2018 ■ Second Quarter

AGRICULTURAL Finance Monitor

Selected Quotes from Banker Respondents Across the Eighth Federal Reserve District

Farm income in our region is not as volatile as it is in row crop areas. We are mostly contract poultry and animal production. Independent cattle producers make up the balance of our agriculture production; those prices are off the highs but have stabilized. (Arkansas)

We have no demand for variable-rate agricultural loans. (Arkansas)

Good quality farm real estate sales prices continue to increase, although the number of sales has slowed. (Illinois)

Lack of rain will reduce income from grain sales in our area. Also, the price of hay is increasing due to lack of rain, resulting in lower yields from hay-production acres. The outlook is gloomy if we do not receive rain soon. (Missouri)

Demand for recreational/low-income-producing properties is increasing, as St. Louis MSA residents become more confident about their economy. (Missouri)

With the announcement of Tyson Foods building a processing plant in our area, we expect to finance some chicken-producing operations. While the process is somewhat slow at the moment, we are working toward booking the first pullet operation. (Tennessee)

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

The twenty-fifth quarterly survey of agricultural credit conditions was conducted by the Federal Reserve Bank of St. Louis from June 15, 2018, through June 30, 2018. The results presented here are based on responses from 24 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 second quarter of 2018. For the eighteenth consecutive quarter bankers who responded to the survey on net reported a decline in farm income when compared with the same period a year ago. Similar to the previous survey, the results of this survey reflect some expectations of improving levels for farm income for the next quarter. While a majority of bankers still expect income to decline next quarter when compared with the third quarter of last year, slightly fewer bankers report that assessment. Bankers reported a similar assessment and outlook for capital spending. Responses about household spending also indicate a decline in that category when compared with responses a year ago. Bankers have reported lower comparative income levels since the fourth quarter of 2013, reaching a low point in the second quarter of 2016. This period correlates with an extended period of depressed prices for commodities. Survey responses indicate that the value of quality farm land fell during the second quarter of 2018 compared with a year ago but that cash rents for that property slightly improved. In contrast, the value for ranchland or pastureland rose during the second quarter while cash rents for that property fell. Responses to bank-related activities indicated that loan demand and available funds increased during the second quarter of 2018 as compared with a year ago. The rate of loan repayment slowed during the second quarter of 2018 on a comparative basis as reported by a majority of bankers. Both fixed and variable interest rates on all categories of loans rose during the quarter, relative to the previous quarter. This quarter's survey asked two special questions. Results of the first question indicate that a significant majority of respondents feel that the University of Missouri's projections that farm income will fall in 2018 by about 6.5 percent is about right. The second question asked about the impact lenders expected the new tax law will have on borrowers: Over 71 percent felt it would be either somewhat positive or significantly positive, while only 29 percent felt there would be either no effect or a somewhat negative effect.

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 second quarter of 2018. 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	
2018:Q2 (actual)	58
2018:Q3 (expected)	65
Household spending	
2018:Q2 (actual)	88
2018:Q3 (expected)	87
Capital spending	
2018:Q2 (actual)	67
2018:Q3 (expected)	70

NOTE: Actual and expected values for the indexes use all responses from the 2018:Q2 survey.

Table 2

Land Values and Cash Rents (year/year change)

	Percent or index value
Land values	
Quality farmland	–3.5%
Expected 3-month trend	95
Ranchland or pastureland	1.6%
Expected 3-month trend	95
Cash rents	
Quality farmland	0.4%
Expected 3-month trend	95
Ranchland or pastureland	–9.0%
Expected 3-month trend	94

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 2018:Q2 survey. Expected trends are presented as a diffusion index; see the note above for details about interpreting diffusion indexes.

