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# AgLetter



## FARMLAND VALUES AND CREDIT CONDITIONS

### Summary

Agricultural land values for the Seventh Federal Reserve District showed signs of stabilizing in the first quarter of 2018, as farmland values were unchanged from a year ago. On average, “good” farmland values in the first quarter of 2018 rose 1 percent from the fourth quarter of 2017, according to the survey responses of 181 District agricultural bankers. The amount of farmland for sale in the three- to six-month period ending with March 2018 was slightly higher than in the same period ending with March 2017. Yet, the demand to purchase agricultural land, the number of farms sold, and the amount of acreage sold were slightly lower during the winter and early spring of 2018 compared with a year ago. More of the responding bankers expected District farmland values would decrease rather than increase during the second quarter of 2018; but three-fourths of them expected agricultural land values to be stable. Additionally, cash rental rates for District farmland decreased again in 2018; however, their year-over-year decline of 5 percent was smaller than the decline recorded for 2017.

District agricultural credit conditions tightened further during the first quarter of 2018. Once more, repayment rates for non-real-estate farm loans were down from a year ago, and renewals and extensions of these loans were up from a year earlier. Demand for non-real-estate

### SAVE THE DATE

On November 27, 2018, the Federal Reserve Bank of Chicago will hold a conference to examine the impact of agricultural technology on the Midwest’s farm sector and rural areas. Additional information about the event will become available in the coming months on <https://www.chicagofed.org>.

loans in the first quarter of 2018 was higher than a year ago, while the availability of funds to lend was somewhat lower than a year earlier. At 75.6 percent, the average loan-to-deposit ratio in the first quarter of 2018 was up from a year ago, but down from the previous quarter. Average nominal and real interest rates on farm loans increased in the first quarter of 2018 from the previous quarter.

### Farmland values

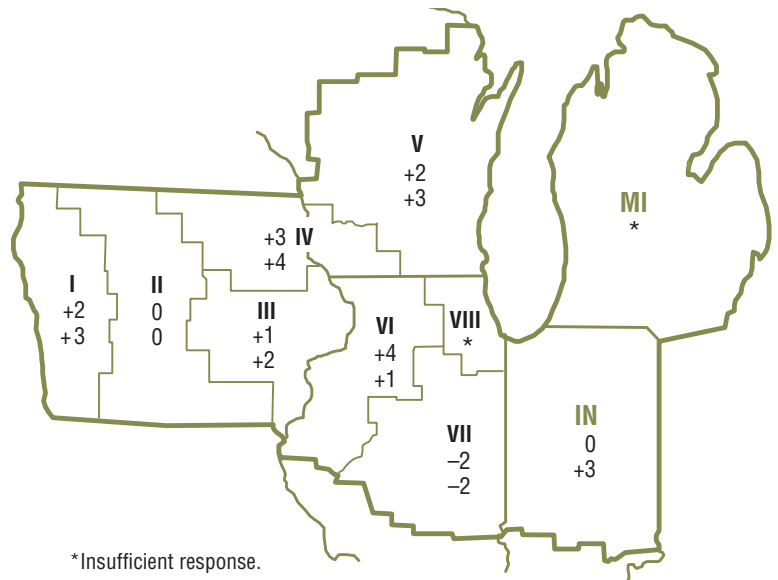
District agricultural land values were unchanged in the first quarter of 2018 relative to the first quarter of 2017, while farmland values edged up 1 percent from the fourth quarter of 2017 (see table and map below). This quarterly increase in District agricultural land values marked the fifth quarter in a row without a decline in such values. Illinois and Michigan (the latter based on a handful of responses) were the only District states to experience year-over-year decreases in farmland values. Remarkably, Wisconsin has not seen a year-over-year decrease in farmland values since

