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FARMLAND VALUES AND CREDIT CONDITIONS

Summary
Agricultural land values for the Seventh Federal Reserve District strengthened in the first quarter of 2021, rising 7 percent from a year ago. Moreover, "good" farmland values moved up 3 percent from the fourth quarter of 2020 to the first quarter of 2021, according to the survey responses of 143 District agricultural bankers. Annual cash rental rates for District farmland increased 4 percent in 2021, bucking the downward trend of the previous seven years. There was a lower amount of farmland for sale in the three- to six-month period ending with March 2021 than in the same period ending with March 2020. The number of farms and the amount of acreage sold were also lower during the winter and early spring of 2021 compared with a year earlier, yet there seemed to be surging demand to purchase agricultural land. In line with such demand, 74 percent of the responding bankers forecasted District farmland values to be higher during the second quarter of 2021, and the remainder forecasted agricultural land values to be stable.

In a reversal from the first quarter of 2020, when the pandemic started to have negative impacts, District agricultural credit conditions improved during the first quarter of 2021. Repayment rates for non-real-estate farm loans were up sharply from a year ago, and renewals and extensions of these loans were down. The availability of funds to lend in the first quarter of 2021 was much higher than a year earlier, whereas demand for non-real-estate loans was lower than a year ago. At 69.7 percent, the average loan-to-deposit ratio in the first quarter of 2021 was at its lowest level since the first quarter of 2015. On net, the amount of collateral required by banks across the District was little changed from a year ago. In addition, average interest rates on farm loans edged down over the first quarter of 2021 from their already low levels at the end of the fourth quarter of 2020.

SAVE THE DATE

The Federal Reserve Bank of Chicago tentatively plans to hold a virtual conference on Midwest agriculture on November 30, 2021. Additional information about the event will become available on the Bank's website, https://www.chicagofed.org.

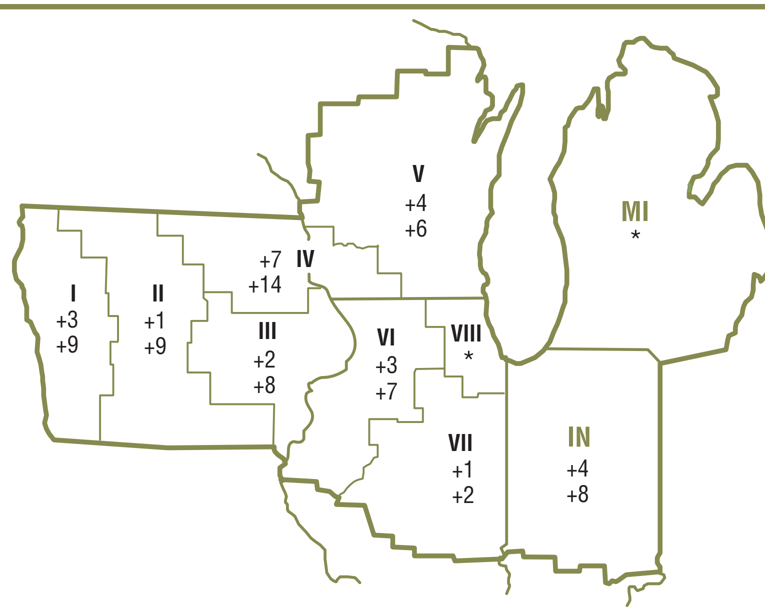
Farmland values
District agricultural land values jumped 7 percent in the first quarter of 2021 relative to the first quarter of 2020, topping the year-over-year increase for the fourth quarter of 2020. Farmland values gained 3 percent in the first quarter of 2021 from the fourth quarter of 2020 (see table and map below). Indiana, Iowa, and Wisconsin had steeper year-over-year increases in farmland values than did the District as a

Percent change in dollar value of "good" farmland

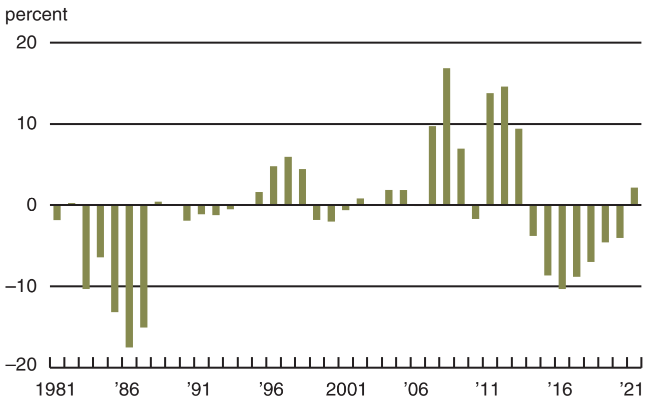
Top: January 1, 2021 to April 1, 2021
Bottom: April 1, 2020 to April 1, 2021

	January 1, 2021 to April 1, 2021	April 1, 2020 to April 1, 2021
Illinois	+2	+4
Indiana	+4	+8
Iowa	+4	+10
Michigan	*	*
Wisconsin	+4	+8
Seventh District	+3	+7

*Insufficient response.