Survey Results

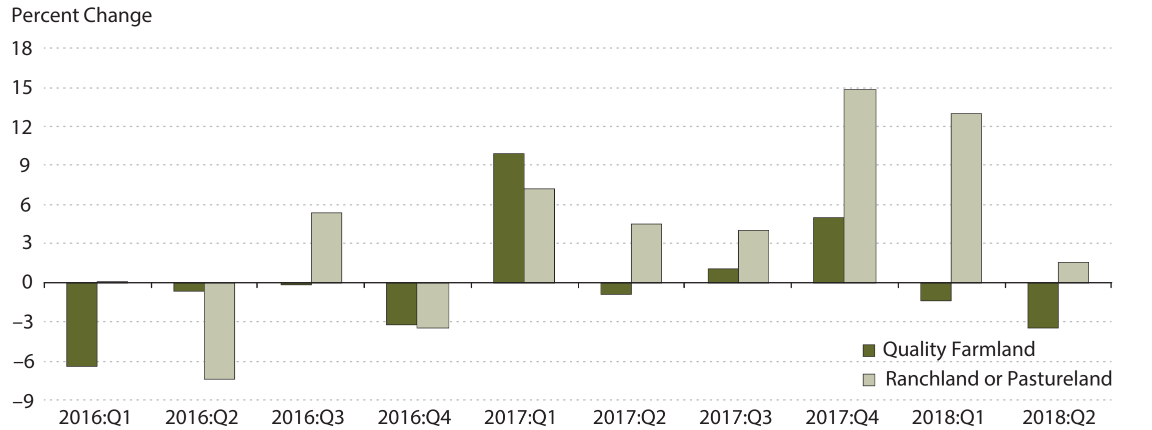
Farm Income and Expenditures

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 58 and marks the eighteenth 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 farm income relative to a year earlier.] The index value for the second quarter is worse that the value of 67 reported for the first quarter of 2018. When asked about expectations for farm income for the third quarter, responses yielded a diffusion value of 65. While this indicates that a majority of bankers still feel farm income will decline in the third quarter of 2018 compared with the same period last year, the percentage of bankers who feel that way is slightly lower. Levels of household spending and capital spending are both tied closely to farm income and, not surprisingly, reflect that most bankers project a similar outlook for next quarter (see Table 1 and Figures 3 to 5). Readers are reminded that farm income is highly volatile and subject to seasonal fluctuations.

Current and Expected Land Values and Cash Rents

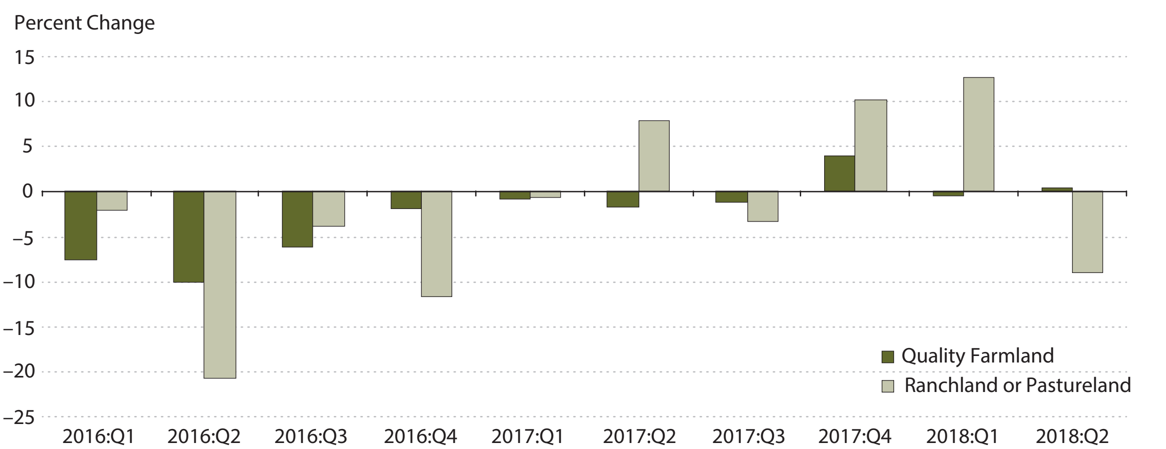
Table 2 shows year-to-year percentage changes in land values and cash rents in the second quarter, as well as bankers' expectations for the next quarter. Quality farmland values decreased by 3.5 percent compared with a year ago, while cash rents increased by 0.4 percent relative to a year ago. In contrast, ranchland or pastureland values increased 1.6 percent in the second quarter compared with a year

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.

ago, while cash rents for that category of property declined 9 percent. The drop in cash rents for ranchland or pastureland was the largest percentage drop recorded since the fourth quarter of 2016. As shown in the index values in Table 2, proportionately more bankers expect in the next three months that quality farmland values and rents will be less than they were relative to a year ago. The same expectation also holds for ranchland or pastureland values and rents.

