2019 ■ First Quarter

AGRICULTURAL Finance Monitor

Selected Quotes from Banker Respondents Across the Eighth Federal Reserve District

Farmers are running out of capital. Commodity prices are too low for input costs and rents/land payments. (Arkansas)

Agriculture loan demand in our region is driven by the poultry industry, either by expansion or replacement of outdated facilities, and presently that loan demand is at a slower pace. (Arkansas)

What we are faced with is a commodity market that will not provide enough margin to service the prices that the producers have to pay for inputs such as seed and fertilizer and chemicals. I think this is tied to the trade deal, but am not sure. In 2005, soybeans were $5.50 per bushel and people grew them. Now they are $8.90 per bushel and you cannot afford to make less than 60 bushels per acre to break even. (Arkansas)

The most significant development is the reduction in commodity prices that has resulted in farmers holding their grain in anticipation of a future price recovery that I don't expect to happen. Holding the grain on the farm will result in a decrease in quality that will result in even lower end prices when they do finally sell the commodities. (Illinois)

Because of the hard winter weather, ranchers are experiencing a higher rate of death in newborn calves. Fewer calves mean less income for the rancher. That means he will be making due with what he has rather than purchasing new equipment, land, or personal items. (Missouri)

Weather continues to be the greatest risk. With the size of today's operations, poor growing conditions could result in losses of $250,000 or more even with crop insurance. Good weather conditions can result in profits exceeding $250,000. Land prices show no signs of weakening. (Missouri)

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

The twenty-eighth quarterly survey of agricultural credit conditions was conducted by the Federal Reserve Bank of St. Louis from March 15, 2019, through March 31, 2019. The results presented here are based on the responses from 26 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

This quarter's survey asked Eighth District agricultural bankers about financial conditions in the first quarter of 2019. For the twenty-first consecutive quarter, a majority of agricultural bankers in the Eighth Federal Reserve District reported that farm income had declined compared with the same quarter a year earlier. However, some bankers expect farm income to improve in the second quarter. Bankers reported some erosion in land values in the first quarter, as quality farmland values declined 0.3 percent and ranchland or pastureland values declined 3.3 percent from a year earlier. Cash rents for quality farmland rose slightly in the first quarter, while cash rents for ranchland or pastureland fell appreciably. Proportionately more bankers reported an increase in loan demand in the first quarter, but, on balance, bankers expect no change in the demand for loans in the second quarter. On average, interest rates increased modestly across the three major loan categories in the first quarter compared with three months earlier. We posed two special questions to our agricultural bankers for this survey. The first question asked the bankers what percentage of their customers have borrowed up to their loan limit. The results showed that 35 percent of bankers reported that less than one-fourth of their customers had borrowed up to their loan limit, but 31 percent reported that more than half of their customers had borrowed up to their loan limit. The second special question asked the bankers to assess the most significant risk to the farm sector in 2019. Perhaps not surprisingly, a little less than two-thirds of the respondents indicated that an adverse trade outcome presents the most significant risk to the farm sector this year. Rising interest rates and declining land prices were generally not viewed as significant risks to the farm sector in 2019.

Survey Results

Farm Income and Expenditures

This quarter's survey revealed once again that proportionately more agricultural bankers continue to report declines in farm income over the first three months of 2019 relative to a year earlier. As seen in Table 1, the diffusion index for farm income registered a value of 46 in the first quarter of 2019, modestly higher than the previous quarter's index value of 41. The

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 first 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:Q1 (actual)	46
2019:Q2 (expected)	64
Household spending	
2019:Q1 (actual)	85
2019:Q2 (expected)	84
Capital spending	
2019:Q1 (actual)	54
2019:Q2 (expected)	52

NOTE: Actual and expected values for the indexes use all responses from the 2019:Q1 survey.

