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AgLetter



FARMLAND VALUES AND CREDIT CONDITIONS

Summary

Farmland values in the Seventh Federal Reserve District had an annual increase of 1 percent for 2017, following three consecutive yearly declines. Values for “good” agricultural land in the fourth quarter of 2017 were overall unchanged from the third quarter, according to 185 survey respondents representing agricultural banks across the District. Just over three-fourths of the responding agricultural bankers expected farmland values to be stable during the January through March period of 2018.

Agricultural credit conditions in the District deteriorated once again in the fourth quarter of 2017. Repayment rates on non-real-estate farm loans were lower in the October through December period of 2017 than in the same period of 2016, and rates of loan renewals and extensions were higher—which indicated greater stress in the credit environment. Yet, for 2018, just 2.5 percent of farm loan customers were not anticipated to qualify for operating credit at the banks of the survey respondents. Non-real-estate loan demand in the fourth quarter of 2017 increased from a year ago, while funds available for lending were at nearly the same level as a year earlier. The average loan-to-deposit ratio for the District (76.6 percent) was up from a year ago. Average interest rates on farm loans crept up at the end of 2017, reaching levels similar to those of early 2012.

Farmland values

The District saw an annual increase of 1 percent in “good” farmland values for 2017, bucking the trend of annual declines suffered over the previous three years (see chart 1 on next page). With farmland values up slightly for 2017, the District avoided exceeding the three consecutive years of declines seen in 1984–86. In the fourth quarter of 2017, Indiana, Iowa, and Wisconsin had year-over-year increases in agricultural land values, while Illinois had a decrease (see table and map below). In addition, there were indications that Michigan experienced a year-over-year decline in farmland values for that quarter (however, too few bankers responded to report a numerical change). The District’s agricultural land values were overall the same in the fourth quarter of 2017 as in the third quarter; Wisconsin was the only District state with a quarterly increase in its agricultural land values.

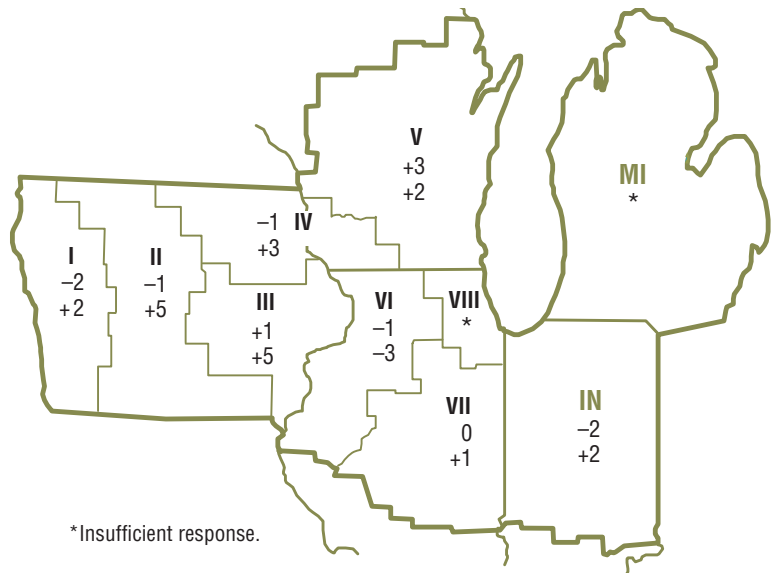
After adjusting for inflation, the District actually experienced an annual decrease of 1 percent in farmland values for 2017. While this was the fourth annual real decline in a row for District farmland values, in the 1980s there were seven consecutive years of real declines for such values. In real terms, there has been a 10 percent correction in the District’s farmland values from their peak in 2013 to the end of 2017 (see chart 2 on next page). Even so, the index of inflation-adjusted farmland values for the District was 58 percent higher in 2017 than at its previous peak in 1979.

