2016 ■ Third Quarter

AGRICULTURAL Finance Monitor

Selected Quotes from Banker Respondents Across the Eighth Federal Reserve District

The 2014 Farm Bill is proving to be inadequate as a "safety net" for southern agriculture: Farmers are carrying a major "account receivable" for 14 to 15 months. Most other types of businesses cannot survive under those conditions. Improved efficiency in the sector is the only reason most farmers have survived. (Arkansas)

Poultry firms have increased their "out time," which reduces the number of flocks per year. This development will reduce income and lead to some repayment challenges. (Arkansas)

Farmers generally keep current on longer-term debts at the expense of operating loans. Most farmers have equity to fall back on. I had a few borrowers with a 2015 carryover that we dealt with last winter. If crops are good, most farmers will barely get by. (Illinois)

We are still seeing farmland sales in our area of between $10,000 and $15,000 per acre. (Illinois)

The financially conservative farmer is probably going to survive during this period of low grain and cattle prices. The young farmers with very little equity are really going to struggle. It looks like the corn yields are coming in exceptionally high, which will help everyone pay expenses. I think there will be very little left to purchase land, machinery, and other equipment. (Missouri)

Crops are 100 percent better than last year. Most operating lines were rewritten last year because of extremely poor crops. Payments are expected to be made this year. We have not seen any good cropland sold in the area since last spring. (Missouri)

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

The eighteenth quarterly survey of agricultural credit conditions was conducted by the Federal Reserve Bank of St. Louis from September 15, 2016, through September 30, 2016. The results presented here are based on the responses from 34 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, particularly with respect to agricultural lending conditions. Users are also cautioned against drawing firm conclusions about longer-run trends in farmland values.[2]

Executive Summary

According to the latest survey of agricultural bankers in the Eighth Federal Reserve District, a solid majority reported that farm income declined in the third quarter of 2016 relative to a year ago. Consistent with previous surveys, proportionately more bankers continue to report that falling farm income is pressuring farmers to trim their household expenditures and farming- and ranching-related capital outlays. Given the difficulties in the farm sector, it is perhaps surprising that our survey results showed that quality farmland values were unchanged and ranch or pastureland values were up slightly from a year earlier in the third quarter. Nonetheless, cash rents for both quality farmland and ranch or pastureland declined modestly in the third quarter. Our survey results also revealed that demand for loans in the third quarter was a bit stronger than what was expected three months earlier, while the availability of funds mostly met expectations. Loan repayment rates were slower in the third quarter, but consistent with bankers' expectations from three months earlier. Our two special questions focused on those farmers who are experiencing loan repayment issues. According to our lender survey, the largest increase in repayment problems is for operating lines of credit. A majority of bankers believe that, in response, unpaid portions of operating lines of credit will require additional collateral to roll over this debt.

Survey Results

Farm Income and Expenditures

Survey results continue to show that a majority of bankers report a decrease in farm income compared with a year earlier. In the third quarter, the diffusion index of farm income was 41 (see Table 1). Although this was modestly higher than in the second quarter (24), the third-quarter survey was the eleventh consecutive quarter where the index of farm income was below 100. [NOTE: An index value of 100 would indicate that an equal percentage of bankers reported increases and decreases in farm income relative to a year earlier.] Expectations for the fourth quarter are slightly better (index value of 47), but proportionately more bankers continue to expect a decline in farm income from a year earlier. Bankers hold broadly similar views of farm household spending and farm capital expenditures. Namely, a majority of bankers continue to report declines in household spending and capital expenditures

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 2016. 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	
2016:Q3 (actual)	41
2016:Q4 (expected)	47
Household spending	
2016:Q3 (actual)	59
2016:Q4 (expected)	53
Capital spending	
2016:Q3 (actual)	34
2016:Q4 (expected)	26

NOTE: Actual and expected values for the indexes use all responses from the 2016:Q3 survey.