Table 2

Land Values and Cash Rents (year/year change)

	Percent or index value
Land values	
Quality farmland	–0.3%
Expected 3-month trend	96
Ranchland or pastureland	–3.3%
Expected 3-month trend	100
Cash rents	
Quality farmland	1.5%
Expected 3-month trend	100
Ranchland or pastureland	–8.0%
Expected 3-month trend	95

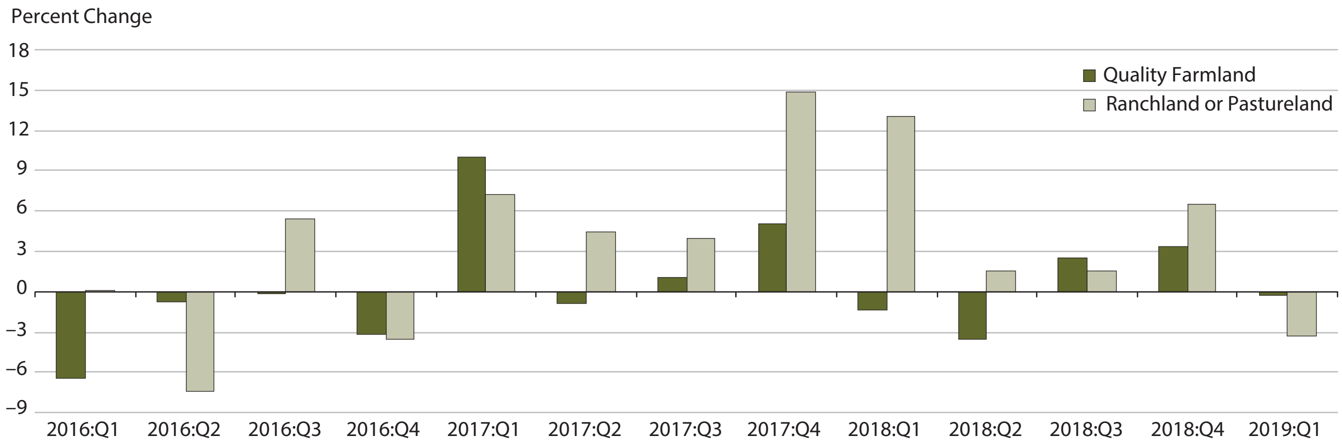
NOTE: Changes in land values and cash rents are calculated using a common sample of respondents for the most recent survey as well as the survey conducted a year ago. Expected trends of land values and cash rents are calculated using all responses from the 2019:Q1 survey. Expected trends are presented as a diffusion index; see the note above for details about interpreting diffusion indexes.

index value has been below 100 for 21 consecutive quarters. [NOTE: An index value below 100 indicates that a larger percentage of bankers reported decreases in farm income relative to a year earlier than increases in farm income.] However, a few more bankers expect farm income to register improved growth in the second quarter, as noted by a larger index value of 64. Relative to the previous report, proportionately more bankers reported increases in household spending and business capital spending in the first quarter; however, a majority still reported declines in the first quarter from a year earlier (as seen by index values below 100). Expected index values for the second quarter of 2019 are little changed from the actual current-quarter values. The diffusion indexes for farm income, household spending, and capital expenditures are reported in Figures 3 to 5, respectively. 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 first-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

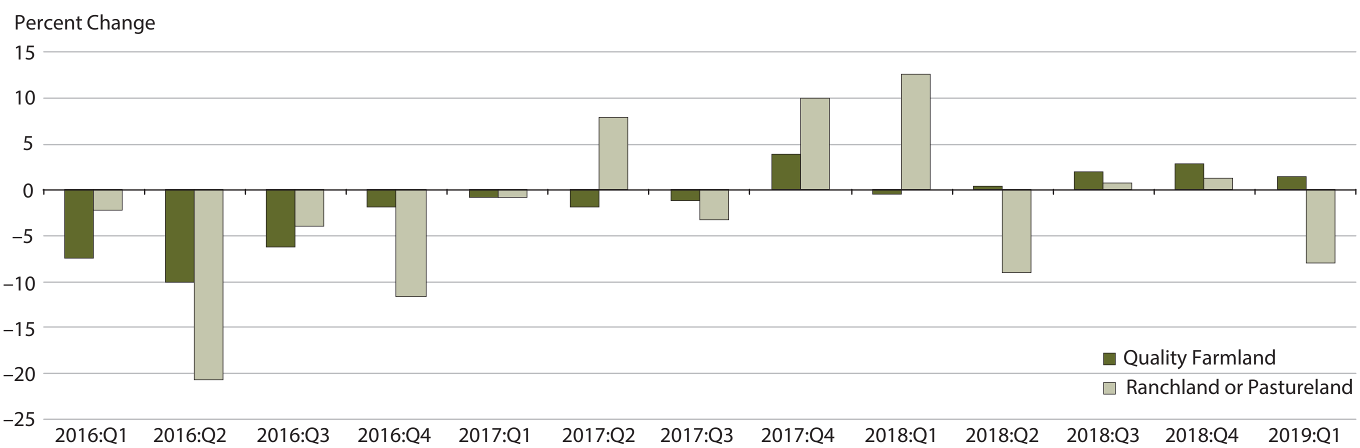
Bankers reported some decline in land values in the first quarter. As seen in Table 2, quality farmland values fell 0.3 percent in the first quarter from a year earlier, which was a slight decline from the 3.4 percent increase registered in the fourth quarter of 2018. Ranchland or pastureland values also decreased in the first quarter, but by a modestly larger amount, 3.3 percent. The decline in ranchland or pastureland values in the first quarter was a sharp departure from the 6.5 percent gain registered in the fourth