### Percent change in dollar value of “good” farmland

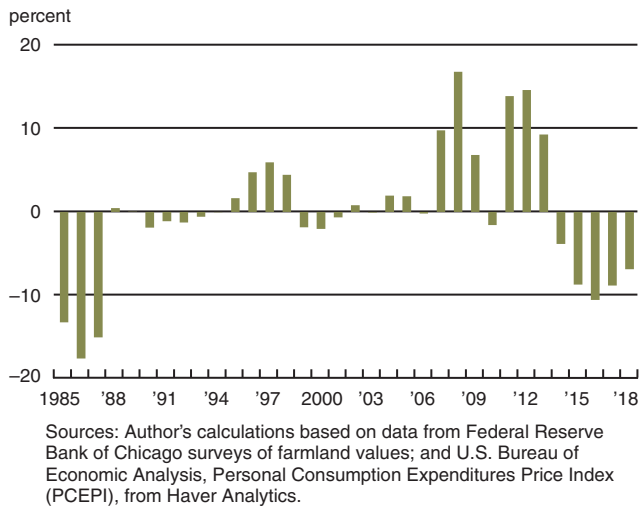
Top: January 1, 2018 to April 1, 2018

Bottom: April 1, 2017 to April 1, 2018

	January 1, 2018 to April 1, 2018	April 1, 2017 to April 1, 2018
Illinois	0	-1
Indiana	0	+3
Iowa	+1	+2
Michigan	*	*
Wisconsin	+3	+3
Seventh District	+1	0



### 1. Annual percentage change in Seventh District farmland cash rental rates adjusted by PCEPI



the second quarter of 2015. After being adjusted for inflation with the Personal Consumption Expenditures Price Index (PCEPI), District agricultural land values were down 1 percent in the first quarter of 2018 from the first quarter of 2017.

Farmland markets saw supply rising a bit, but demand and sales slipping. There was an increase in the amount of agricultural land for sale during the most recent winter and early spring relative to a year ago, as 27 percent of the responding bankers reported more farmland was up for sale in their areas and 23 percent reported less. With 18 percent of the survey respondents reporting higher demand to purchase farmland and 20 percent reporting lower demand, there was almost an even split among those that perceived a shift in interest on the part of buyers in the three- to six-month period ending with March 2018 relative to the same period ending with March 2017. Also, the number of farms and acreage sold seemed to be slightly lower in the winter and early spring relative to a year ago. Although some respondents commented about additional investor interest in farmland, survey participants indicated that the farmers' share of farmland acres purchased (relative to the investors') was roughly the same in the three- to six-month period ending with March 2018 versus the same period ending with March 2017.

With cash rentals making up 80 percent of District agricultural land operated by someone other than the owner, changes in their terms are a key indicator of agricultural conditions. Cash rental rates for farmland in the District decreased 5 percent for 2018 relative to 2017—the smallest decline in four years. For 2018, average annual cash rents to lease farmland were down 5 percent in Illinois, 3 percent in Indiana, 6 percent in Iowa, 3 percent in Michigan, and 7 percent in Wisconsin. After being adjusted for inflation using the PCEPI, District cash rental rates were down 7 percent from 2017 (see chart 1). Even so, an Iowa banker

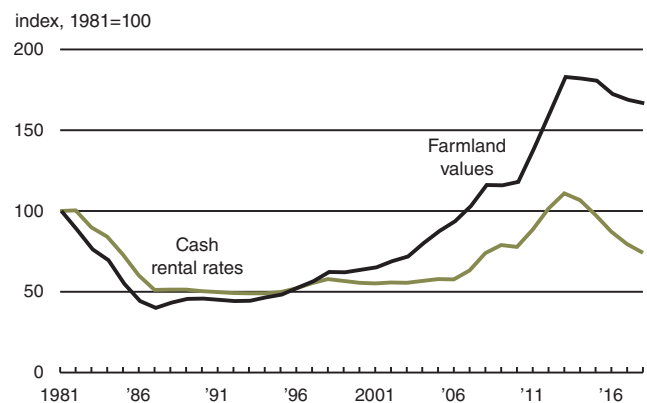
shared that “land rental rates are status quo to slightly lower, but demand limits a reduction in rent per acre.” There seemed to be enough farmers willing to take on more acres to plant, such that cash rents did not fall as much as they would have otherwise. Meanwhile, other farmers quietly ended their rental contracts, even defaulting on payments to landowners in some cases.