Table 2

Land Values and Cash Rents (year/year change)

	Percent or index value
Land values	
Quality farmland	0.0%
Expected 3-month trend	61
Ranchland or pastureland	1.1%
Expected 3-month trend	62
Cash rents	
Quality farmland	–6.1%
Expected 3-month trend	50
Ranchland or pastureland	–3.9%
Expected 3-month trend	58

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 2016:Q3 survey. Expected trends are presented as a diffusion index; see note above for details about interpreting diffusion indexes.

in the third quarter relative to a year earlier. As reflected in the smaller diffusion index, a slightly larger percentage of bankers expect that household spending and capital expenditures will also fall in the fourth quarter compared with a year earlier. Readers are cautioned that farm income is highly volatile and subject to seasonal fluctuations.

Current and Expected Land Values and Cash Rents

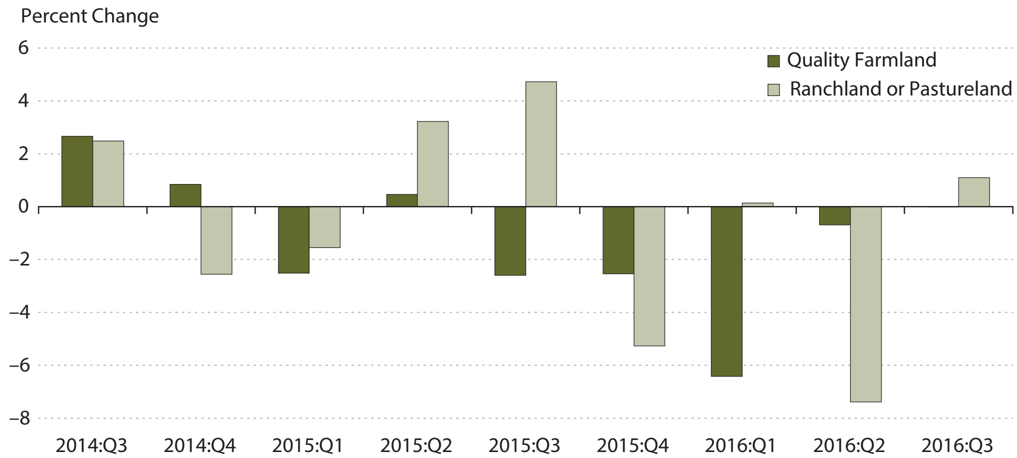
Trends in land values improved slightly in the third quarter according to the results of the survey reported in Table 2. Compared with four quarters earlier, quality farmland values in the Eighth District were unchanged in the third quarter. This compares favorably with the second quarter, when quality farmland values fell by 1 percent from a year earlier. Similarly, ranch or pastureland values rose 1.1 percent in the third quarter after falling by 7.4 percent in the second quarter. Still, proportionately more bankers expect values to decline over the next 3 months for both quality farmland and ranch or pastureland. By contrast, cash rents for quality farmland and ranch or pastureland fell by 6.1 percent and 3.9 percent, respectively, in the third quarter relative to a year earlier. Like land values, bankers expect that cash rents will decline in the fourth quarter.

Outcomes Relative to Previous-Quarter Expectations

Table 3 reports farm income, household expenditures, and several other key economic metrics in the third quarter relative to the expectations of agricultural bankers from the survey taken in the second quarter of 2016. [NOTE: For Table 3, we compute diffusion indexes using only those banks that responded to the first- and second-quarter surveys.] The results show that proportionately more bankers reported that farm incomes and capital expenditures declined in the third quarter compared with their expectations from three months earlier. However, as indicated by an expected value of 43 and actual value of 57,