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.

quarter of 2018. As reflected in the diffusion index, bankers expect little or no change in quality farmland values and ranchland or pastureland values over the next three months (index values of 96 and 100, respectively). Cash rents for quality farmland rose 1.5 percent in the first quarter, following a 2.9 percent gain in the fourth quarter of 2018. By contrast, cash rents for ranchland or pastureland fell 8 percent in the first quarter, after rising 1.3 percent in the previous quarter. Expectations for cash rents over the next three months (second quarter of 2019) are similar to those expected for farmland and ranchland or pastureland values. See Figures 1 and 2 for a historical perspective of land values and cash rents.

Outcomes Relative to Previous-Quarter Expectations

Table 3 reports diffusion indexes for farm income, household expenditures, farm-related capital expenditures, and three bank-related financial metrics for the first quarter of 2019 compared with the values that were reported three months earlier. [NOTE: For Table 3, we compute diffusion indexes using only those banks that responded to both the 2018 fourth-quarter and 2019 first-quarter surveys.] Compared with the expectations in the fourth quarter of 2018, the actual outcomes in the first quarter were weaker than expected (a lower actual diffusion index relative to the expected diffusion index) for capital spending, the demand

Table 3

2019:Q1 Variables (versus year-ago levels)

	Index value
Farm income	
Expected	50
Actual	56
Difference	6
Household spending	
Expected	78
Actual	78
Difference	0
Capital spending	
Expected	53
Actual	47
Difference	–6
Demand for loans	
Expected	122.2
Actual	116.7
Difference	–5.6
Availability of funds	
Expected	89
Actual	83
Difference	–6
Rate of loan repayment	
Expected	82
Actual	82
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	
2019:Q1 (actual)	115
2019:Q2 (expected)	100
Availability of funds	
2019:Q1 (actual)	96
2019:Q2 (expected)	91
Rate of loan repayment	
2019:Q1 (actual)	80
2019:Q2 (expected)	77

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:Q1 survey.

Table 5

Interest Rates (%)

	2019:Q1	2018:Q4	Change
Operating			
Fixed	6.16	6.05	0.11
Variable	5.95	5.86	0.09
Machinery/ intermediate-term			
Fixed	6.36	6.24	0.12
Variable	6.04	5.92	0.12
Farm real estate			
Fixed	6.16	6.15	0.01
Variable	5.85	5.73	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.

for loans, and the availability of funds. In contrast, slightly more bankers reported increased farm income relative to expectations, while there was no difference between the actual and expected outcomes for household spending and loan repayment. The diffusion indexes for demand for loans, availability of funds, and rate of loan repayment are reported in Figures 6 to 8, respectively.