Outcomes Relative to Previous-Quarter Expectations

Table 3 reports diffusion indexes for farm income, household expenditures, and three bank-related metrics for the second quarter of 2018, as well as the expected values for the second quarter that bankers reported in the first-quarter survey of 2018. [NOTE: For Table 3, we compute diffusion indexes using only those banks that responded to the 2018 first-quarter survey and the current survey.] As seen by the smaller actual diffusion indexes (relative to the expected indexes), a larger proportion of bankers

Table 3

2018:Q2 Variables (versus year-ago levels)

	Index value
Farm income	
Expected	85
Actual	50
Difference	–35
Household spending	
Expected	90
Actual	85
Difference	–5
Capital spending	
Expected	80
Actual	55
Difference	–25
Demand for loans	
Expected	112
Actual	118
Difference	6
Availability of funds	
Expected	100
Actual	106
Difference	6
Rate of loan repayment	
Expected	88
Actual	88
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.

reported that farm income declined in the second quarter than the proportion that were expecting a decline. Furthermore, a larger proportion of bankers reported a decline in capital spending than what was expected three months earlier. The proportion of bankers actually reporting a decline in household spending for the second quarter was also modestly more than had been expected. Proportionately more bankers reported that the actual demand for loans during the second quarter of 2018 was greater than had been expected three months earlier, and additionally they also reported a greater availability of funds. These developments appeared to make no difference in the rate of loan repayment: The proportion of bankers who felt that the actual rates of loan repayments had declined was equal to the proportion expecting lower repayment rates (that is, the actual and expected diffusion indexes were the same).

Table 4

Lending Conditions (versus year-ago levels)

	Index value
Demand for loans	
2018:Q2 (actual)	126
2018:Q3 (expected)	105
Availability of funds	
2018:Q2 (actual)	109
2018:Q3 (expected)	100
Rate of loan repayment	
2018:Q2 (actual)	87
2018:Q3 (expected)	81

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 2018:Q2 survey.

Table 5

Interest Rates (%)

	2018:Q2	2018:Q1	Change
Operating			
Fixed	5.94	5.88	0.07
Variable	5.54	5.32	0.23
Machinery/ intermediate-term			
Fixed	6.00	5.83	0.17
Variable	5.70	5.48	0.23
Farm real estate			
Fixed	5.81	5.52	0.29
Variable	5.53	5.27	0.26

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.

Financial Conditions

Table 4 reports our survey respondents' assessment of bank lending conditions in the Eighth District in the second quarter of 2018 alongside expectations for the third quarter.

