The Agricultural Newsletter
from the Federal Reserve Bank of Chicago
Number 1959 *February 2013*

AgLetter

FARMLAND VALUES AND CREDIT CONDITIONS

Summary
The annual increase in "good" farmland values was 16 percent in 2012 for the Seventh Federal Reserve District. In spite of the drought last year, the annual increase for 2012 was just a notch below those of 2007 and 2011. Relative to the third quarter of 2012, agricultural land values climbed 7 percent in the fourth quarter, according to survey respondents from 212 agricultural banks across the District. On the whole, respondents anticipated farmland values to rise further during the January through March period of 2013.

Overall, agricultural credit conditions strengthened in the fourth quarter of 2012 compared with the fourth quarter of 2011. Non-real-estate loan demand relative to a year ago was lower during the fourth quarter of 2012, but not nearly as much as it had been during the previous seven quarters. Funds availability and farm loan repayment rates were up in the October through December period of 2012 compared with the same period of 2011, and rates of loan renewals and extensions were down. At the end of the fourth quarter of 2012, agricultural interest rates were at their lowest in the history of the District's survey. Moreover, the loan-to-deposit ratios for reporting banks averaged 67.2 percent—the second-lowest level since 1996.

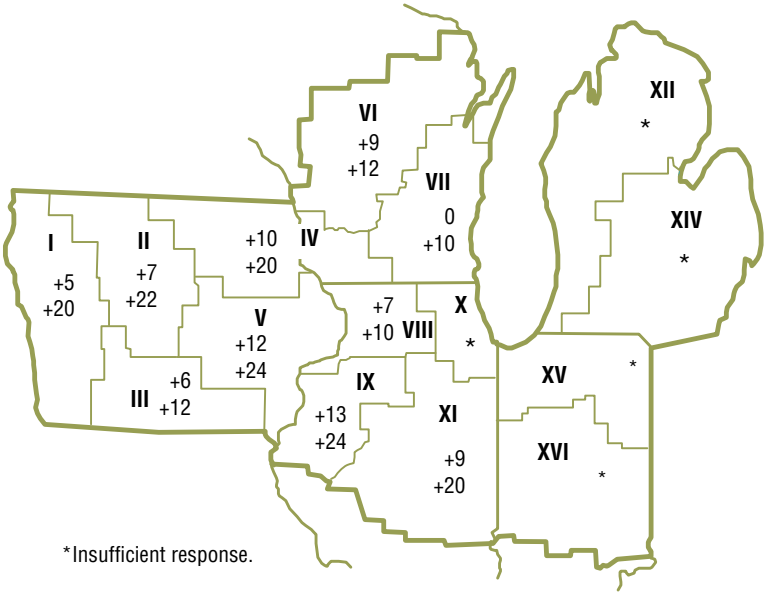
Farmland values
Toward the end of 2012, the increases in farmland values seemed to pick up their pace. District agricultural land values gained 7 percent from the third quarter to the fourth quarter of 2012, amid reports of strong farmland sales in the face of impending and uncertain changes in federal tax policies. The 16 percent year-over-year increase in farmland values in the fourth quarter of 2012 was a bit higher than the year-over-year increases recorded for the previous two quarters. And although the District's annual increase of 16 percent in the value of "good" farmland for 2012 was a little lower than that for 2011, it was still the third-largest increase since the late 1970s (see chart 1 on next page). Illinois, Michigan, and Iowa saw year-over-year jumps in agricultural land values for the fourth quarter of 2012 that exceeded the annual increase for the District, while Indiana and Wisconsin experienced more modest year-over-year gains (see table and map below).

After adjusting for inflation, the District's 2012 annual increase in agricultural land values (14 percent) was the third largest in 35 years. Moreover, 2012 marked the third consecutive year of significant jumps in agricultural land values: More specifically, farmland values experienced a cumulative rise of 52 percent over the period 2010–12, matching the fastest gain of the 1970s boom (over the period 1974–76) in real terms. By the end of 2012, the compound

Percent change in dollar value of "good" farmland

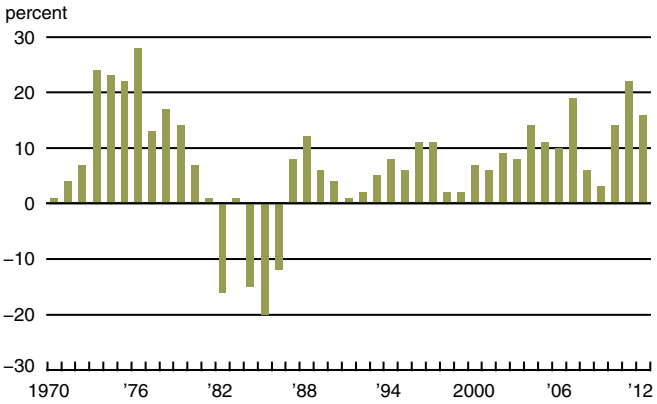
Top: October 1, 2012 to January 1, 2013
Bottom: January 1, 2012 to January 1, 2013

	October 1, 2012 to January 1, 2013	January 1, 2012 to January 1, 2013
Illinois	+9	+18
Indiana	+7	+10
Iowa	+8	+20
Michigan	+3	+18
Wisconsin	+6	+11
Seventh District	+7	+16



*Insufficient response.