Financial Conditions

Table 4 reports the District bankers' assessment of current and prospective lending conditions in the first quarter of 2019 compared with four quarters earlier: Proportionately more bankers reported an increase in loan demand (diffusion index of 115). However, reflecting a diffusion index of 100, our survey revealed that bankers expect no change in the demand for loans in the second quarter. About an equal number of bankers reported an increase or decrease in the availability of funds in the first quarter (index value of 96). The index value for available funds is expected to fall slightly in the second quarter, signifying a slight decline in the availability of funds. On net, proportionately more bankers continue to report lower rates of loan repayment, as the actual and expected diffu-

Figure 3

Farm Income: Expected and Actual Values

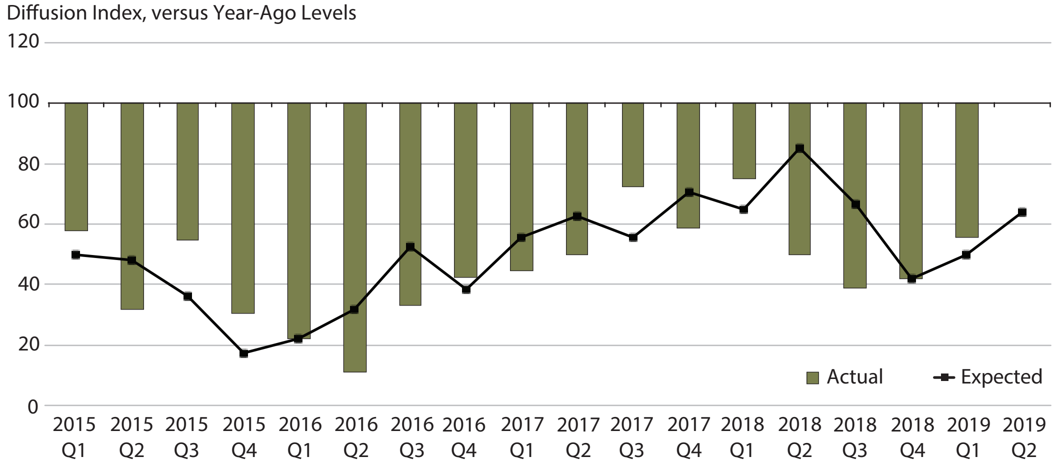


Figure 4

Household Spending: Expected and Actual Values

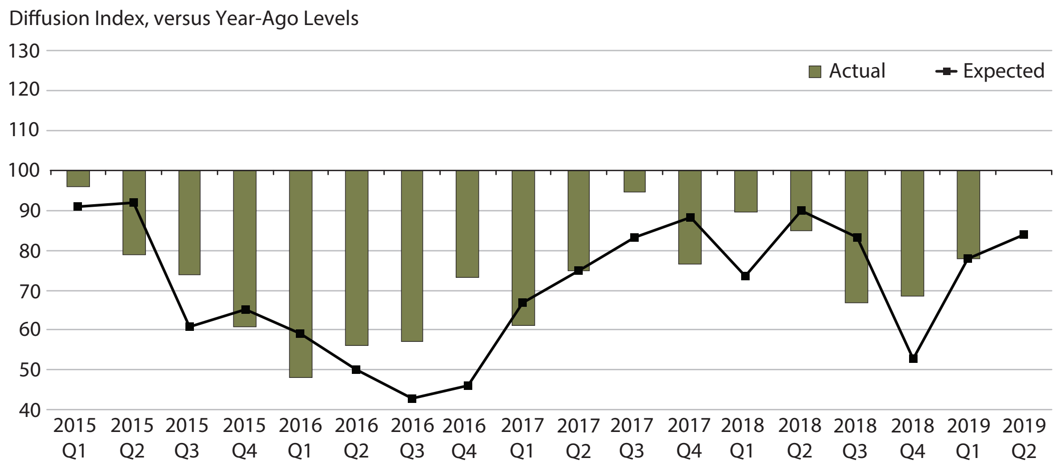
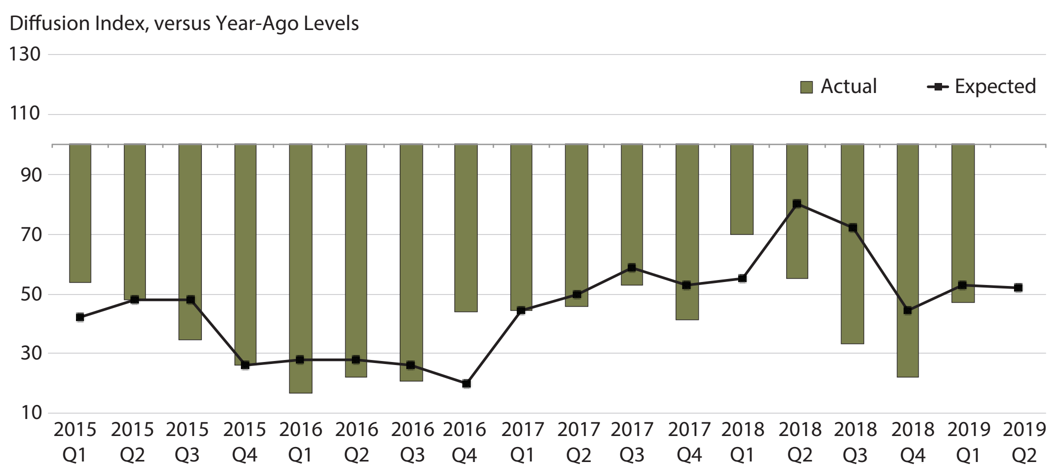


