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AgLetter

FARMLAND VALUES AND CREDIT CONDITIONS

Summary
For the second quarter of 2016, farmland values in the Seventh Federal Reserve District were down 1 percent from a year ago. Yet, "good" agricultural land values edged up 1 percent from the first quarter to the second quarter of 2016. In the second quarter of this year, prices for corn and soybeans rallied again (similar to what they did a year ago), which brightened outlooks in rural areas; but the prices for these crops receded once again as the prospects of a record corn harvest and a near-record soybean harvest grew stronger. Only 1 percent of survey respondents expected farmland values to rise during the third quarter of 2016, while 48 percent expected them to move down and 51 percent expected them to be stable, according to a survey of 193 District agricultural bankers.

The District's agricultural credit conditions in the second quarter of 2016 were still weaker than a year ago. However, there were some signs of improvement from what had been observed in the previous two quarters. During the second quarter of 2016, repayment rates for non-real-estate farm loans softened relative to a year ago, but not by as much as during each of the prior two quarters. The portion of the District's agricultural loan portfolio reported as having repayment problems was higher compared with a year ago. Yet, relative to six months ago, the share of loans with repayment problems was lower. Renewals and extensions of non-real-estate farm loans were above the level of the same quarter in the previous year, even as demand for non-real-estate farm loans was also above its level 12 months ago. Meanwhile, the availability of funds for lending by agricultural banks was higher in the April through June period of 2016 than in the same period of 2015, according to respondents. For the second quarter of 2016, the District's average loan-to-deposit ratio was 72.6 percent—6.4 percentage points below the average level desired by the responding bankers. In addition, interest rates on agricultural real estate and operating loans moved lower once again.

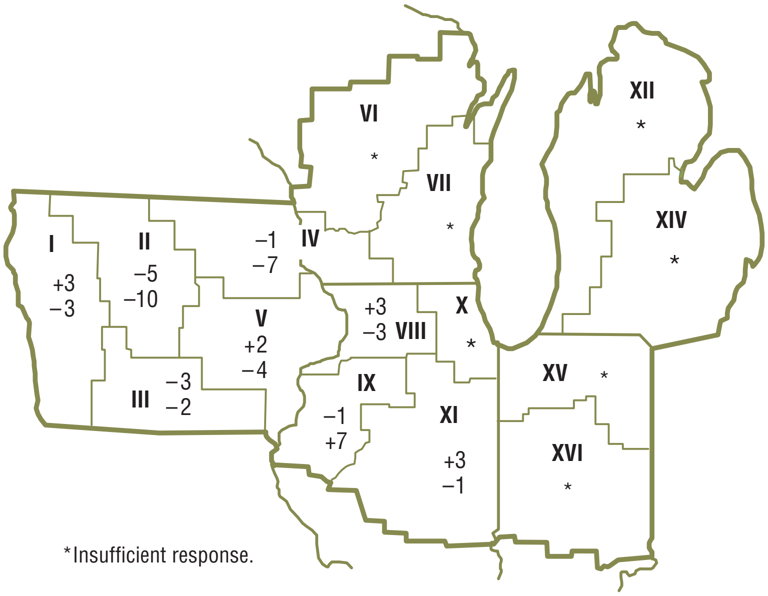
CONFERENCE ANNOUNCEMENT
The Downturn in Agriculture:
Implications for the Midwest and the Future of Farming

On November 29, 2016, the Federal Reserve Bank of Chicago will hold a conference to examine the agricultural downturn in the Midwest and discuss future directions for farming. At the conference, experts from academia, industry, and policy institutions will explore the agricultural downturn's implications for both the farm sector and the broader regional economy. For more details and to register, go to https://www.chicagofed.org/events/2016/ag-conference.

Percent change in dollar value of "good" farmland

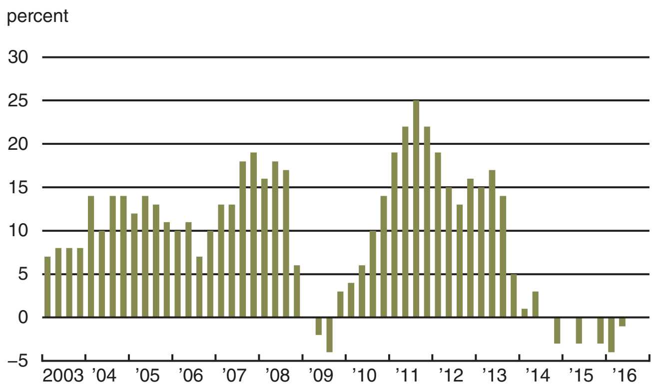
Top: April 1, 2016 to July 1, 2016
Bottom: July 1, 2015 to July 1, 2016

	April 1, 2016 to July 1, 2016	July 1, 2015 to July 1, 2016
Illinois	+2	+1
Indiana	–3	–2
Iowa	0	–6
Michigan	–1	–1
Wisconsin	+5	+7
Seventh District	+1	–1



*Insufficient response.

