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AgLetter

FARMLAND VALUES AND CREDIT CONDITIONS

Summary
In 2013, the Seventh Federal Reserve District had an annual increase of 5 percent in "good" farmland values, yet growth in farmland values appeared to be slowing. Some areas in the District even saw declines in farmland values, as corn and soybean prices tumbled from a year ago. According to survey respondents from 186 agricultural banks across the District, agricultural land values rose 3 percent from the third quarter to the fourth quarter of 2013. A majority of respondents anticipated farmland values to remain stable during the January through March period of 2014, but the rest of the respondents' expectations tilted toward decreases in farmland values during this period.

Agricultural credit conditions weakened in the fourth quarter of 2013 compared with the fourth quarter of 2012. Repayment rates on non-real-estate farm loans were lower in the October through December period of 2013 versus the same period of 2012, and rates of loan renewals and extensions were higher. In the fourth quarter of 2013, non-real-estate loan demand picked up from a year ago—which last occurred in the fourth quarter of 2010, as farmers had relatively more working capital during the intervening quarters. Funds available for lending remained above the level of a year ago. At 67.3 percent, the average loan-to-deposit ratio for reporting banks was just above the level of a year ago. Agricultural interest rates continued to inch up in the fourth quarter of 2013.

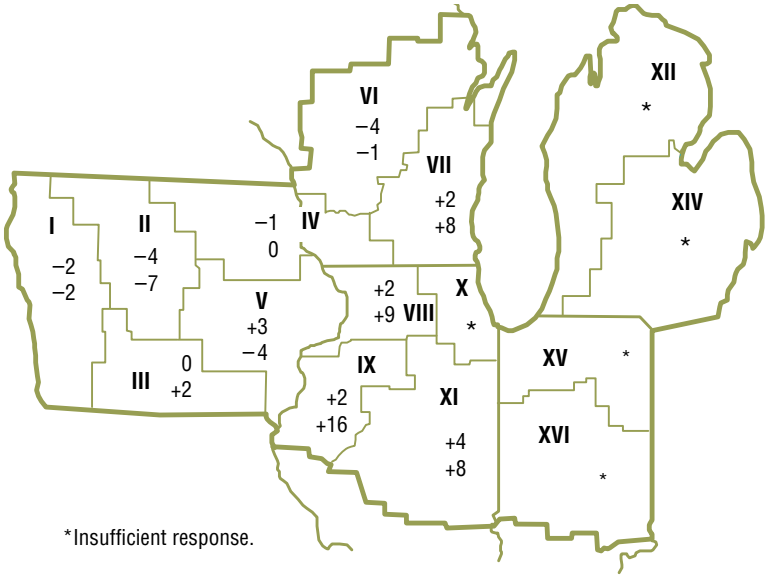
Farmland values
The District's annual increase of 5 percent in "good" farmland values for 2013 was the smallest gain since 2009 and the second-lowest gain of the past decade (see chart 1 on next page). Moreover, the 5 percent year-over-year increase in farmland values in the fourth quarter of 2013 was the smallest for the District since the first quarter of 2010. The index of inflation-adjusted agricultural land values set a new high-water mark for the District, not quite doubling its 1979 peak from the 1970s boom (see chart 2 on next page). In the fourth quarter of 2013, Illinois, Indiana, and Michigan experienced year-over-year gains in agricultural land values exceeding that for the District; in contrast, Wisconsin had a year-over-year increase that was smaller than the District's, and Iowa actually saw lower values for agricultural land than a year earlier (see table and map below).

Overall, the District's crop production bounced back strongly from the 2012 drought, but drought returned to the Midwest in 2013, hitting Iowa the hardest among District states. According to U.S. Department of Agriculture (USDA) data, the District's corn yield surged 42 percent in 2013 from 2012—to 169 bushels per acre (its third-highest level on record). Also, the District's soybean yield moved up 7.5 percent in 2013 from 2012—to 46.9 bushels per acre.

Percent change in dollar value of "good" farmland

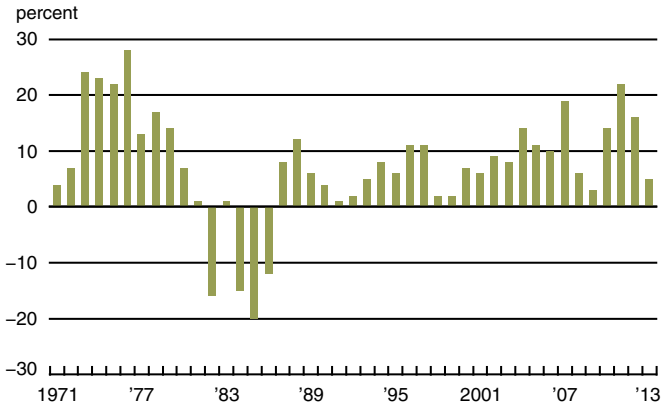
Top: October 1, 2013 to January 1, 2014
Bottom: January 1, 2013 to January 1, 2014

	October 1, 2013 to January 1, 2014	January 1, 2013 to January 1, 2014
Illinois	+3	+10
Indiana	+6	+14
Iowa	−1	−2
Michigan	*	+6
Wisconsin	−1	+2
Seventh District	+3	+5



*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.