Figure 5

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:Q2 are calculated using only the responses from the 2019:Q1 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

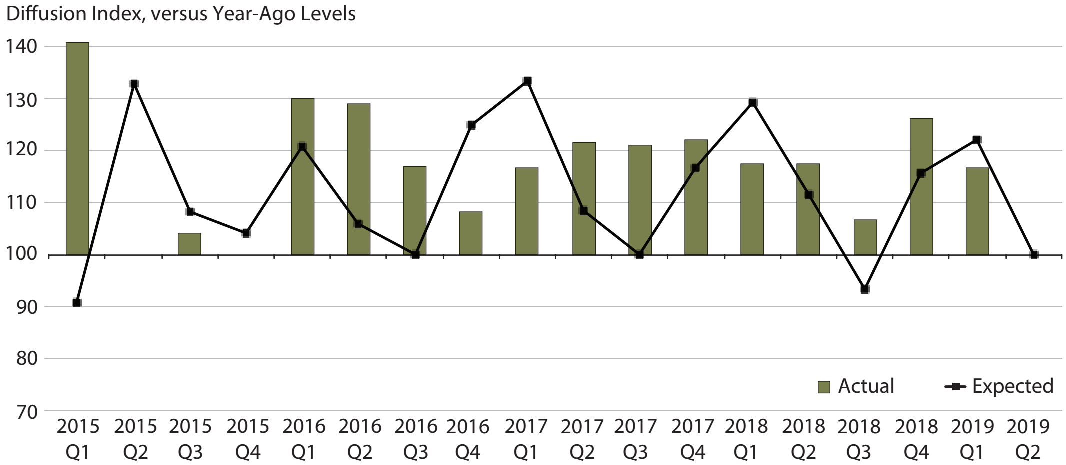


Figure 7

Availability of Funds: Expected and Actual Values

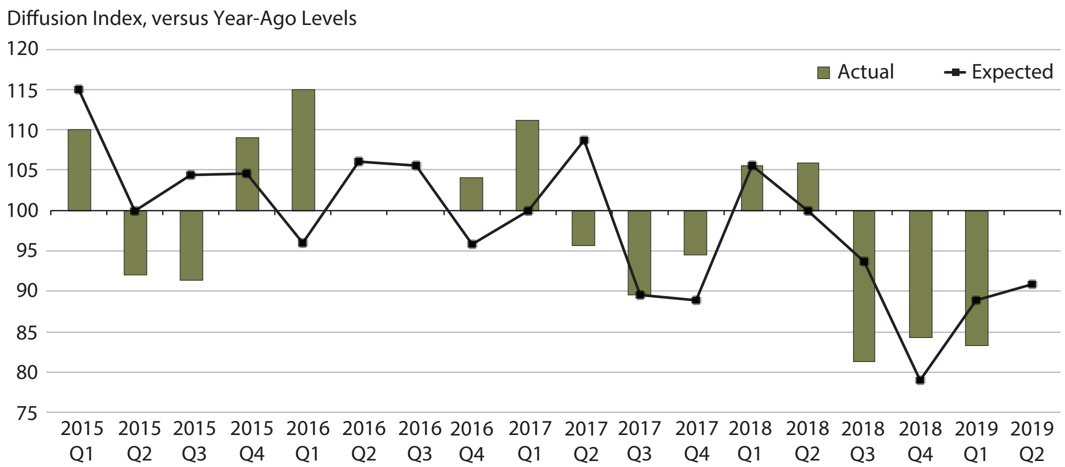
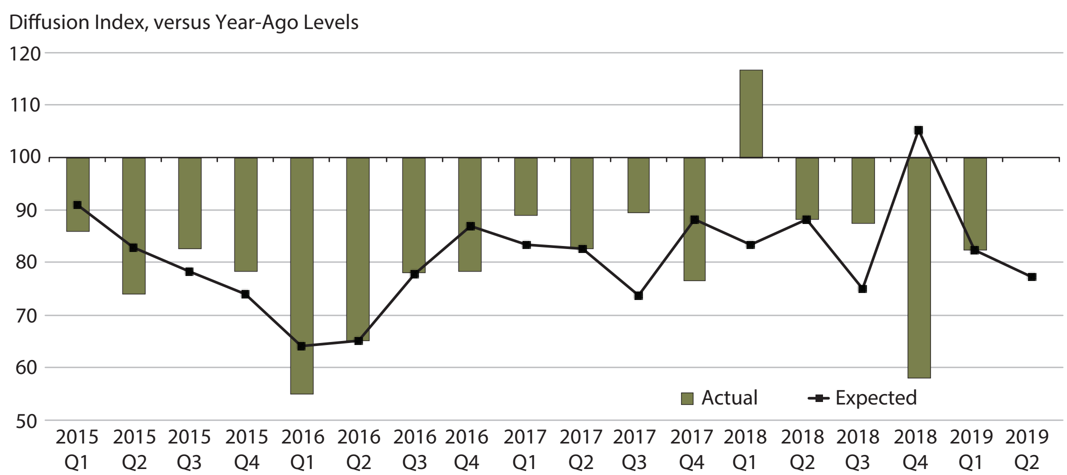


Figure 8

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:Q2 are calculated using only the responses from the 2019:Q1 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.

sion indexes for the first and second quarters, respectively, are well below 100. [As noted in previous surveys, the actual index values for the first quarter reported in Table 4 may differ from those reported in Table 3. The reason is that Table 4 uses all responses from the first-quarter 2019 survey, instead of a common sample between the current and previous surveys.]

Table 5 shows average interest rates on three types of loans—either fixed- or variable-rate: operating, machinery and intermediate term, and farm real estate. Interest rates increased across all listed loan types in the first quarter compared with the fourth quarter of 2018. Interest rates increased the most for fixed- and variable-rate machinery/intermediate-term loans and variable-rate farm real estate loans (12 basis points). The interest rate on fixed-rate farm real estate loans was about unchanged, increasing 1 basis point to 6.16 percent. Across all categories, fixed-rate loans increased an average of 8 basis points in the first quarter, while variable-rate loans increased an average of 11 basis points.

Special Questions

