2017 ■ Third Quarter

AGRICULTURAL Finance Monitor

Selected Quotes from Banker Respondents Across the Eighth Federal Reserve District

Because poultry integrators are placing birds on schedule, poultry farm income remains consistent. Forage production has been good the entire season, so winter hay supply should be adequate. (Arkansas)

Input prices have not dropped in tandem with lower commodity prices. (Missouri)

This bank has seen a large increase in the amount paid for recreational land, which has limited income possibilities, up to 160 acres. Recreational land will sell for more than average pasture land, particularly if next to a hard surface road. (Missouri)

Early reports of corn yields are good. However, corn prices are very low. Repayment of operating lines will depend on amounts of contracts and if contracted prices are higher than the current market price. Cash flow is projected to be really tight. Should prices continue at their current low levels, prices of crop land and capital expenditures will continue to decline. (Tennessee)

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

The twenty-second quarterly survey of agricultural credit conditions was conducted by the Federal Reserve Bank of St. Louis from September 15, 2017, through September 30, 2017. The results presented here are based on the responses from 29 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

According to the latest survey of agricultural bankers in the Eighth Federal Reserve District, farm income declined during the third quarter of 2017 compared with a year earlier. Bankers were modestly more optimistic when asked about the prospects for farm income in the fourth quarter. Compared with their expectations registered in the second-quarter survey, proportionately more bankers reported that the demand for loans, the rate of loan repayment, and farm income were stronger than they initially expected. Quality farmland values rose 1.1 percent in the third quarter from a year earlier, while ranchland and pastureland values increased by slightly more, 4 percent. By contrast, cash rents fell in the third quarter. In the third quarter of 2017, proportionately more bankers reported an increased demand for loans. However, proportionately more bankers also reported a decline in the availability of funds and in the rate of loan repayment. Compared with the second-quarter averages, interest rates were modestly higher among most loan categories in the third quarter, regardless of whether the loans were fixed rate or variable rate. This issue contained three special questions. The first question asked about loan repayment problems. Nearly 60 percent of bankers reported that operating loans (lines of credit) were expected to have the largest repayment problems, while nearly a quarter of respondents reported no expected increase in repayment problems. The second question asked about the performance of loans that have been restructured in the past year. Nearly 70 percent of respondents reported that the restructuring has been in line with expectations. Finally, the third question asked our agricultural bankers to identify the types of online services offered to their customers. Sizable majorities of banks offer a variety of online services to their customers.

Survey Results

Farm Income and Expenditures

Consistent with the past several surveys, proportionately more bankers continue to report year-over-year declines in farm income. In the third quarter, the diffusion index registered a value of 58 and marks the 15th consecutive quarter with a value below 100. [NOTE: An index value of 100 would indicate an equal percentage of bankers reported increases and decreases in

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 2017. 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	
2017:Q3 (actual)	58
2017:Q4 (expected)	63
Household spending	
2017:Q3 (actual)	92
2017:Q4 (expected)	80
Capital spending	
2017:Q3 (actual)	44
2017:Q4 (expected)	56

NOTE: Actual and expected values for the indexes use all responses from the 2017:Q3 survey.

Table 2

Land Values and Cash Rents (year/year change)

	Percent or index value
Land values	
Quality farmland	1.1%
Expected 3-month trend	89
Ranchland or pastureland	4.0%
Expected 3-month trend	100
Cash rents	
Quality farmland	–1.2%
Expected 3-month trend	77
Ranchland or pastureland	–3.2%
Expected 3-month trend	86

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 2017:Q3 survey. Expected trends are presented as a diffusion index; see the note above for details about interpreting diffusion indexes.

