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AgLetter

FARMLAND VALUES AND CREDIT CONDITIONS

> **SAVE THE DATE**
>
> On December 1, 2009, the Federal Reserve Bank of Chicago will hold a conference to explore the future of agriculture in the Midwest. Details are forthcoming on www.chicagofed.org and in the next issue of *AgLetter*.

Summary

There was a year-over-year decrease of 2 percent in the value of "good" agricultural land—the first decline in a twelve month period since 1987—according to a survey of 227 bankers in the Seventh Federal Reserve District on April 1, 2009. Also, there was a quarterly decrease in District farmland values of 1 percent in the first quarter of 2009. Furthermore, the growth in farmland cash rental rates moderated in the District for 2009, with an increase of 7 percent. The number of survey respondents who observed that the demand to purchase farmland during the first three months of 2009 was lower relative to the same period last year exceeded those who observed higher demand. The number of farms sold, the acreage sold, and the amount of farmland for sale were all below the levels of the prior year. Nearly a third of the bankers anticipated further declines in land values during the second quarter of 2009, while almost two-thirds anticipated stable land values.

The strengthening of credit conditions became more varied in the District from January through March of 2009. Both the demand for non-real-estate loans and the availability of funds improved from the same period in the previous year. Loan repayment rates edged up as well, but the flow of renewals and extensions of agricultural loans was roughly even. For the second quarter of 2009, respondents only expected higher loan demand for operating loans and loans guaranteed by the Farm Service Agency (FSA). As of April 1, District interest rates had reached historically low levels, averaging 6.20 percent for new operating loans and 6.14 percent for farm real estate loans. The average loan-to-deposit ratio was 76.2 percent—about 4 percent below the preferred ratio.

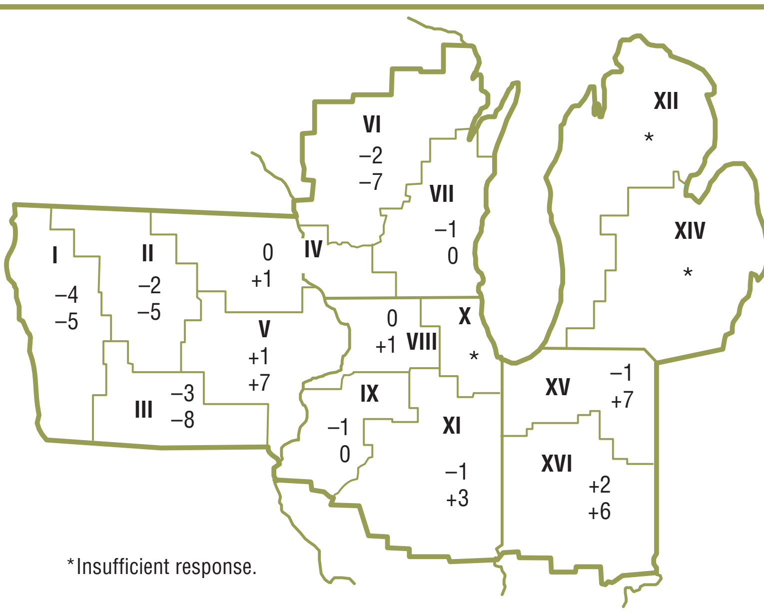
Farmland values

The District's average year-over-year change in the value of "good" agricultural land slid down in the first quarter of 2009, with a 2 percent decrease. Compared with the first quarter of 2008, annual land values fell 2 percent in Iowa and 3 percent in Wisconsin, while those of Illinois and Indiana increased 1 and 6 percent, respectively (see table and map below). Michigan's land values were lower than a year ago, as well as a quarter ago, according to the small

Percent change in dollar value of "good" farmland

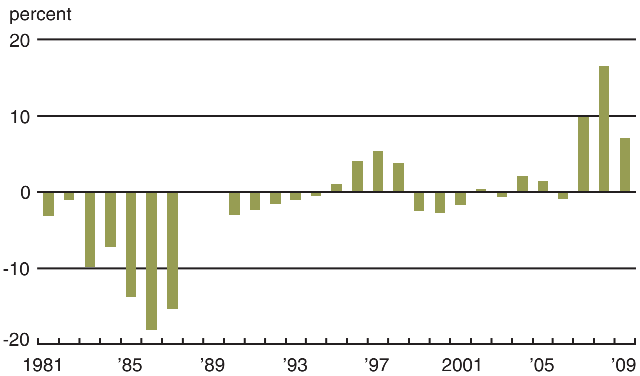
Top: January 1, 2009 to April 1, 2009
Bottom: April 1, 2008 to April 1, 2009

	January 1, 2009 to April 1, 2009	April 1, 2008 to April 1, 2009
Illinois	–1	+1
Indiana	+1	+6
Iowa	–1	–2
Michigan	*	*
Wisconsin	–1	–3
Seventh District	–1	–2



*Insufficient response.

