2017 ■ Second Quarter

AGRICULTURAL Finance Monitor

Selected Quotes from Banker Respondents Across the Eighth Federal Reserve District

The farm economy in northeast Missouri could be described as stale. Most people last year were able to make loan payments because of higher soybean yields. We do not expect that this year. We are also noticing some alarming trends in off-balance-sheet transactions for farmers, especially equipment leasing. Many agricultural customers are incurring mandatory payments each year, but with no assets to back up the debt. Input prices are generally higher, but commodity prices are down and margins continue to shrink. (Missouri)

Crops are planted, have emerged, and are in good condition. The biggest concerns today are low commodity prices and the future of government price supports. (Illinois)

The cumulative effect of multiple-year net income declines has weakened many customers' financial stability and influenced many to retire or quit. Farm program payment delays have resulted in cash flow problems for operations that have good profit margins. (Arkansas)

In the past three years, our agriculture customers have experienced low prices, but with adequate production in most areas. Some customers who have experienced financial difficulties the past two years cannot survive another large loss for 2017. (Tennessee)

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

The twenty-first quarterly survey of agricultural credit conditions was conducted by the Federal Reserve Bank of St. Louis from June 15, 2017, through June 30, 2017. The results presented here are based on the responses from 35 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 during the second quarter of 2017 declined relative to the second quarter of last year. Respondents have consistently reported lower year-over-year levels of income since the fourth quarter of 2013. This period correlates with an extended period of declining prices for commodities. Both survey results and comments from bankers indicate the long-term effect has had a negative impact on the financial condition of their borrowers. For the second-quarter 2017 survey, the impact of lower income shows up in lower household spending and lower capital spending compared with the same quarter a year ago. Furthermore, a majority of respondents feel these trends will continue into the third quarter of 2017, with lower income and spending relative to the same period last year. Values for quality farmland and levels of cash rents for farmland also declined over the past year. Going against the overall trends, a majority of bankers felt ranchland and pastureland values and rents improved relative to a year ago. However, those results are not expected to continue, as a slight majority of bankers project ranchland and pastureland values and rents will decline next quarter. Responses to bank-related activities indicate that loan demand increased relative to the second quarter of last year. A majority of bankers reported a lower level of availability of funds relative to last year while also reporting a declining rate of repayment on loans. Three special questions included in the survey asked about the financial condition of farmers and also about the impact of flooding on farm income for this year. Results show that most bankers assessed the financial condition of farmers and ranchers in their area as having experienced modest deterioration from a year earlier. The Food and Agricultural Policy Research Institute at the University of Missouri has projected that net farm income will fall about 8 percent in 2017 from 2016, and 75 percent of bankers in this survey felt those projections were about right. The remainder were fairly evenly split that the projections were either too optimistic or too pessimistic. Survey responses indicated that the effects of flooding on farm income in 2017 were only modest or insignificant.

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 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:Q2 (actual)	50
2017:Q3 (expected)	50
Household spending	
2017:Q2 (actual)	74
2017:Q3 (expected)	80
Capital spending	
2017:Q2 (actual)	47
2017:Q3 (expected)	57

NOTE: Actual and expected values for the indexes use all responses from the 2017:Q2 survey.

Table 2

Land Values and Cash Rents (year/year change)

	Percent or index value
Land values	
Quality farmland	–0.8%
Expected 3-month trend	88
Ranchland or pastureland	4.5%
Expected 3-month trend	90
Cash rents	
Quality farmland	–1.8%
Expected 3-month trend	84
Ranchland or pastureland	7.9%
Expected 3-month trend	96