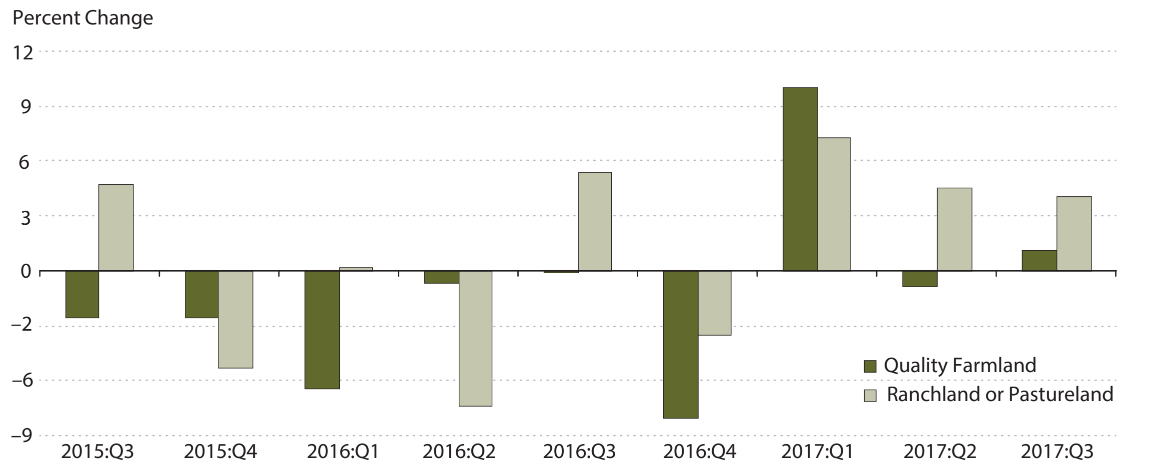
farm income relative to a year earlier.] The value for the current quarter is a modest improvement from the value of 50 reported in the second quarter of 2017. Bankers were modestly more optimistic when asked about the prospects for farm income in the fourth quarter, yielding a diffusion index of 63. The percentage of bankers reporting that household spending fell in the third quarter was only slightly larger than those reporting increased spending (diffusion index of 92). However, the index value is projected to fall slightly to 80 in the fourth quarter, signaling some erosion in the prospects for farm household spending. Given recent and prospective trends in farm incomes, appreciably more bankers reported declines in capital spending from a year earlier than increases (diffusion index of 44). The index of expected capital spending in the fourth quarter was modestly higher at 56. (See Table 1 and Figures 3 to 5.) 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 survey and thus 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 reports changes in current-quarter land values and cash rents as well as banker expectations for the trend in land values and cash rents over the following three months. Measured from a year earlier, quality farmland values rose 1.1 percent in the third quarter, while ranchland and pastureland values increased slightly more, 4 percent. By contrast, cash rents fell in the third quarter from a year earlier. Cash rents for quality farmland fell by 1.2 percent, and rents for ranchland and pastureland fell by 3.2 percent.

Figure 1

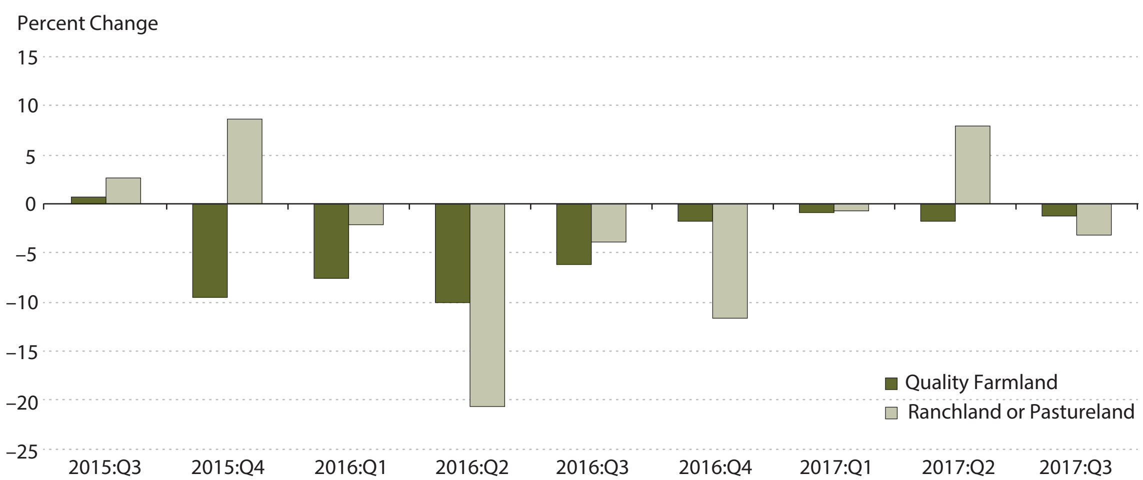
Year-Over-Year Change in Average Eighth District Land Values



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.