1. **Annual percentage change in Seventh District farmland cash rental rates adjusted by CPI-U**



Sources: Author's calculations based on data from Federal Reserve Bank of Chicago farmland value surveys; and U.S. Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers (CPI-U).

number of bankers who reported. In the first quarter of 2009, the District's overall farmland values also fell on a quarterly basis—down 1 percent. Indiana was the only state to experience a quarterly increase.

As land values have stalled, cash rental rates for farmland increased 7 percent for 2009. State increases in cash rental rates were 8 percent for Illinois, 6 percent for Indiana, 8 percent for Iowa, and 2 percent for Wisconsin, while Michigan's cash rental rates declined. Adjusting for inflation using the Consumer Price Index, the "real" increase in the District's cash rental rate was 7.1 percent for 2009 (see chart 1)—the third largest increase since 1981, behind only those recorded in the previous two years.

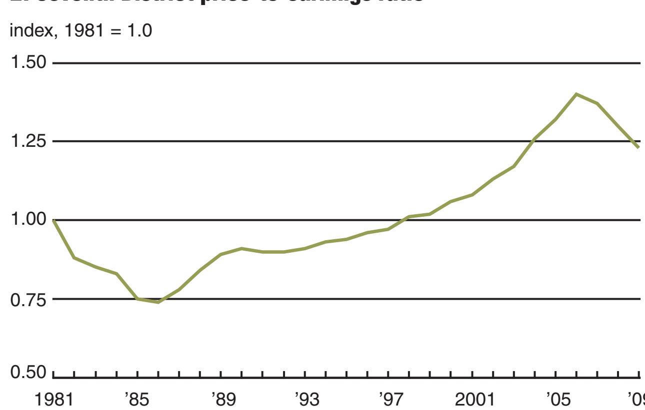
Although not as large as a year ago, the increase in cash rental rates still outpaced the increase in land values, which lowered the District's price-to-earnings (P/E) ratio for farmland (see chart 2). A lower P/E ratio indicated a larger gain in the earnings potential of farmland relative to land values, recapturing some lost ground. In an asset valuation model, the present price of an asset should reflect both current profitability and expectations for future earnings. Since cash rental rates represent the earnings potential of farmland, 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 slower adjustment of agricultural cash rents relative to land values reflected the presence of lags in repricing rental rates as farmers' relationships with landowners evolve. For instance, the full extent of last fall's decline in corn and soybean prices was unknown when some farmers had to make rental decisions for the 2009–10 crop year.

Agricultural price declines have reduced expected revenues for crops and have been a dominant factor in the slowing of both cash rental rates and farmland values. Corn and soybean prices have fallen below the levels of a year ago, though they have remained at levels that farmers would have considered outstanding prior to 2008. Prices in the first quarter of 2009 averaged $4.03 per bushel for corn and $9.55 per bushel for soybeans, according to the U.S. Department of Agriculture. Corn prices were 8.5 percent lower than the prior year; soybean prices were 13 percent lower. Input costs have fallen as well, but respondents commented that farm incomes were unlikely to be above break-even levels for 2009.

There were also remarks from survey respondents that emphasized the impact of the current recession on land values, particularly in easing the demand for recreational land and acreages for rural housing. Only 15 percent of the respondents observed higher demand for the purchase of agricultural land in the first quarter of 2009 compared with the first quarter of 2008, whereas 36 percent observed lower demand. There were fewer farms sold than a year ago in all District states, with 45 percent of the bankers reporting lower sales and 12 percent reporting higher sales. There was a similar decrease in the acreage of all farms sold. Over the winter and early spring, less farmland was observed for sale by 37 percent of respondents, while more farmland was observed for sale by 18 percent. Farmers were more active than other types of buyers, though some respondents expressed that downturns in financial markets had increased the interest of investors in farmland as a way to diversify their holdings.

There was little change in the percentages of the various arrangements for farmland operated by someone other than the owner. Cash rentals remained at 80 percent of such arrangements, while crop shares dipped to 16 percent. Land rented on a bushel basis inched up to 2 percent—the same percentage as land rented through other arrangements. The share of cash rentals in the District ranged from 68 percent in Illinois to 97 percent in Wisconsin.