Figure 1

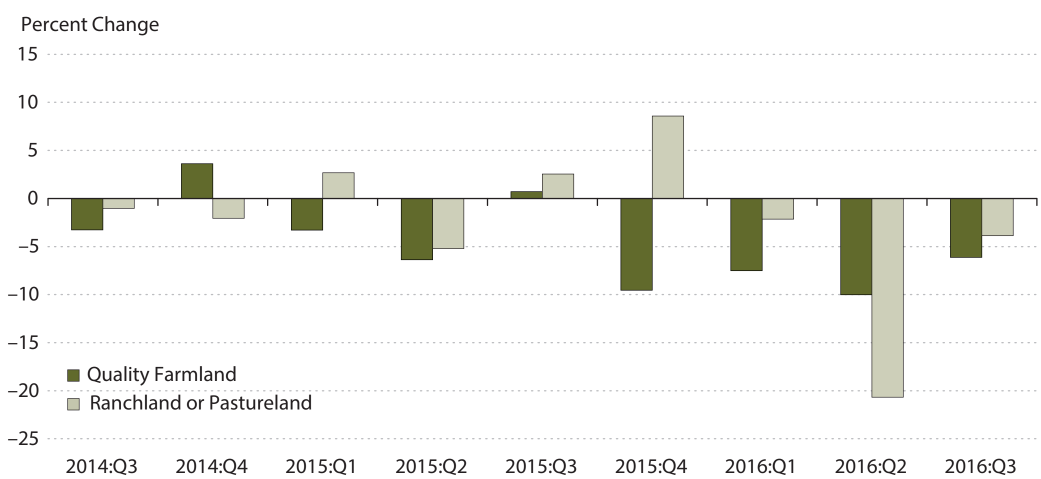
Year-Over-Year Change in Average Eighth District Land Values



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.

proportionately fewer bankers reported that household spending declined in the third quarter compared with their expectations from three months earlier. In terms of key financial indicators, bankers reported that the demand for loans in the third quarter was a bit stronger than expected from three months earlier, while the availability of funds was slightly less than expected. Loan repayment rates, however, were in line with expectations. Components displayed here may not sum to totals due to rounding.

Financial Conditions

Table 4 reports our survey respondents' assessment of current and prospective bank lending conditions in the Eighth District in the third and fourth quarters of 2016, respectively. [NOTE: Each assessment is relative to a year earlier.] As noted in previous surveys, the actual index values reported in Table 4 may differ from those reported in Table 3 because Table 4 uses all responses to the third quarter 2016 survey, instead of a common sample between

Table 3

2016:Q3 Variables (versus year-ago levels)

	Index value
Farm income	
Expected	52
Actual	33
Difference	–19
Household spending	
Expected	43
Actual	57
Difference	14
Capital spending	
Expected	26
Actual	21
Difference	–5
Demand for loans	
Expected	100
Actual	117
Difference	17
Availability of funds	
Expected	106
Actual	100
Difference	–6
Rate of loan repayment	
Expected	78
Actual	78
Difference	0

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	
2016:Q3 (actual)	100
2016:Q4 (expected)	121
Availability of funds	
2016:Q3 (actual)	100
2016:Q4 (expected)	93
Rate of loan repayment	
2016:Q3 (actual)	81
2016:Q4 (expected)	93

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 2016:Q3 survey.

the current and previous surveys. The results from Table 4 suggest that proportionately more bankers expect an increase in loan demand in the fourth quarter of 2016 relative to a year earlier (index value of 121). By contrast, the index value of loan demand was 100 in the third quarter, which indicated no change in demand from a year earlier. However, a slightly smaller percentage of bankers expect the availability of funds to decline in the fourth quarter of 2016 (index value of 93) compared with the third quarter (index value of 100). Although the index of loan repayment rates expected in the fourth quarter (93) is larger than that reported in the third quarter (81), the majority of respondents still report that loan repayment rates remain below year-earlier levels.

Table 5 presents average interest rates on fixed- and variable-rate loan products in the second and third quarters of 2016. Interest rates on fixed-rate operating loans were unchanged in the third quarter, while rates on fixed-rate loans for machinery and other intermediate-term investments fell 5 basis points in the third quarter. By contrast, fixed-rate farm real estate loans rose by a healthy 25 basis points in the third quarter to an average of 5.37 percent. For variable-rate loan products, rates fell modestly for operating loans, but increased slightly for machinery and other intermediate-term investments and farm real estate loans.