The District's 2013 production increased 36 percent for corn and 8.4 percent for soybeans relative to 2012 levels. However, a second straight year of drought limited Iowa's output: Iowa's corn production in 2013 was just 15 percent higher than in 2012 (while Illinois's corn production was 63 percent higher and Indiana's was 74 percent higher). Additionally, Iowa's soybean production in 2013 was actually 0.8 percent lower than in 2012.

The rebound in agricultural production for the United States in 2013 led to the largest corn crop and the third-largest soybean crop on record, according to the USDA. The resurgence in the supply of farm products contributed to declines in crop prices. Corn, soybean, and wheat prices for the fourth quarter of 2013 were lower, on average, by 35 percent, 11 percent, and 18 percent, respectively, than their prices of a year ago. Milk prices eased 0.3 percent in the October through December period of 2013 relative to the same period of a year ago, but hog and cattle prices gained 4.4 percent and 2.3 percent, respectively. (These figures were computed from USDA price data.) These price movements improved the footing of livestock producers, as feeding costs waned in 2013.

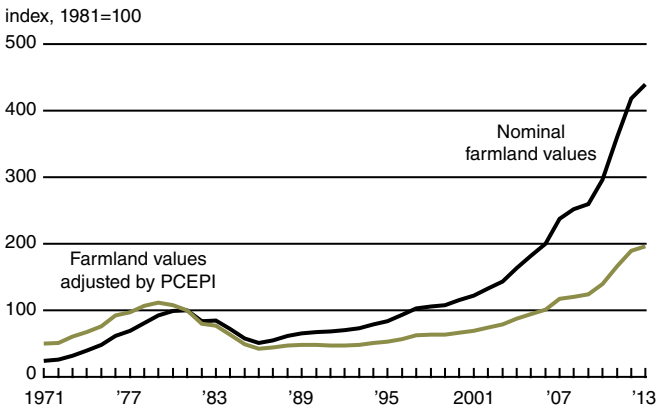
For 2012, $7.68 billion in crop insurance indemnities were paid out among the District's five states—44 percent of the U.S. total of $17.4 billion. As of late January 2014, $2.22 billion had been paid out for insured 2013 agricultural losses in the five states of the District (23 percent of the U.S. total of $9.60 billion in crop insurance indemnities). In addition, the distribution of the indemnities changed over the past two years. Illinois bore the brunt of the 2012 drought; 46 percent of the District states' insured agricultural losses were in Illinois (26 percent of them were in Iowa). In 2013, 61 percent of the District states' insured agricultural losses were in Iowa. (These figures were computed from data provided by the USDA's Risk Management Agency.) So, Iowa farmland values ended down for 2013 as the state suffered drought for the second straight year against a backdrop of substantially lower crop prices relative to a year ago. In contrast, Illinois and Indiana farmland values continued to march upward as crop yields bounced back from the drought relatively more strongly than the declines in crop prices.

Credit conditions

Agricultural credit conditions deteriorated in the fourth quarter of 2013 relative to the fourth quarter of 2012 in the District, especially in Iowa and Wisconsin. The index of non-real-estate farm loan repayment rates weakened in the fourth quarter of 2013, moving below 100 for the first time since 2010. The index of repayment rates was 91 for the final quarter of 2013, with 12 percent of survey respondents reporting higher rates of loan repayment compared with the fourth quarter of 2012 and 21 percent reporting lower rates. Notably, Iowa and Wisconsin were the only District states to have lower rates of loan repayment in the final quarter of 2013 compared with a year ago. Sixteen percent of survey respondents reported higher rates of renewals and extensions during the October through December period of 2013 versus the same period of the prior year, while 9 percent reported lower rates. The shift toward more renewals and extensions of loans was limited to Iowa and Wisconsin. Credit quality for the District faltered, as 2.4 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 2013 (the share of loans with such problems in Iowa's farm loan portfolio was reported to be larger).

