2019 ■ Third Quarter

AGRICULTURAL Finance Monitor

Selected Quotes from Banker Respondents Across the Eighth Federal Reserve District

Poultry integrators are still expanding but at a slower rate. Supplies of corn and other feed grains will affect their margins, which will affect both expansion plans and production and thus could affect farm income. (Arkansas)

The receipt of 2019 Market Facilitation Program payments have helped offset low commodity prices. Present prices are below the projections formulated at the beginning of the year. (Arkansas)

Primary concerns: low commodity prices and extremely high production costs associated with fertilizer, chemicals, and seeds (Mississippi)

The low price of grain and the falling price of cattle are going to make it hard on low-leveraged farmers and almost impossible for young, highly leveraged farmers. (Missouri)

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

The thirtieth quarterly survey of agricultural credit conditions was conducted by the Federal Reserve Bank of St. Louis from September 15, 2019, through September 30, 2019. The results presented here are based on responses from 20 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

The results of this quarter's survey reflect agricultural finance conditions in the Eighth Federal Reserve District during the third quarter of 2019. For the twenty-third consecutive quarter, a solid majority of bankers reported a decline in farm income compared with the same period a year ago. Moreover, bankers expect farm income to decline again next quarter compared with the same period last year. Similar to recent surveys, proportionately more bankers reported that farm household spending and capital spending declined in the third quarter relative to a year ago. They expect these two expenditure categories to decline again in the fourth quarter as well. Quality farmland values fell 1.7 percent in the third quarter from a year earlier, and a slight majority of bankers expect farmland values to decline further over the next three months (fourth quarter of 2019). By contrast, ranchland or pastureland values rose sharply and were reported to be up 10.6 percent from a year earlier; a slight majority of bankers expect ranchland or pastureland values to increase further over the next three months. Cash rents for quality farmland and for ranchland or pastureland rose modestly in the third quarter, but a majority of bankers expect rents to decline over the next three months. Similar to the second-quarter responses, proportionately more bankers reported an increase in loan demand and a decrease in the availability of funds in the third quarter relative to a year ago. Proportionately more bankers reported a decline in the rate of loan repayment in the third quarter. Bankers reported that, compared with the second quarter, interest rates were lower across all loan types in the third quarter. This quarter's survey asked two special questions—one about loan repayment expectations and another about the type of workout arrangement for borrowers having financial difficulties. The first question found that bankers expect operating lines of credit will have the largest increase in repayment problems. Regarding potential workout arrangements, borrowers collateralizing unpaid portions of their operating lines of credit or making a long-term workout with their existing lenders garnered the largest responses from the bankers.

In the survey, bankers are regularly 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 2019. 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. We reasonably interpret a "remain constant" response as half a "decrease" response and half an "increase" response. Hence, index values from 0 to 99 indicate a majority witnessed/expected decreases; index values from 101 to 200 indicate a majority witnessed/expected increases; and an index value of 100 indicates an even split. More specifically, lower index values indicate proportionately more bankers witnessed/expected decreases.

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	
2019:Q3 (actual)	53
2019:Q4 (expected)	59
Household spending	
2019:Q3 (actual)	84
2019:Q4 (expected)	76
Capital spending	
2019:Q3 (actual)	58
2019:Q4 (expected)	76

NOTE: Actual and expected values for the indexes use all responses from the 2019:Q3 survey.

Table 2

Land Values and Cash Rents (year/year change)

	Percent or index value
Land values	
Quality farmland	–1.7%
Expected 3-month trend	94
Ranchland or pastureland	10.6%
Expected 3-month trend	107
Cash rents	
Quality farmland	0.9%
Expected 3-month trend	82
Ranchland or pastureland	3.7%
Expected 3-month trend	87

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 2019:Q3 survey. Expected trends are presented as a diffusion index; see the note above for details about interpreting diffusion indexes.

