2019 - Second Quarter AGRICULTURAL Finance Monitor

Selected Quotes from Banker Respondents Across the Eighth Federal Reserve District

Tariffs! (Arkansas)

There has been some growth in both contract poultry and swine production as integrated producers expand production. (Arkansas)

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

The twenty-ninth quarterly survey of agricultural credit conditions was conducted by the Federal Reserve Bank of St. Louis from June 15, 2019, through June 30, 2019. The results presented here are based on responses from 21 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 2019. For the twenty-second consecutive quarter, a majority of bankers who responded to the survey reported a decline in farm income compared with the same period a year ago. It was the highest proportion of bankers reporting lower income since the first quarter of 2016 when considering all observed data. Fewer bankers, but still a majority, expect farm income to remain lower next quarter compared with the same period last year. Multiple factors can influence responses from bankers that report lower farm income, such as flooding and depressed commodity prices. Bankers gave a similar downbeat assessment of the current quarter for farm household spending and capital spending as they did for income: An increasing majority reported a decline in those categories compared with levels one year ago. Expectations for the next quarter are stable for household spending and show only a slight improvement for capital spending. Household and capital spending are both considered closely related to trends in farm income. Values for farmland were reported 2.6 percent higher this quarter compared with a year ago. However, ranchland or pastureland values fell slightly, by 1.2 percent compared with a year ago. Cash rents for quality farmland in the second quarter fell 2.9 percent compared with a year ago, but in contrast, rents for ranchland or pastureland rose 4.3 percent. The improvement in rents for ranchland or pastureland reflects a partial recovery from the sharp decline reported in the previous survey. Proportionately more bankers reported an increase in loan demand in the second quarter compared with last year during the same period. The availability of funds was considered only slightly lower than a year ago by a majority of the survey respondents. A majority of bankers reported a decline in the rate of loan repayment this quarter compared with a year ago. This quarter's survey asked two special questions. The first question asked bankers to indicate the degree to which their respective lending area was impacted by flooding or other extreme weather during the first half of the year. The results showed a significant majority of bankers reported an impact on their lending area due to adverse weather. More than three-quarters of bankers reported a modest-tosignificant impact, while less than one-fifth percent reported no impact. 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 second 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:Q2 (actual)	29
2019:Q3 (expected)	50
Household spending	
2019:Q2 (actual)	76
2019:Q3 (expected)	75
Capital spending	
2019:Q2 (actual)	43
2019:Q3 (expected)	47

NOTE: Actual and expected values for the indexes use all responses from the 2019:Q2 survey.

second special question asked bankers to indicate the percentage of their agricultural borrowers who were, or likely will be, impacted by flooding or extreme weather during the first half of the year. Similar to the previous response, bankers indicated a majority of these customers were either significantly or modestly impacted by flooding or extreme weather earlier this year. A little over one-third of these customers were considered not to have been affected.

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 29 displayed in Table 1. The diffusion index value for the previous quarter was 46, so this quarter's index indicates more bankers reported a decline in income from a year ago compared with the previous quarter's survey. [NOTE:

Table 2

Land Values and Cash Rents (year/year change)

	Percent or index value
Land values	
Quality farmland	2.6%
Expected 3-month trend	105
Ranchland or pastureland	-1.2%
Expected 3-month trend	106
Cash rents	
Quality farmland	-2.9%
Expected 3-month trend	90
Ranchland or pastureland	4.3%
Expected 3-month trend	100

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

An index value of 100 would indicate an equal percentage of bankers reported increases and decreases in farm income relative to a year earlier.] When asked about expectations for farm income for the third quarter of 2019, responses yielded a diffusion index value of 50, which indicates a majority, though a small majority, of bankers believe income will be lower next quarter compared with the third quarter of 2018. Survey results for levels of household spending and capital spending are also down this quarter compared with a year ago, and a similar outlook is expected for the third quarter of 2019 (as indicated by index values below 100). Readers are reminded that farm income is highly volatile and subject to seasonal fluctuations. Readers are



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.

also reminded that the index values in Table 1 are based on all responses received for the second 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 year-to-year percent changes in land values and cash rents as well as bankers' expectations for the next quarter. Quality farmland values rose 2.6 percent in the second quarter, while cash rents for that property decreased 2.9 percent relative to a year ago. In contrast, ranchland or pastureland values decreased 1.2 percent compared with a year ago, while cash rents for that category of property increased 4.3 percent. As shown by the index values in Table 2, proportionately more bankers expect that values for both quality farmland and ranchland and pastureland will improve in the next three months relative to a year ago. Cash rents for the next three months are expected to decline for farmland (an index value of 90) but be stable for ranchland or pastureland. See Figures 1 and 2 for a historical perspective on land values and cash rents, respectively.

