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AgLetter

FARMLAND VALUES AND CREDIT CONDITIONS

Summary
The Seventh Federal Reserve District had an annual decrease of 3 percent in "good" farmland values for 2014, marking the first yearly decline since 1986. However, farmland values in the fourth quarter of 2014 remained largely the same as in the third quarter, according to survey respondents from 224 agricultural banks across the District. Half of the respondents expected farmland values to fall during the January through March period of 2015, while only 1 percent remained hopeful that farmland values would rise in the areas surrounding their respective banks.

Recent trends in agricultural credit conditions extended into the fourth quarter of 2014. Non-real-estate loan demand relative to a year ago was again higher. Funds available for lending remained above the level of a year earlier. The average loan-to-deposit ratio for the District climbed for the third quarter in a row, to 70.6 percent—the highest level of the past four years. Repayment rates on non-real-estate farm loans were markedly lower in the October through December period of 2014 versus the same period of 2013, and rates of loan renewals and extensions were higher. Average interest rates on farm operating and real estate loans had eased to near-historic lows by the end of the fourth quarter of 2014.

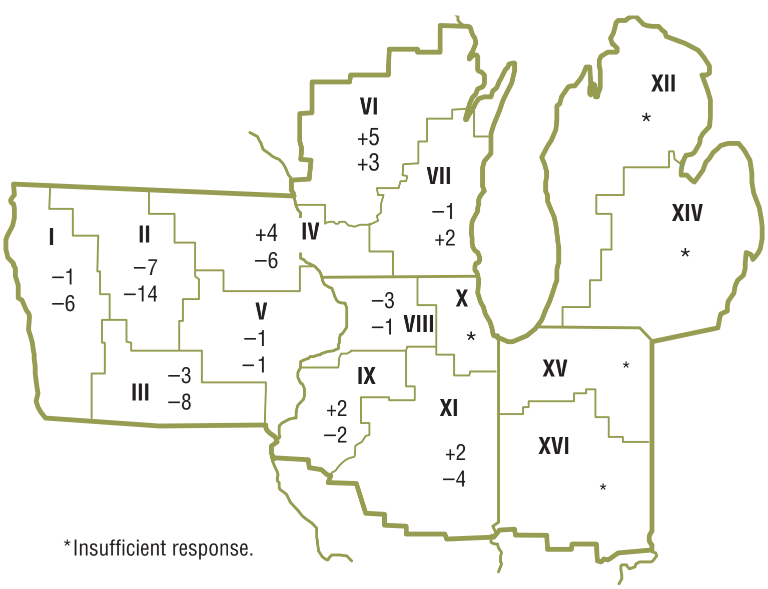
Farmland values
The District's annual decrease of 3 percent in "good" farmland values for 2014 was the first loss for a year since 1986 (see chart 1 on next page). Moreover, the fourth quarter of 2014 was the first time since the third quarter of 2009 that the District suffered a year-over-year drop in farmland values. When adjusted for inflation, the District's annual decrease in agricultural land values for 2014 was the first one since 1992; the streak of annual increases in District farmland values in real terms had reached 21 years before being broken in 2014. Still, at the end of 2014 the index of inflation-adjusted agricultural land values for the District was 68 percent higher than at its 1979 peak from the 1970s boom (see chart 2 on next page). In the fourth quarter of 2014, Illinois, Indiana, and Iowa experienced declines in agricultural land values on a year-over-year basis; in contrast, Wisconsin experienced a modest increase, and Michigan had no change (see table and map below).

Farmland values were down in 2014, even though the District as a whole set records for both corn and soybean production. According to U.S. Department of Agriculture (USDA) data, the District's 2014 production increased 10 percent for corn and 17 percent for soybeans from 2013. The District's corn yield increased 9.1 percent in 2014 from 2013, to a record-setting 184 bushels per acre. The District's soybean yield was up 10.5 percent in 2014 from 2013, to

Percent change in dollar value of "good" farmland

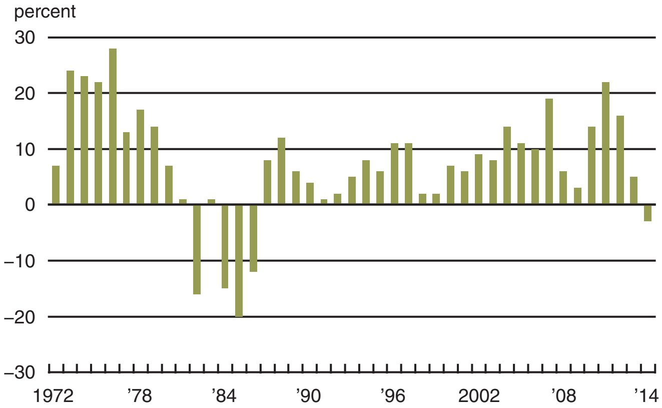
Top: October 1, 2014 to January 1, 2015
Bottom: January 1, 2014 to January 1, 2015

	October 1, 2014 to January 1, 2015	January 1, 2014 to January 1, 2015
Illinois	+1	−3
Indiana	−3	−2
Iowa	−1	−7
Michigan	−1	0
Wisconsin	+2	+2
Seventh District	0	−3



*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.