Figure 3

Farm Income: Expected and Actual Values

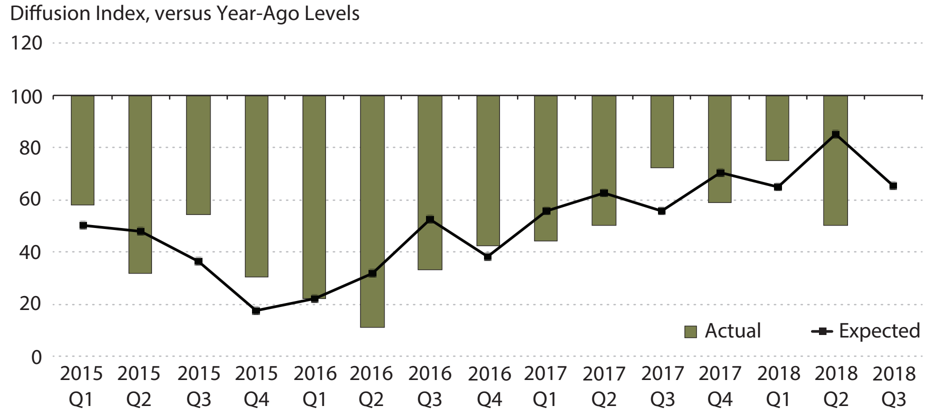


Figure 4

Household Spending: Expected and Actual Values

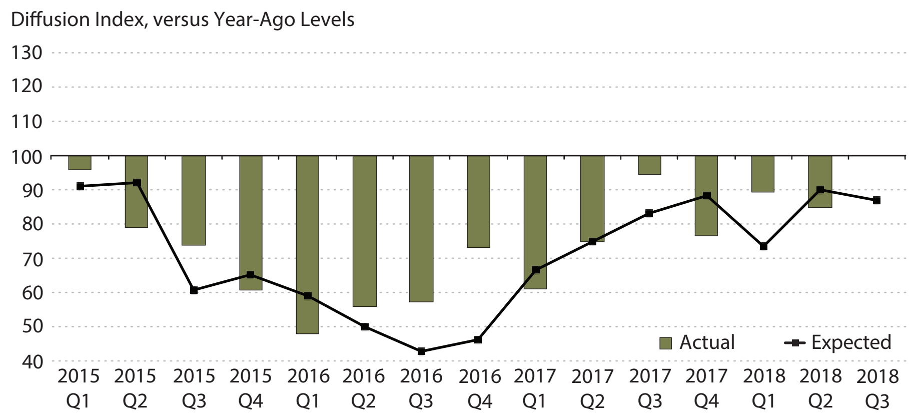
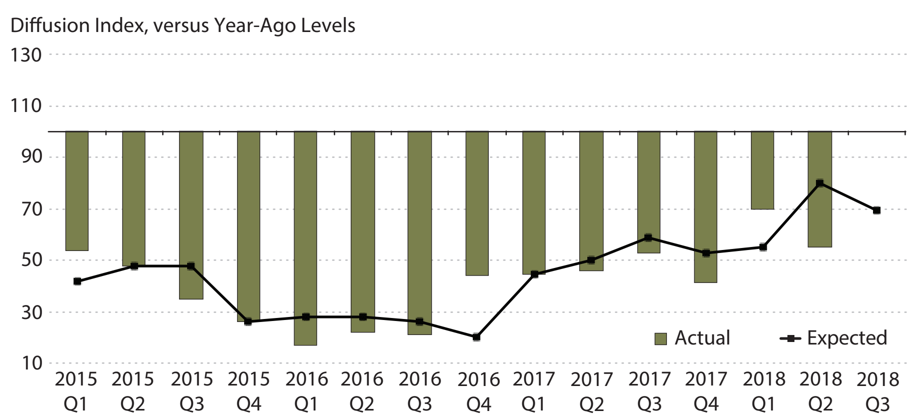


Figure 5

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 2018:Q3 are calculated using only the responses from the 2018:Q2 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

