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FARMLAND VALUES AND CREDIT CONDITIONS

Summary
For the first quarter of 2015, farmland values in the Seventh Federal Reserve District were unchanged from a year ago, but this result masked substantial variation among District states. There was an increase of 1 percent in "good" farmland values in the first quarter of 2015 relative to the fourth quarter of 2014, based on the survey responses of 234 District agricultural bankers. Strikingly, cash rental rates for District agricultural land were down 8 percent for 2015 compared with 2014. This decline provided some relief in rental costs for farmers facing much lower crop prices than in recent years. Demand to purchase farmland was weaker in the three- to six-month period ending with March 2015 compared with the same period ending with March 2014. Moreover, the amount of farmland for sale, the number of farms sold, and the amount of acreage sold were all lower during the winter and early spring of 2015 compared with a year ago. Just over half of the responding bankers expected farmland values to be stable during the second quarter of 2015, but nearly all of the rest expected farmland values to head lower.

Agricultural credit conditions continued to be mixed for the District. In the first quarter of 2015, demand for non-real-estate loans was once again much stronger than a year ago. The availability of funds to lend still showed a small improvement compared with a year earlier, but repayment rates for non-real-estate farm loans were much weaker than a year ago. Also, there were much higher levels of renewals and extensions of these loans than a year earlier. The average loan-to-deposit ratio edged down to 69 percent. Average interest rates on farm loans moved down in the first quarter of 2015, setting new record lows.

SAVE THE DATE

On November 17, 2015, the Federal Reserve Bank of Chicago will hold a conference to explore labor issues affecting agriculture and the rural Midwest. Additional information about the conference will be released in the coming months on https://www.chicagofed.org.

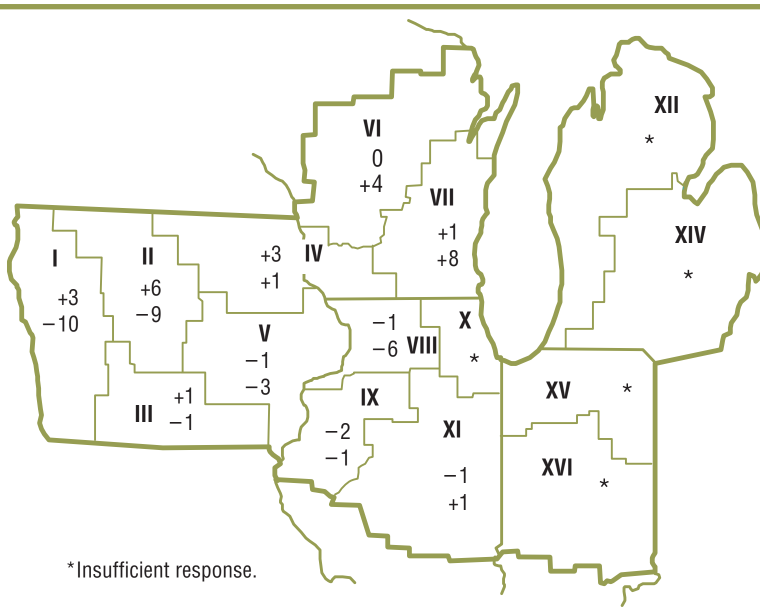
Farmland values
Agricultural land values in the District managed to gain 1 percent in the first quarter of 2015 relative to the fourth quarter of 2014. There was no year-over-year change in farmland values for the District as a whole in the first quarter of 2015—in contrast to the slight decrease at the end of 2014. However, after adjusting for inflation using the Personal Consumption Expenditures Price Index (PCEPI), there was indeed a year-over-year decrease of 1 percent for District farmland values in the first quarter of 2015.

Even though there was no year-over-year change in farmland values for the District and all states had improved results, there were some key differences among the states

Percent change in dollar value of "good" farmland

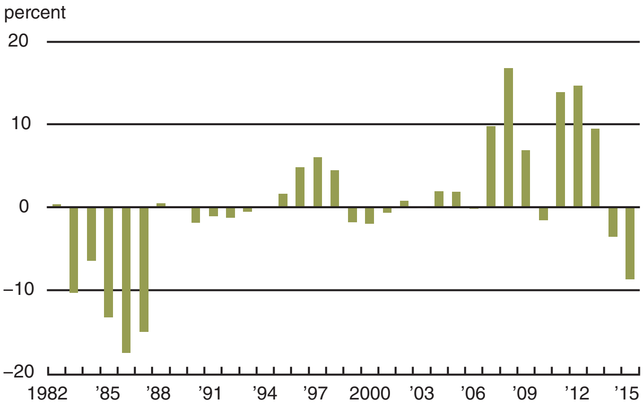
Top: January 1, 2015 to April 1, 2015
Bottom: April 1, 2014 to April 1, 2015

	January 1, 2015 to April 1, 2015	April 1, 2014 to April 1, 2015
Illinois	−1	−1
Indiana	+1	−1
Iowa	+2	−6
Michigan	*	+5
Wisconsin	+1	+8
Seventh District	+1	0



*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.