Table 6 reports the results of special questions posed to our agricultural bankers. The first question asked the bankers what percentage of their customers have borrowed up to their loan limit. Thirty-five percent of bankers reported that less than one-fourth of their customers had borrowed up to their loan limit. However, a slightly smaller percentage of bankers (31 percent) reported that more than half of their customers had borrowed up to their loan limit.

The second special question asked the bankers to assess the most significant risk to the farm sector in 2019. Perhaps not surprisingly, a clear majority—62 percent of the respondents—indicated that an adverse trade outcome presents the most significant risk to the farm sector this year. A little less than a quarter of the bankers (23 percent), by contrast, believe that an increase in input prices is the most significant risk in 2019. Rising interest rates and declining land prices are generally not seen as significant risks to the farm sector in 2019. ■

Table 6

Special Questions

Approximately what percent of your customers have borrowed up to their loan limit?

	Percent of respondents
Less than one-fourth	35
More than one-fourth but less than one-third	23
More than one-third but less than half	12
More than half	31

What is the most significant risk to the farm sector in 2019?

	Percent of respondents
Decline in land prices	0
Increase in interest rates	8
Increase in input prices	23
Adverse trade outcomes	62
Other	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 March 31, 2019, there were 219 banks in the Eighth Federal Reserve District that met this criteria.