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



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.

whole, but Illinois had a more modest increase. After being adjusted for inflation with the Personal Consumption Expenditures Price Index (PCEPI), District farmland values in the first quarter of 2021 were up on a year-over-year basis for the fourth quarter in a row; prior to this positive trend, there had been real year-over-year declines in farmland values from the third quarter of 2014 through the first quarter of 2020.

A large increase in District farmland values wasn't surprising given that the survey results showed strong demand for agricultural ground, along with limited availability. For the three- to six-month period ending with March 2021 relative to the same period ending with March 2020, 76 percent of the survey respondents reported higher demand to purchase farmland and just 1 percent reported lower demand. Moreover, there was a lower amount of agricultural land for sale during the most recent winter and early spring relative to a year ago, as 15 percent of the responding bankers reported more farmland was up for sale in their areas and 35 percent reported less. The number of farms and the amount of acreage sold were also down some in the winter and early spring compared with a year earlier. Survey participants indicated that a larger share of acres was purchased by farmers, implying that the share of acres purchased by investors contracted in the three- to six-month period ending with March 2021 relative to the corresponding period ending with March 2020.

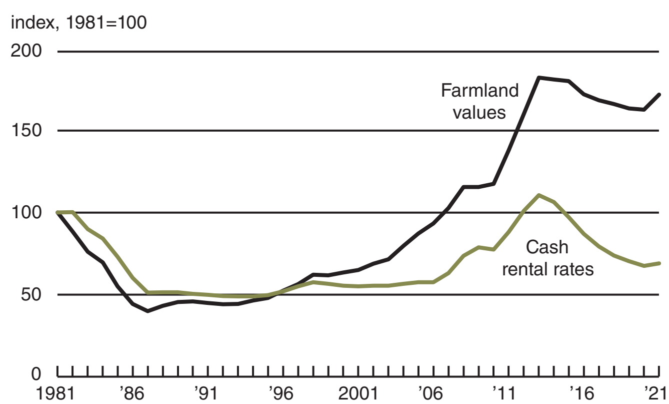
Cash rental rates for District agricultural acres climbed 4 percent from 2020 to 2021. For 2021, average annual cash rents for farmland were up 2 percent in Illinois, 4 percent in Indiana, 5 percent in Iowa, and 5 percent in Wisconsin (not enough survey responses were received from bankers in Michigan to report a numerical change for that state). After being adjusted for inflation with the PCEPI, District cash rental rates rose 2 percent from 2020 (see chart 1). This was the first increase after seven straight years of declining cash rents (in both nominal and real terms), which constituted the longest such streak in the history of the survey. In real terms, both the index of farmland cash rental rates and the index of agricultural land values peaked in 2013 (see chart 2). Even after rising in 2021, the index of real cash rents was 38 percent below its level in 2013; the index of real farmland values was just 6 percent off from its 2013 peak. Given that the change in the index of inflation-adjusted farmland values has been better than the change in the index of inflation-adjusted agricultural cash rental rates each year since 2009, owning farmland has been more compelling than leasing farmland over this period.

Higher farmland values and cash rents were the result of a dramatic turnaround in agricultural prospects from a year ago—generated in part by higher earnings for farms as key agricultural prices recovered (and even rose above year-earlier levels) after the initial impacts of the pandemic lessened. In March 2021, corn and soybean prices were 33 percent and 56 percent higher than a year ago, respectively, according to data from the U.S. Department of Agriculture (USDA) (see final table). And hog prices were 38 percent above those in March 2020. In addition, the USDA's Coronavirus Food Assistance Program pumped \$24.1 billion into the farm economy over the past year, with 23.5 percent (\$5.68 billion as of May 2, 2021) coming to the five states of the District. Combined, these factors (along with lower real interest rates) boosted farm incomes, helping drive up both farmland values and cash rents.

Credit conditions

Agricultural credit conditions for the District also improved in the first quarter of 2021. As of April 1, 2021, the average nominal interest rates on operating loans (4.42 percent), feeder cattle loans (4.58 percent), and agricultural real estate loans (4.08 percent) were all lower than in any previous

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	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)*
2020							
Jan–Mar	117	107	59	78.9	4.83	5.01	4.51
Apr–June	103	119	64	77.6	4.77	4.94	4.40
July–Sept	85	131	93	75.0	4.65	4.79	4.24
Oct–Dec	91	148	133	73.6	4.49	4.66	4.10
2021							
Jan–Mar	79	162	146	69.7	4.42	4.58	4.08

[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 online, https://www.chicagofed.org/publications/agletter/index.

survey findings. Furthermore, after being adjusted for inflation using the PCEPI, average agricultural interest rates fell to historical lows last seen at the end of the third quarter of 2011 (with the average real interest rate for farm real estate loans even edging slightly below its previous low).