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

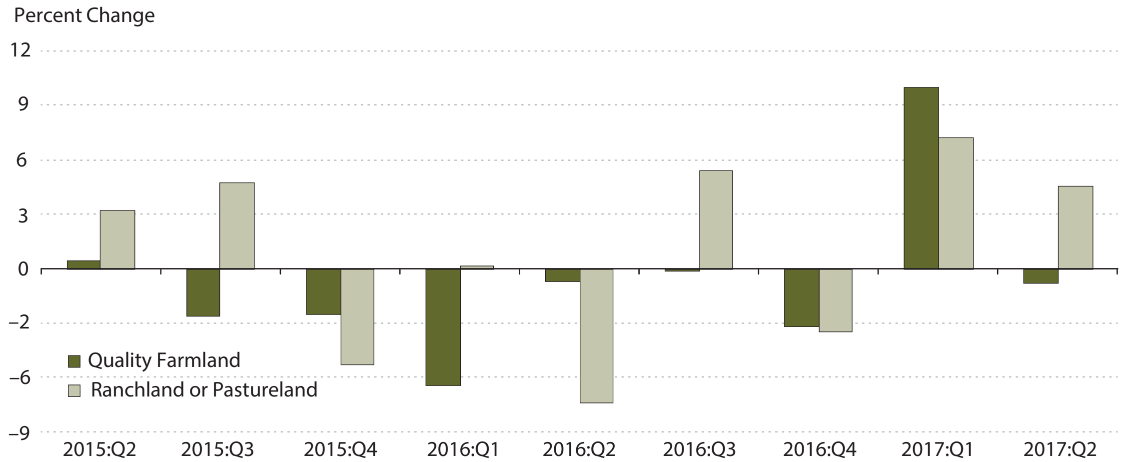
Survey Results

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 50 and marks the 14th 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 value for the current quarter is only slightly worse than the value of 55 from the first quarter of 2017. When asked about expectations for farm income for the third quarter, responses also yielded a diffusion value of 50. This indicates that, while a majority of bankers still feel farm income is down relative to the same period from last year, the number is at least not increasing. Levels of household spending and capital spending, both closely tied to farm income, reflected stagnant trends. While a majority of bankers feel that household spending decreased relative to the same period last year, the proportion is slightly improved from the previous survey. A majority of bankers expect that, for the third quarter, household spending will decline relative to last year; but proportionately fewer bankers responded that way, resulting in a small increase in the index from 74 to 80. Also, survey results indicate capital spending levels were down from a year ago but had improved slightly from the previous survey. While a majority of bankers expect that capital spending for the third quarter will still decline from last year's levels, that category of spending showed the highest degree of improvement, with the index increasing from 47 to 57. (See Table 1 and Figures 3 to 5.) Readers are reminded that farm income is highly volatile and subject to seasonal fluctuations.

Figure 1

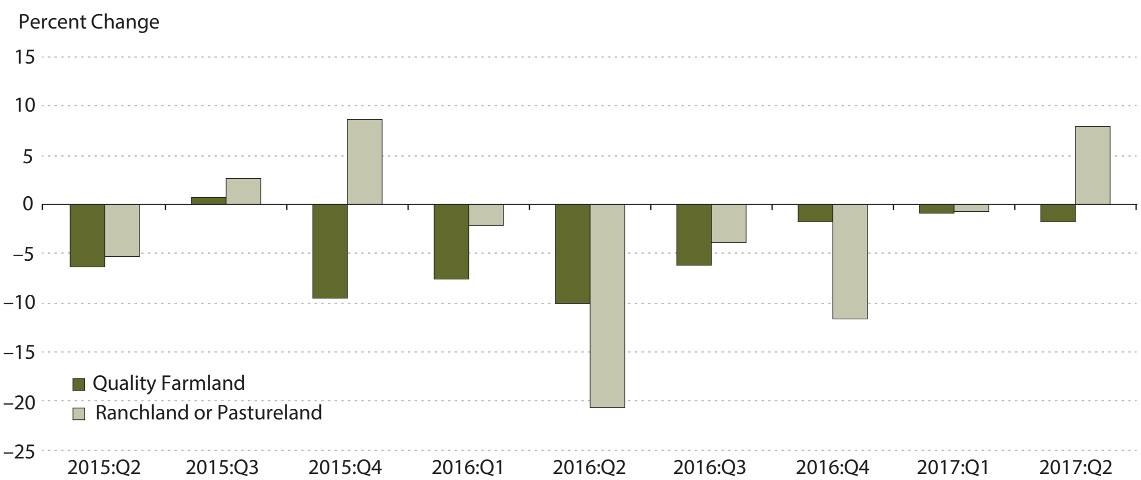
Year-Over-Year Change in Average Eighth District Land Values



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.