Looking forward, proportionately more bankers expect that quality farmland values will decline in the fourth quarter from a year earlier (diffusion index of 89); however, bankers are divided on the near-term outlook for ranchland and pastureland (diffusion index of 100). Regarding the outlook for cash rents over the next three months, proportionately more bankers expect rents to decline in the fourth quarter, as reflected in an index value below 100. (See Figures 1 and 2.)

Outcomes Relative to Previous-Quarter Expectations

Table 3 reports diffusion indexes for farm income, household expenditures, and three bank-related metrics for the third quarter of 2017. We also report the expected values for the third quarter based on banker responses from the previous quarter's survey. [NOTE: For Table 3, we compute diffusion indexes using only those banks that responded to both the 2017 second- and third-quarter

Table 3

2017:Q3 Variables (versus year-ago levels)

	Index value
Farm income	
Expected	56
Actual	72
Difference	17
Household spending	
Expected	83
Actual	94
Difference	11
Capital spending	
Expected	59
Actual	53
Difference	–6
Demand for loans	
Expected	100
Actual	121
Difference	21
Availability of funds	
Expected	89
Actual	89
Difference	0
Rate of loan repayment	
Expected	74
Actual	89
Difference	16

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	
2017:Q3 (actual)	115
2017:Q4 (expected)	112
Availability of funds	
2017:Q3 (actual)	89
2017:Q4 (expected)	92
Rate of loan repayment	
2017:Q3 (actual)	93
2017:Q4 (expected)	84

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 2017:Q3 survey.

Table 5

Interest Rates (%)

	2017:Q3	2017:Q2	Change
Operating			
Fixed	5.90	5.88	0.02
Variable	5.46	5.40	0.06
Machinery/ intermediate-term			
Fixed	5.93	5.96	–0.03
Variable	5.58	5.61	–0.03
Farm real estate			
Fixed	5.55	5.51	0.04
Variable	5.25	5.15	0.11

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.

surveys.] In general, the third-quarter diffusion indexes were noticeably higher than the expectations reported in the second-quarter survey. The differences were most pronounced for the demand for loans, the rate of loan repayment, and farm income. These findings suggest improving conditions in the farm sector, as judged by our respondents. The two exceptions were for capital spending, which was modestly less than expected, and the availability of funds, which met bankers' expectations.

Financial Conditions

Table 4 reports our survey respondents' assessment of current and prospective bank lending conditions in the Eighth District compared with four quarters earlier. In the third quarter of 2017, proportionately more bankers reported an increased demand for loans (index value of 115). By contrast, proportionately more bankers also reported a decline in the availability of funds (index value of 89) and in the rate of loan repayment (index value of 93). Survey responses indicate that the demand for loans, the availability of funds, and the rate of loan repayment in the fourth quarter are expected to be similar to those reported in the third quarter. [As noted in previous surveys,