1. Annual percentage change in Seventh District farmland values



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

annual growth rate for farmland values (adjusted for inflation) was 5.8 percent since its 1986 nadir. During 2012, the index of inflation-adjusted agricultural land values once again established a record for the District, as it had every year since 2007 (see chart 2).

Perhaps the most surprising aspect of 2012's strong gain in farmland values was that it occurred in the midst of the worst drought in the Midwest since 1988. Although by some measures last year's drought was more severe than 1988's, the losses at harvest in 2012 were not as significant as those experienced in 1988. Based on U.S. Department of Agriculture (USDA) data, the District's 2012 production decreased 25 percent for corn and 9.4 percent for soybeans from 2011. The District's corn and soybean harvests in 2012 were the lowest since 2002 and 2007, respectively. For the nation, the USDA placed corn yields at 123 bushels per acre and soybean yields at 39.6 bushels per acre in 2012 (down 16 percent and 5.4 percent, respectively, from 2011). The District corn yield fell from 2011 by 26 percent to 119 bushels per acre in 2012—its lowest level since 1995. And the District soybean yield moved down from 2011 by 9.5 percent to 43.5 bushels per acre in 2012—its lowest level since 2003. By comparison, in 1988, corn yields plummeted from 1987 by 30 percent for the United States and by 39 percent for the District, and soybean yields plunged by 20 percent for the nation and by 29 percent for the District.

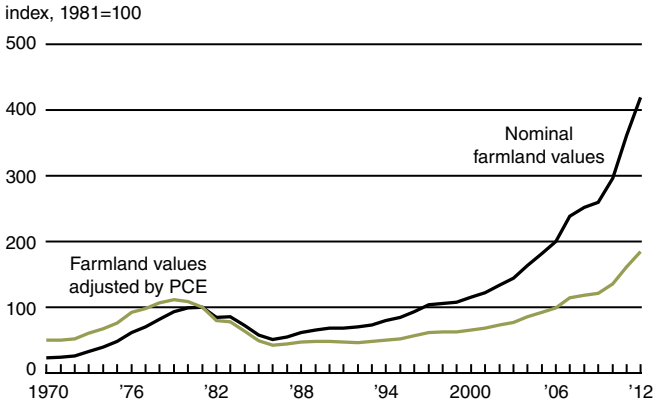
The drought contributed to crop prices rising substantially in 2012 relative to 2011, so a rebound in production in 2013 could trigger price declines. Corn, soybean, and wheat prices were higher, on average, by 10.9 percent, 11.4 percent, and 2.2 percent, respectively, in 2012 than in 2011. While feed costs rose, milk and hog prices fell 8.1 percent and 3.4 percent on a year-over-year basis, respectively. (These figures were computed from USDA price data.) The squeeze on livestock producers was evident in the most recent estimates of farm assets by the USDA. Following a 3.6 percent slide from 2011, the 2012 value of the national stock of livestock and poultry was the lowest in real terms since 1960, when the data start. In contrast, farm real estate assets grew 6.0 percent from 2011 to 2012, according to the USDA. Moreover, livestock and poultry fell to 3.1 percent of total farm assets in 2012, while real estate assets climbed to 86.3 percent of the total last year.

Credit conditions

The District's agricultural credit conditions showed improvement in the fourth quarter of 2012 compared with the fourth quarter of 2011. Demand for non-real-estate farm loans in the October through December period of 2012 was very near the level of the same period of 2011. Moreover, demand for non-real-estate farm loans relative to a year ago was down much less in the fourth quarter of 2012 than in the previous seven quarters. So, the index of loan demand rose to 96 in the fourth quarter of 2012, with 24 percent of respondents noting an increase in the demand for non-real-estate loans and 28 percent noting a decrease. Additional funds were available to lend in the fourth quarter of 2012, with bank deposits boosted by crop sales and insurance indemnities. As of early February 2013, $3.93 billion had been paid out for insured 2012 agricultural losses in the five District states (29 percent of the U.S. total of $13.7 billion). The index of funds availability crept up to 151, as funds availability was higher at 54 percent of the reporting banks and lower at 3 percent.

The index of non-real-estate farm loan repayment rates was not as high as earlier in the year, but it increased from the third quarter of 2012. With 40 percent of respondents reporting higher rates of loan repayment compared with the fourth quarter of 2011 and 5 percent reporting lower rates, the index of repayment rates was 135 in the final quarter of 2012. Wisconsin was the only District state to encounter lower rates of loan repayment. Thirty percent of respondents reported lower rates of renewals

2. Indexes of Seventh District farmland values



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.