Special Questions

Table 6 reports the results of two special questions that we posed to our agricultural bankers. Given recent declines in farm incomes, we asked bankers about their expectations for loan repayment problems with their borrowers and how these problems were likely to be resolved. The first question asked bankers to identify which loan categories were expected to have the largest increase in repayment problems. More than half of bankers (59 percent) reported that operating loans were expected to have the largest repayment problems; 13 percent of bankers identified machinery and equipment loans as an area of concern. However, nearly one in five bankers (19 percent) reported that they anticipated no increase in loan repayment problems.

The second question asked bankers about the likely outcome they expect for borrowers who are experiencing loan repayment problems. A little more than half of respon-

Figure 3
Farm Income: Expected and Actual Values

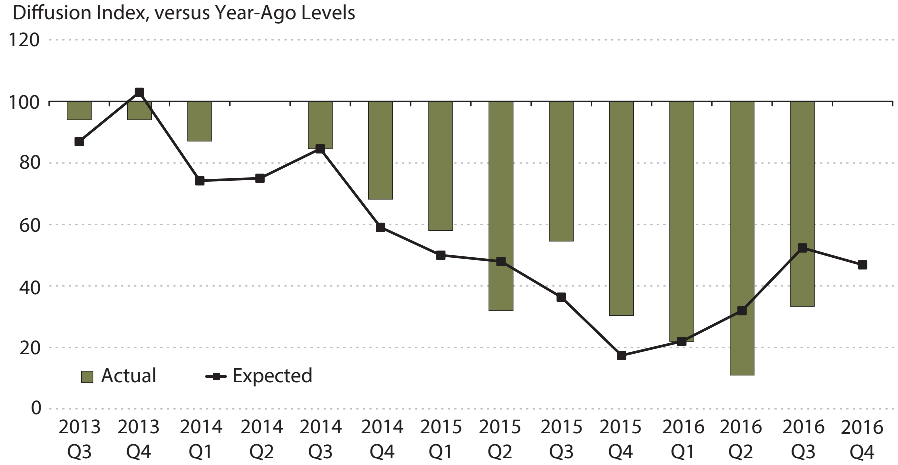


Figure 4
Household Spending: Expected and Actual Values

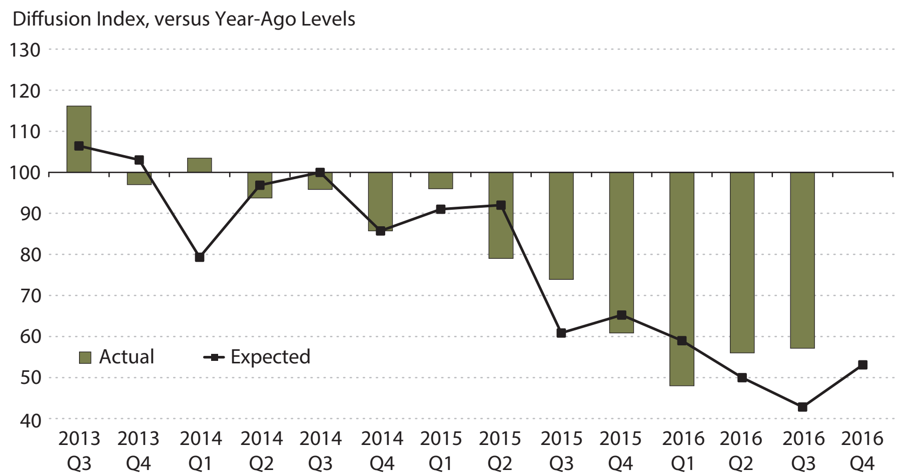
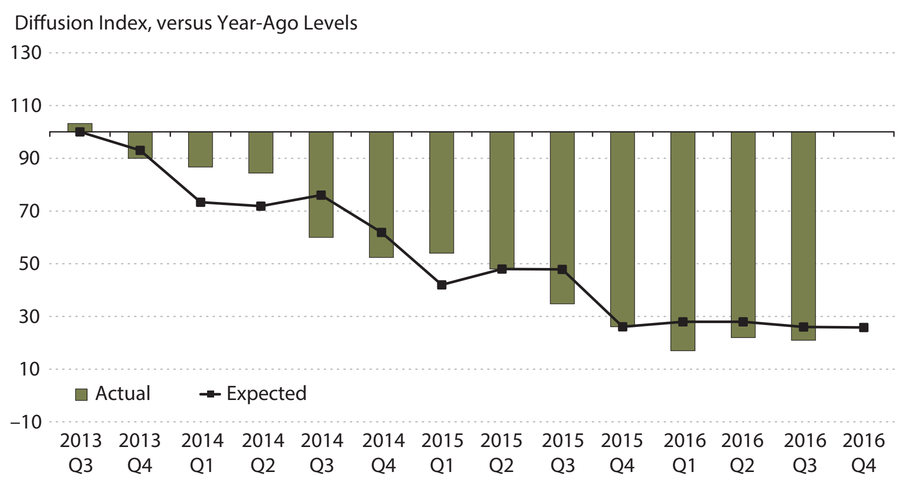