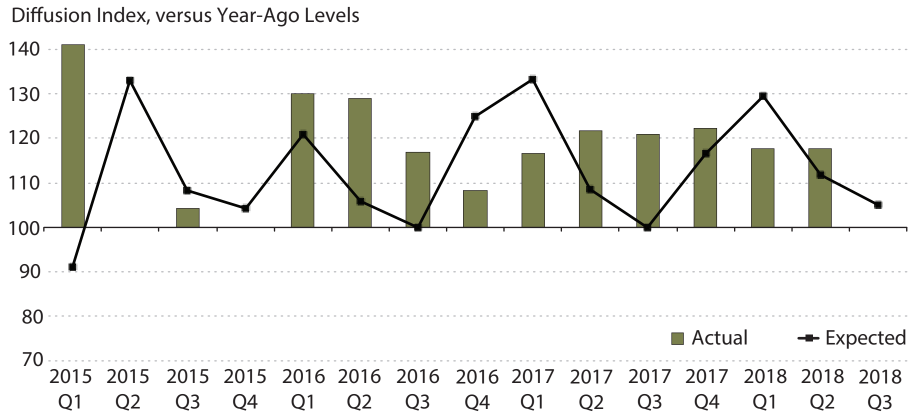


Figure 7

Availability of Funds: Expected and Actual Values

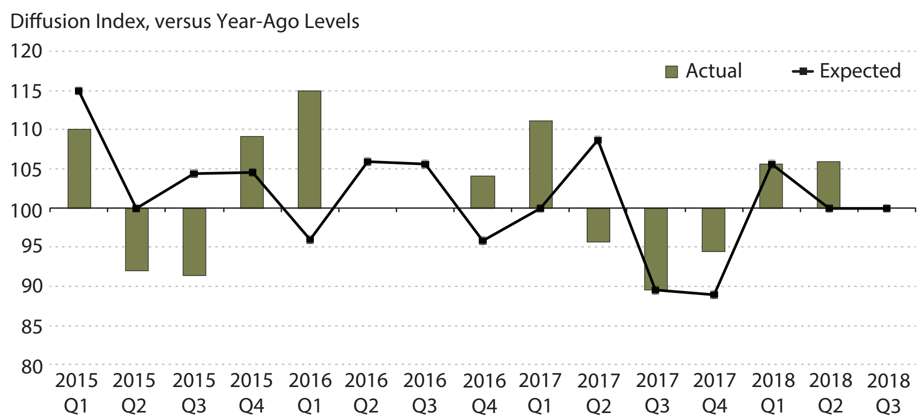
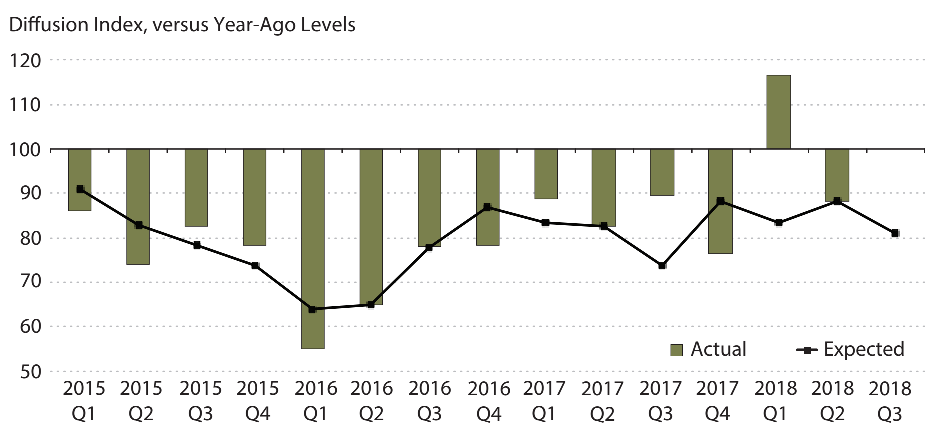


Figure 8

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 2018:Q3 are calculated using only the responses from the 2018:Q2 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.

As noted in previous surveys, the actual index values for the second quarter reported in Table 4 may differ from those reported in Table 3. The reason is that Table 4 uses all responses from the second-quarter 2018 survey, instead of a common sample between the current and previous surveys. Overall, bankers' expectations for loan demand, availability of funds, and rate of loan repayment for the third quarter of 2018 are less optimistic compared with actual results recorded for the second quarter. A slightly lower percentage of bankers, but still a majority, expect year-over-year loan demand to increase in the third quarter relative to a year earlier (an index value of 105), while bankers are evenly split regarding their expectations for availability of funds. Proportionately more bankers reported a decline in the rate of loan repayment in the second quarter (an index value of 87). The rate of loan repayment is expected to worsen slightly in the third quarter (an index value of 81).

Table 5 presents average interest rates on fixed- and variable-rate loan products in the second quarter of 2018 and the first quarter of 2018. Interest rates were higher in the second quarter for all categories. Fixed-rate real estate loans demonstrated the highest increase of 29 basis points while fixed-rate operating loans increased the least of the categories with an increase of only 7 basis points.