Survey Results

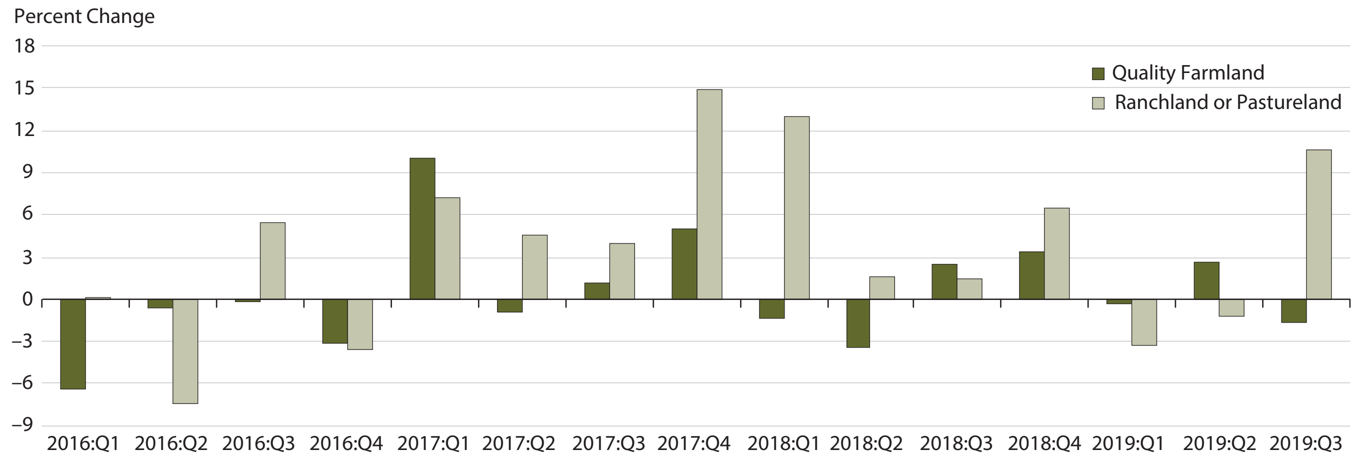
Farm Income and Expenditures

Survey results indicate that proportionately more bankers continue to report year-over-year declines in farm income. This is reflected in the diffusion index value of 53 displayed in Table 1. In a bit of good news, the current-quarter's diffusion index is markedly higher than the previous quarter's (29). [NOTE: An index value of 100 would indicate an equal percentage of bankers reported increases and decreases in farm income relative to a year earlier.] A similar percentage of bankers expect that farm income in the fourth quarter will also be lower compared with a year earlier (59). The diffusion index for household spending (84) was appreciably higher than those for farm income and capital spending (58)—though still below 100. Given their outlook for farm income in the fourth quarter, proportionately more bankers expect household spending and capital spending to also decline in the fourth quarter from a year earlier. Readers are reminded that farm income is highly volatile and subject to seasonal fluctuations. Readers are also reminded that the index values in Table 1 are based on all responses received for the third quarter and therefore can differ from the values reported in Figures 3 to 5. [See note at the bottom of Figure 8.]

Current and Expected Land Values and Cash Rents

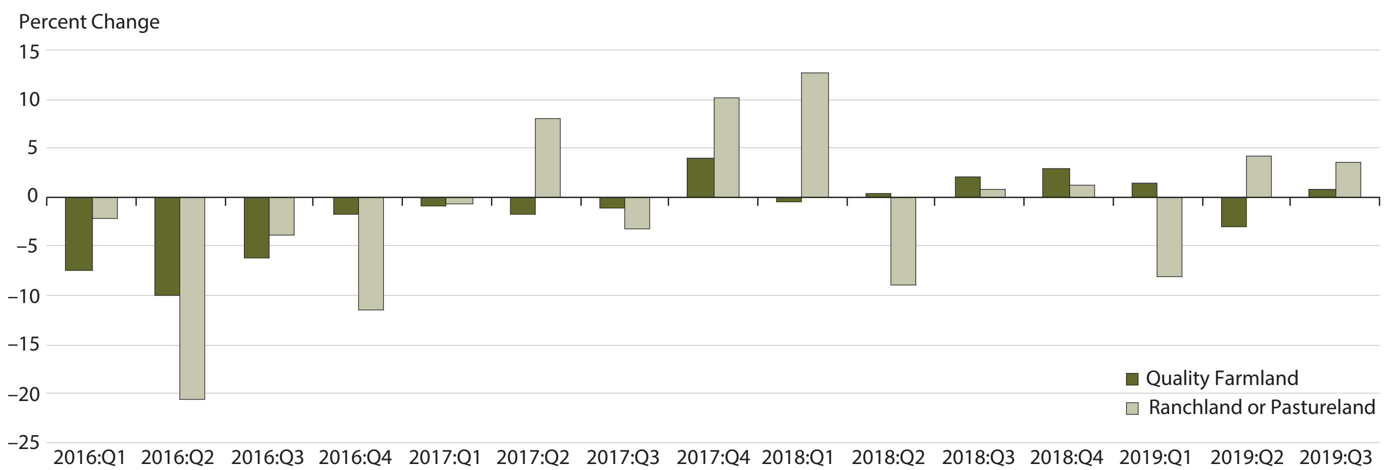
Table 2 shows current-quarter percent changes in land values and cash rents relative to a year earlier and bankers' expectations for the next three months. After increasing by 2.6 percent in the second quarter, quality farmland values fell by 1.7 percent in the third quarter. This was the