Figure 3

Farm Income: Expected and Actual Values

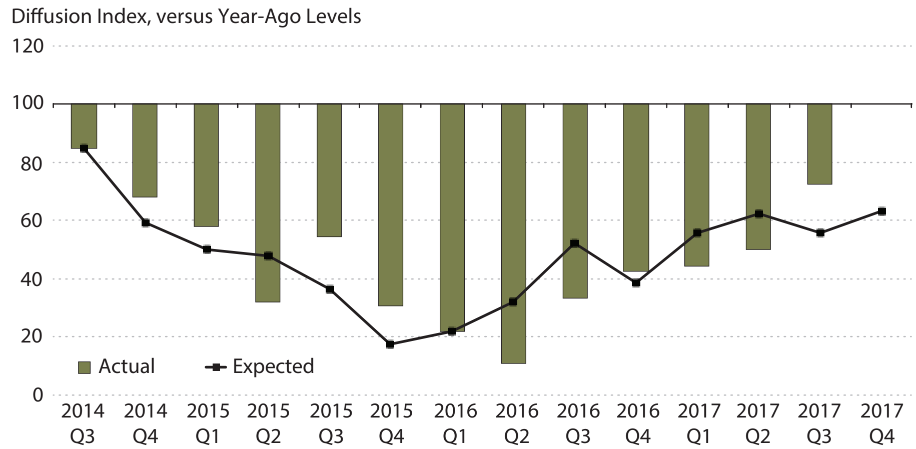


Figure 4

Household Spending: Expected and Actual Values

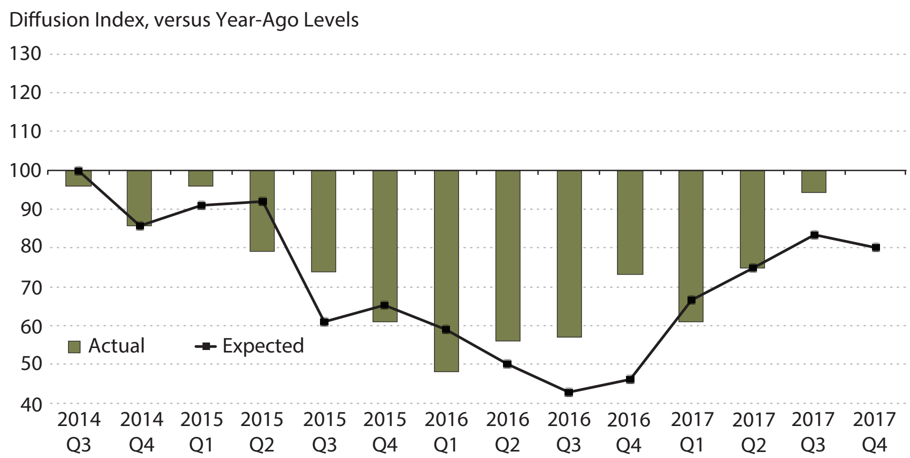
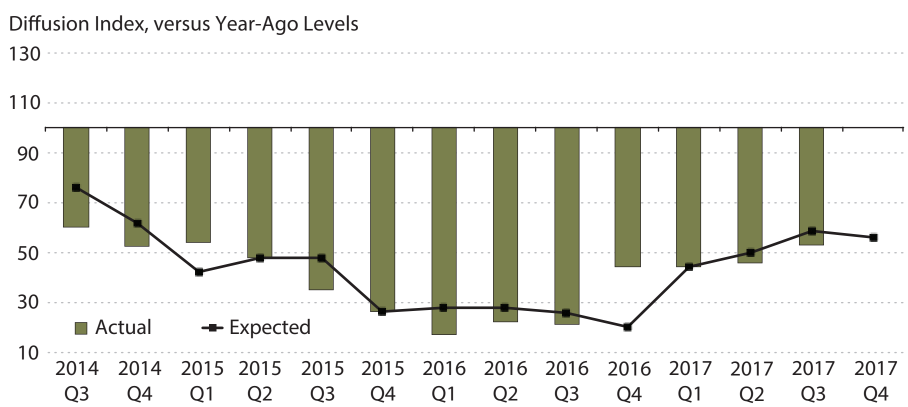


Figure 5

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 2017:Q4 are calculated using only the responses from the 2017: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

