The Agricultural Newsletter from the Federal Reserve Bank of Chicago

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AgLetter

FARMLAND VALUES AND CREDIT CONDITIONS

Summary

Farmland values for the Seventh Federal Reserve District increased 1 percent from a year ago during the second quarter of 2017. This was the first year-over-year gain in three years. Additionally, "good" agricultural land values in the District moved up 1 percent from the first quarter to the second quarter of 2017, according to a survey of 186 agricultural bankers. District farmland values seemed to stabilize in the first half of 2017, despite lower prices for corn and soybeans relative to a year ago. Moreover, 76 percent of survey respondents expected agricultural land values to be stable during the third quarter of 2017, while 2 percent expected them to increase and 22 percent expected them to decrease.

In the second quarter of 2017, agricultural credit conditions for the District slowed their downward trend. Repayment rates for non-real-estate farm loans weakened relative to a year earlier in the second quarter of 2017 (but by the least since the fourth quarter of 2014). The proportion of the District's agricultural loan portfolio reported as having repayment problems was nearly the same as a year ago. Renewals and extensions of non-real-estate farm loans continued their trend of increasing from a year ago, according to respondents. For the April through June period of 2017, demand for non-real-estate farm loans was up again from a year earlier—as was the availability of funds for lending by agricultural banks. For the second quarter of 2017, the District's average loan-to-deposit ratio was 74.4 percent—5.5 percentage points below the average level desired by the responding bankers. On average, *real* interest rates for agricultural real estate, feeder cattle, and operating loans shifted up in the second quarter of 2017.

CONFERENCE ANNOUNCEMENT

Midwest Agriculture's Ties to the Global Economy

The Federal Reserve Bank of Chicago will hold a conference on November 28, 2017, to bring together those interested in issues surrounding agricultural trade and the global economy. At the conference, experts from academia, industry, and policy institutions will discuss trends in agricultural exports and their impact on the Midwest, as well as the role of global demand for the region's agricultural products. For details and to register, go to https://www.chicagofed.org/events/2017/ag-conference.

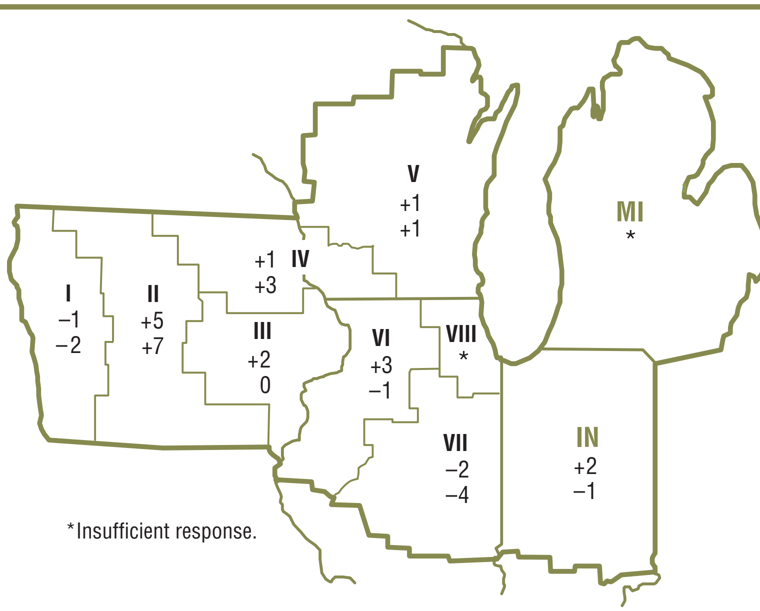
Farmland values

For the second quarter of 2017, there was a year-over-year increase of 1 percent in District agricultural land values—which was the first such upward movement since mid-2014 (see chart 1 on next page). Although the District's overall farmland values were up from a year ago, those of both Illinois and Indiana experienced year-over-year decreases.

