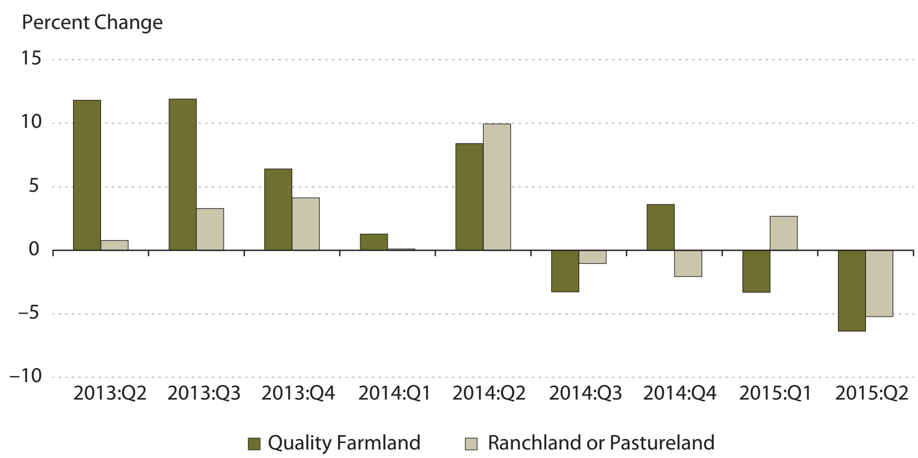
Year-Over-Year Change in Average Eighth District Land Values



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.

farmland is relatively unchanged. This is a notable reversal of the substantial decline in quality farmland and ranch or pastureland values recorded in the previous survey. However, a majority of bankers expect farmland values to decline in the third quarter of 2015 (index value of 68). In contrast, bankers were evenly split (index value of 100) regarding the expected change for ranch or pastureland land values in the third quarter relative to a year ago.

Banker responses illustrate a notable decline in cash rents—the largest recorded over the short history of the survey—in the second quarter of 2015. Quality farmland cash rents fell by 6.4 percent in the second quarter as compared with a year earlier. Cash rents for ranch or pastureland also declined in the second quarter, but by a slightly lesser amount, 5.2 percent. A slight majority of respondents expect quality farmland cash rents to decline (index value of 80) in the third quarter, while pastureland or ranchland cash rents remain unchanged (index value of 100). 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. The decline in cash rents could stem from the recent softening in farmland values (see Figure 1) and commodity prices.

Table 3

2015:Q2 Variables (versus year-ago levels)

	Index value
Farm income	
Expected	48
Actual	32
Difference	–16
Household spending	
Expected	92
Actual	79
Difference	–13
Capital spending	
Expected	48
Actual	48
Difference	0
Demand for loans	
Expected	133
Actual	100
Difference	–33
Availability of funds	
Expected	100
Actual	92
Difference	–8
Rate of loan repayment	
Expected	83
Actual	74
Difference	–9

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:Q2 (actual)	115
2015:Q3 (expected)	112
Availability of funds	
2015:Q2 (actual)	97
2015:Q3 (expected)	100
Rate of loan repayment	
2015:Q2 (actual)	85
2015:Q3 (expected)	76

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:Q2 survey.

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 several other key variables. Farm income remains under downward pressure in the District, even more so than what bankers expected during the previous survey (2015:Q1). Within a common sample of bankers between the two surveys, a significant majority (index value of 48) expected farm income levels to fall, but a greater share (index value of 32) actually reported declines in the second quarter. Figure 3 shows that this is not only the lowest index value in the history of the survey but also an unusually large negative surprise for bankers. Possibly due to the greater extent of declining farm income, reports of actual household spending levels (79) fell short of expectations (92). The substantial decline in actual capital spending that bankers expected in the previous survey was realized—as reflected in the same index value for both (48). Bankers surveyed in the previous quarter expected a surge in loan demand (133), but actual demand in the second quarter was unchanged (100). On the supply side, a modest majority of bankers reported that there were less loanable funds available (index value of 92) than previously expected (100). Farmers and ranchers are having a harder time meeting their financial obligations as represented by loan repayment rates falling (74) below expectations (83) from the previous survey. As seen in Figure 8, the index of loan repayment rates in three of the past four 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. The actual index values reported in Table 4 may differ from those reported in Table 3 because Table 4 uses all responses to the 2015:Q2 survey, instead of a common sample between the current and previous surveys. The most notable difference between the samples is that bankers from the current survey reported slightly greater loan demand (115) in the second quarter relative to a year ago. A similar share of these bankers expect greater loan