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.

second decline in the past three quarters. By contrast, land values for ranchland or pastureland rose by nearly 11 percent in the third quarter after falling by 1.2 percent in the second quarter. On average, bankers reported that cash rents for quality farmland inched up by 0.9 percent in the third quarter, while rents for ranchland or pastureland rose by a healthy 3.7 percent. As seen by the index values in Table 2, proportionately more bankers expect that values for quality farmland will fall further in the fourth quarter relative to a year ago (an index value below 100), while a slight majority of bankers expect that values for ranchland or pastureland will increase over the next three months. Proportionately more bankers expect that cash rents for all types of land are expected to decline over the next three months.

Outcomes Relative to Previous-Quarter Expectations

Table 3 reports diffusion indexes for farm income, household spending, capital spending, and three bank-related metrics for the third quarter of 2019 compared with the values that bankers had expected three months earlier (2019 second-quarter survey). [NOTE: For Table 3, we compute diffusion indexes using only those banks that responded to the 2019 second-quarter survey and the cur-

Table 3

2019:Q3 Variables (versus year-ago levels)

	Index value
Farm income	
Expected	50
Actual	50
Difference	0
Household spending	
Expected	79
Actual	86
Difference	7
Capital spending	
Expected	54
Actual	62
Difference	8
Demand for loans	
Expected	114
Actual	121
Difference	7
Availability of funds	
Expected	100
Actual	86
Difference	–14
Rate of loan repayment	
Expected	69
Actual	77
Difference	8

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	
2019:Q3 (actual)	110
2019:Q4 (expected)	118
Availability of funds	
2019:Q3 (actual)	85
2019:Q4 (expected)	88
Rate of loan repayment	
2019:Q3 (actual)	74
2019:Q4 (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 indexes use all responses from the 2019:Q3 survey.

Table 5

Interest Rates (%)

	2019:Q3	2019:Q2	Change
Operating			
Fixed	6.16	6.27	–0.10
Variable	6.06	6.28	–0.22
Machinery/ intermediate-term			
Fixed	6.30	6.40	–0.10
Variable	6.15	6.17	–0.02
Farm real estate			
Fixed	6.10	6.17	–0.07
Variable	5.83	5.94	–0.12

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.

rent survey.] In general, the findings from Table 3 are heartening: The actual diffusion indexes for household spending, capital spending, demand for loans, and the rate of loan repayment were higher than bankers had expected three months earlier. By contrast, the diffusion index for the availability of funds in the third quarter was lower than expected three months earlier.

Financial Conditions

Table 4 reports our survey respondents' assessment of bank lending conditions in the Eighth District in the third quarter and their expectations for the fourth quarter of 2019. As noted in previous surveys, the actual index values for third-quarter values reported in Table 4 may differ from those reported in Table 3. The reason is that Table 4 uses all responses from the 2019 third-quarter survey, instead of a common sample between the current and previous surveys. Proportionately more bankers reported an increase in the demand for loans in the third quarter (110) compared with a year earlier. Moreover, as indicated by a modestly higher diffusion index (118), bankers expect loan demand to also increase in the fourth quarter. By contrast, proportionately more bankers reported that the