In the final quarter of 2013, demand for non-real-estate farm loans was higher than a year ago (which last happened in the final quarter of 2010). The index of loan demand jumped to 120 for the fourth quarter of 2013, with 39 percent of survey respondents noting an increase in the demand for non-real-estate loans from a year earlier and 19 percent noting a decrease. This reading marked the highest level for the index of loan demand since the second

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 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)*
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
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

[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.

quarter of 2007. The index of funds availability was down to 121, as 25 percent of the responding bankers indicated that their banks had more funds available than a year ago and 4 percent indicated their banks had fewer. This was the lowest reading of the index of funds availability since the third quarter of 2009. Additionally, at 67.3 percent, the average loan-to-deposit ratio for reporting banks edged up from the level of a year ago, but stood at about 10 percent below the average level desired by survey respondents.

Twenty-seven percent of the reporting banks tightened their credit standards for agricultural loans in the fourth quarter of 2013 relative to the fourth quarter of 2012, and just 1 percent eased their credit standards; thus, credit availability was somewhat more restricted than a year earlier. Moreover, 6 percent of reporting banks required larger amounts of collateral to qualify for non-real-estate farm loans during the October through December period of 2013 relative to the same period of a year earlier, and 1 percent required smaller amounts.

As of January 1, 2014, the average interest rate for farm operating loans edged up to 4.99 percent. Similarly, the average interest rate for agricultural real estate loans rose to 4.94 percent. The farm operating loan interest rate was still below its level of a year ago, whereas the farm real estate interest rate had matched its level of the second quarter of 2012.

Looking forward

According to survey respondents, over 1 percent of their farm customers with operating credit in 2013 were not likely to qualify for new operating credit in 2014. In Wisconsin, over 3 percent were unlikely to qualify again. Survey respondents anticipated non-real-estate agricultural loan volumes (in particular, the volume of operating loans but also those of feeder cattle loans and loans guaranteed by the Farm Service Agency) to be higher in the first quarter of 2014 than in the same quarter of 2013. In contrast, responding bankers expected grain storage and farm machinery loan volumes, as well as the volume of farm real estate loans, to be lower in the January through March period of 2014 than in the same period of a year ago.

In a major reversal from a year ago, farmers' capital expenditures—specifically, expenditures on land or improvements, buildings and facilities, machinery and equipment, and trucks and autos—were expected by survey respondents to be lower in the year ahead. Over half of the responding bankers forecasted lower levels of capital purchases in each of these categories in 2014 than in 2013, and less than 10 percent forecasted higher levels. Fifty-six percent of the responding bankers anticipated farmland values to be stable from January through March of 2014; 41 percent anticipated them to be lower; and just 3 percent anticipated them to be higher. Combined with expectations of diminished farmland purchases by farmers in 2014, these survey responses cast a pall over the spectacular growth in agricultural land values of the past few years.

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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)*	January	180	–2.2	–17	–5
Crops *(index, 1990–92=100)*	January	186	–3.1	–26	–13
Corn *($ per bu.)*	January	4.37	–0.9	–37	–28
Hay *($ per ton)*	January	165	–1.8	–12	–4
Soybeans *($ per bu.)*	January	13.00	0.0	–9	9
Wheat *($ per bu.)*	January	6.31	–6.2	–22	–10
Livestock and products *(index, 1990–92=100)*	January	172	–0.6	4	11
Barrows & gilts *($ per cwt.)*	January	60.90	–0.7	–5	–4
Steers & heifers *($ per cwt.)*	January	137.00	3.8	5	5
Milk *($ per cwt.)*	January	23.20	5.5	17	23
Eggs *($ per doz.)*	January	1.10	–19.1	4	25
Consumer prices *(index, 1982–84=100)*	December	235	0.3	2	3
Food	December	238	0.0	1	3
Production or stocks					
Corn stocks *(mil. bu.)*	December 1	10,426	N.A.	30	8
Soybean stocks *(mil. bu.)*	December 1	2,148	N.A.	9	–9
Wheat stocks *(mil. bu.)*	December 1	1,463	N.A.	–12	–12
Beef production *(bil. lb.)*	December	2.05	–0.5	1	–4
Pork production *(bil. lb.)*	December	2.07	1.3	6	0
Milk production *(bil. lb.)**	December	15.7	5.4	0	2
Agricultural exports *($ mil.)*	December	14,372	–8.4	11	22
Corn *(mil. bu.)*	December	143	3.2	165	–18
Soybeans *(mil. bu.)*	December	259	–19.4	37	75
Wheat *(mil. bu.)*	December	75	18.2	19	3
Farm machinery *(units)*					
Tractors, 40 HP or more	December	11,370	N.A.	10	21
40 to 100 HP	December	6,189	N.A.	9	11
100 HP or more	December	5,181	N.A.	12	36
Combines	December	1,279	N.A.	39	36

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.