Table 3

2019:Q2 Variables (versus year-ago levels)

	Index value
Farm income	
Expected	65
Actual	29
Difference	-35
Household spending	
Expected	88
Actual	76
Difference	-12
Capital spending	
Expected	41
Actual	53
Difference	12
Demand for loans	
Expected	106.3
Actual	118.8
Difference	12.5
Availability of funds	
Expected	88
Actual	100
Difference	13
Rate of loan repayment	
Expected	69
Actual	69
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.

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 2019 as well as the expected values for the second quarter that bankers reported in the firstquarter 2019 survey. [NOTE: For Table 3, we compute diffusion indexes using only those banks that responded to the first-quarter 2019 survey and the current survey.] As seen by the smaller actual diffusion index (relative to the expected index), a larger proportion of bankers reported that farm income declined in the second quarter compared with the proportion that were expecting a decline three months earlier. The same can be said for farm household

Table 4

Lending Conditions (versus year-ago levels)

	Index value
Demand for loans	
2019:Q2 (actual)	119
2019:Q3 (expected)	116
Availability of funds	
2019:Q2 (actual)	95
2019:Q3 (expected)	100
Rate of loan repayment	
2019:Q2 (actual)	67
2019:Q3 (expected)	74

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:Q2 survey.

Table 5

Interest Rates (%)

	2019:Q2	2019:Q1	Change
Operating			
Fixed	6.18	6.27	-0.10
Variable	6.12	6.21	-0.10
Machinery/ intermediate-term			
Fixed	6.29	6.41	-0.12
Variable	6.14	6.25	-0.11
Farm real estate			
Fixed	6.07	6.10	-0.04
Variable	5.94	6.06	-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.

spending. However, a smaller number of bankers reported that capital spending was lower in the second quarter than had been expected three months earlier. Proportionately more bankers reported that the actual demand for loans during the second quarter of 2019 was greater than had been expected three months earlier. Additionally, for next quarter, the proportion of bankers that expect a change is equal to the proportion that expect no change in the availability of funds. Responses from the survey last quarter

Figure 3

Farm Income: Expected and Actual Values

Diffusion Index, versus Year-Ago Levels 120



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:Q3 are calculated using only the responses from the 2019: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 2019:Q3 are calculated using only the responses from the 2019: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.

indicated more bankers had expected a decline in the availability of funds. These developments appeared to have made no difference in the rate of loan repayment: The proportion of bankers who reported that the actual rate of loan repayment had declined was equal to the proportion who had expected a lower rate (that is, the actual and expected diffusion index values were the same).

Financial Conditions

Table 4 reports our survey respondents' assessment of bank lending conditions in the Eighth District in the second quarter of 2019 alongside their expectations for the third 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 2019 survey, instead of a common sample between the current and previous surveys. Overall, responses for this quarter's survey indicate a majority of bankers saw higher demand for loans compared with the second quarter of last year; bankers also expect loan demand next quarter will be higher than a year earlier. Slightly more bankers reported that the availability of funds declined in the second quarter from a year earlier, but on net no change is expected for the third quarter compared with levels from a year ago. Bankers reported that the rate of loan repayment fell during the second quarter compared with the same period last year. However, the increase in the diffusion index value from 67 for this quarter to 74 for the third quarter reflects some expected improvement in the rate of loan repayment.

Table 5 presents average interest rates on fixed- and variable-rate loan products in the first and second quarters of 2019. Interest rates were reported as lower in the second quarter for all categories. Fixed-rate real estate loans were the most stable, declining only 4 basis points, while all other categories declined between 10 and 12 basis points.

Special Questions

Table 6 reports the results of two special questions posed to our agricultural bankers. The first question asked bankers to indicate the degree to which their respective lending areas were impacted by flooding or other extreme weather during the first half of the year. The results indicate that, on average, 81 percent of bankers reported a

Table 6

Special Questions

Please indicate the degree to which your lending area (including local infrastructure, roads, bridges, railways, and housing) was impacted by flooding or other extreme weather events during the first half of the year (select one):

	Percentage of respondents
Significantly impacted	33
Moderately impacted	48
Not impacted	19

Please indicate the percentage of your agricultural borrowers who were, or likely will be, impacted by flooding or other extreme weather events during the first half of the year:

	Average of percentage responses	;
Significantly impacted	28	;
Modestly impacted	32	1
Not impacted	36	•

NOTE: Values will not sum to 100 due to averaging.

modest-to-significant impact, while 19 percent reported no impact. The second special question asked bankers to indicate the percentage of their agricultural borrowers who were, or likely will be, impacted by flooding or extreme weather during the first half of the year. Responses were averaged by category, and the results indicate a majority of these customers were either modestly or significantly impacted. A little over one-third of the responses indicated no impact on these customers from flooding or extreme weather.

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, 2019, there were 226 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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