Percent change in dollar value of “good” farmland

Top: October 1, 2017 to January 1, 2018

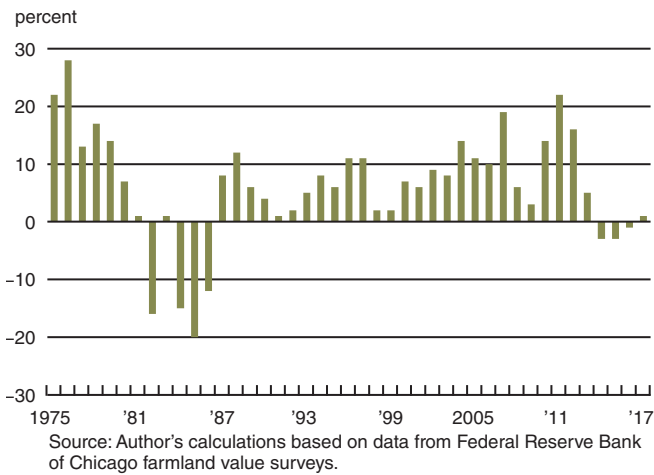
Bottom: January 1, 2017 to January 1, 2018

	October 1, 2017 to January 1, 2018	January 1, 2017 to January 1, 2018
Illinois	0	-1
Indiana	-2	+2
Iowa	0	+3
Michigan	*	*
Wisconsin	+2	+2
Seventh District	0	+1



*Insufficient response.

1. Annual percent change in Seventh District farmland values



The productivity of District farmland helped stabilize the value of agricultural ground in 2017. Based on calculations using U.S. Department of Agriculture (USDA) data, the District states' corn yield set a record of 193 bushels per acre in 2017, edging up 1 percent from 2016. However, the District states' soybean yield dipped 5.7 percent in 2017 from 2016—to 54.8 bushels per acre (still the second-highest soybean yield ever). Farmers increased the acreage planted with soybeans by 5 percent, which compensated for the dip in yield. This allowed 2017's soybean production for the five District states to essentially match 2016's. In contrast, farmers opted to decrease the corn acreage harvested in the five District states by 5.1 percent in 2017, producing a corn harvest that was 4.2 percent below the 2016 level.

According to USDA data, national soybean production in 2017 hit a record 4.4 billion bushels—up 2 percent from 2016. U.S. corn output of 14.6 billion bushels for 2017 was 4 percent below the record set in 2016 (yet the second largest ever). Ample supplies of soybeans and corn contributed to downward pressures on soybean and corn prices in 2017. Soybean prices in December 2017 were, on average, 4 percent lower than a year ago, yet were 6 percent higher than two years ago (see final table, on back page). In December 2017, corn prices were, on average, 3 percent lower than a year ago and 12 percent lower than two years ago.

Livestock prices were generally higher in 2017 than in the previous two years. The index of prices for livestock and associated products (see final table) in December 2017 was up 6 percent from a year ago and 3 percent from two years ago. The average prices of eggs, hogs, and cattle moved higher in 2017 (up 11 percent, 12 percent, and 6 percent in December 2017 from a year earlier, respectively). However, in December 2017, milk prices, on average, were down 9 percent from a year ago. Although dairy prices fell, demand for farmland was apparently strong enough to keep farmland values moving up in Wisconsin—the District's primary dairy state. Upward movements in other livestock