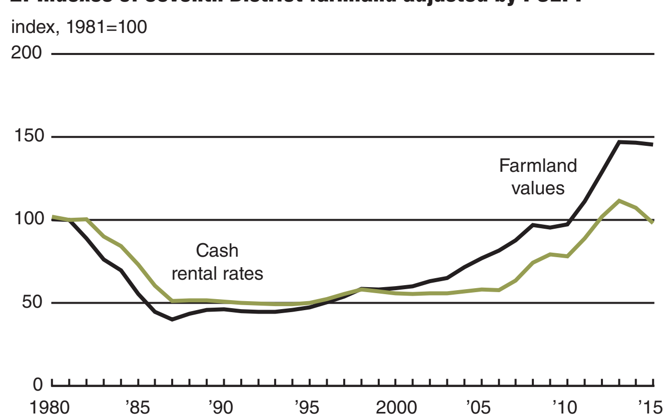
(see table and map on front). On the one hand, Michigan and Wisconsin had year-over-year increases in farmland values of 5 percent and 8 percent, respectively, for the first quarter of 2015. On the other hand, year-over-year declines were registered for Illinois, Indiana, and Iowa in the first quarter of this year (–1 percent, –1 percent, and –6 percent, respectively). The relative reliance of these states on revenues from corn and soybeans helps explain the divergence: For 2014, Illinois, Indiana, and Iowa had corn and soybean sales make up 95 percent, 93 percent, and 96 percent, respectively, of total crop revenues, whereas for Michigan and Wisconsin, these percentages were 54 and 63, respectively, according to data from the U.S. Department of Agriculture (USDA). Corn prices were down 16 percent and soybean prices were down 28 percent in March 2015 compared with a year earlier, based on USDA data. So, naturally, the states with a greater dependence on corn and soybean revenues would face more downward pressures on their farmland values.

Farmland markets were sluggish in the three- to six-month period ending with March 2015 compared with the same period ending with March 2014. Only 8 percent of the survey respondents reported higher demand to purchase farmland, while 46 percent reported lower demand. The supply of farmland for sale was also lower: 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 9 percent of the responding bankers observed more farmland was up for sale in their areas and 50 percent reported less. Moreover, the number of farms sold was down in the winter and early spring relative to a year ago, though the amount of acreage sold dipped to a lesser extent. Survey participants observed farmers having slightly increased their share of farmland acres purchased (relative to investors) in the three- to six-month period ending with March 2015 versus the same period ending with March 2014 (14 percent noted farmers increased their share and 9 percent noted farmers decreased their share).

Cash rates to lease farmland decreased 8 percent in the District for 2015 relative to 2014; this was the largest annual average decrease since 1987 and the only consecutive decline in nominal terms since then. For 2015, annual average farmland cash rental rates decreased 8 percent in Illinois, 6 percent in Indiana, 10 percent in Iowa, and 8 percent in Wisconsin, but increased 1 percent in Michigan. District cash rental rates declined almost 9 percent from 2014 when adjusted for inflation using the PCEPI (see chart 1)—the first consecutive negative result since 2001 according to this measure. In 2015, the inflation-adjusted index of farmland cash rental rates was down more than the inflation-adjusted index of agricultural land values (see chart 2). In fact, in 2015, real cash rental rates had fallen slightly below their level in 1981, whereas real farmland values were still 45 percent higher than their 1981 level.

Changes in cash rental rates have historically lagged changes in farmland values, so 2015's large decline was atypical. The drop in 2015 cash rents stemmed from lowered expectations for making a profit from farming rented ground in 2015 (given the recent decreases in crop prices). Faced with the possibility of acres going fallow, farmland owners seemed to have agreed to reductions in cash rents, even though farmland values had not shown much weakness in most of the District. Farmland values might have resisted a similarly sized downward correction because farm operations were generally profitable enough over the past decade to generate reserves of funds available to purchase farmland in a market that has now slowed. Furthermore, interest rates remained extremely low, providing lower discounts to future earnings from the ground and ultimately supporting farmland values. Additionally, the livestock sector seemed to have supported farmland values, particularly in Wisconsin. Even though milk prices

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)*
2014							
Jan–Mar	114	128	96	67.0	4.93	5.07	4.66
Apr–June	110	123	93	67.3	4.86	4.98	4.67
July–Sept	123	106	85	69.5	4.89	5.01	4.62
Oct–Dec	137	109	69	70.6	4.87	5.03	4.61
2015							
Jan–Mar	141	105	57	69.0	4.80	4.95	4.57

[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.

plunged 34 percent from March 2014, stellar returns last year probably helped support agricultural land values in dairy regions. Also, cattle prices were up 8 percent from March last year, although the relatively smaller role of the cattle industry in the District would tend to mute this support for farmland values.

