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# AgLetter



## FARMLAND VALUES AND CREDIT CONDITIONS

### Summary

Agricultural land values in the Seventh Federal Reserve District decreased 3 percent from a year ago for the second quarter of 2015. In addition, “good” farmland values moved down 1 percent from the first quarter to the second quarter of 2015, according to a survey of 221 agricultural bankers. The declines in farmland values may have been tempered by a rally in corn and soybean prices toward the end of the second quarter, before these crop prices slid in July. Just 1 percent of survey respondents projected farmland values to increase during the third quarter of 2015, while 40 percent projected them to decrease and 59 percent projected them to be stable.

The District’s agricultural credit conditions were weaker in some regards than those of a year ago, even while demand for non-real-estate farm loans was again stronger. For the second quarter of 2015, repayment rates for non-real-estate farm loans were down from a year earlier, leading to upticks of loans with minor, major, and severe repayment problems within the District’s aggregate loan portfolio. Also, renewals and extensions of non-real-estate farm loans were higher than their level of the same quarter in the previous year. The availability of funds for lending by agricultural banks was more or less the same in the April through

### CONFERENCE ANNOUNCEMENT

#### Labor Issues Facing Agriculture and the Rural Midwest

On November 17, 2015, the Federal Reserve Bank of Chicago will hold a conference to explore labor issues affecting agriculture and the rural Midwest. At the conference, experts will discuss work force trends, labor challenges, and ways to position the midwestern economy and agriculture for prosperous futures. For more details and to register, go to <https://www.chicagofed.org/events/2015/annual-agricultural-conference>.

June period of 2015 as in the same period of 2014, according to respondents. For the second quarter of 2015, the District’s average loan-to-deposit ratio was 72.1 percent—7 percentage points below the average level sought by the responding bankers. Not to be overlooked, interest rates on agricultural loans were slightly higher than in the previous quarter.

### Farmland values

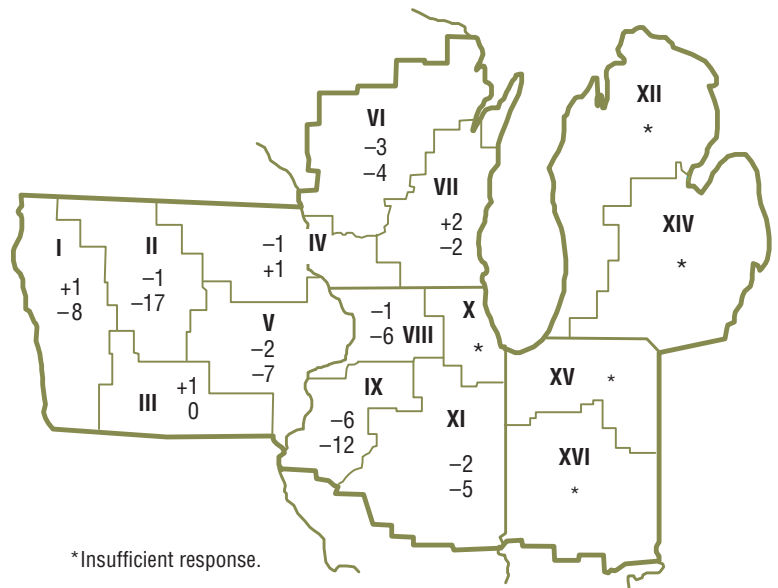
Given that District farmland values were 3 percent lower than their level of a year ago, the downward trends in agricultural product prices seemed to have translated into lower farmland values. In part, the 3 percent year-over-year decrease in farmland values for the second quarter of 2015 might simply be the flip side of the rapid gains in recent years (see chart 1 on next page). Both Illinois and Iowa had year-over-year decreases in agricultural land values for at

### Percent change in dollar value of “good” farmland

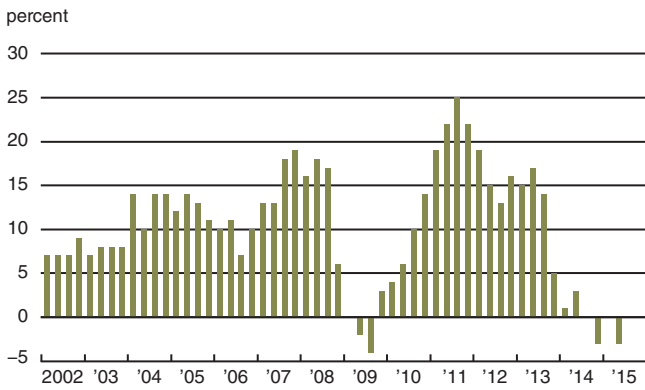
Top: April 1, 2015 to July 1, 2015

Bottom: July 1, 2014 to July 1, 2015

	April 1, 2015 to July 1, 2015	July 1, 2014 to July 1, 2015
Illinois	-2	-6
Indiana	+2	+4
Iowa	0	-7
Michigan	*	+6
Wisconsin	-2	-2
Seventh District	-1	-3



## 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.

least four consecutive quarters, and Wisconsin had its first year-over-year decline since the first quarter of 2013; in contrast, Indiana and Michigan saw year-over-year increases in farmland values. After seeing a quarterly uptick in the prior quarter, District farmland values decreased 1 percent in the second quarter of 2015 relative to the first quarter; only Indiana saw a quarterly increase in farmland values in the second quarter (see table and map on front).