Figure 5
Capital Spending: Expected and Actual Values



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 2016:Q4 are calculated using only the responses from the 2016:Q3 survey. There is no actual value (and hence no bar) for the final quarter shown in this figure. For all previous quarters, if no bar is shown, the actual value is 100.

Figure 6

Demand for Loans: Expected and Actual Values

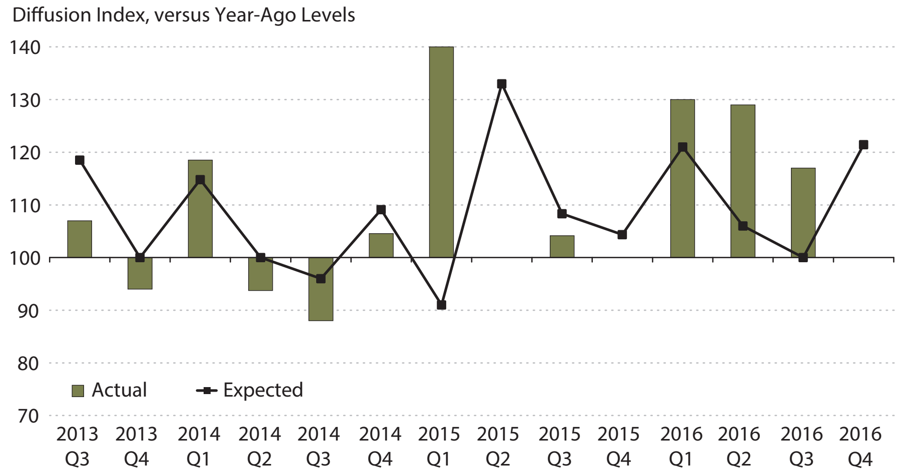


Figure 7

Availability of Funds: Expected and Actual Values

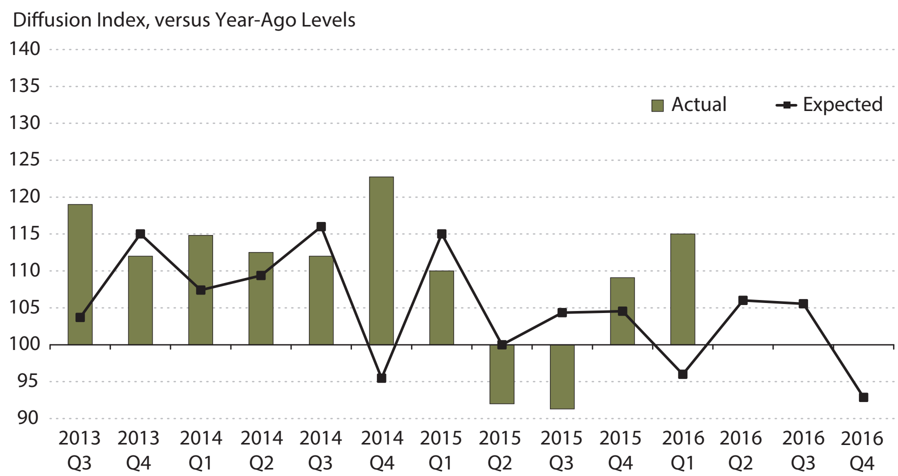
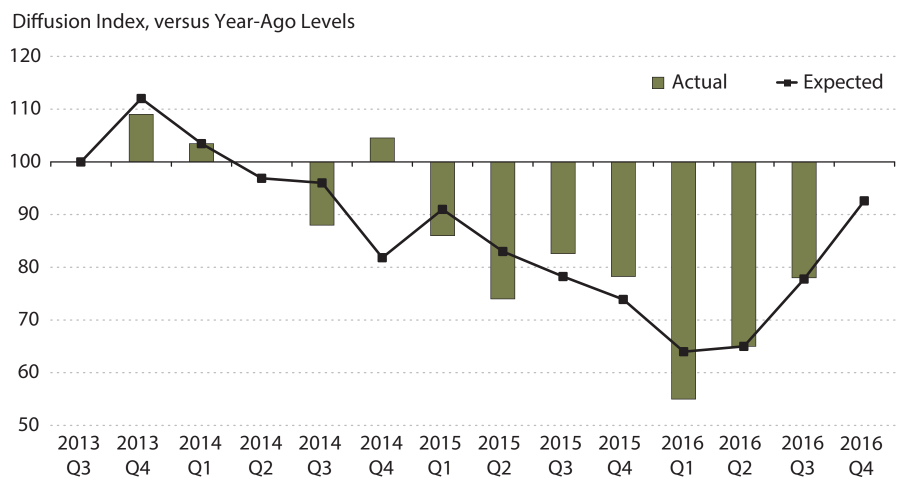