Current and Expected Land Values and Cash Rents

Table 2 shows year-to-year changes in land values and cash rents. Quality farmland values and rents for quality farmland registered small decreases in the second-quarter survey compared with results from four quarters earlier. Quality farmland values decreased by less than 1 percent in the second quarter, while cash rents declined 1.8 percent relative to a year ago. However, ranchland and pastureland exhibited increases compared with a year earlier. Ranchland and pastureland values increased 4.5 percent and rents improved by 7.9 percent. As shown in the index values, proportionately more bankers expect quality farmland values and rents will decline in the third quarter of 2017 relative to a year ago. Respondents also expect that ranchland and pastureland values and rents for the third quarter will decline relative to a year ago.

Table 3

2017:Q2 Variables (versus year-ago levels)

	Index value
Farm income	
Expected	63
Actual	50
Difference	–13
Household spending	
Expected	75
Actual	75
Difference	0
Capital spending	
Expected	50
Actual	46
Difference	–4
Demand for loans	
Expected	109
Actual	122
Difference	13
Availability of funds	
Expected	109
Actual	96
Difference	–13
Rate of loan repayment	
Expected	83
Actual	83
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	
2017:Q2 (actual)	109
2017:Q3 (expected)	103
Availability of funds	
2017:Q2 (actual)	97
2017:Q3 (expected)	93
Rate of loan repayment	
2017:Q2 (actual)	76
2017:Q3 (expected)	80

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:Q2 survey.

Table 5

Interest Rates (%)

	2017:Q2	2017:Q1	Change
Operating			
Fixed	5.73	5.53	0.21
Variable	5.39	5.24	0.15
Machinery/ intermediate-term			
Fixed	5.86	5.81	0.05
Variable	5.48	5.48	0.00
Farm real estate			
Fixed	5.43	5.26	0.17
Variable	5.18	5.07	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.

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 2017, as well as the expected values for the second quarter that bankers reported in the first-quarter survey of 2017. [NOTE: For Table 3, we compute diffusion indexes using only those banks that responded to both the 2017 first-quarter survey and the current survey.] As seen by the smaller actual diffusion indexes (relative to the expected indexes), the proportion of bankers reporting that farm income declined in the second quarter was slightly larger than the proportion expecting a decline. For these banks, no difference between actual and expected was reported for household spending, while capital spending recorded a small difference between actual and expected. Proportionately more bankers reported that the actual demand for bank loans during the second quarter of 2017 was greater than had been expected three months earlier, while the opposite was seen for the availability of funds. These developments appeared to make no difference in the rate of loan repayment, as the proportion of bankers who felt that the actual rates of loan repayments were lower was equal to the proportion expecting lower rates of repayment.