After five years of falling cash rents, the District's index of real cash rental rates was cut by a third, the largest such decline since the 1980s (see chart 2). Furthermore, the change in the index of inflation-adjusted farmland cash rental rates underperformed the change in the index of inflation-adjusted agricultural land values for the ninth consecutive year. The results show that 2018's real cash rental rates were 26 percent below their level in 1981, while real farmland values were still 67 percent above their 1981 level. Hence, the implication is that relatively stronger demand to own farmland than to lease it has kept farmland values from falling as much as the earnings potential of farmland (represented by cash rental rates). In March 2018, corn and soybean prices were about the same as a year ago, according to data from the U.S. Department of Agriculture (USDA) (see final table on back page). However, the five-year drops in real corn and soybean prices were 54 percent and 37 percent, respectively. Since these price decreases would have resulted in greater declines in crop revenues than observed in cash rents over the past five years (all else being equal), farm operations needed productivity gains through higher yields and cost-cutting measures in order to preserve working capital and maximize cash flows.

### Credit conditions

According to an Illinois banker, “we are seeing working capital dropping significantly, but for the most part our borrowers are financially stable and able to cope with the low grain prices.” In line with this comment, unsurprisingly, the District's agricultural credit conditions stumbled in

### 2. Indexes of Seventh District farmland adjusted by PCEPI



Note: Both series are adjusted by PCEPI for the first quarter of each year. Sources: Author's calculations based on data from Federal Reserve Bank of Chicago surveys of farmland values; and U.S. Bureau of Economic Analysis, Personal Consumption Expenditures Price Index (PCEPI), from Haver Analytics.

## Credit conditions at Seventh District agricultural banks

	Loan demand (index) <sup>b</sup>	Funds availability (index) <sup>b</sup>	Loan repayment rates (index) <sup>b</sup>	Average loan-to-deposit ratio (percent)	Interest rates on farm loans		
					Operating loans <sup>a</sup> (percent)	Feeder cattle <sup>a</sup> (percent)	Real estate <sup>a</sup> (percent)
<b>2017</b>							
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
July–Sept	120	95	60	77.4	5.16	5.25	4.84
Oct–Dec	128	99	53	76.6	5.34	5.44	4.93
<b>2018</b>							
Jan–Mar	130	97	53	75.6	5.53	5.62	5.14

<sup>a</sup>At end of period.

<sup>b</sup>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>.

the first quarter of 2018 relative to the first quarter of 2017. The index of repayment rates for non-real-estate farm loans stayed at 53 for the first quarter of 2018, with 2 percent of responding bankers observing higher rates of repayment and 49 percent observing lower rates. Moreover, 40 percent of the survey respondents noted higher levels of loan renewals and extensions over the January through March period of 2018 compared with the same period last year, while 2 percent noted lower levels of them. Credit tightening continued in the first quarter of 2018; 25 percent of survey respondents indicated that their banks required larger amounts of collateral for loans during the January through March period of 2018 relative to the same period of 2017, while none reported that their banks required smaller amounts. There was also a small rise (to 7 percent, on average) from a year ago in the share of loans guaranteed by the Farm Service Agency (FSA) of the USDA in the portfolios of reporting banks (FSA guarantees help some less creditworthy farmers qualify for loans).