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:Q3 are calculated using only the responses from the 2015:Q2 survey.

Figure 3

Farm Income: Expected and Actual Values

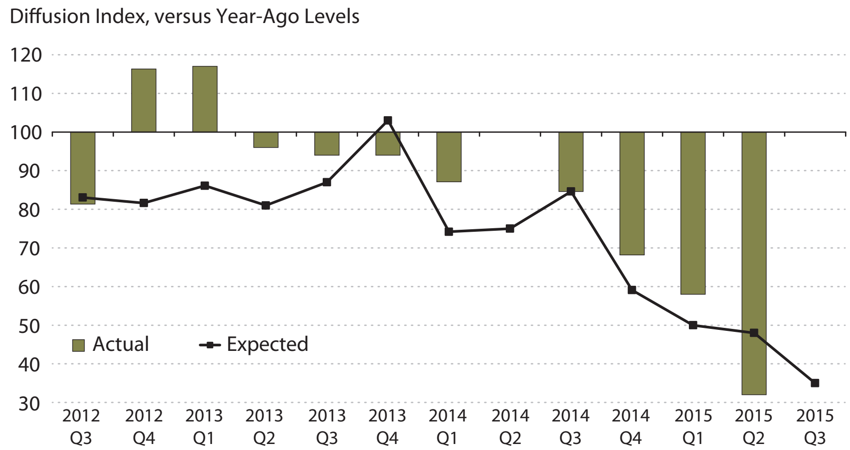


Figure 4

Household Spending: Expected and Actual Values

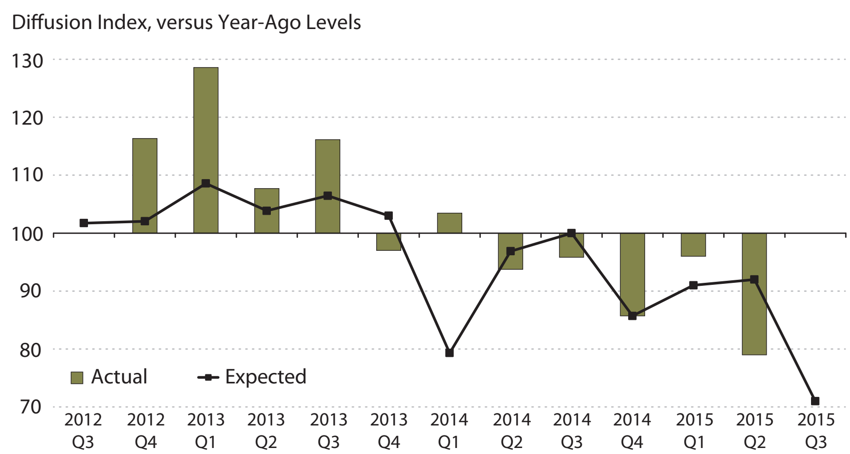
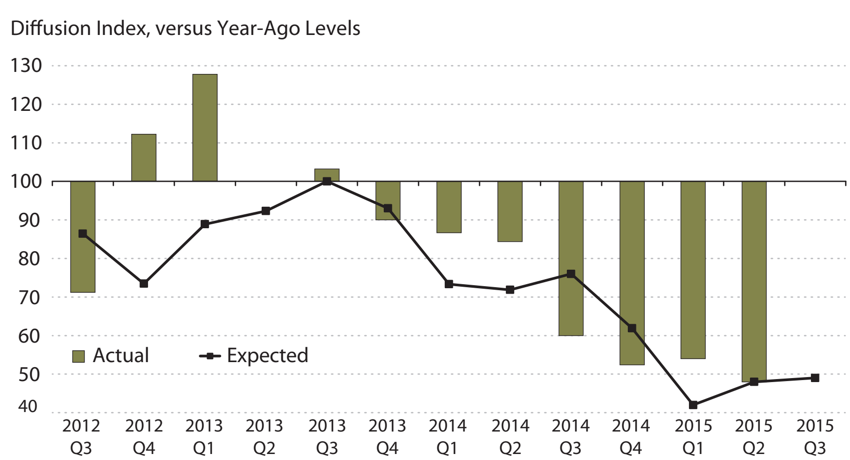


