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FARMLAND VALUES AND CREDIT CONDITIONS

Summary
The year-over-year increase in farmland values was 4 percent in the first quarter of 2010 for the Seventh Federal Reserve District. There was also a quarterly increase of 2 percent in the value of "good" agricultural land, according to the April 1 surveys returned by 215 District bankers. At 1 percent, the growth in District farmland cash rental rates slowed down dramatically from 2009. The demand to purchase farmland during the first quarter of 2010 strengthened from a year ago. A rising share of purchases by farmers buoyed this demand. However, the amount of farmland for sale, the number of farms sold, and the acreage sold weakened in the first three months of 2010 relative to the same period in 2009. The vast majority of the bankers anticipated stable land values during the second quarter of 2010.

Trends in agricultural credit conditions were unchanged during the first quarter of 2010. There was stronger demand for non-real-estate farm loans and greater availability of funds for lending compared with the same period in 2009. Loan repayment rates were lower, while renewals and extensions of agricultural loans were higher. Interest rates on farm loans continued to move lower, averaging 6.13 percent for new operating loans and 6.04 percent for real estate loans. Loan-to-deposit ratios averaged 73.7 percent—more than 5 percent under the level preferred by the respondents.

SAVE THE DATE

On November 9, 2010, the Federal Reserve Bank of Chicago will hold a conference to examine the intersections of Midwest agriculture and rural development. Details are forthcoming on www.chicagofed.org and in the next issue of *AgLetter*.

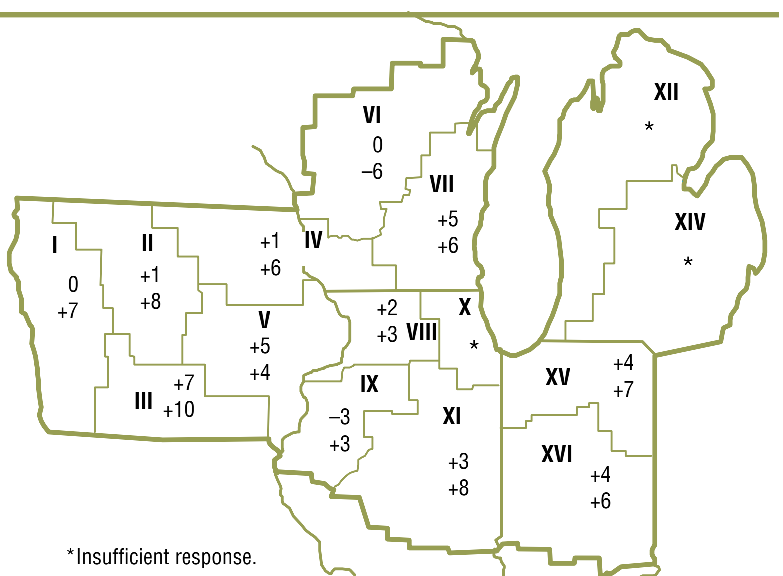
Farmland values
Agricultural land values increased 4 percent for the first quarter of 2010 compared with the first quarter of 2009. However, the year-over-year gains in the value of "good" agricultural land were restricted to the southern part of the District. Farmland values increased 4 percent in Illinois, 7 percent in Indiana, and 8 percent in Iowa. Wisconsin farmland values decreased 1 percent. For the first quarter of 2010 relative to the fourth quarter of 2009, District farmland values rose 2 percent, with only Illinois having an increase of less than 2 percent (see map and table below).

While farmland values edged higher, cash rental rates for agricultural land plummeted, rising just 1 percent in 2010. Cash rental rates in Illinois were unchanged from 2009. The rest of the District saw increases in cash rental rates: 3 percent in Indiana, 1 percent in Iowa, and 8 percent in Wisconsin (in part reflecting a rise from a low number last year). However, after adjusting for inflation using the

Percent change in dollar value of "good" farmland

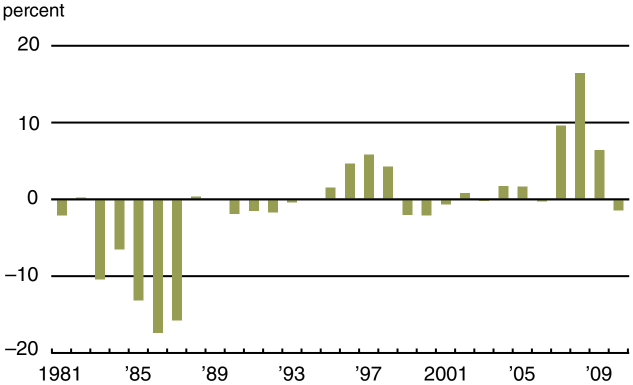
Top: January 1, 2010 to April 1, 2010
Bottom: April 1, 2009 to April 1, 2010

	January 1, 2010 to April 1, 2010	April 1, 2009 to April 1, 2010
Illinois	+1	+4
Indiana	+4	+7
Iowa	+3	+8
Michigan	*	*
Wisconsin	+2	–1
Seventh District	+2	+4



*Insufficient response.

