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AgLetter

FARMLAND VALUES AND CREDIT CONDITIONS

Summary
Agricultural land values in the Seventh Federal Reserve District were still higher than a year ago during the first quarter of 2014, but by just 1 percent. In contrast, "good" farmland values depreciated 1 percent in the first quarter of 2014 relative to the fourth quarter of 2013. Moreover, cash rental rates for District agricultural land were down 2 percent for 2014 compared with 2013. Based on the survey responses of 214 District agricultural bankers, these results highlighted the variation in farmland values due to the localization of farmland markets; increases in farmland values in some areas contrasted with decreases in others. Demand to purchase agricultural land was weaker in the three- to six-month period ending with March 2014 compared with the same period ending with March 2013, yet there were pockets where farmers remained keen to purchase additional land. The number of farms sold, the amount of acreage sold, and the amount of farmland for sale were down during the most recent winter and early spring compared with the previous winter and early spring. Almost three-quarters of responding bankers expected farmland values to be stable during the second quarter of 2014, but there was growing sentiment among them that agricultural land values would be headed downward.

Credit conditions were mixed for District agricultural producers in the first quarter of 2014. Demand for non-real-estate loans was up relative to a year ago for a second straight quarter, which hadn't occurred in four years. The availability of funds to lend improved compared with a year earlier, but repayment rates for non-real-estate farm loans were lower than a year ago. Also, there were higher levels of renewals and extensions of these loans. The average loan-to-deposit ratio remained close to 67 percent for the third quarter in a row. Interest rates on farm loans moved lower in the first quarter of 2014, and a record low rate was even set for feeder cattle loans.

SAVE THE DATE

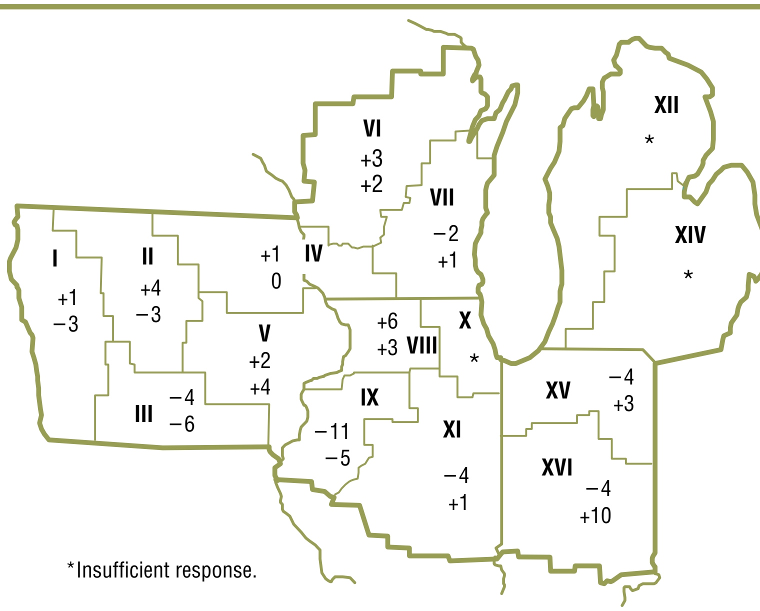
On November 17, 2014, the Federal Reserve Bank of Chicago will hold a conference to examine the role of farm income in the economy of the rural Midwest. Details are forthcoming on www.chicagofed.org and in the next issue of *AgLetter*.

Farmland values
Farmland values in the District edged down 1 percent in the first quarter of 2014 relative to the fourth quarter of 2013. Even with the first quarterly decrease in five years, the year-over-year change in District agricultural land values managed to stay positive in the first quarter of 2014. At 1 percent, the year-over-year increase was the smallest since the third quarter of 2009, when the last decline was registered. Notably, after adjusting for inflation using the

Percent change in dollar value of "good" farmland

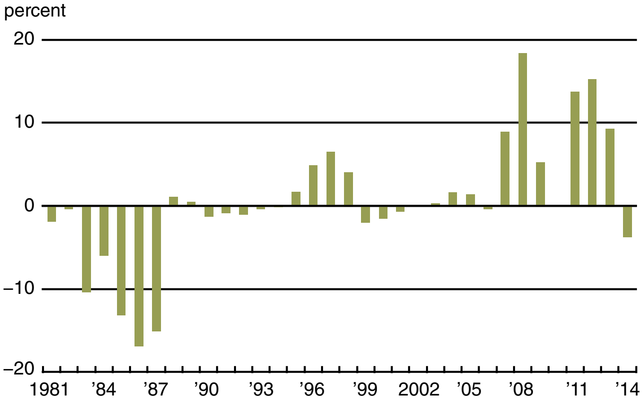
Top: January 1, 2014 to April 1, 2014
Bottom: April 1, 2013 to April 1, 2014

	January 1, 2014 to April 1, 2014	April 1, 2013 to April 1, 2014
Illinois	−4	0
Indiana	−4	+7
Iowa	+1	−2
Michigan	−3	−1
Wisconsin	+1	+2
Seventh District	−1	+1



*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 farmland value surveys; and U.S. Bureau of Economic Analysis, Personal Consumption Expenditures Price Index (PCEPI), from Haver Analytics.