Figure 5

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:Q3 are calculated using only the responses from the 2015:Q2 survey.

Figure 6

Demand for Loans: Expected and Actual Values

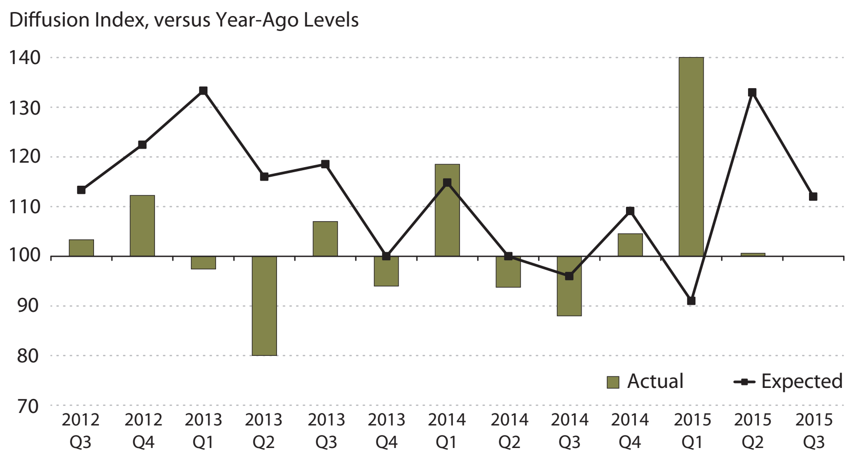


Figure 7

Availability of Funds: Expected and Actual Values

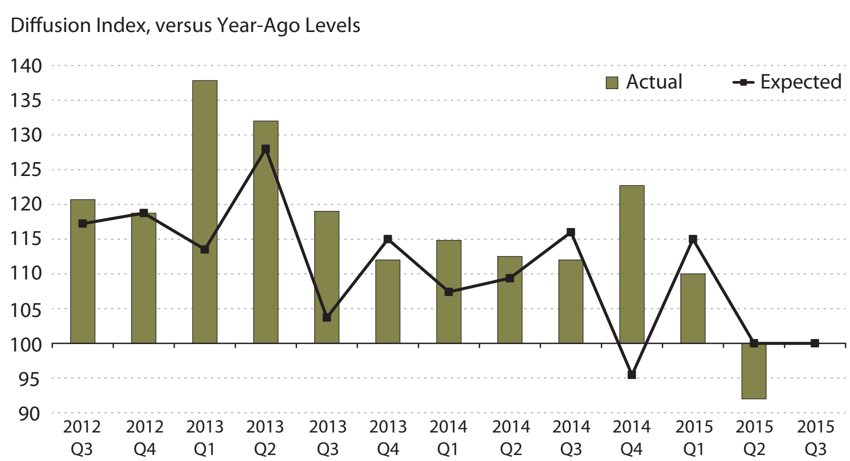


Figure 8

Rate of Loan Repayment: Expected and Actual Values

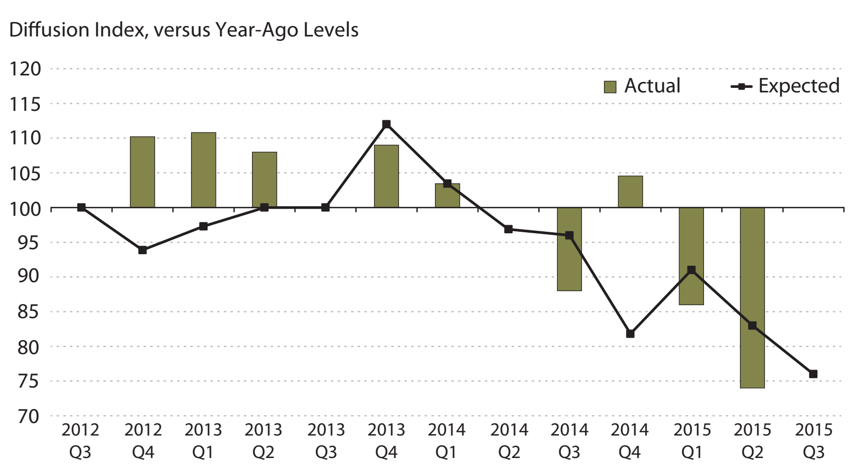


Table 5

Interest Rates (%)

	2015:Q2	2015:Q1	Change
Operating			
Fixed	5.37	5.45	–0.08
Variable	4.96	5.09	–0.14
Machinery/ intermediate-term			
Fixed	5.56	5.64	–0.07
Variable	5.14	5.16	–0.02
Farm real estate			
Fixed	5.22	5.15	0.07
Variable	4.79	4.87	–0.08

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. Components may not sum to totals due to rounding.

Table 6

Special Questions

What percentage of your bank's farm loan portfolio currently falls into the following repayment classifications?

Average of responses	
No significant repayment problems	85.9
Minor repayment problems that can be remedied fairly easily	9.1
Major repayment problems requiring more collateral and/or long-term workouts	4.5
Severe repayment problems which will likely result in loan losses and/or require forced sales of borrower's real assets	0.5

For instances where the borrower's operating line of credit was not renewed this year, the primary reason was?

Share of total respondents	
The customer voluntarily reduced or exited farm operations	12.5
The borrower's financial condition declined significantly and no longer met existing bank credit standards	15.6
The borrower's financial condition was relatively unchanged but did not meet tightened bank credit standards	3.1
All operating lines were renewed this year	68.8

demand (112) in the third quarter. While the availability of loanable funds was down slightly in the second quarter (97), bankers expect levels in the next three months to be unchanged from a year ago (100). A worrisome development is that bankers expect the rate of loan repayment to slow further (76) in the third quarter. This is consistent with the significant decline expected for farm income over the same period (see Figure 3).