52.8 bushels per acre, establishing a new record as well. However, not all District states had record crop yields (Iowa and Wisconsin failed to set new state records like their District peers did).

The nation's corn production for 2014 reached a record high of 14.2 billion bushels (2.8 percent higher than the 2013 harvest). U.S. soybean production for 2014 hit a record high of 3.97 billion bushels (18 percent higher than the 2013 harvest). Because of the plentiful supplies of corn and soybeans, downward pressure was placed on crop (and feed) prices. Corn prices in December 2014 were, on average, 14 percent lower than a year ago and 45 percent lower than two years ago. Soybean prices in December 2014 were, on average, 21 percent lower than a year ago and 28 percent lower than two years ago. Total usage of corn at 13.6 billion bushels in the 2014–15 crop year would leave U.S. ending stocks at 1.88 billion bushels. At 13.8 percent, the stocks-to-use ratio for corn would be at its highest since the 2008–09 crop year. Total soybean usage of 3.67 billion bushels would result in ending stocks of 410 million bushels. The stocks-to-use ratio for soybeans in the 2014–15 crop year would thus increase to 11.2 percent, reaching its highest level since the 2006–07 crop year. (All of the preceding figures in this paragraph were computed from USDA data.)

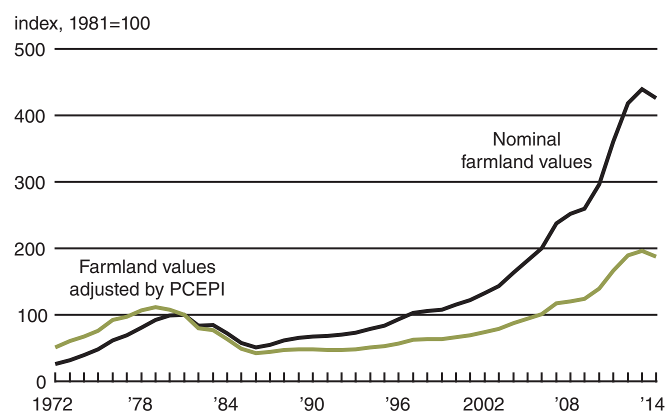
Lower corn and soybean prices have been primary factors contributing to the drop in farmland values. The impact of falling crop prices has been offset to some extent by buoyant returns for livestock producers throughout 2014. Nevertheless, the index of prices for livestock and associated products (featured in the table on the back page) was down 5.2 percent in December from November (yet it was still up 13 percent from the previous December). The average price of milk in December was noticeably lower than the price in November, and even trailed the price from the previous December by 7 percent. As livestock producers responded to price signals for expansion, the extra output contributed to a lowering of the prices received by producers, trimming their profits. There still seemed to be some lift to farmland values from livestock operations toward the end of 2014, yet the farm sector should be cautious about possible future impacts of these price trends, especially because feed costs may not get much (if any) lower.

Credit conditions

Agricultural credit conditions were in many ways quite different in the fourth quarter of 2014 than in the fourth quarter of 2013. In particular, demand for non-real-estate farm loans in the October through December period of 2014 was dramatically higher than in the same period of 2013. With 48 percent of survey respondents noting an increase in the demand for non-real-estate loans and 11 percent noting a decrease, the index of loan demand jumped to 137 in the fourth quarter of 2014. This marked the highest level for the index since the second quarter of 1994 (and the second-highest reading since the third quarter of 1979). Rising loan demand pulled up the District's average loan-to-deposit ratio to 70.6 percent—the highest level in four years and 7.2 percentage points below the average level desired by the responding bankers.

Moreover, the index of non-real-estate farm loan repayment rates was much weaker in the fourth quarter of 2014 compared with the fourth quarter of 2013. With 5 percent of survey respondents reporting higher rates of loan repayment and 36 percent reporting lower rates, the index of repayment rates was 69 in the final quarter of 2014—its lowest level since the first quarter of 2002. Also, 28 percent of respondents reported higher rates of loan renewals and extensions during the October through December period of 2014 versus the same period of the previous year, while only 4 percent reported lower rates. At the same time, credit quality eroded a bit: 2.9 percent of the District's farm loan portfolio was reported as having "major" or "severe" repayment problems in the fourth

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)*
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
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

[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, https://www.chicagofed.org/publications/agletter/index.

quarter of 2014—which was half of a percentage point higher than a year ago.