Figure 3

Farm Income: Expected and Actual Values

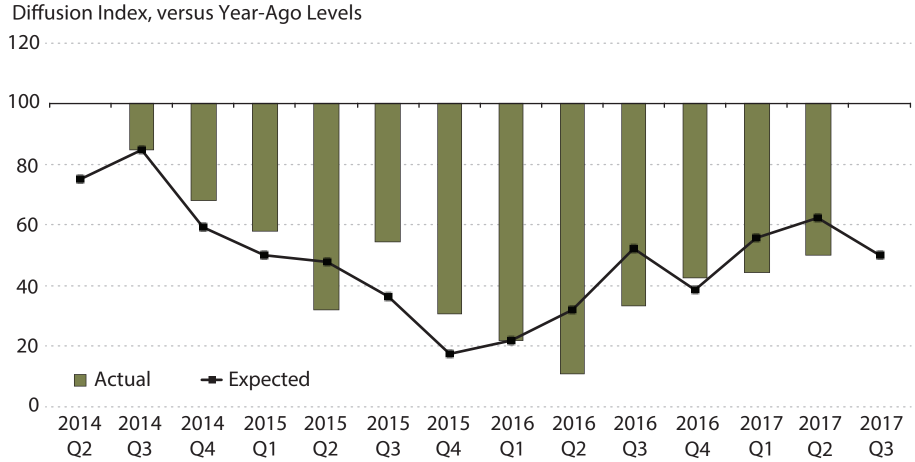


Figure 4

Household Spending: Expected and Actual Values

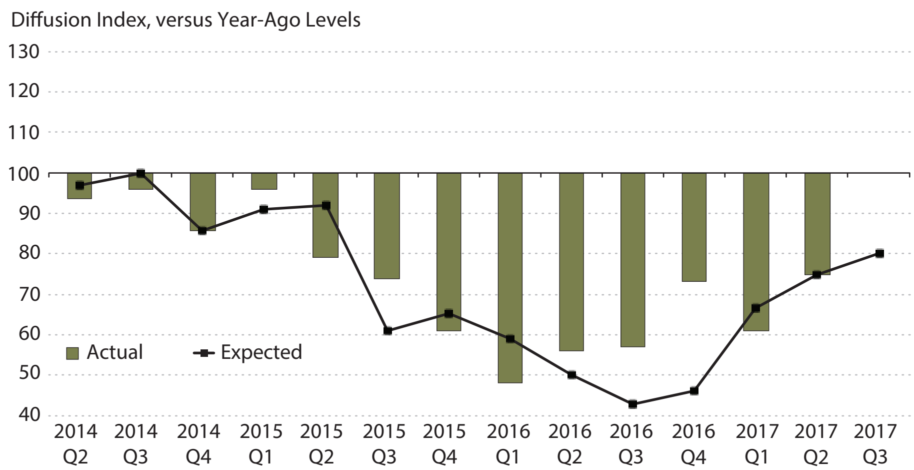
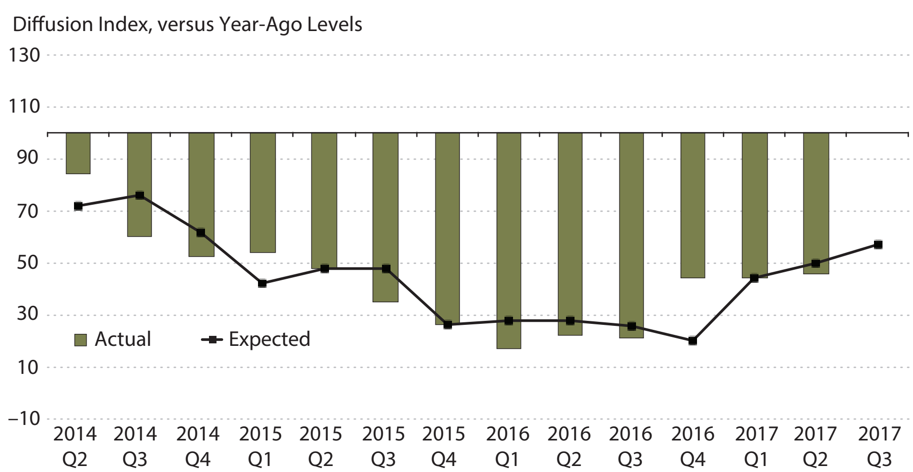


Figure 5

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:Q2 are calculated using only the responses from the 2017: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