Figure 3

Farm Income: Expected and Actual Values

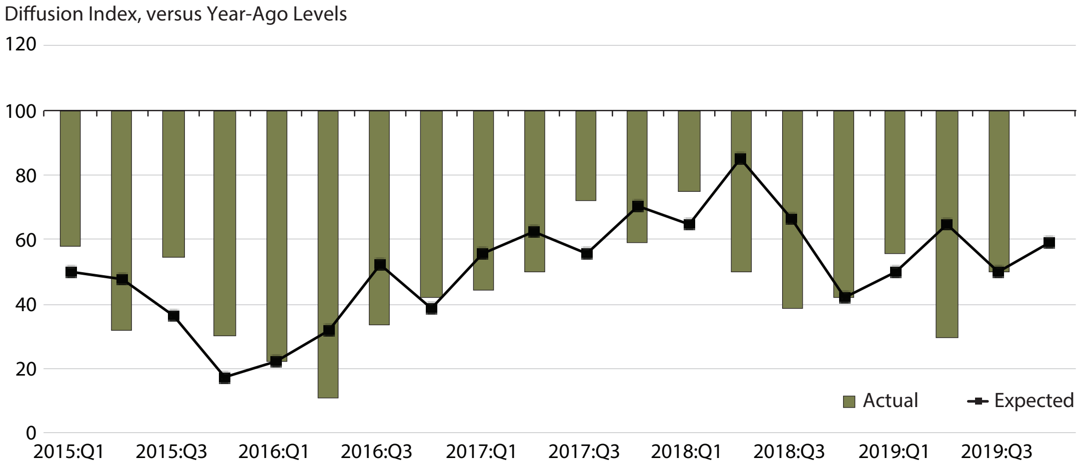


Figure 4

Household Spending: Expected and Actual Values

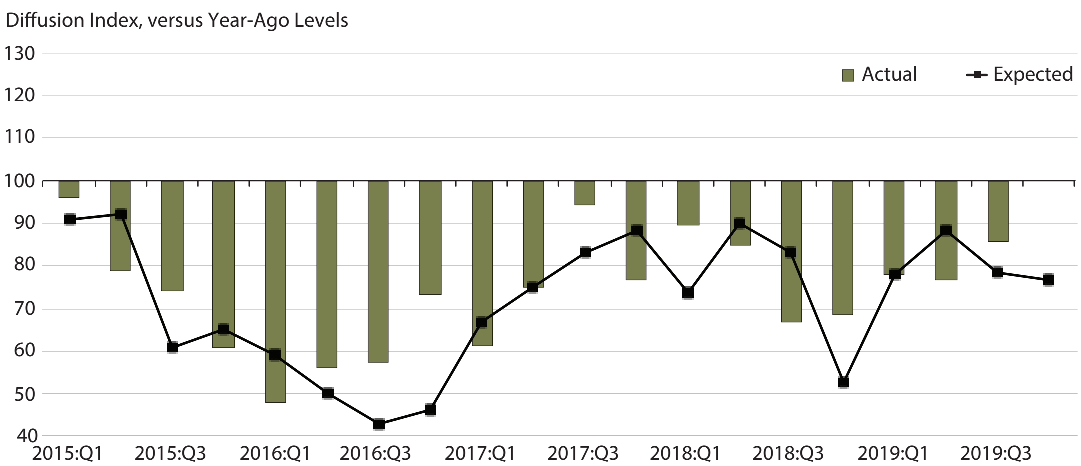
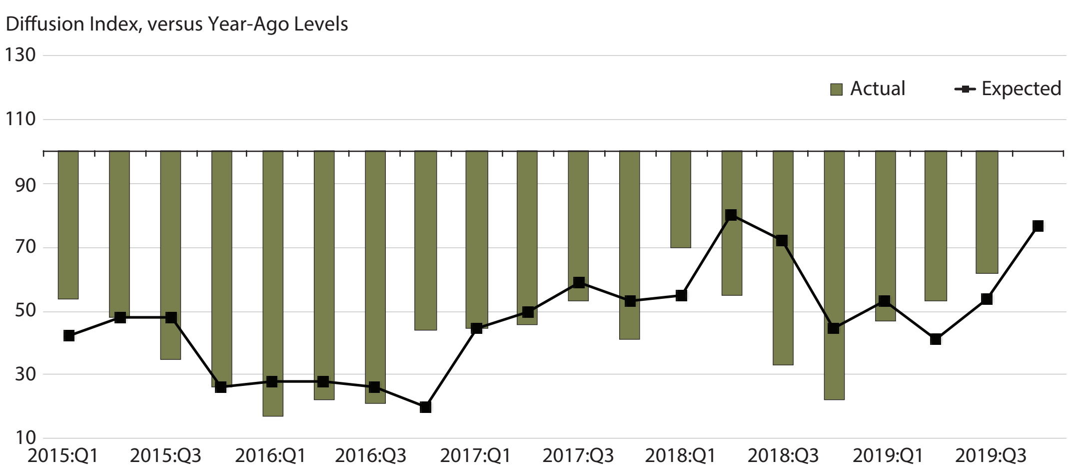