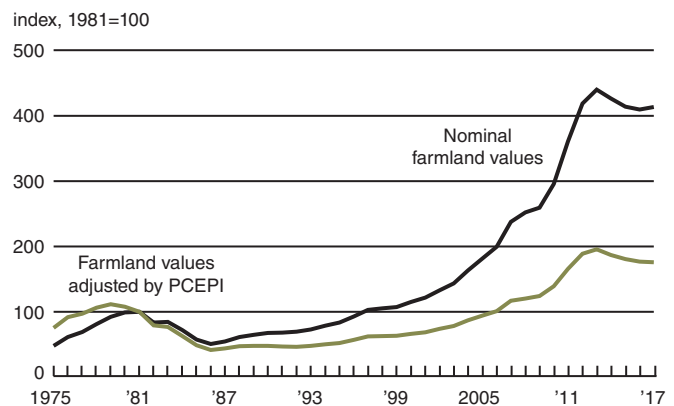
prices helped prop up agricultural land values (most notably in Iowa), even though corn and soybean prices were weaker in 2017 than in the previous year and the District's 2017 harvest for corn and soybeans combined wasn't as large as its 2016 harvest. Survey respondents commented that farmland for sale was still limited, some farmers were in position to expand their operations, and investors showed interest in buying farmland. These three factors likely contributed to the stabilization of District farmland values.

Credit conditions

There was further deterioration in agricultural credit conditions in the fourth quarter of 2017. The index of non-real-estate farm loan repayment rates was at its lowest level (53) since the third quarter of 2016. Repayment rates in the final quarter of 2017 were lower than in the same period of the previous year, with 2 percent of survey respondents reporting higher rates of loan repayment and 49 percent reporting lower rates. Non-real-estate farm loan renewals and extensions in the fourth quarter of 2017 were higher than in the fourth quarter of 2016, as 44 percent of survey respondents reported more of them and just 3 percent reported fewer. Additionally, the share of the District farm loan portfolio deemed to have "major" or "severe" repayment problems edged up to 6.1 percent in the fourth quarter of 2017—the highest such share since the early 2000s.

District states saw a continuation in the tightening of credit standards relative to a year ago, as 46 percent of the survey respondents reported their banks tightened credit standards for agricultural loans in the fourth quarter of 2017 relative to the fourth quarter of 2016 and 54 percent reported their banks kept credit standards essentially unchanged. A Wisconsin banker provided an interesting take on this matter: "While credit standards are not tightening, we continue to be more disciplined in gathering quality financial information on a regular basis and monitoring accounts." Moreover, 18 percent of responding bankers noted that their banks required larger amounts of collateral

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 (index) ^b	Funds availability (index) ^b	Loan repayment rates (index) ^b	Average loan-to-deposit ratio (percent)	Interest rates on farm loans		
					Operating loans ^a (percent)	Feeder cattle ^a (percent)	Real estate ^a (percent)
2016							
Jan–Mar	156	105	32	73.3	4.91	5.01	4.65
Apr–June	126	108	48	72.6	4.89	5.05	4.57
July–Sept	132	103	48	75.3	4.87	4.95	4.57
Oct–Dec	114	105	65	75.0	5.03	5.10	4.71
2017							
Jan–Mar	129	101	57	74.4	5.13	5.27	4.80
Apr–June	119	104	68	74.4	5.20	5.25	4.86
July–Sept	120	95	60	77.4	5.16	5.25	4.84
Oct–Dec	128	99	53	76.6	5.34	5.44	4.93

^aAt end of period.

^bBankers responded to each item by indicating whether conditions in the current quarter were higher or lower than (or the same as) in the year-earlier quarter. 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>.

for customers to qualify for non-real-estate farm loans during the October through December period of 2017 relative to the same period of a year ago, and none required smaller amounts. As of January 1, 2018, the average interest rates for farm operating loans (5.34 percent) and feeder cattle loans (5.44 percent) were at their highest levels since the first quarter of 2012. The average interest rate for agricultural real estate loans (4.93 percent) was last higher during a spike in the fourth quarter of 2013. However, after being adjusted for inflation with the Personal Consumption Expenditures Price Index, all these interest rates were at their lowest levels since the first quarter of 2017, as an uptick in inflation was higher than the increases in farm interest rates.