Edging up to its highest value in six quarters, the index of demand for non-real-estate farm loans was 130, as 39 percent of the responding bankers noted higher loan demand compared with a year ago and 9 percent noted lower demand. At 97, the index of funds availability indicated there was little change in funding levels from a year ago; 8 percent of the survey respondents reported their banks had more funds available to lend and 11 percent reported their banks had less. The average loan-to-deposit ratio for the District was higher in the first quarter of 2018 than a year ago, yet decreased a percentage point from the fourth quarter of 2017 to 75.6 percent (4.4 percentage points below the average level desired by the survey respondents). As of April 1, 2018, the average nominal interest rates on operating loans (5.53 percent), agricultural real estate loans (5.14 percent), and feeder cattle loans (5.62 percent) were all higher than at the end of the previous quarter. Even after being adjusted for inflation using the PCEPI, average agricultural interest rates were still up. In real terms, interest rates were last higher in the second

quarter of 2016 for operating and feeder cattle loans and in the third quarter of 2016 for farm real estate loans.

### Looking forward

Most survey respondents expected agricultural land values to be unchanged in the second quarter of 2018: 75 percent of responding bankers anticipated farmland values to be stable, 19 percent anticipated a decline, and 6 percent anticipated an increase. Farm real estate loan volumes were forecasted to be generally the same in the second quarter of 2018 as in the second quarter of 2017, with 14 percent of survey respondents predicting higher levels of lending for farm real estate and 14 percent predicting lower levels. Survey respondents projected that the overall volume of non-real-estate farm loans would increase in the District during the April through June period of 2018 relative to the same period of 2017. While responding bankers forecasted higher volumes for operating loans and FSA-guaranteed loans, they forecasted lower volumes for grain storage loans, farm machinery loans, dairy loans, and feeder cattle loans.

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## SELECTED AGRICULTURAL ECONOMIC INDICATORS

	Latest period	Value	Percent change from		
			Prior period	Year ago	Two years ago
<b>Prices received by farmers</b> ( <i>index, 2011=100</i> )	March	95	4.5	1	2
<b>Crops</b> ( <i>index, 2011=100</i> )	March	88	1.5	2	4
Corn (\$ per bu.)	March	3.51	3.8	1	-1
Hay (\$ per ton)	March	148	3.5	13	9
Soybeans (\$ per bu.)	March	9.81	3.4	1	15
Wheat (\$ per bu.)	March	5.10	3.7	17	16
<b>Livestock and products</b> ( <i>index, 2011=100</i> )	March	100	5.9	-1	0
Barrows & gilts (\$ per cwt.)	March	50.00	-8.4	-7	-1
Steers & heifers (\$ per cwt.)	March	127.00	0.0	0	-7
Milk (\$ per cwt.)	March	15.60	2.0	-10	2
Eggs (\$ per doz.)	March	2.01	59.5	156	107
<b>Consumer prices</b> ( <i>index, 1982-84=100</i> )	March	250	0.0	2	5
Food	March	252	0.1	1	2
<b>Production or stocks</b>					
Corn stocks ( <i>mil. bu.</i> )	March 1	8,888	N.A.	3	14
Soybean stocks ( <i>mil. bu.</i> )	March 1	2,107	N.A.	21	38
Wheat stocks ( <i>mil. bu.</i> )	March 1	1,494	N.A.	-10	9
Beef production ( <i>bil. lb.</i> )	March	2.20	11.1	-2	5
Pork production ( <i>bil. lb.</i> )	March	2.30	11.6	1	7
Milk production ( <i>bil. lb.</i> )*	March	17.8	11.9	1	3
<b>Agricultural exports</b> (\$ mil.)	March	12,855	13.7	3	24
Corn ( <i>mil. bu.</i> )	March	256	72.2	-4	50
Soybeans ( <i>mil. bu.</i> )	March	119	-23.1	4	24
Wheat ( <i>mil. bu.</i> )	March	78	51.8	-14	23
<b>Farm machinery</b> ( <i>units</i> )					
Tractors, 40 HP or more	March	6,659	67.1	1	0
40 to 100 HP	March	4,929	66.7	1	3
100 HP or more	March	1,730	68.3	3	-9
Combines	March	240	-4.8	-20	-11

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.