Figure 5

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 indexes in 2019:Q4 are calculated using only the responses from the 2019:Q3 survey. There is no actual value (and hence no bar) for the final quarter shown in each figure. For all previous quarters, if no bar is shown, the actual value is 100.

Figure 6

Demand for Loans: Expected and Actual Values

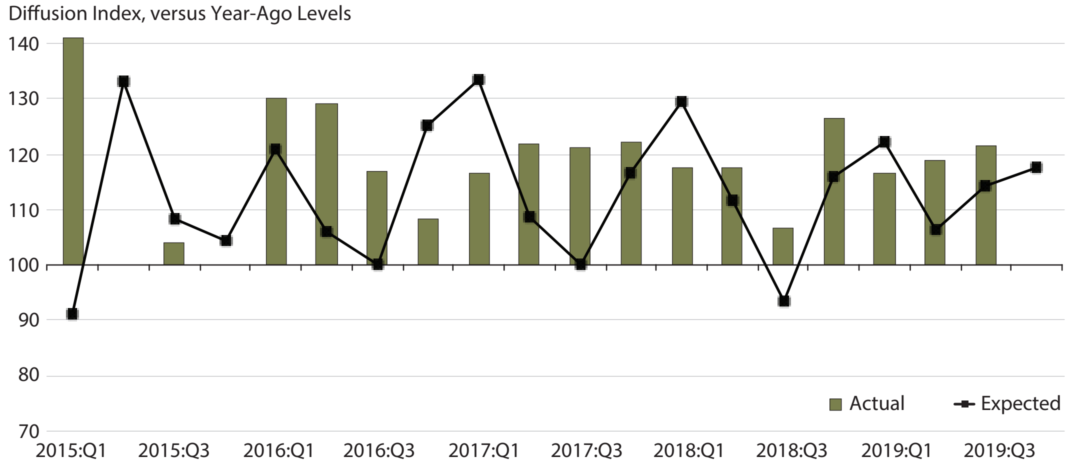


Figure 7

Availability of Funds: Expected and Actual Values

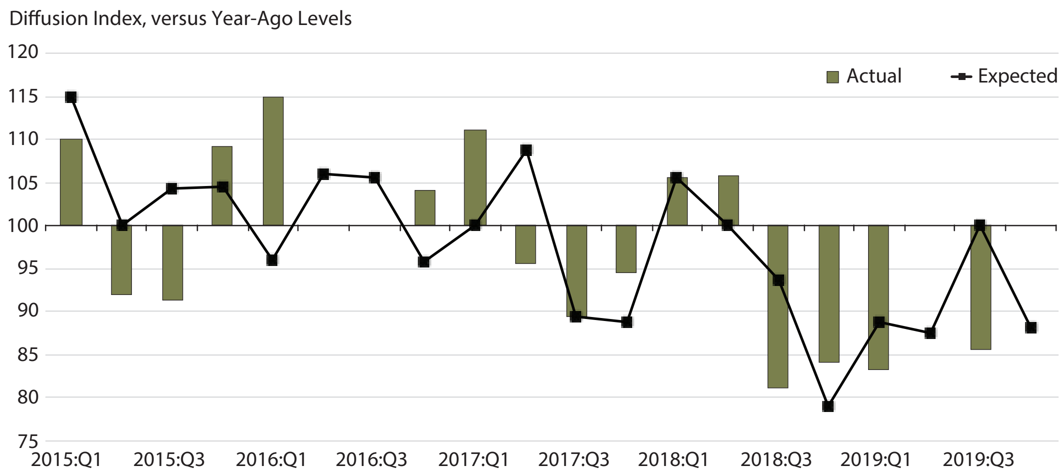
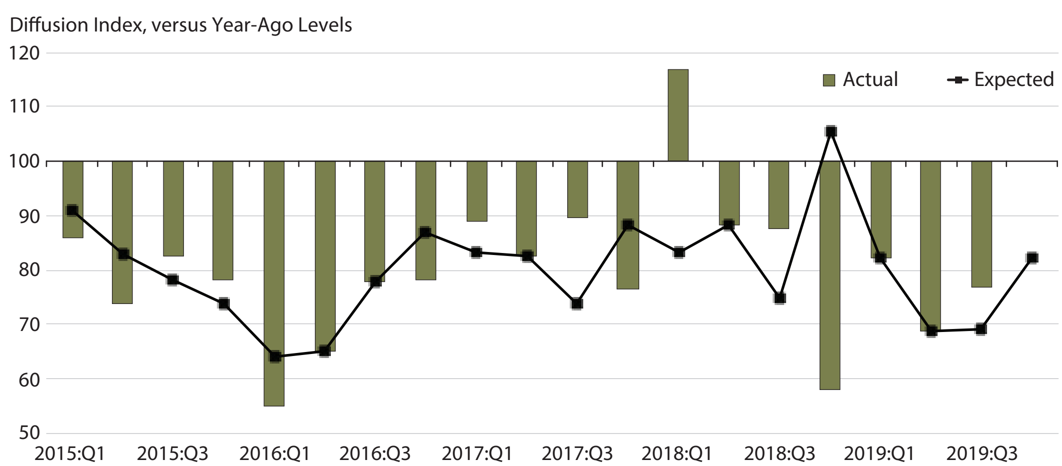