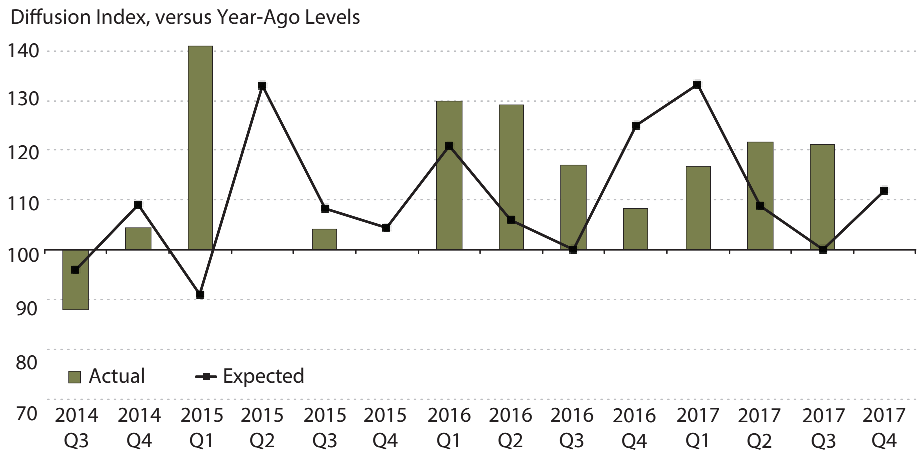


Figure 7
Availability of Funds: Expected and Actual Values

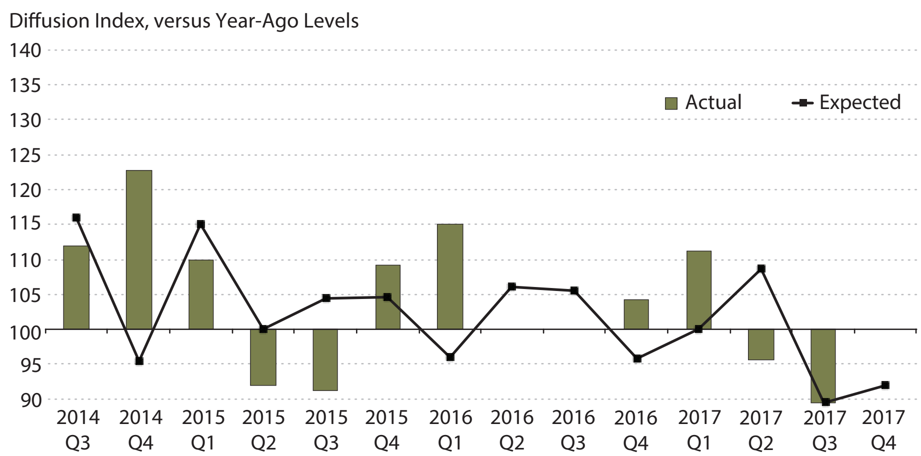
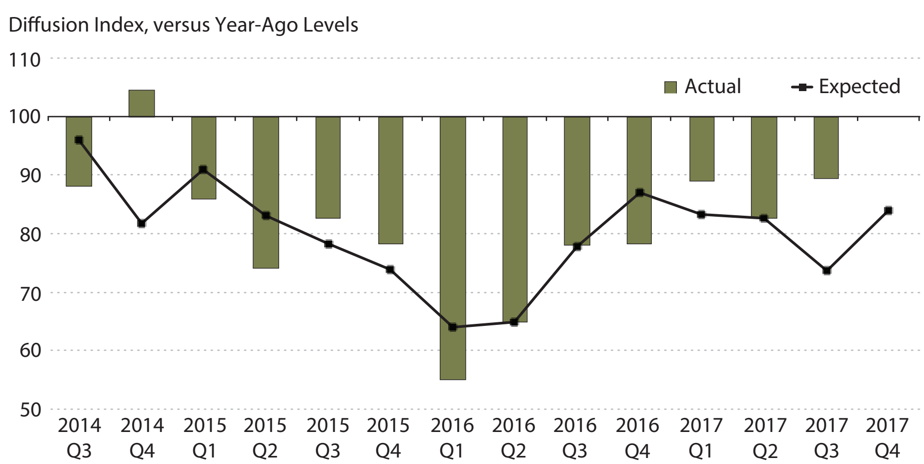


Figure 8
Rate of Loan Repayment: Expected and Actual Values



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 indices in 2017:Q4 are calculated using only the responses from the 2017: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.

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 third-quarter 2017 survey, instead of a common sample between the current and previous surveys.]

Table 5 shows average interest rates on fixed- and variable-rate loan products in the second and third quarters of 2017. Compared with the second-quarter averages, interest rates were modestly higher in the third quarter for operating loans and farm real estate loans, regardless of whether the loans were fixed rate or variable rate. By contrast, both fixed- and variable-rate machinery/intermediate-term loans declined slightly in the third quarter. Perhaps more interesting, the interest rate spread between loan products was relatively narrow, ranging from a low of 5.25 percent for variable-rate farm real estate loans to a high of 5.93 percent for fixed-rate machinery/intermediate-term loans.

Special Questions

Table 6 reports the results of three special questions posed to our agricultural bankers. The first question asked the bankers to assess their expectations for loan repayment problems with the borrowers and how these problems were likely to be resolved. We asked the same question in our third-quarter 2016 survey. In the current survey, 58 percent of bankers reported that operating loans (lines of credit) were expected to have the largest repayment problems. This percentage was nearly identical to last year's survey (59 percent). Potential repayment problems for machinery and equipment loans (15 percent) and real estate loans (4 percent) were generally not perceived to be significant. Again, these responses were very similar to last year's. Finally, nearly a quarter of respondents (23 percent) do not expect an increase in repayment problems, up modestly from last year's survey (19 percent).