1. Year-over-year changes in Seventh District farmland values, by quarter



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

Farmland values

District agricultural land values saw a year-over-year decrease of 1 percent in the second quarter of 2016—which was smaller than the one experienced in the first quarter. That said, the string of quarters without a year-over-year gain in District farmland values reached eight (two years) (see chart 1). In contrast to the year-over-year decrease, "good" farmland values for the District inched up 1 percent in the second quarter of 2016 relative to the first quarter (see table and map on front). Both the smaller year-over-year decrease and the slight quarterly increase in farmland values at least partially reflected a surge in corn and soybean prices during the second quarter of this year. Although agricultural land values fell from a year ago for the District overall, both Illinois and Wisconsin saw year-over-year and quarterly increases in farmland values. Moreover, Iowa had no quarterly change in farmland values, as different parts of the state experienced results that offset one another.

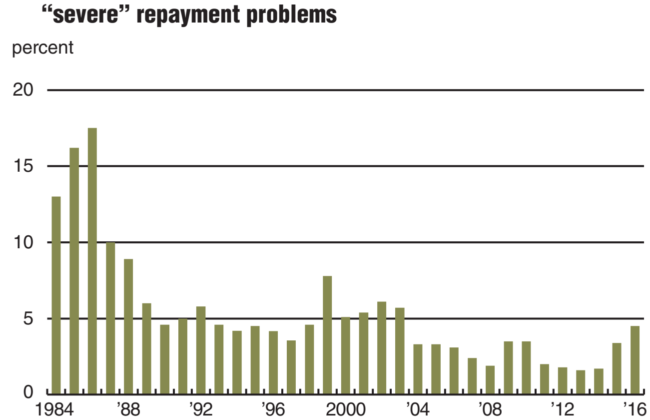
Despite June corn and soybean prices being the highest for any month since January 2015, the U.S. Department of Agriculture's (USDA) June index of crop and livestock prices received by farmers was down 10 percent from a year ago and 17 percent from two years ago (see table on back). Lower agricultural prices and an associated decline in farm earnings over the past two years have been a drag on farmland values. While the June bumps in corn and soybean prices provided an opportunity for some farmers to boost their revenues, they did not seem to alter the overall trend in farmland values. In July of this year, the USDA estimated that 2016's harvest of corn for grain would set a new record of 14.5 billion bushels and that the harvest of soybeans would be 3.88 billion bushels, just shy of 2015's record. Corn stocks relative to usage would rise to levels not seen in just over a decade, while soybean stocks relative to usage would tighten slightly from a year ago. The USDA estimated price intervals for the 2016–17 crop year of \$3.10 to \$3.70 per bushel for corn and \$8.75 to \$10.25 per bushel for soybeans. When calculated with the midpoints of these price ranges, the projected revenues from the 2016 U.S. harvests relative to those from the previous year's harvests would be 0.4 percent smaller for corn and 3.7 percent larger for soybeans. Combined, the projected revenues from corn and soybeans harvested in 2016 would be 1.3 percent higher than in 2015.

While a small rise in crop revenues may come to fruition, revenues from livestock products seem likely to decline again in 2016, dropping below the value generated from crop production for the first time in three years, according to USDA forecasts. The USDA's June index of livestock product prices received by farmers fell 18 percent from a year ago and 23 percent from two years ago (see table on back). In June, milk prices were down 13 percent from a year ago and 36 percent from two years ago, while hog prices (for barrows and gilts) were unchanged from a year ago and were down 28 percent from two years ago. Cattle and egg prices returned to earth in June, as they dropped 19 percent and 73 percent from a year ago, respectively. Given the declines in both crop and livestock prices of recent years, it's not too surprising that District agricultural land values have softened.

Credit conditions

Even as agricultural credit conditions in the second quarter of 2016 showed indications of improvement over the past six months, they remained subpar relative to 12 months ago. Repayment rates for non-real-estate farm loans during the second quarter were weaker than a year ago. Still, at 48 (no responding bankers noted higher rates of loan repayment than a year ago and 52 percent noted lower rates), the index of loan repayment rates was higher than in the previous two quarters. Additionally, renewals and extensions of non-real-estate farm loans over the April through June period of 2016 were higher than during the same period of a year ago, as 52 percent of survey respondents reported more of them and only 1 percent reported fewer of them. Farm loans with "major" or "severe" repayment problems (4 percent and almost 1 percent of the District loan portfolio, respectively)

2. Percentage of the District farm loan portfolio with "major" or "severe" repayment problems



Source: Author's calculations based on data from Federal Reserve Bank of Chicago farmland value surveys (for the second quarter of each year).