Table 5 presents average interest rates on fixed- and variable-rate loan products in the second quarter of 2015 as compared with the rates reported in the first quarter of 2015. Overall, interest rates declined across the majority of loan products. The average interest rate for variable-rate products declined across all three categories of loan products, from a low of 2 basis points (machinery/intermediate-term) to a high of 14 basis points (operating). Fixed interest rates also declined by close to 8 basis points for both operating and machinery/intermediate-term loans. Average fixed interest rates for farm real estate loans—the lone exception to the general downward trend—increased by 7 basis points.

Special Questions

Table 6 reports the results of two special questions we posed to our bankers for this survey. As substantiated by the general survey results, the District agribusiness industry continues to weather the ongoing decline in farm income and the resulting widespread cuts in expenditures by farm households and farm and ranch operations. A general worsening in the farm outlook would also be expected to increase the financial hardship for some farm operations. Consequently, the two special questions seek to assess the difficulty that District farmers are having meeting the terms of their loan agreements and accessing credit from agricultural banks.

Question one: The first question asked what percentage of a bank's farm loan portfolio currently falls into four different repayment classifications. For the average respondent, the majority of their farm loan portfolio (around 86 percent) has experienced no significant repayment problems. Close to 9 percent of the portfolio has had minor repayment problems that can be remedied fairly easily; 4.5 percent of farm loans in the portfolio have major repayment problems, requiring more collateral and/or long-term workouts. A very small share (0.5 percent) of the portfolio has severe repayment problems, which will likely result in loan losses or forced sales of the borrower's tangible assets.