Personal Consumption Expenditures Price Index (PCEPI), there was indeed a year-over-year decrease in District farmland values of almost 1 percent.

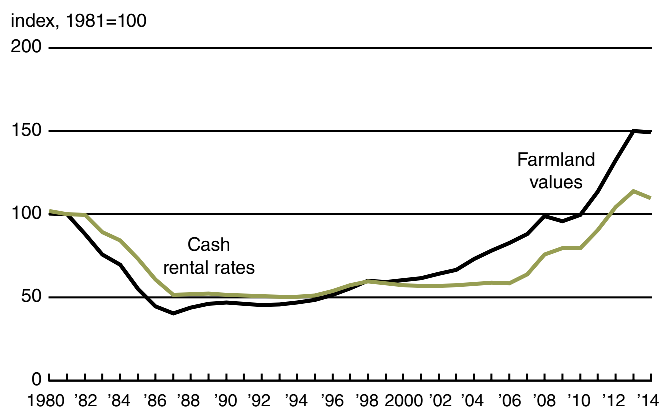
The District-wide quarterly and year-over-year changes in farmland values masked the variability in outcomes throughout the District (see table and map on front page). Even within states, there were some areas that experienced increases, while neighboring regions experienced decreases. While Iowa and Wisconsin had the same year-over-year changes in farmland values as they did in the fourth quarter of 2013, the large year-over-year gains for Illinois and Michigan in the final quarter of last year evaporated in the first quarter of this year. Moreover, Indiana's increase in agricultural land values on a year-over-year basis shrank to 7 percent in the first quarter of 2014—half that of the previous quarter. In addition, all the states reversed the direction of their quarterly changes in farmland values from those of the fourth quarter of 2013.

Farmland markets slowed in the three- to six-month period ending with March 2014 compared with the same period ending with March 2013. Only 19 percent of the survey respondents reported higher demand to purchase farmland, while 26 percent reported lower demand. In addition, there was a decrease in the amount of farmland for sale during the most recent winter and early spring relative to a year ago, as just 15 percent of the responding bankers observed more farmland was up for sale in their areas and 51 percent reported less. Likewise, the number of farms and the amount of acreage sold were down in the winter and early spring relative to a year ago. Survey participants observed farmers having increased their share of farmland acres purchased (relative to investors) in the three- to six-month period ending with March 2014 versus the same period ending with March 2013 (19 percent noted farmers increased their share and 7 percent noted farmers decreased their share). Respondents mentioned that the spring rally in corn and soybean prices drew additional interest in bidding by farmers for farmland, especially for higher-quality ground.

There was a 2 percent decline in District cash rates to lease agricultural land for 2014 relative to 2013; this was the first annual average decrease since 1999 and the largest decrease since 1987. For 2014, farmland cash rental rates registered annual average decreases of 4 percent in Illinois, 1 percent in Indiana, 3 percent in Iowa, 1 percent in Michigan, and 1 percent in Wisconsin. District cash rental rates decreased about 4 percent from 2013 when adjusted for inflation using the PCEPI (see chart 1)—only the second negative result of the past decade according to this measure. Given this drop, the inflation-adjusted index of farmland cash rental rates was down as well, after establishing new highs in the previous two years. Similarly, until 2014, the index of inflation-adjusted agricultural land values had reached new records every year since 2011. Changes in cash rental rates have tended to lag changes in farmland values, but did not in 2014 (see chart 2).

It seems plausible that the drops in 2014 cash rental rates reflected lower expectations for profits in 2014 as crop prices fell last fall, which provided ammunition for farmers to negotiate lower rates for leases. According to data from the U.S. Department of Agriculture (USDA), corn prices were down 37 percent and soybean prices were down 8.5 percent in the first quarter of 2014 from a year ago, following a more plentiful harvest in 2013 than that reduced by drought in 2012. Also, lower expectations for crop revenues in 2014 relative to previous years could have contributed to lower levels of cash rental rates through smaller expected bonus payments made under flexible cash rental arrangements. (Because farm operators' returns have exceeded traditional levels in recent years, landlords increasingly receive variable bonuses to supplement fixed cash payments.)