Percent change in dollar value of "good" farmland

Top: April 1, 2017 to July 1, 2017
Bottom: July 1, 2016 to July 1, 2017

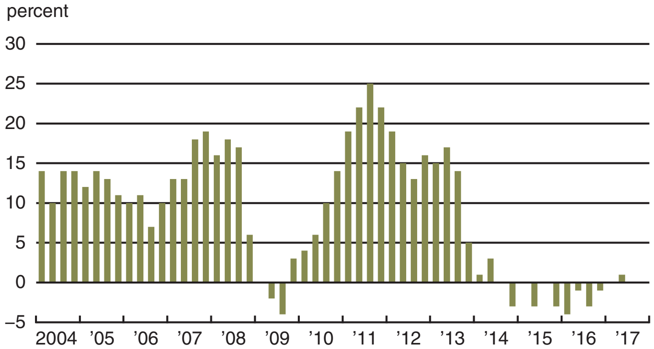
	April 1, 2017 to July 1, 2017	July 1, 2016 to July 1, 2017
Illinois	0	–3
Indiana	+2	–1
Iowa	+2	+3
Michigan	*	*
Wisconsin	+1	+1
Seventh District	+1	+1



Note: New area boundaries reflect recent survey response patterns.

*Insufficient response.

1. Year-over-year changes in Seventh District farmland values, by quarter



Source: Author's calculations based on data from Federal Reserve Bank of Chicago farmland value surveys.

Moreover, the year-over-year changes in farmland values varied across different areas within states, particularly in Iowa (see map and table on front). District farmland values moved up 1 percent in the second quarter of 2017 relative to the first quarter. Farmland values for each District state were either up or flat in the second quarter of 2017 compared with the first quarter. Agricultural land values moved higher even without the benefit of a surge in corn and soybean prices, as seen in the second quarter of 2016.

Substantial concerns developed about this year's corn and soybean yields—specifically, that these yields would fall below their long-run trends. Several factors contributed to this concern: late planting, replanting, and excess precipitation in much of the District this spring, followed by a drought expanding into the District from the west. That said, a rally in corn and soybean prices failed to materialize, given the large stocks in storage (from record harvests in 2016). Using trend yields, the U.S. Department of Agriculture (USDA) estimated in July that 2017's harvest of corn for grain would be 14.26 billion bushels (second only to 2016's record) and this year's harvest of soybeans would be 4.26 billion bushels (a bit smaller than last year's record). Corn stocks relative to usage for 2017–18 would remain near the decade-high level reached in 2016–17, while soybean stocks relative to usage would be the highest in a decade. The USDA estimated price intervals for the 2017–18 crop year to be \$2.90 to \$3.70 per bushel for corn and \$8.40 to \$10.40 per bushel for soybeans. When calculated with the midpoints of these price ranges, the projected revenues from the 2017 U.S. corn and soybean harvests are down 7.3 percent and 2.1 percent from a year ago, respectively. Even though the USDA index of June crop prices received by farmers was down only 1 percent from a year ago and 3 percent from two years ago (see final table), pressures on the earnings of corn and soybean farms have reemerged after better-than-expected returns from 2016's crops.

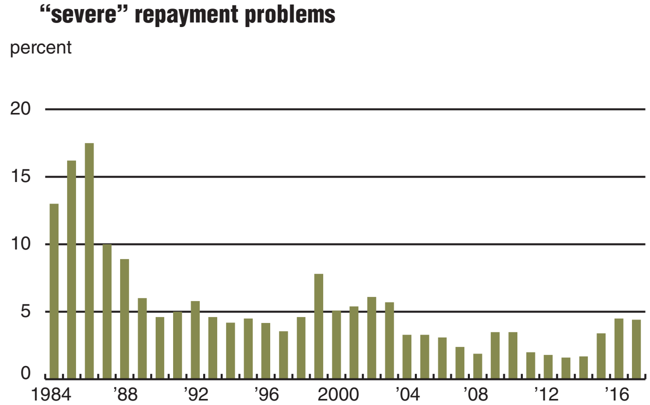
In contrast, some relief for livestock producers seemed to have arrived in the form of rising prices for their goods. The USDA's June index of prices received for livestock products was up 10 percent from a year ago, although it was still down 11 percent from two years ago (see final table). In June, prices received by farmers for important District products were above the levels from one year earlier: up 17 percent for milk, 17 percent for eggs, 5 percent for cattle (steers and heifers), and 3 percent for hogs (barrows and gilts). Given that Iowa and Wisconsin have larger shares of livestock production than the other District states, higher livestock revenues may have helped buoy agricultural land values in those two states.