Credit conditions

Agricultural credit conditions remained mixed in the first quarter of 2015 compared with the first quarter of 2014. The index of demand for non-real-estate farm loans was 141, indicating a solid increase in demand as farmers in Illinois and Iowa were especially in need of financing. Fifty-three percent of the reporting bankers observed higher loan demand compared with a year ago, and 12 percent observed lower demand. At 105 (its lowest level since 2008), the index of funds availability denoted slight improvement, with 15 percent of the survey respondents reporting their banks had more funds available to lend than a year ago and 10 percent reporting their banks had less. The average loan-to-deposit ratio for the District was 69 percent, which was higher than a year ago but down from the previous quarter. Also, as of April 1, 2015, new record lows for the survey were set for the average interest rates on operating loans (4.80 percent), agricultural real estate loans (4.57 percent), and feeder cattle loans (4.95 percent).

Dropping to its lowest level since 1999, the index of repayment rates for non-real-estate farm loans was 57 for the first quarter of 2015, with 2 percent of the responding bankers noting higher rates of repayment and 45 percent noting lower rates; this index value reflected a broader deterioration in agricultural conditions across the District compared with a year ago. Furthermore, 40 percent of the survey respondents reported more loan renewals and extensions over the January through March period of 2015 compared with the same period last year, while less than 1 percent reported fewer of them. Seventeen percent of the survey respondents indicated that their banks required larger amounts of collateral for loans during the January through March period of 2015 relative to the same period last year, while none indicated that their banks required smaller amounts.

Looking forward

Almost half of the survey respondents predicted farmland values to decrease in the second quarter of 2015, while less than 1 percent expected farmland values to increase and 51 percent expected them to be stable. These results were based on expectations for lower income from crop operations, as well as expectations for tighter profit margins from dairy and hog operations, in 2015 relative to 2014.

Non-real-estate farm loan volumes were anticipated by survey respondents to keep increasing during the April through June period of 2015 compared with the same period of 2014; in particular, they expected volumes for operating loans, feeder cattle loans, and loans guaranteed by the Farm Service Agency of the USDA to rise. Farm real estate loan volumes were projected to diminish in the second quarter of 2015 compared with the second quarter of 2014, reflecting expected weaker agricultural income for the District.

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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	102	3.0	–8	–7
Crops *(index, 2011=100)*	March	86	1.2	–9	–23
Corn *($ per bu.)*	March	3.81	0.5	–16	–47
Hay *($ per ton)*	March	160	3.2	–6	–18
Soybeans *($ per bu.)*	March	9.84	–0.8	–28	–33
Wheat *($ per bu.)*	March	5.70	–3.2	–15	–27
Livestock and products *(index, 2011=100)*	March	117	2.6	–9	9
Barrows & gilts *($ per cwt.)*	March	50.70	–0.2	–38	–14
Steers & heifers *($ per cwt.)*	March	162.00	0.6	8	28
Milk *($ per cwt.)*	March	16.60	–1.2	–34	–13
Eggs *($ per doz.)*	March	1.55	20.2	25	36
Consumer prices *(index, 1982–84=100)*	March	236	0.2	0	2
Food	March	246	–0.2	2	4
Production or stocks					
Corn stocks *(mil. bu.)*	March 1	7,745	N.A.	11	43
Soybean stocks *(mil. bu.)*	March 1	1,334	N.A.	34	34
Wheat stocks *(mil. bu.)*	March 1	1,124	N.A.	6	–9
Beef production *(bil. lb.)*	March	1.93	9.2	0	–5
Pork production *(bil. lb.)*	March	2.11	8.6	14	9
Milk production *(bil. lb.)**	March	16.9	11.9	1	2
Agricultural exports *($ mil.)*	March	12,176	5.8	–11	4
Corn *(mil. bu.)*	March	155	–2.2	–25	109
Soybeans *(mil. bu.)*	March	91	–46.2	–22	34
Wheat *(mil. bu.)*	March	72	12.6	–8	–30
Farm machinery *(units)*					
Tractors, 40 HP or more	March	6,901	N.A.	–14	–14
40 to 100 HP	March	4,416	N.A.	–7	0
100 HP or more	March	2,485	N.A.	–25	–30
Combines	March	332	N.A.	–57	–66

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.