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 farmland value surveys; 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)*
2013							
Jan–Mar	67	161	143	63.7	4.91	5.12	4.60
Apr–June	87	142	129	64.6	4.94	5.16	4.65
July–Sept	91	128	115	66.9	4.94	5.14	4.68
Oct–Dec	120	121	91	67.3	4.99	5.10	4.94
2014							
Jan–Mar	114	128	96	67.0	4.93	5.07	4.66

[a]At end of period.
[b]Bankers responded to each item by indicating whether conditions during the current quarter were higher, lower, or the same as in the year-earlier period. 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, www.chicagofed.org/webpages/publications/agletter/index.cfm.

In contrast to crop farming, the livestock sector has returned to profitability as milk, hog, and cattle prices have risen dramatically (31 percent, 48 percent, and 19 percent higher than April 2013 prices, respectively). Falling feed costs (reflecting falling grain prices) also boosted livestock profits, helping support farmland values in some parts of the District where the mix of agriculture includes a significant livestock component.

Credit conditions

Agricultural credit conditions exhibited both positive and negative developments in the first quarter of 2014 compared with the first quarter of 2013. The index of demand for non-real-estate farm loans was 114, indicating an increase in demand. Thirty-one percent of the responding bankers observed higher loan demand compared with a year ago, and 17 percent observed lower demand. At 128, the index of funds availability still denoted improvement, with 30 percent of the survey respondents reporting their banks have more funds available to lend and only 2 percent reporting their banks have fewer funds. The average loan-to-deposit ratio for the District remained near 67 percent for the third quarter in a row. Also, as of April 1, 2014, average interest rates had dipped to 4.93 percent for operating loans and 4.66 percent for agricultural real estate loans. The average interest rate on feeder cattle loans set a new low for the survey of 5.07 percent.

The index of repayment rates for non-real-estate farm loans was 96 for the first quarter of 2014, with 14 percent of the responding bankers noting higher rates of repayment and 18 percent noting lower rates; this index value primarily reflected the deterioration in agricultural conditions in Iowa, where drought has persisted longer than in the rest of the District. Fifteen percent of the survey respondents reported more loan renewals and extensions over the January through March period of 2014 compared with the same period last year, while only 8 percent reported fewer of them. Four percent of the survey respondents indicated that their banks required larger amounts of collateral for loans during the January through March period of 2014 relative to the same period last year, while none indicated that their banks required smaller amounts.

Looking forward

For 2014, lower farm income from crop operations are expected to be partly offset by improved farm income from livestock operations. Reflecting these expectations, almost three-quarters of the survey respondents predicted farmland values to be stable during the second quarter of 2014; only 2 percent expected farmland values to increase, while 24 percent expected them to decrease.

For the most part, non-real-estate farm loan volumes were anticipated by survey respondents to increase during the April through June period of 2014 compared with the same period of 2013; in particular, they expected volumes for operating loans, feeder cattle loans, and loans guaranteed by the Farm Service Agency of the USDA to be up. However, farm real estate loan volumes were projected to diminish in the second quarter of 2014 compared with the second quarter of 2013.

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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)*	April	115	3.6	7	13
Crops *(index, 2011=100)*	April	98	4.3	−8	−6
Corn *($ per bu.)*	April	4.73	4.9	−32	−25
Hay *($ per ton)*	April	191	10.4	−2	−1
Soybeans *($ per bu.)*	April	14.50	5.8	1	5
Wheat *($ per bu.)*	April	6.92	2.5	−10	−3
Livestock and products *(index, 2011=100)*	April	133	3.1	23	33
Barrows & gilts *($ per cwt.)*	April	91.40	11.5	48	45
Steers & heifers *($ per cwt.)*	April	151.00	0.7	19	23
Milk *($ per cwt.)*	April	25.50	1.2	31	52
Eggs *($ per doz.)*	April	1.28	3.2	45	48
Consumer prices *(index, 1982–84=100)*	March	236	0.2	2	3
Food	March	240	0.5	2	3
Production or stocks					
Corn stocks *(mil. bu.)*	March 1	7,006	N.A.	30	16
Soybean stocks *(mil. bu.)*	March 1	992	N.A.	−1	−28
Wheat stocks *(mil. bu.)*	March 1	1,056	N.A.	−14	−12
Beef production *(bil. lb.)*	March	1.94	8.3	−5	−10
Pork production *(bil. lb.)*	March	1.86	0.6	−4	−7
Milk production *(bil. lb.)**	March	16.7	12.1	1	1
Agricultural exports *($ mil.)*	March	13,634	4.2	17	14
Corn *(mil. bu.)*	March	206	52.0	202	53
Soybeans *(mil. bu.)*	March	117	−41.7	72	1
Wheat *(mil. bu.)*	March	79	11.1	−22	−9
Farm machinery *(units)*					
Tractors, 40 HP or more	March	8,069	N.A.	1	15
40 to 100 HP	March	4,770	N.A.	8	16
100 HP or more	March	3,299	N.A.	−8	15
Combines	March	772	N.A.	−21	38

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.