Credit conditions

While agricultural credit conditions in the second quarter of 2017 again deteriorated relative to 12 months ago, they seemed to do so more slowly than in recent quarters. Repayment rates for non-real-estate farm loans relative to a year ago were still down during the second quarter of 2017, but less so than in the first quarter. At 68 (2 percent of responding bankers noted higher rates of loan repayment than a year ago and 34 percent noted lower rates), the index of loan repayment rates was last higher in the fourth quarter of 2014. The percentages of farm loans with major or severe repayment problems (3.5 percent and almost 1 percent of the District loan portfolio, respectively) were similar to the levels of a year ago (see chart 2). In addition, renewals and extensions of non-real-estate farm loans over the April through June period of 2017 were higher than during the same period a year ago, as 37 percent of survey respondents reported more of them and 2 percent reported fewer of them.

Nominal interest rates on agricultural real estate and operating loans ticked up in the second quarter of 2017, but the nominal rates for feeder cattle loans dipped. As of July 1, 2017, District average interest rates on new farm operating loans and real estate loans had risen to 5.20 percent and 4.86 percent, respectively, while the average interest

2. Percentage of the District farm loan portfolio with "major" or "severe" repayment problems



Source: Author's calculations based on data from Federal Reserve Bank of Chicago farmland value surveys (for the second quarter of each year).

Credit conditions at Seventh District agricultural banks

	Loan demand	Funds availability	Loan repayment rates	Average loan-to-deposit ratio	Interest rates on farm loans: Operating loans[a]	Feeder cattle[a]	Real estate[a]
	(index)[b]	(index)[b]	(index)[b]	(percent)	(percent)	(percent)	(percent)
2016							
Jan–Mar	156	105	32	73.3	4.91	5.01	4.65
Apr–June	126	108	48	72.6	4.89	5.05	4.57
July–Sept	132	103	48	75.3	4.87	4.95	4.57
Oct–Dec	114	105	65	75.0	5.03	5.10	4.71
2017							
Jan–Mar	129	101	57	74.4	5.13	5.27	4.80
Apr–June	119	104	68	74.4	5.20	5.25	4.86

[a]At end of period.
[b]Bankers responded to each item by indicating whether conditions in the current quarter were higher or lower than (or the same as) in the year-earlier quarter. The index numbers are computed by subtracting the percentage of bankers who responded "lower" from the percentage who responded "higher" and adding 100.
Note: Historical data on Seventh District agricultural credit conditions are available for download from the *AgLetter* webpage, https://www.chicagofed.org/publications/agletter/index.

rate on feeder cattle loans edged down to 5.25 percent. Yet, after being adjusted for inflation (which eased) with the Personal Consumption Expenditures Price Index, all these interest rates reached their highest levels since the third quarter of 2016: Average real interest rates rose 52 basis points for farm operating loans, 51 basis points for farm real estate loans, and 43 basis points for feeder cattle loans. Additional credit tightening was evident in the second quarter of 2017, as 22 percent of the survey respondents reported that their banks required larger amounts of collateral than a year ago and none reported that their banks required smaller amounts. District banks also had somewhat more funds available to lend in the second quarter of 2017 than a year ago. With 12 percent of responding bankers reporting their banks had more funds available to lend and 8 percent reporting their banks had less, the index of funds availability was 104 in the second quarter of 2017.