The second special question asked the bankers about the performance of loans that have been restructured in the past year. Nearly seven in ten respondents reported that the restructuring has been as expected, while a little more than a quarter (27 percent) reported that it is still too early to determine. Only 4 percent of respondents reported that the performance of the restructured loans was worse than expected.

Finally, the third special question asked our agricultural bankers to identify the types of online services offered to their customers. Large majorities of banks reported offering online transfers between accounts (88 percent) and electronic bill payment (80 percent), while a little more than half reported offering remote deposit capture (60 percent). A little more than a quarter of banks (28 percent) offer online loan applications. A small fraction of banks (8 percent) offer no online services. ■

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	58
Machinery and equipment loans	15
Real estate loans	4
Loans made for farm household expenses	0
No increase in problems is expected	23

Regarding debts that you have restructured in the past year, has the performance of this restructured debt been:

Percent of respondents	
Better than expected	0
As expected	69
Worse than expected	4
Too early to determine	27

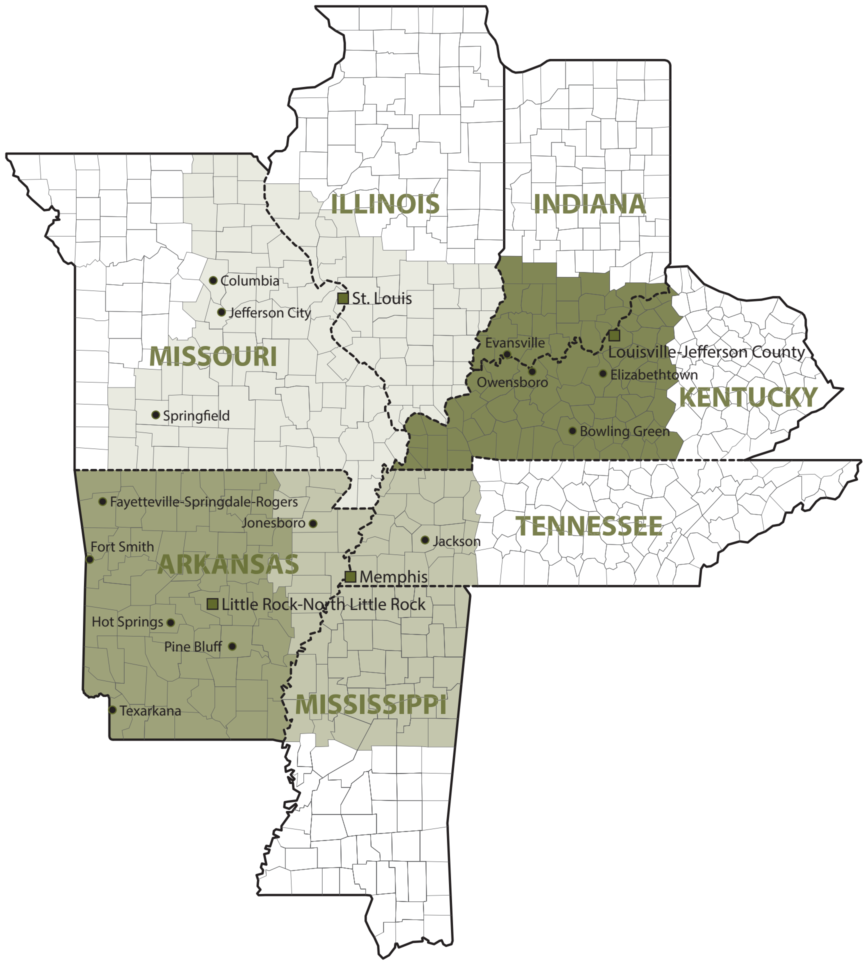
Please select from the following online services that your bank offers for farm clients (more than one service can be selected):

Percent of respondents	
Loan applications	28
Transfer funds between accounts	88
Electronic bill payment	80
Remote deposit capture	60
None	8

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, 2017, there were 237 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; 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.

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