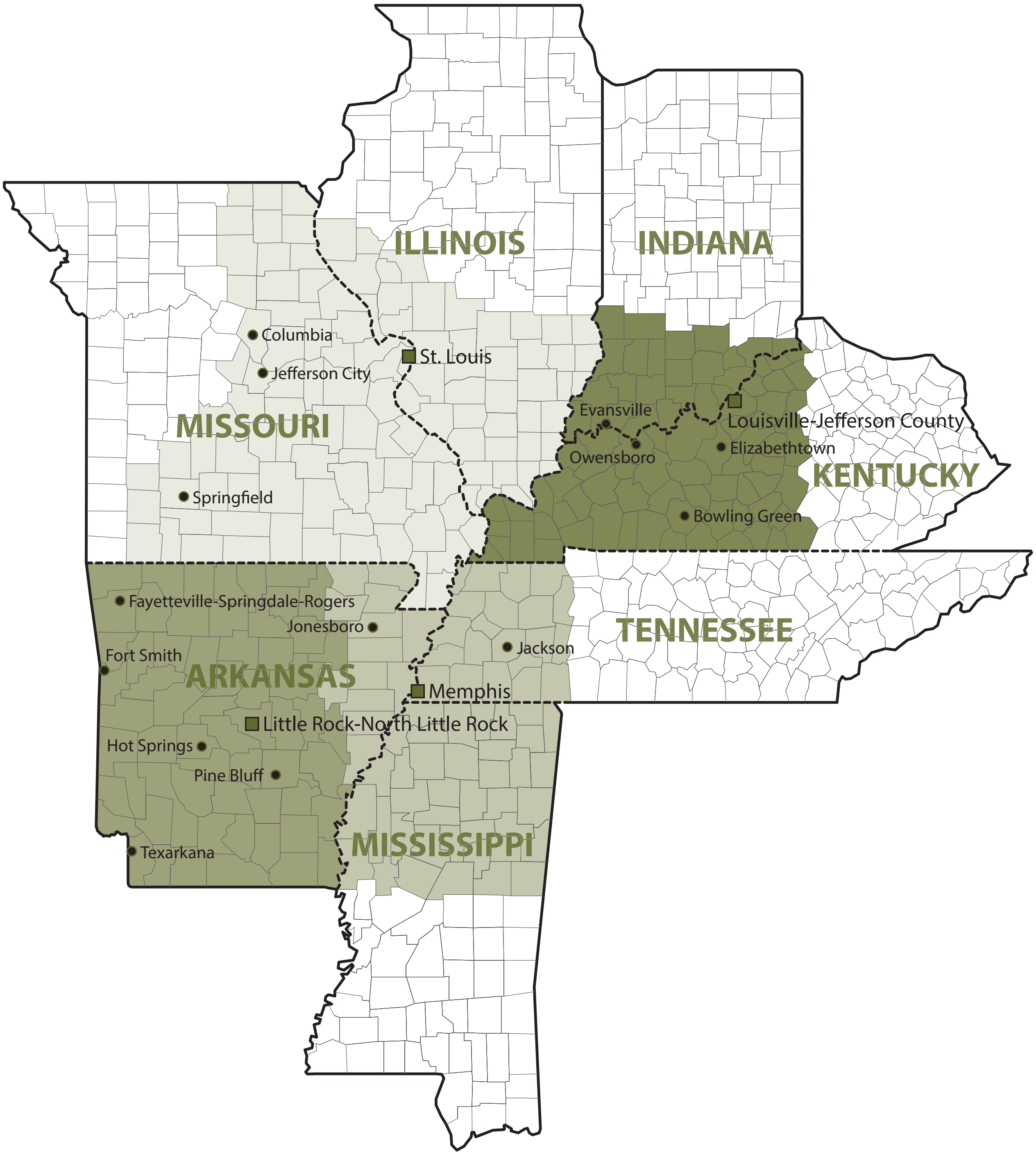
[2] Readers are also cautioned that the number of responses in each zone is relatively small. Statistically, this tends to suggest that the responses in each zone have a larger plus-or-minus margin of error than for the District as a whole. We have eliminated the zone-by-zone responses until the response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

Posted on May 9, 2019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ARKANSAS
MISSISSIPPI
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Owensboro
Louisville-Jefferson County
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Bowling Green
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