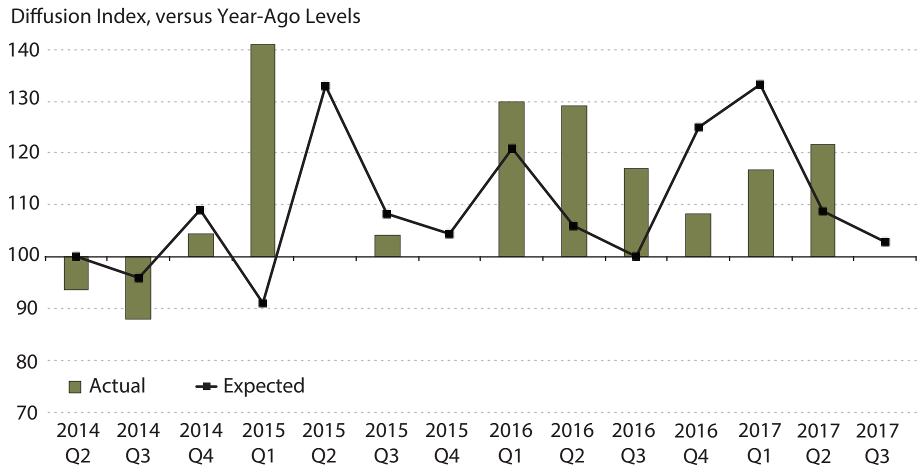


Figure 7

Availability of Funds: Expected and Actual Values

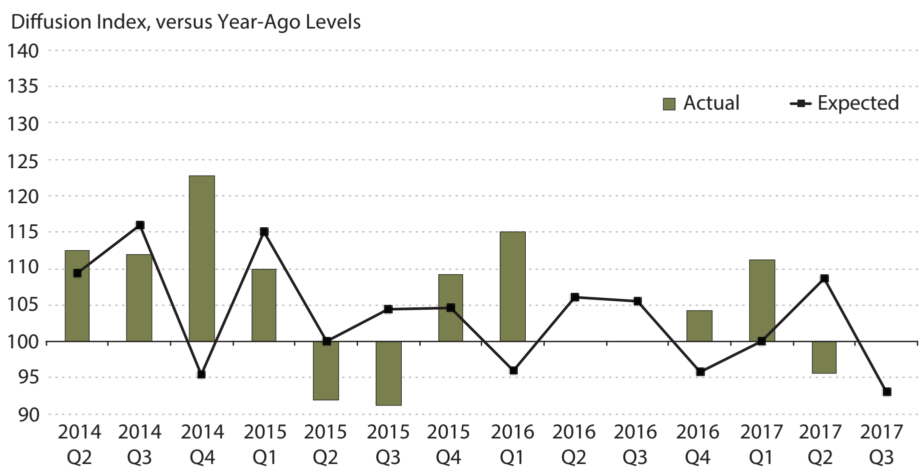
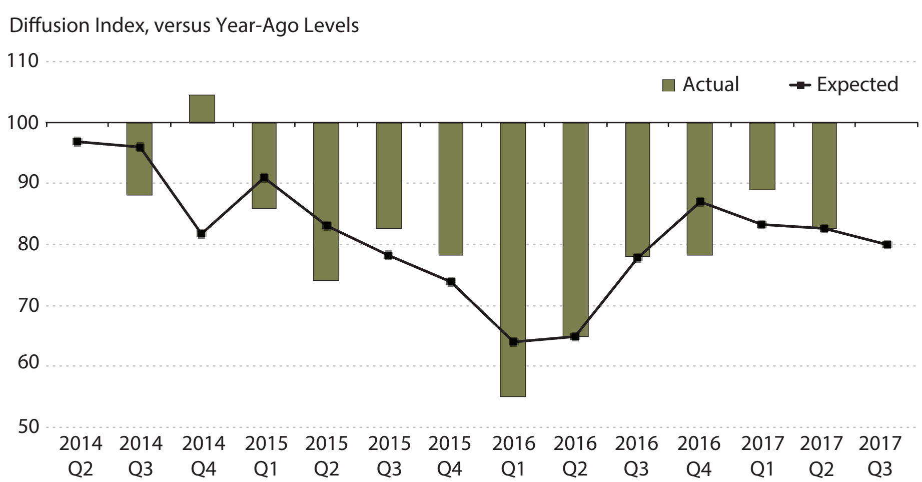


Figure 8

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 indices in 2017:Q2 are calculated using only the responses from the 2017: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.

Financial Conditions

Table 4 reports our survey respondents' assessment of prospective bank lending conditions in the Eighth District in the third quarter of 2017 alongside results for the second quarter. As noted in previous surveys, the actual index values for second-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 second-quarter 2017 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 in the third quarter are not greatly different. 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 more than 100). A slightly lower percentage of bankers feel that availability of funds will increase relative to a year ago. The percentage of bankers expecting the rate of loan repayment to increase is slightly higher but is still less than a majority (an index value less than 100).

Table 5 presents average interest rates on fixed- and variable-rate loan products in the second quarter of 2017 and the first quarter of 2017. Interest rates were modestly higher in the second quarter for all categories except for variable machinery/intermediate-term loans. Variable rates for machinery/intermediate-term loans were unchanged from the first quarter to the second quarter of the year. The category experiencing the largest increase was fixed-rate operating loans, which increased by 21 basis points to 5.73 percent in the second quarter.