Figure 8

Rate of Loan Repayment: Expected and Actual Values



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 2016:Q4 are calculated using only the responses from the 2016:Q3 survey. There is no actual value (and hence no bar) for the final quarter shown in this figure. For all previous quarters, if no bar is shown, the actual value is 100.

Table 5

Interest Rates (%)

	2016:Q3	2016:Q2	Change
Operating			
Fixed	5.55	5.55	0.00
Variable	5.05	5.09	–0.04
Machinery/ intermediate-term			
Fixed	5.65	5.70	–0.05
Variable	5.35	5.28	0.07
Farm real estate			
Fixed	5.37	5.12	0.25
Variable	5.01	4.97	0.04

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.

dents (53 percent) reported that borrowers will be forced to put up additional collateral to cover the unpaid portion of their operating line of credit. A little more than one in five bankers (22 percent) believe that some belt-tightening will be required, but with no defaults expected; 19 percent of bankers expect to see a longer-term workout with their existing borrower. Only 3 percent of bankers expect their borrowers to refinance with another lender, while 3 percent expect their borrowers to reduce the size of their operations or exit the farming industry. ■

Table 6

Special Questions

Which of these loan categories do you expect will have the largest increase in repayment problems?

Percent of respondents	
Operating lines of credit	59
Machinery and equipment loans	13
Real estate loans	9
Loans made for farm household expenses	0
No increase in problems expected	19
	100

Which of these statements do you feel best characterizes the expected near-term outcome for borrowers who are experiencing problems?

Percent of respondents	
Belt tightening, but no defaults	22
Collateralizing unpaid portions (carryover) of operating lines	53
Long-term workout with existing lender	19
Refinancing with another lender	3
Reducing size of operations or exiting farming	3
	100

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 September 30, 2016, there were 252 banks in the Eighth Federal Reserve District that met the criteria.