Given the changes to credit quality, there were tighter credit standards too. Thirty-one percent of the survey respondents reported their banks had tightened credit standards for agricultural loans in the fourth quarter of 2014 relative to the fourth quarter of 2013, and 69 percent reported their banks had left credit standards essentially unchanged. Thus, credit availability in the final quarter of 2014 was more restricted than a year earlier. Credit tightening was also illustrated by 9 percent of survey respondents reporting that their banks required larger amounts of collateral for customers to qualify for non-real-estate farm loans during the October through December period of 2014 relative to the same period of a year ago and none of them reporting that their banks required smaller amounts. Funds availability during the fourth quarter of 2014 was above the level of a year ago: The index of funds availability moved up slightly to 109, as funds availability was higher at 17 percent of respondents' banks and lower at 8 percent. As of January 1, 2015, the average interest rates for farm operating loans (4.87 percent) and agricultural real estate loans (4.61 percent) were close to their all-time lows for the survey. Ticking up from the previous quarter, the average interest rate on feeder cattle loans stood at 5.03 percent at that time.

Looking forward

Even with tighter credit standards, survey respondents noted only 1.4 percent of their farm customers with operating credit in 2014 were not likely to qualify for new operating credit in 2015. This percentage was only slightly higher than the level reported a year ago (for farm customers with operating credit in 2013). Responding bankers projected non-real-estate agricultural loan volumes (in particular, operating loans, feeder cattle loans, and loans guaranteed by the Farm Service Agency) to be higher in the first quarter of 2015 than in the same quarter of 2014. In contrast, they anticipated volumes for grain storage loans, farm machinery loans, and farm real estate loans to be lower in the first quarter of 2015 relative to the same quarter of a year earlier.

Agricultural capital expenditures for land or improvements, buildings and facilities, machinery and equipment, and trucks and autos were all anticipated by survey respondents to be lower in the year ahead than in 2014. With 50 percent of the responding bankers expecting farmland values to decrease in the first quarter of 2015 and only 1 percent expecting them to increase, District farmland values seem to be headed lower. Nevertheless, agricultural credit conditions indicated only modest stress in the sector, and the vast majority of farm operations are expected to have no trouble qualifying for operating credit in 2015. Thus, large numbers of forced sales of farmland are unlikely to occur in 2015. By avoiding such a scenario, farmland values should simply drift lower over the coming months.

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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)*	December	100	–1.0	0	–8
Crops *(index, 2011=100)*	December	82	1.2	–10	–24
Corn *($ per bu.)*	December	3.78	5.6	–14	–45
Hay *($ per ton)*	December	159	–3.0	–2	–16
Soybeans *($ per bu.)*	December	10.30	1.0	–21	–28
Wheat *($ per bu.)*	December	6.11	1.0	–9	–26
Livestock and products *(index, 2011=100)*	December	127	–5.2	13	17
Barrows & gilts *($ per cwt.)*	December	64.20	–3.3	5	2
Steers & heifers *($ per cwt.)*	December	166.00	–1.8	26	32
Milk *($ per cwt.)*	December	20.40	–11.3	–7	–2
Eggs *($ per doz.)*	December	1.77	16.4	30	57
Consumer prices *(index, 1982–84=100)*	December	236	–0.4	1	2
Food	December	246	0.2	3	4
Production or stocks					
Corn stocks *(mil. bu.)*	December 1	11,203	N.A.	7	39
Soybean stocks *(mil. bu.)*	December 1	2,524	N.A.	17	28
Wheat stocks *(mil. bu.)*	December 1	1,525	N.A.	3	–9
Beef production *(bil. lb.)*	December	2.00	8.1	–2	–1
Pork production *(bil. lb.)*	December	2.12	11.8	2	8
Milk production *(bil. lb.)**	December	16.2	4.5	3	3
Agricultural exports *($ mil.)*	December	13,925	–6.5	–3	8
Corn *(mil. bu.)*	December	117	12.9	–15	116
Soybeans *(mil. bu.)*	December	302	–26.8	18	63
Wheat *(mil. bu.)*	December	60	27.4	–19	–3
Farm machinery *(units)*					
Tractors, 40 HP or more	December	10,605	N.A.	–6	3
40 to 100 HP	December	6,825	N.A.	11	20
100 HP or more	December	3,780	N.A.	–27	–19
Combines	December	760	N.A.	–40	–17

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.