Figure 8

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 indexes in 2019:Q4 are calculated using only the responses from the 2019:Q3 survey. There is no actual value (and hence no bar) for the final quarter shown in each figure. For all previous quarters, if no bar is shown, the actual value is 100.

availability of funds declined in the third quarter and a majority of bankers expect it to further decline in the fourth quarter as well. A similar narrative exists for the rate of loan repayment: Proportionately more bankers reported that the rate of loan repayment declined in the third quarter relative to a year earlier, and a majority of bankers expect the rate to decline again in the fourth quarter.

Table 5 presents average interest rates on fixed- and variable-rate loan products in the second and third quarters of 2019. Bankers indicated that interest rates in the third quarter were lower on all types of loan categories compared with the previous quarter. Interest rates on variable-rate operating loans fell the most, 22 basis points, while interest rates on variable-rate machinery/intermediate-term loans fell the least, 2 basis points. Across the three loan types, the average decline in fixed-rate loans was 9 basis points in the third quarter, while the average decline in variable-rate loans was 12 basis points.

Special Questions

Table 6 reports the results of two special questions posed to our agricultural bankers. The first special question asked them which types of loans they expect will have the largest increase in repayment problems. A little less than three-quarters of respondents (70 percent) expect that the largest increase in repayment problems will be for operating lines of credit. A fifth of the bankers expect no repayment problems, while relatively few expect repayment problems with machinery and equipment loans (5 percent) and real estate loans (5 percent). We asked the same question four quarters earlier, and the responses are broadly similar.

The second question asked bankers about the likely outcome they expect for borrowers experiencing loan repayment problems. A little more than a third of respondents (35 percent) expect that borrowers will be forced to put up additional collateral to cover the unpaid portion of their operating line of credit. The same percentage of bankers (35 percent) expect borrowers to make a long-term workout with their existing lenders, with another 25 percent reporting that borrowers will need to do some belt tightening, but with no defaults expected. Only 5 percent expect their borrowers to reduce the size of their operations or exit the farming industry. We asked this question three years ago (2016:Q3), and there were two significant changes. First, with this survey (2019:Q3) there was a sizable increase in the percentage of bankers expecting borrowers to make a long-term workout with their lenders (35 percent today versus 19 percent three years ago). Second, there has been a sizable decrease in the percentage expecting increased collateral and a carryover of operating lines of credit (35 percent today versus 53 percent three year ago). ■

Table 6

Special Questions

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

	Percentage of respondents
Operating lines of credit	70
Machinery and equipment loans	5
Real estate loans	5
Loans made for farm household expenses	0
No increase in problems expected	20