Agricultural operators demonstrated greater interest in non-real-estate loans during the October through December period of 2017 than during the same period of 2016. With 38 percent of survey respondents reporting an increase in the demand for non-real-estate loans and 10 percent reporting a decrease, the index of loan demand stood at 128 in the fourth quarter of 2017. For the second consecutive quarter, funds availability was below the level of a year ago in the fourth quarter of 2017. Nevertheless, the index of funds availability was up a bit at 99, with funds availability higher at 11 percent of the survey respondents’ banks and lower at 12 percent. Reflecting the changes in these indexes, the District’s average loan-to-deposit ratio was higher than a year ago; but at 76.6 percent, this ratio was still 4.4 percentage points below the average level desired by the responding bankers.

Looking forward

Given the challenging times facing agriculture, it’s not surprising that an Iowa respondent stated, “Several area banks are putting pressure on producers with tight margins to either sell land or refinance with another bank.” More surprisingly, survey respondents indicated that only 2.5 percent (a shade lower than a year ago) of their farm customers with operating credit in 2017 were not likely to qualify for

new operating credit in 2018; however, this proportion was 4.9 percent in Michigan and 3.2 percent in Wisconsin. Responding bankers expected non-real-estate agricultural loan volumes to be higher in the first quarter of 2018 relative to the same quarter of a year earlier, as volumes for operating loans and loans guaranteed by the USDA’s Farm Service Agency were forecasted to be higher. However, volumes for grain storage, farm machinery, feeder cattle, and dairy loans were forecasted to be lower in the January through March period of 2018 relative to the same period of 2017. In line with these lower loan volumes, as of the start of 2018, the majority of survey respondents anticipated capital expenditures by farmers would be lower in the year ahead compared with the year just ended (for the fifth year in a row).

The vast majority of responding bankers (76 percent) expected farmland values to be stable in the first quarter of 2018, while 23 percent expected them to decline and only 1 percent expected them to rise. So, more of the same is likely for District agricultural land values in early 2018.

David B. Oppedahl, *senior business economist*

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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 (<i>index, 2011=100</i>)	December	92	0.8	4	2
Crops (<i>index, 2011=100</i>)	December	84	3.2	4	0
Corn (\$ per bu.)	December	3.23	2.5	-3	-12
Hay (\$ per ton)	December	136	-1.4	11	-2
Soybeans (\$ per bu.)	December	9.30	0.9	-4	6
Wheat (\$ per bu.)	December	4.51	-4.7	16	-5
Livestock and products (<i>index, 2011=100</i>)	December	100	15.5	6	3
Barrows & gilts (\$ per cwt.)	December	48.80	-2.8	12	13
Steers & heifers (\$ per cwt.)	December	120.00	-0.8	6	-2
Milk (\$ per cwt.)	December	17.20	-5.0	-9	-1
Eggs (\$ per doz.)	December	1.34	-2.9	11	8
Consumer prices (<i>index, 1982-84=100</i>)	December	248	0.2	2	4
Food	December	251	0.2	2	1
Production or stocks					
Corn stocks (<i>mil. bu.</i>)	December 1	12,516	N.A.	1	11
Soybean stocks (<i>mil. bu.</i>)	December 1	3,157	N.A.	9	16
Wheat stocks (<i>mil. bu.</i>)	December 1	1,874	N.A.	-10	7
Beef production (<i>bil. lb.</i>)	December	2.15	-6.2	-1	5
Pork production (<i>bil. lb.</i>)	December	2.24	-0.4	1	1
Milk production (<i>bil. lb.</i>)*	December	17.0	4.9	1	4
Agricultural exports (\$ mil.)	December	12,743	-4.9	-1	13
Corn (<i>mil. bu.</i>)	December	140	37.4	-13	36
Soybeans (<i>mil. bu.</i>)	December	237	-28.6	-19	-5
Wheat (<i>mil. bu.</i>)	December	79	53.8	2	23
Farm machinery (<i>units</i>)					
Tractors, 40 HP or more	December	7,513	85	-3	-9
40 to 100 HP	December	5,606	71	-2	-2
100 HP or more	December	1,907	142	-4	-26
Combines	December	475	139	-3	-31

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.