Question two: The second special question asked for the primary reason for not renewing a borrower's operating line of credit. Close to 69 percent of bankers reported that the question was not relevant to them, as all operating lines were renewed this year. For 12.5 percent of respondents, customers voluntarily reduced or exited farm operations; 3.1 percent of banks reported that the borrower's financial conditions were relatively unchanged but they did not meet tightened bank credit standards. The remaining 15.6 percent reported that the borrower's financial conditions had declined significantly and no longer met existing bank credit standards.

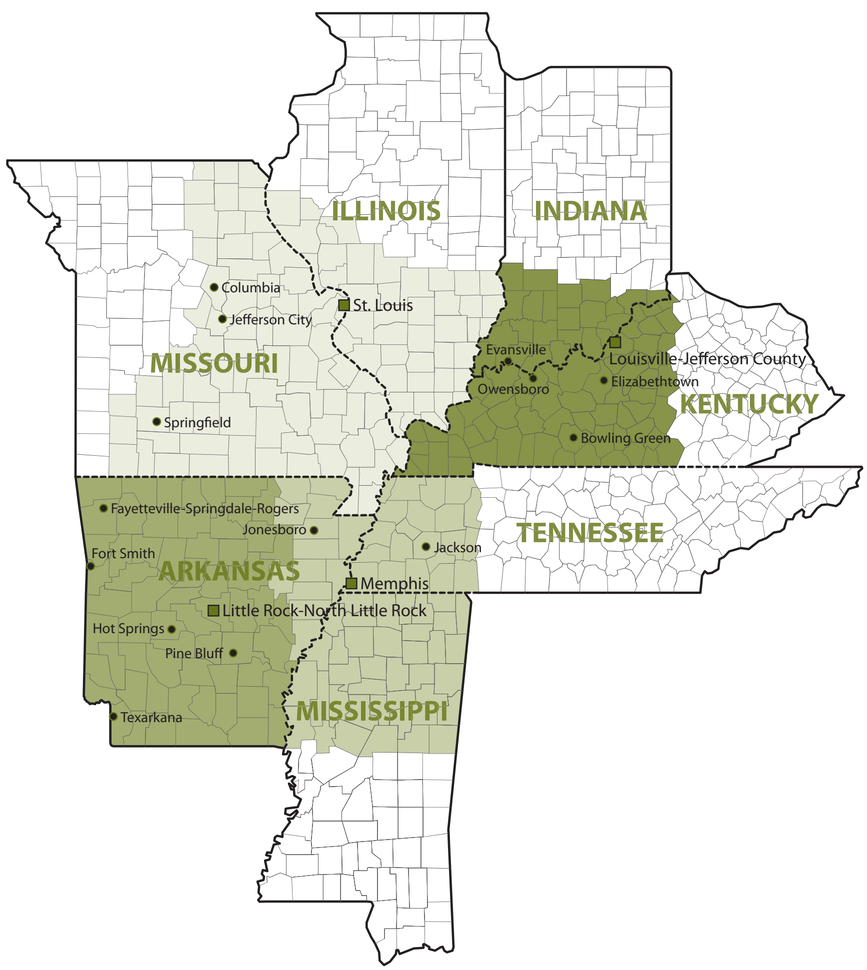
Overall, the majority of borrowers remain in good standing with their financial creditors—despite the relatively dour outlook in the farm sector. Still, a minor share of borrowers are finding it difficult to meet their financial obligations. ■

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 June 30, 2015, there were 247 banks in the Eighth Federal Reserve District that met these 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 have eliminated the zone-by-zone responses until the response rate improves.

[3] The annual percentage change in land values and cash rents are based on common responses. That is, a respondent must have been in both the 2015:Q2 and 2014:Q2 samples.



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