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



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 (PCE) Price Index, from Haver Analytics.

Personal Consumption Expenditures Price Index, in "real" terms District cash rental rates declined 1 percent from 2009 (see chart 1). After three years of large increases, the change in cash rental rates once again fit into the range of the previous decade.

The increase in farmland values was larger than that for cash rental rates, leading to a rise in the price-to-earnings (P/E) ratio for farmland (see chart 2). A higher P/E ratio reflected relatively stronger demand to own farmland, as land value gains outpaced the current earnings of farmland (represented by cash rental rates). In an asset valuation model, the present price of an asset should reflect both current profitability and expectations for future earnings. The P/E ratio for farmland can be constructed as the ratio of an average farmland value per acre to the cash rental rate per acre. The shift back toward a higher P/E ratio coincided with greater uncertainty about the profitability of crop production, which likely held down bids by farmers to cash-rent farmland.

Some respondents noted cash rental rates were too high for operating loans to be dispersed on a cash flow basis. Moreover, tight and negative margins were expected to create difficulties for some borrowers, since crop income may likely be down from a year ago, though input costs may likely be up. According to the U.S. Department of Agriculture (USDA), prices in the first quarter of 2010 averaged $3.59 per bushel for corn (11 percent below a year ago) and $9.53 per bushel for soybeans (almost unchanged from a year ago). Using the USDA index of prices paid by farmers, there was an increase of 1.1 percent in input costs for agriculture compared with the first quarter of 2009.

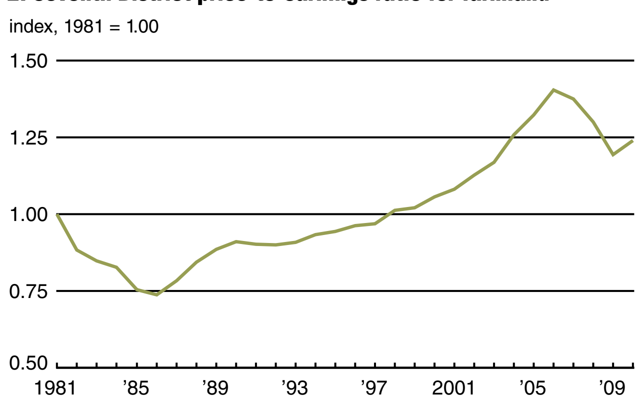
The arrangements for farmland operated by someone other than the owner seemed to stabilize in the District, with a split of about 80 percent rented for cash, 17 percent on a crop share basis, 1 percent on a bushel basis, and 2 percent on other terms. Illinois continued to differ from the other states of the District with a lower percentage of cash rentals (65 percent); 30 percent rented on crop shares, 1 percent on a bushel basis, and 4 percent on other arrangements. The larger proportion of other arrangements in Illinois could indicate a move toward custom farming, where the landowner faces more of the risks and reaps more of the rewards by hiring a farmer to perform field operations. Greater variability in crop prices and input costs has spurred some landowners to pursue a more active role in managing their cropland in hopes of achieving higher returns.

Moreover, farmers purchased land at a higher rate than a year ago: 25 percent more responding bankers saw the share of land bought by farmers increase rather than decrease in the first quarter of 2010 relative to the first quarter of 2009. Overall, 27 percent of the respondents observed higher demand for the purchase of agricultural land during this period compared with the same period last year, whereas 12 percent observed lower demand. In addition, less farmland was noticed for sale than a year ago by 35 percent of respondents, while more farmland was noticed for sale by 20 percent. There were fewer farms sold than a year ago, with 17 percent of the bankers reporting higher farm sales and 37 percent reporting lower sales. Finally, the surveys indicated a decrease in the acreage of all farms sold during the first three months of 2010 compared with the same period in 2009.