The index of repayment rates for non-real-estate farm loans ascended to 146—the highest reading since the first quarter of 2012; 48 percent of responding bankers observed higher rates of repayment for the first quarter of 2021 relative to the first quarter of 2020, and only 2 percent observed lower rates. Demonstrating similar positive developments, just 4 percent of the survey respondents reported higher levels of loan renewals and extensions over the January through March period of 2021 compared with the same period last year, while 34 percent reported lower levels of them. Also, bankers reported that only 4 percent, on average, of their farm borrowers had more carryover debt (loans not paid off at the end of the growing season and subsequently carried over into the next one) in 2021 than in 2020. The share of loans guaranteed by the USDA's Farm Service Agency (FSA) in the portfolios of the reporting banks was around 6 percent for the District as a whole—about the same level as a year ago.

One Indiana banker reported: "Government payments, grain price increases, and above-average yields have grain farmers in their most liquid position in the last ten years. Farmers are in a very strong position, which is negatively impacting loan volumes." At 79, the index of demand for non-real-estate farm loans was last lower in the first quarter of 2013; for the January through March period of 2021, 18 percent of the responding bankers noted higher loan demand compared with a year ago, and 39 percent noted lower demand. The index of funds availability soared to 162—its highest level since the second quarter of 2012; 63 percent of the survey respondents reported their banks had more funds available to lend, and barely 1 percent reported their banks had less. With weaker lending and a solid improvement in funding levels from a year ago, the average loan-to-deposit ratio for the District fell to 69.7 percent in the first quarter of 2021—11.5 percentage points below the average level desired by the survey respondents.

Looking forward

With the remarkable change in the District's agricultural situation from a year ago, 74 percent of survey respondents anticipated farmland values to rise in the second quarter of 2021 and 26 percent anticipated them to be stable (none anticipated them to fall). Survey respondents forecasted that the volume of farm real estate loans would increase in the District during the April through June period of 2021 relative to the same period of 2020, but they forecasted that the overall volume of non-real-estate farm loans would decrease. The blend of non-real-estate agricultural loan types was projected to vary from a year ago: Volumes for farm machinery and grain storage construction loans were anticipated to increase, whereas volumes for operating and FSA-guaranteed loans, along with those for dairy and feeder cattle loans, were anticipated to decrease. According to an Illinois respondent, "The farm economy ended very strong in 2020, and 2021 looks to be even better."

David B. Oppedahl, *senior business economist*

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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)*	March	98	2.6	6	5
Crops *(index, 2011=100)*	March	99	1.2	14	13
Corn *($ per bu.)*	March	4.89	2.9	33	35
Hay *($ per ton)*	March	166	1.8	6	–4
Soybeans *($ per bu.)*	March	13.20	3.9	56	55
Wheat *($ per bu.)*	March	5.85	0.3	20	13
Livestock and products *(index, 2011=100)*	March	97	4.1	0	–1
Barrows & gilts *($ per cwt.)*	March	66.60	18.1	38	43
Steers & heifers *($ per cwt.)*	March	116.00	0.9	2	–10
Milk *($ per cwt.)*	March	17.40	1.8	–3	–1
Eggs *($ per doz.)*	March	1.14	14.7	–34	31
Consumer prices *(index, 1982–84=100)*	March	265	0.6	3	4
Food	March	272	0.1	3	5
Production or stocks					
Corn stocks *(mil. bu.)*	March 1	7,701	N.A.	–3	–11
Soybean stocks *(mil. bu.)*	March 1	1,564	N.A.	–31	–43
Wheat stocks *(mil. bu.)*	March 1	1,314	N.A.	–7	–18
Beef production *(bil. lb.)*	March	2.48	17.8	3	17
Pork production *(bil. lb.)*	March	2.55	12.5	–1	11
Milk production *(bil. lb.)*	March	19.8	11.6	2	5
Agricultural exports *($ mil.)*	March	15,336	10.6	24	23
Corn *(mil. bu.)*	March	373	50.0	105	98
Soybeans *(mil. bu.)*	March	84	–49.7	–11	–38
Wheat *(mil. bu.)*	March	79	17.6	18	10
Farm machinery *(units)*					
Tractors, 40 HP or more	March	8,429	62.9	53	28
40 to 100 HP	March	6,365	65.6	58	34
100 HP or more	March	2,064	55.1	30	13
Combines	March	382	96.9	7	–7

N.A. Not applicable.
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.