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)*
2011							
Jan–Mar	81	149	146	69.8	6.01	5.93	5.80
Apr–June	79	145	133	70.3	5.75	5.91	5.62
July–Sept	81	149	133	69.0	5.66	5.79	5.36
Oct–Dec	87	153	150	68.7	5.47	5.65	5.20
2012							
Jan–Mar	72	163	154	66.5	5.34	5.54	5.08
Apr–June	69	164	139	68.1	5.27	5.41	4.94
July–Sept	81	147	128	67.5	5.21	5.37	4.86
Oct–Dec	96	151	135	67.2	5.03	5.24	4.70

[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.

and extensions during the October through December period of 2012 versus the same period of the prior year, while only 6 percent reported higher rates. Given that just 1.6 percent, on average, of the volume of the farm loan portfolio was reported as having "major" or "severe" repayment problems in the fourth quarter of 2012, credit quality for the District registered a slight improvement.

Almost 20 percent of the reporting banks tightened credit standards for agricultural loans in the fourth quarter of 2012 relative to the fourth quarter of 2011, and just 1 percent eased credit standards. Ten percent of reporting banks required larger amounts of collateral to qualify for non-real-estate farm loans during the October through December period of 2012 relative to a year earlier, and 2 percent required smaller amounts. These findings affirmed that additional tightening of credit standards had occurred.

Farm loan interest rates dropped to new lows in the fourth quarter of 2012. As of January 1, 2013, the average interest rates were 5.03 percent for farm operating loans and 4.70 percent for agricultural real estate loans.

Looking forward

According to survey respondents, less than 1 percent of their farm customers with operating credit in 2012 would not qualify for new operating credit in the new year, which was slightly lower than the level reported a year ago. Non-real-estate agricultural loan volumes were expected to contract in the first quarter of 2013, except for operating loan volumes, which were predicted to expand, and farm machinery loan volumes, which were forecasted to hold steady. Additionally, responding bankers anticipated an expansion in the volume of farm real estate loans.

Farmers' capital expenditures—including expenditures on machinery and equipment, trucks and autos, and buildings and facilities—were forecasted by respondents to be even higher in 2013 than in 2012. With 43 percent of the responding bankers anticipating higher levels of land purchases or improvements in 2013 than in 2012 and 15 percent anticipating lower levels, the survey indicated that momentum for rising farmland values still exists on the demand side in the year ahead. While 71 percent of the responding bankers expected farmland values to be stable from January through March of 2013, 28 percent expected farmland values to increase in the first quarter of 2013. With the USDA predicting net farm income to rise 14 percent from 2012 to $128.2 billion in 2013, there would seem to be at least another leg to be run as farmland values continue their upward race.

Although the drought persisted in portions of the District, its severity had diminished in much of the Midwest following the harvest, giving more hope for a rebound in crop yields. Recovery from the drought will remain a key factor in 2013, as the movements of drought-influenced crop prices will affect both crop farmers and livestock producers.

David B. Oppedahl, *business economist*

AgLetter (ISSN 1080-8639) is published quarterly by the Economic Research Department of the Federal Reserve Bank of Chicago. It is prepared by David B. Oppedahl, business economist, and members of the Bank's Economic Research Department. The information used in the preparation of this publication is obtained from sources considered reliable, but its use does not constitute an endorsement of its accuracy or intent by the Federal Reserve Bank of Chicago or the Federal Reserve System.

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)*	January	217	9.0	15	31
Crops (index, 1990–92=100)	January	248	9.7	17	31
Corn ($ per bu.)	January	6.98	1.6	15	41
Hay *($ per ton)*	January	191	–0.5	11	71
Soybeans *($ per bu.)*	January	14.10	–1.4	18	22
Wheat *($ per bu.)*	January	8.10	–2.3	15	21
Livestock and products *(index, 1990–92=100)*	January	168	1.2	8	23
Barrows & gilts *($ per cwt.)*	January	63.30	1.0	–1	12
Steers & heifers *($ per cwt.)*	January	132	3.1	2	20
Milk *($ per cwt.)*	January	20.00	–4.3	5	20
Eggs *($ per doz.)*	January	1.06	–6.2	21	25
Consumer prices *(index, 1982–84=100)*	December	231	0.0	2	5
Food	December	236	0.2	2	7
Production or stocks					
Corn stocks *(mil. bu.)*	December 1	8,030	N.A.	–17	–20
Soybean stocks *(mil. bu.)*	December 1	1,966	N.A.	–17	–14
Wheat stocks *(mil. bu.)*	December 1	1,660	N.A.	0	–14
Beef production *(bil. lb.)*	December	2.02	–8.5	–5	–11
Pork production *(bil. lb.)*	December	1.95	–6.0	–5	–5
Milk production *(bil. lb.)**	December	15.7	5.4	2	5
Agricultural exports *($ mil.)*	December	13,040	–8.8	11	4
Corn *(mil. bu.)*	December	54	–9.7	–69	–66
Soybeans *(mil. bu.)*	December	190	–25.2	28	–3
Wheat *(mil. bu.)*	December	63	35.1	–13	–27
Farm machinery *(units)*					
Tractors, over 40 HP	December	6,049	N.A.	17	26
40 to 100 HP	December	5,729	N.A.	3	15
100 HP or more	December	4,657	N.A.	22	30
Combines	December	925	N.A.	–1	47

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.