Table 6

Special Questions

According to the latest baseline projections (March 2018) published by the Food and Agricultural Policy Research Institute at the University of Missouri–Columbia, U.S. net farm income (in 2017 dollars) is projected to fall by about 6.5 percent in 2018 to about $60 billion. In your view, is FAPRI's baseline farm income projection:

	Percent of respondents
About right	79
Too optimistic	8
Too pessimistic	13

The "Tax Cuts and Jobs Act" (Public Law 115-97) was enacted in December 2017. How much of an impact do you expect the new tax law will have on your agricultural borrowers?

	Percent of respondents
Significantly positive	8
Somewhat positive	63
No effect	25
Somewhat negative	4
Significantly negative	0

Special Questions

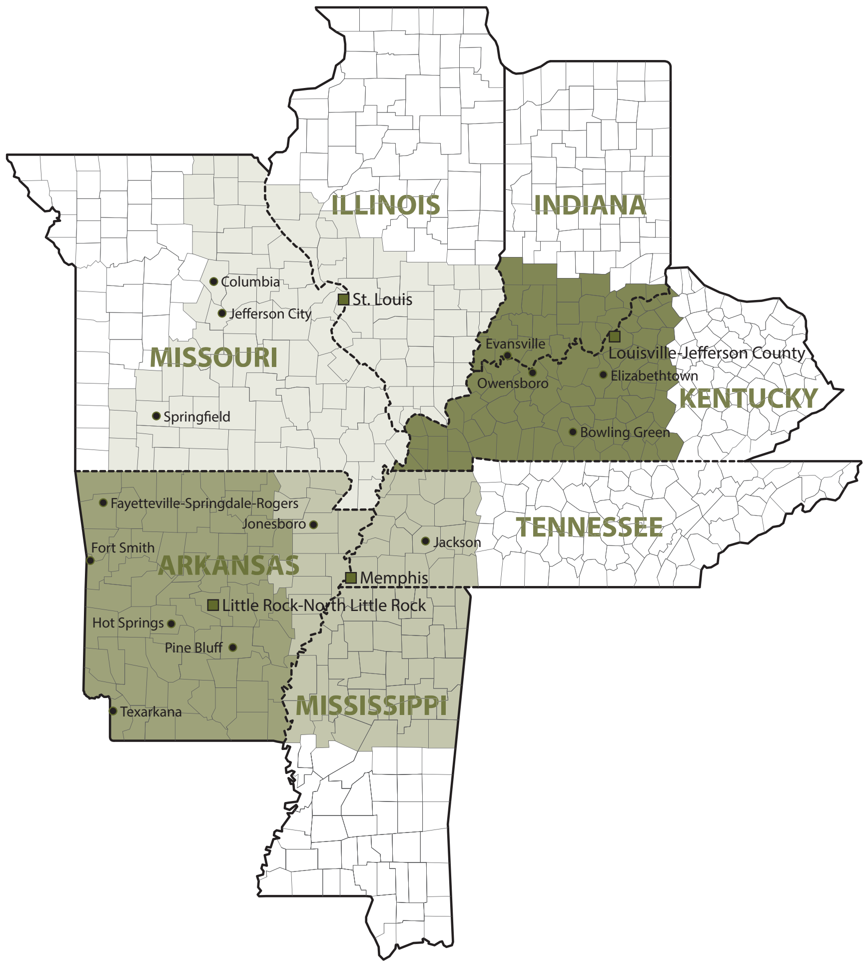
Table 6 reports the results of two special questions posed to our agricultural bankers. The first question asked bankers about the farm income projections issued in March 2018 by the University of Missouri's Food and Agricultural Policy Research Institute, which indicated a decline of about 6.5 percent in farm income for the year. A significant majority (79 percent of respondents to the survey) felt the projection was about right. The balance was basically split, with slightly more feeling the projection was too pessimistic than those who felt the projection was too optimistic.

The second special question asked bankers about the impact they expected the Tax Cuts and Jobs Act that was enacted in December 2017 would have on their borrowers. A significant number, 71 percent, indicated they expected the new law would have a somewhat positive or significantly positive impact on their borrowers; 25 percent felt the new law would have no effect on their borrowers, while only 4 percent felt the impact would be negative. ■

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, 2018, there were 230 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; Brian Levine, 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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