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



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)*
2007							
Jan–Mar	128	113	131	78.4	8.61	8.60	7.67
Apr–June	121	115	117	77.8	8.65	8.63	7.70
July–Sept	118	118	122	78.1	8.42	8.40	7.53
Oct–Dec	110	126	149	77.2	7.82	7.89	7.09
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

[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 percent of bankers that responded "lower" from the percent 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/economic_research_and_data/ag_letter.cfm.

Credit conditions

Even as improvements in agricultural credit conditions varied in strength, these conditions, on the whole, were better during the first quarter of 2009 than in the first quarter of 2008. The index of demand for non-real-estate loans was 116, as 37 percent of the bankers noted higher demand than a year ago and 21 percent noted lower demand. The index of funds availability was 112, with 21 percent of the bankers reporting that more funds for lending were available than a year before and 9 percent reporting that fewer funds were available.

Higher rates of repayment on non-real-estate farm loans were conveyed by 22 percent of the respondents, while 17 percent conveyed lower rates, setting the index of loan repayment rates at 105 for the first quarter of 2009. Loan renewals and extensions were essentially unchanged from a year ago. Collateral requirements increased from last year, with 22 percent of responding banks requiring more collateral and less than 1 percent requiring less collateral.

Loan-to-deposit ratios averaged 76.2 percent—higher than a year ago. These ratios were below the level desired by 53 percent of the responding bankers and above the level desired by 17 percent of them. Bankers indicated that the use of farm loan guarantees provided by the FSA was just under 5 percent of the District's farm loan portfolio.

As of April 1, 2009, the District average for interest rates on new operating loans was 6.20 percent—the lowest average in the survey since the early 1970s. Interest rates on agricultural real estate loans moved down to their lowest levels in five years, averaging 6.14 percent.

Looking forward

Although crop prices seemed to have stabilized in the first quarter of 2009, 30 percent of respondents anticipated farmland values to head lower in the second quarter of 2009. Nearly two-thirds of the reporting bankers expected farmland values to remain the same from April through June of 2009, and just 4 percent of the bankers thought that farmland values would increase in their areas.

Respondents expected the volume of non-real-estate farm loans to grow during the second quarter of 2009 compared with the same quarter in 2008. The respondents anticipated the volumes for operating and FSA-guaranteed loans would increase, while farm machinery, grain storage construction, feeder cattle, and dairy loan volumes would decrease. More of the responding bankers expected real estate loan volume from April through June of 2009 to decline rather than rise, though over two-thirds predicted that real estate loan volumes would be stable.

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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	131	4.0	−10	−2
Crops *(index, 1990–92=100)*	April	155	6.2	−8	8
Corn *($ per bu.)*	April	3.87	0.3	−25	14
Hay *($ per ton)*	April	129	0.0	−12	4
Soybeans *($ per bu.)*	April	9.89	8.4	−18	44
Wheat *($ per bu.)*	April	5.69	−0.2	−44	16
Livestock and products *(index, 1990–92=100)*	April	112	2.8	−12	−12
Barrow and gilts *($ per cwt.)*	April	43.50	−0.9	−4	−10
Steers and heifers *($ per cwt.)*	April	87.70	4.4	−4	−12
Milk *($ per cwt.)*	April	12.00	1.7	−33	−28
Eggs *($ per doz.)*	April	0.92	13.1	−10	27
Consumer prices *(index, 1982–84=100)*	April	213	0.0	−1	3
Food	April	218	−0.2	3	9
Production or stocks					
Corn stocks *(mil. bu.)*	March 1	6,958	N.A.	1	15
Soybean stocks *(mil. bu.)*	March 1	1,302	N.A.	−9	−27
Wheat stocks *(mil. bu.)*	March 1	1,036	N.A.	46	21
Beef production *(bil. lb.)*	March	2.15	8.1	2	1
Pork production *(bil. lb.)*	March	1.97	8.4	0	6
Milk production *(bil. lb.)**	April	14.9	−2.0	1	3
Agricultural exports *($ mil.)*	March	8,003	1.7	−24	16
Corn *(mil. bu.)*	March	172	45.8	−20	1
Soybeans *(mil. bu.)*	March	102	−37.3	−15	5
Wheat *(mil. bu.)*	February	58	−1.4	−33	−25
Farm machinery *(units)*					
Tractors, over 40 HP	April	8,629	22.2	−20	−25
40 to 100 HP	April	5,497	29.8	−26	−34
100 HP or more	April	3,132	10.9	−5	0
Combines	April	562	−3.9	34	80

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.