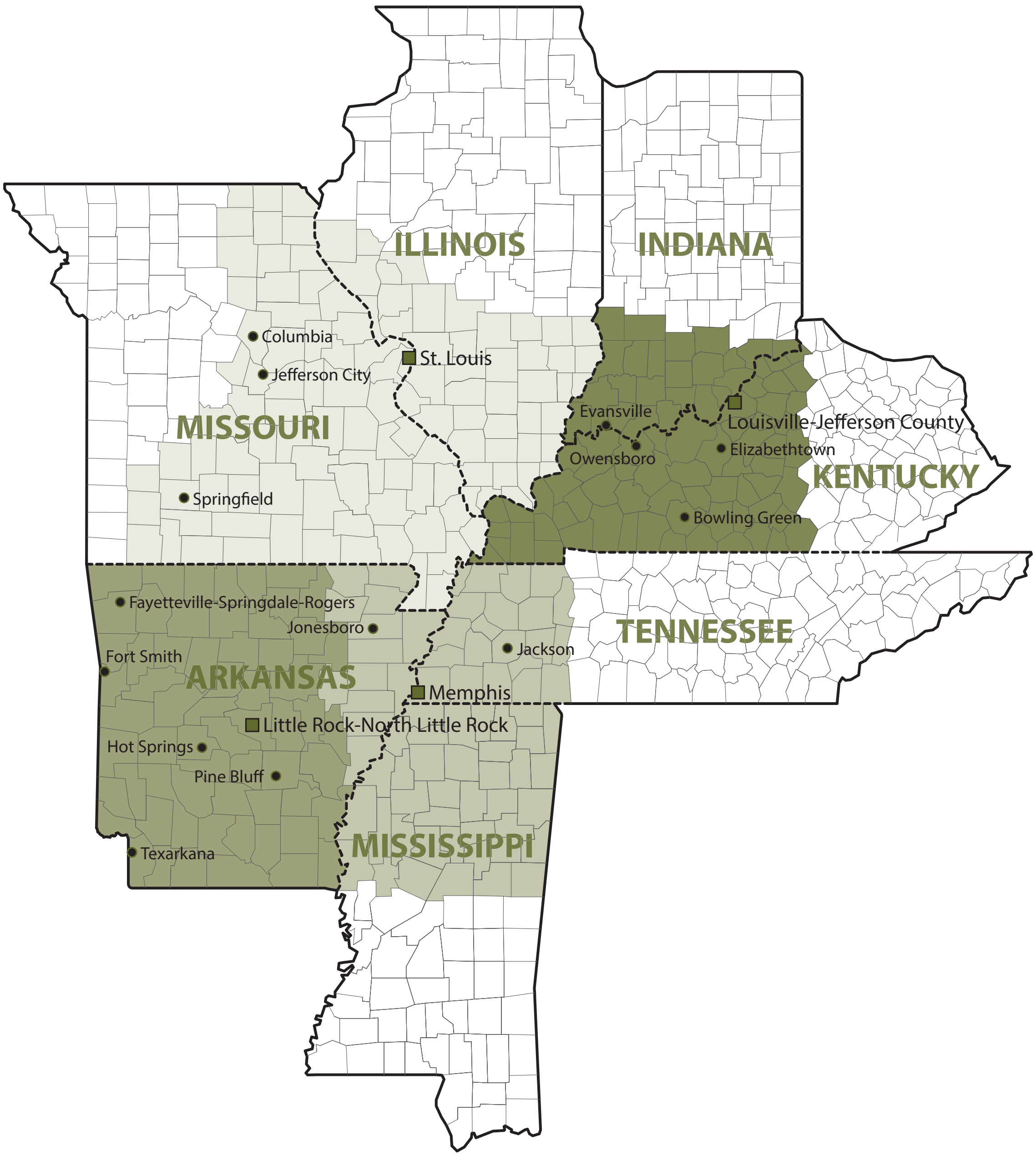
[2] Readers are also cautioned that the number of responses in each zone is relatively small. Statistically, this tends to suggest that the responses in each zone have a larger plus-or-minus margin of error than for the District as a whole. We have eliminated the zone-by-zone responses until the response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

The survey is produced by staff at the Federal Reserve Bank of St. Louis: Larry D. Sherrer, Senior Examiner, Banking Supervision and Regulation Division; Jonas Crews and Brian Levine, Research Associates; 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.

Posted on November 10, 2016


ILLINOIS
INDIANA
MISSOURI
KENTUCKY
TENNESSEE
ARKANSAS
MISSISSIPPI
Columbia
St. Louis
Jefferson City
Springfield
Evansville
Owensboro
Louisville-Jefferson County
Elizabethtown
Bowling Green
Fayetteville-Springdale-Rogers
Jonesboro
Fort Smith
Jackson
Memphis
Little Rock-North Little Rock
Hot Springs
Pine Bluff
Texarkana