Demand for non-real-estate loans compared with a year earlier remained elevated. With 34 percent of survey respondents noting demand for non-real-estate loans above the level of a year ago and 15 percent noting demand below that of a year ago, the index of loan demand moved down to 119 for the second quarter of 2017. The District's average loan-to-deposit ratio for the second quarter of 2017 stood at 74.4 percent—5.5 percentage points below the average level desired by survey respondents. Over the first half of 2017, District banks issued an amount of farm operating loans that was higher than historically normal, but an amount of agricultural real estate loans that was lower than normal, according to responding bankers. In the first six months of 2017, merchants, dealers, and other input suppliers noticeably boosted agricultural lending as well. According to survey respondents, during the January through June period of 2017, lenders within the Farm Credit System also issued an above-normal amount of operating loans and mortgages. Meanwhile, life insurance companies reportedly issued an amount of agricultural loans in the District that was slightly below normal.

Looking forward

District farmland values were expected to stay at their current levels or decline a bit in the third quarter of 2017; 76 percent of responding bankers projected agricultural land values to be stable, 22 percent projected them to decrease, and only 2 percent projected them to increase. For the third quarter of 2017 relative to the same quarter of 2016, survey respondents anticipated farm loan volumes to decrease for real estate lending and to increase for non-real-estate lending.

An Iowa banker wrote: "Lower prices and dry weather in our area have farmers talking about meeting costs. Federal crop insurance will probably come into play." With the drought spreading, insurance payments may make up some portion of 2017's income for a sizable number of District crop farms. Responding bankers affirmed the key role of federal crop insurance; 89 percent expressed that if there were lower participation in crop insurance, agricultural lending in their respective areas would be negatively affected (3 percent doubted this outcome and the rest were uncertain).

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SELECTED AGRICULTURAL ECONOMIC INDICATORS

	Latest period	Value	Percent change from: Prior period	Year ago	Two years ago
Prices received by farmers *(index, 2011=100)*	June	98	−0.1	5	−7
Crops *(index, 2011=100)*	June	87	0.3	−1	−3
Corn *($ per bu.)*	June	3.43	−0.6	−10	−4
Hay *($ per ton)*	June	143	−2.1	7	−12
Soybeans *($ per bu.)*	June	9.10	−2.0	−11	−5
Wheat *($ per bu.)*	June	4.37	7.9	4	−19
Livestock and products *(index, 2011=100)*	June	107	0.6	10	−11
Barrows & gilts *($ per cwt.)*	June	62.70	16.5	3	3
Steers & heifers *($ per cwt.)*	June	133.00	−3.6	5	−15
Milk *($ per cwt.)*	June	17.30	3.6	17	2
Eggs *($ per doz.)*	June	0.63	2.6	17	−68
Consumer prices *(index, 1982–84=100)*	June	244	0.0	2	3
Food	June	250	−0.1	1	1
Production or stocks					
Corn stocks *(mil. bu.)*	June 1	5,225	N.A.	11	17
Soybean stocks *(mil. bu.)*	June 1	963	N.A.	10	54
Wheat stocks *(mil. bu.)*	June 1	1,184	N.A.	21	57
Beef production *(bil. lb.)*	June	2.28	5.4	4	14
Pork production *(bil. lb.)*	June	2.05	−2.1	2	3
Milk production *(bil. lb.)**	June	16.9	−5.1	1	3
Agricultural exports *($ mil.)*	June	10,422	−2.3	4	5
Corn *(mil. bu.)*	June	194	−3.8	−19	16
Soybeans *(mil. bu.)*	June	66	23.9	79	92
Wheat *(mil. bu.)*	June	111	−3.0	31	87
Farm machinery *(units)*					
Tractors, 40 HP or more	June	7,337	9	−5	−12
40 to 100 HP	June	5,842	11	−1	−3
100 HP or more	June	1,495	2	−17	−35
Combines	June	445	109	19	28

N.A. Not applicable.
*23 selected states.
Sources: Author's calculations based on data from the U.S. Department of Agriculture, U.S. Bureau of Labor Statistics, and the Association of Equipment Manufacturers.