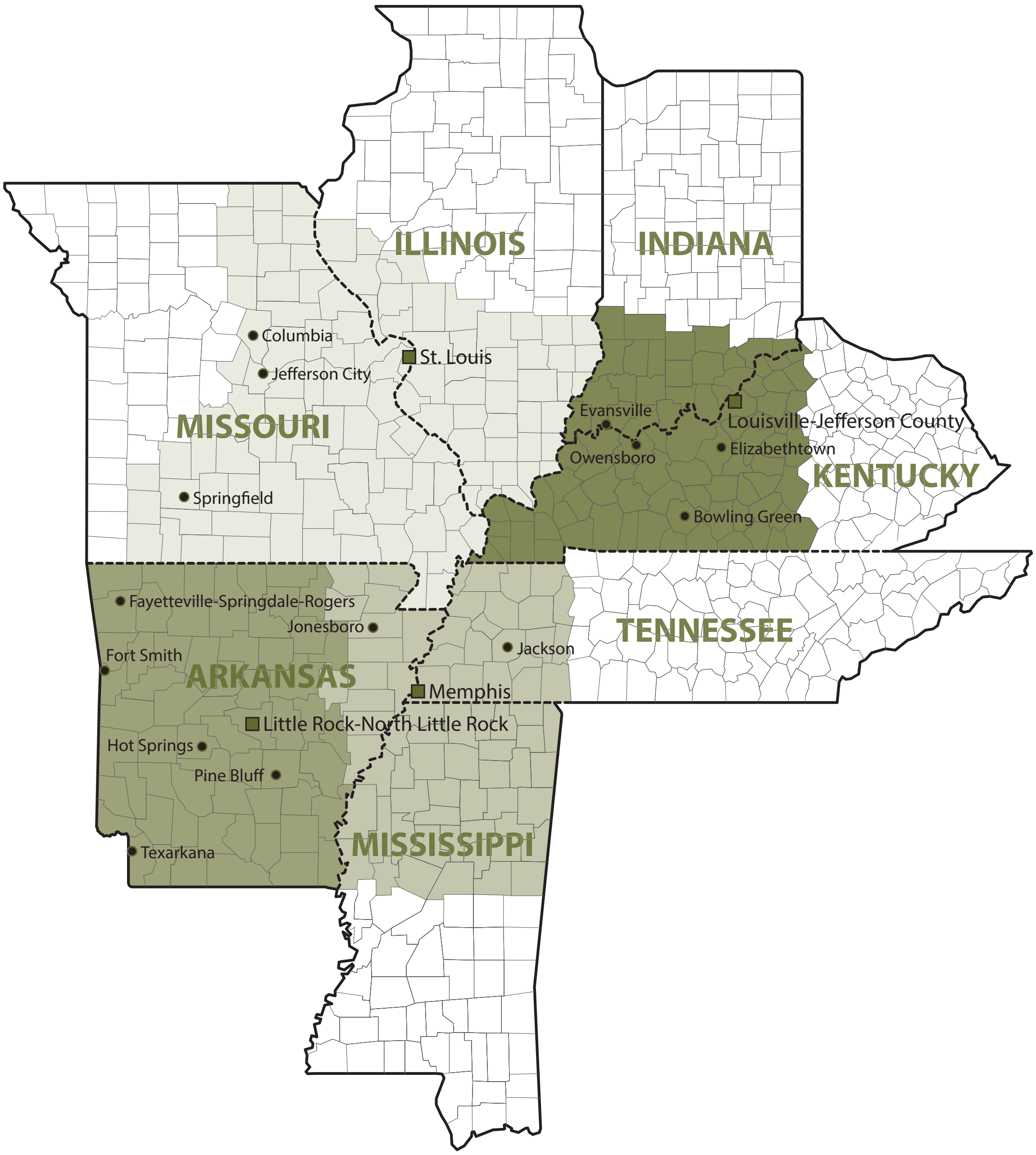
Which of these statements do you feel best characterizes the expected near-term outcome for borrowers who are experiencing problems?

	Percentage of respondents
Belt tightening, but no defaults	25
Collateralizing unpaid portions (carryover) of operating lines	35
Long-term workout with existing lender	35
Refinancing with another lender	0
Reducing size of operations or exiting farming	5

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, 2019, there were 222 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 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; Kathryn Bokun, 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.

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