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)*
2015							
Jan–Mar	141	105	57	69.0	4.80	4.95	4.57
Apr–June	140	102	64	72.1	4.81	4.97	4.64
July–Sept	125	105	60	72.3	4.82	4.96	4.58
Oct–Dec	134	104	43	72.9	4.96	5.07	4.67
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

[a]At end of period.
[b]Bankers 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.

were above the levels of a year ago and had not been higher at the end of a second quarter since 2003 (see chart 2). Notably, however, the portion of the District's agricultural loan portfolio with repayment problems was under the level of six months ago. Moreover, Michigan and Wisconsin had lower proportions of their farm loans experiencing repayment problems than the other District states.

Interest rates on agricultural real estate and operating loans moved down in the second quarter of 2016, but the rates for feeder cattle loans moved up. As of July 1, 2016, the average interest rate on farm real estate loans had fallen to 4.57 percent, matching its lowest value in the survey's history. The District average for interest rates on new farm operating loans was also down a bit, to 4.89 percent. In contrast, the District average for interest rates on feeder cattle loans edged up to 5.05 percent. At the same time, further credit tightening was evident in the second quarter of 2016, as 27 percent of the survey respondents reported that their banks required larger amounts of collateral than a year ago and none reported that their banks required smaller amounts. Banks also had more funds available to lend in the second quarter of 2016 than a year ago. With 16 percent of responding bankers reporting their banks had more funds available to lend and 8 percent reporting their banks had less, the index of funds availability was 108 in the second quarter of 2016.

Demand for non-real-estate loans continued to run higher than a year earlier. With 43 percent of survey respondents observing demand for non-real-estate loans above the level of a year ago and 17 percent observing demand below that of a year ago, the index of loan demand was 126 for the second quarter of 2016. The District's average loan-to-deposit ratio for the second quarter of 2016 moved down to 72.6 percent. For the first six months of 2016, bankers reported lending out an above-normal amount for the operation of farms, but a below-normal amount for farm real estate. According to responding bankers, in the January through June period of 2016, there were somewhat higher than normal amounts of operating loans and mortgages originated through the Farm Credit System. Also, over the first six months of 2016, merchants, dealers, and other input suppliers upped their agricultural lending on the whole. Once again, life insurance companies slightly reduced their agricultural lending in the District, according to survey respondents.

Looking forward

Agricultural land values were anticipated to fall further in the third quarter of 2016, as just 1 percent of responding bankers projected farmland values to increase and 48 percent projected them to decrease (51 percent projected stable farmland values). For the third quarter of 2016 relative to the same quarter of 2015, survey respondents anticipated higher non-real-estate loan volumes for agriculture (increases in the volumes of farm operating loans and loans guaranteed by the Farm Service Agency of the USDA would more than offset decreases in the volumes for dairy, feeder cattle, farm machinery, and grain storage construction loans). Farm real estate lending was forecasted to be below the level of a year ago in the July through September period of 2016 for the District.

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SELECTED AGRICULTURAL ECONOMIC INDICATORS

			Percent change from		
	Latest period	**Value**	**Prior period**	**Year ago**	**Two years ago**
Prices received by farmers *(index, 2011=100)*	June	94	–1.1	–10	–17
Crops *(index, 2011=100)*	June	87	–4.4	–1	–12
Corn *($ per bu.)*	June	3.82	3.8	6	–15
Hay *($ per ton)*	June	134	–4.3	–17	–30
Soybeans *($ per bu.)*	June	10.20	4.5	6	–29
Wheat *($ per bu.)*	June	4.20	–5.6	–23	–35
Livestock and products *(index, 2011=100)*	June	99	1.0	–18	–23
Barrows & gilts *($ per cwt.)*	June	61.00	6.1	0	–28
Steers & heifers *($ per cwt.)*	June	127.00	–1.6	–19	–14
Milk *($ per cwt.)*	June	14.80	2.1	–13	–36
Eggs *($ per doz.)*	June	0.54	–1.8	–73	–50
Consumer prices *(index, 1982–84=100)*	June	240	0.2	1	1
Food	June	248	–0.1	0	2
Production or stocks					
Corn stocks *(mil. bu.)*	June 1	4,722	N.A.	6	23
Soybean stocks *(mil. bu.)*	June 1	870	N.A.	39	115
Wheat stocks *(mil. bu.)*	June 1	981	N.A.	30	66
Beef production *(bil. lb.)*	June	2.19	8.0	10	6
Pork production *(bil. lb.)*	June	2.01	3.3	1	16
Milk production *(bil. lb.)**	June	16.7	–4.0	2	3
Agricultural exports *($ mil.)*	June	10,014	2.4	1	–9
Corn *(mil. bu.)*	June	240	27.6	44	27
Soybeans *(mil. bu.)*	June	37	9.0	7	66
Wheat *(mil. bu.)*	June	85	33.4	44	11
Farm machinery *(units)*					
Tractors, 40 HP or more	June	7,989	N.A.	–4	–6
40 to 100 HP	June	6,209	N.A.	3	6
100 HP or more	June	1,780	N.A.	–23	–32
Combines	June	376	N.A.	8	–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.