Special Questions

Table 6 reports the results of three special questions posed to our agricultural bankers. The first question asked bankers to assess the overall change in the financial condition of their borrowers. We also posed this question to our bankers in the second quarter of 2016. A comparison of survey results indicates that bankers feel the financial condition of their borrowers also deteriorated in 2017, but not as significantly as it deteriorated in 2016: Responses to the 2016 survey assessed that 14 percent of borrowers had *significant* deterioration in their financial condition compared with a year earlier, whereas no responses indicated that in the 2017 survey. Furthermore, the 2016 survey indicated that 66 percent of bankers assessed modest deterioration in the financial condition of their borrowers, while 72 percent responded that way in the 2017 survey. Bankers assessed 17 percent of their borrowers had no change in financial condition in the 2016 survey, while 25 percent responded in that manner in the 2017 survey.

The second special question asked bankers about the farm income projections issued in March 2017 by the University of Missouri's Food and Agricultural Policy Research Institute, which indicated a roughly 8 percent decline in net farm income this year. Three-quarters of bankers felt that number was about right, with the balance of remaining responses evenly split among those that felt the projection was either too optimistic or too pessimistic.

The third special question asked our agricultural bankers to assess how the late-April to early-May flooding affected

Table 6

Special Questions

Assess the overall change in the financial condition of agricultural borrowers (farmers and/or ranchers) in your area from a year earlier:

Percent of respondents	
Significant deterioration	0
Modest deterioration	72
No change	25
Modest improvement	3
Significant improvement	0

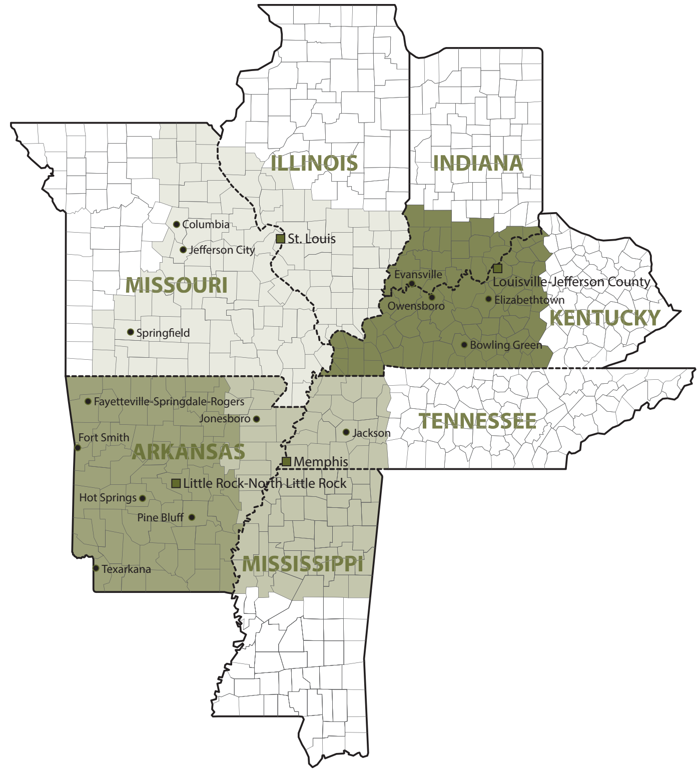
According to the latest baseline projections (March 2017) published by the Food and Agricultural Policy Research Institute at the University of Missouri–Columbia, U.S. net farm income (in 2016 dollars) is projected to fall by about 8 percent in 2017. In your view, is this baseline farm income projection:

Percent of respondents	
About right	75
Too optimistic	13
Too pessimistic	13

How did the late-April to early-May flooding affect the expectations for 2017 farm income in your area?

Percent of respondents	
Significantly lowered	0
Modestly lowered	47
Did not change	53

their expectations for farm income this year. A slight majority of bankers (53 percent) reported that the spring flooding did not change their expectations. However, only slightly fewer bankers reported that the flooding modestly lowered their expectations for farm income. ■



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.

Posted on August 10, 2017