Credit conditions

Agricultural credit conditions were mixed for the first quarter of 2010. Wisconsin's credit conditions were uniformly poor, indicative of the tough climate for dairy producers. Reaching its highest level in a year, the index of demand for non-real-estate farm loans was 109, since 29 percent

2. **Seventh District price-to-earnings ratio for farmland**



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

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)*
2008							
Jan–Mar	110	129	147	75.9	6.74	6.86	6.41
Apr–June	101	124	137	75.2	7.06	6.77	6.51
July–Sept	117	103	115	78.8	6.74	6.85	6.56
Oct–Dec	115	110	113	76.4	6.21	6.33	6.23
2009							
Jan–Mar	116	112	105	76.2	6.20	6.31	6.14
Apr–June	88	118	93	77.3	6.18	6.36	6.16
July–Sept	95	121	89	75.3	6.17	6.35	6.13
Oct–Dec	102	125	92	75.4	6.23	6.40	6.13
2010							
Jan–Mar	109	127	79	73.7	6.13	6.25	6.04

[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 that responded "lower" from the percentage that 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.

of the responding bankers reported higher demand and 20 percent reported lower demand. Thirty-two percent of the bankers noted that more funds were available for lending from January through March than in the same period a year ago, and 5 percent noted that fewer funds were available; thus, the index of funds availability rose to 127, a level not attained in the past two years.

The index of non-real-estate farm loan repayment rates dropped to 79 for the first quarter of 2010; higher rates of loan repayment were reported by 9 percent of the respondents, while 30 percent reported lower rates. This was the lowest value for this index since the first quarter of 2003, and it reflected the troubles experienced in the livestock industry. Although hog and cattle prices recovered in the first quarter of 2010, milk prices retreated. Not surprisingly, loan renewals and extensions rose noticeably from a year ago. Collateral requirements were up again from a year ago, with 24 percent of reporting banks requiring more collateral during the first three months of 2010 than in the same period last year and less than 1 percent requiring less.

The average loan-to-deposit ratio was 73.7 percent, the lowest level since 2004. The reported ratios were below the level desired by 58 percent of the responding bankers and above the desired level for 14 percent. Bankers reported that the use of farm loan guarantees provided by the Farm Service Agency (FSA) of the USDA had risen to almost 6 percent of the District farm loan portfolio.

As of April 1, 2010, the District average for interest rates on new operating loans was 6.13 percent, the lowest in the survey's set of observations dating back to the early 1970s. Interest rates on agricultural real estate loans moved down to their lowest levels in six years, averaging 6.04 percent.

Looking forward

Participating bankers conveyed a stronger sense that farmland values would remain the same in the second quarter of 2010. While 85 percent of the respondents anticipated agricultural land values to be unchanged in their area during the period from April through June, the remaining 15 percent were split evenly between those who expected farmland values to rise and those who expected them to fall.

Responding bankers forecasted that the volume of non-real-estate farm loans would increase during the second quarter of 2010 compared with the same quarter in 2009. The respondents anticipated the volumes for operating, grain storage construction, and FSA guaranteed loans would grow, while farm machinery, feeder cattle, and dairy loan volumes would diminish. The bankers expected real estate loan volume in the second quarter of 2010 to remain the same as in the second quarter of 2009.

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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, 1990–92=100)*	April	138	−1.4	7	−5
Crops *(index, 1990–92=100)*	April	150	−2.0	0	−11
Corn *($ per bu.)*	April	3.51	−1.1	−9	−32
Hay *($ per ton)*	April	109	0.9	−13	−26
Soybeans *($ per bu.)*	April	9.48	1.0	−3	−21
Wheat *($ per bu.)*	April	4.69	−0.2	−18	−54
Livestock and products *(index, 1990–92=100)*	April	127	−0.8	13	−1
Barrows & gilts *($ per cwt.)*	April	53.70	2.7	21	18
Steers & heifers *($ per cwt.)*	April	101.00	5.6	14	10
Milk *($ per cwt.)*	April	14.60	−1.4	23	−19
Eggs *($ per doz.)*	April	0.77	−33.9	−17	−26
Consumer prices *(index, 1982–84=100)*	March	218	0.0	2	2
Food	March	219	0.2	0	5
Production or stocks					
Corn stocks *(mil. bu.)*	March 1	7,694	N.A.	11	12
Soybean stocks *(mil. bu.)*	March 1	1,270	N.A.	−2	−11
Wheat stocks *(mil. bu.)*	March 1	1,352	N.A.	30	91
Beef production *(bil. lb.)*	March	2.21	13.1	3	5
Pork production *(bil. lb.)*	March	2.04	16.1	4	4
Milk production *(bil. lb.)**	March	15.4	12.4	1	1
Agricultural exports *($ mil.)*	March	9,876	7.0	23	−7
Corn *(mil. bu.)*	March	192	35.8	12	−11
Soybeans *(mil. bu.)*	March	132	−23.3	29	10
Wheat *(mil. bu.)*	March	74	−3.7	−4	−22
Farm machinery *(units)*					
Tractors, over 40 HP	April	8,207	N.A.	−4	−24
40 to 100 HP	April	5,018	N.A.	−8	−33
100 HP or more	April	3,189	N.A.	2	−3
Combines	April	633	N.A.	13	51

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.