Many agricultural products have fallen in price over the past two years, contributing to the slide in farmland values. According to the U.S. Department of Agriculture (USDA), corn prices averaged \$3.65 per bushel in the second quarter of 2015—down 21 percent from a year ago and 48 percent from two years ago. At \$9.63 per bushel in the second quarter of 2015, soybean prices were down 33 percent from one year ago and 35 percent from two years ago. In July of this year, the USDA estimated that the 2015 U.S. harvest of corn for grain would fall short of the all-time record set in 2014 by 4.8 percent and the harvest of soybeans would miss the all-time high set last year by 2.1 percent. Even without setting a new record, the soybean harvest would boost crop stocks to levels not seen in almost a decade, while corn stocks would tighten slightly from a year ago. For the 2015–16 crop year, the USDA estimated price intervals of \$3.45 to \$4.05 per bushel for corn and \$8.50 to \$10.00 per bushel for soybeans. When estimated with the midpoints of these price ranges, the values of the U.S. corn and soybean harvests in 2015 are projected to be 3.5 percent and 9.9 percent lower than the 2014 harvests, respectively. Notably, amid concerns about spring planting problems and excess moisture in parts of the Corn Belt, a summer rally in crop prices might have helped prevent even deeper erosion of farmland values toward the end of the second quarter of 2015. Yet, the rally faded in July as crop conditions improved and expectations of better harvests firmed.

Not only were decreasing crop prices a drag on agricultural land values, but so were falling livestock prices.

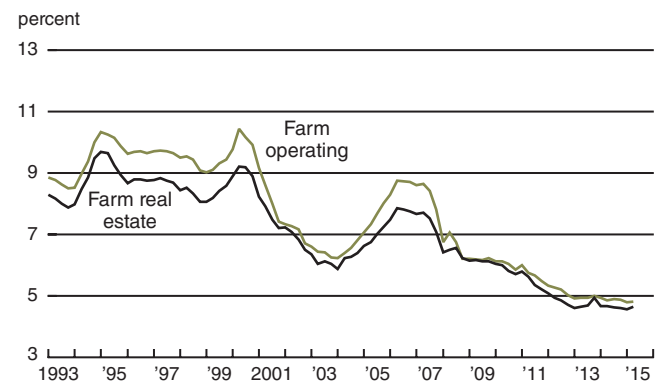
With 46 percent of the U.S. hog herd in the five District states, price decreases for barrows and gilts (down 28 percent from a year ago and 19 percent from two years ago in June) indicated strains in the hog sector. Milk prices were down 27 percent from a year ago and 13 percent from two years ago in June. Given that over 23 percent of U.S. milk production was from the five District states in 2014, their dairy farms made up a major part of the dairy sector. Although these sectors have been under pressure from downward price trends, there was a recent hint of improvement—small increases in prices from May to June. Moreover, livestock producers benefited from lower feed costs in the past two years. In addition, cattle and egg prices remained elevated as production (supply) issues pushed prices higher over the previous two years. So, livestock prices have likely had a mixed impact on District farmland values thus far this year.

## Credit conditions

Agricultural credit conditions in the second quarter of 2015 still showed some signs of good health, but signs of weakness were also present. Repayment rates for non-real-estate farm loans were down relative to a year ago again during the second quarter of 2015. The index of loan repayment rates moved up to 64, with 1 percent of responding bankers noting higher rates of loan repayment than a year ago and 37 percent noting lower rates. The slippage in repayment rates over the past year resulted in more agricultural loans having minor, major, or severe repayment problems (7 percent, 3 percent, and nearly 1 percent of the District loan portfolio, respectively). Also, 33 percent of the survey respondents observed more loan renewals and extensions over the April through June period of 2015 compared with the same period last year, while just 1 percent observed fewer of them.

District averages for interest rates on agricultural loans moved up a bit in the second quarter of 2015. As of July 1, 2015, the average for interest rates on farm real estate loans had risen to 4.64 percent—the highest level of the past year (see chart 2 below and table on next page). The

## 2. Quarterly Seventh District farm loan interest rates



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

## Credit conditions at Seventh District agricultural banks

	Loan demand (index) <sup>b</sup>	Funds availability (index) <sup>b</sup>	Loan repayment rates (index) <sup>b</sup>	Average loan-to-deposit ratio (percent)	Interest rates on farm loans		
					Operating loans <sup>a</sup> (percent)	Feeder cattle <sup>a</sup> (percent)	Real estate <sup>a</sup> (percent)
<b>2014</b>							
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
<b>2015</b>							
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

<sup>a</sup>At end of period.

<sup>b</sup>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>.

average for interest rates on feeder cattle loans edged up to 4.97 percent, and the average for interest rates on new farm operating loans was up a hair, to 4.81 percent. The availability of credit tightened in the second quarter of 2015 relative to the second quarter of the previous year, as 15 percent of the survey respondents reported that their banks required larger amounts of collateral and none reported that their banks required smaller amounts. Banks had slightly more funds available to lend in the second quarter of 2015 than a year ago. With 9 percent of responding bankers reporting their banks had more funds available to lend and 7 percent reporting their banks had less, the index of funds availability was 102 in the second quarter of 2015—its lowest value since the third quarter of 2006.

Meanwhile, demand for non-real-estate loans remained at a higher level than a year earlier. With 50 percent of survey respondents reporting higher demand for non-real-estate loans compared with a year ago and 10 percent reporting lower demand, the index of loan demand was 140 for the second quarter of 2015. In the first six months of 2015, the amount of farm operating loans generated by banks was well above what is considered historically normal, whereas the amount of farm mortgages was a bit lower than normal. Therefore, for the second quarter of 2015, the District’s average loan-to-deposit ratio jumped to 72.1 percent—7 percentage points below the average level desired by survey respondents (which was a narrower gap than those seen in recent years). According to responding bankers, over the first six months of 2015, the amounts of operating loans and mortgages originated by lenders in the Farm Credit System were higher than normal. Also, in the January through June period of 2015, merchants, dealers, and other input suppliers expanded their lending for farming, whereas life insurance companies were less active in agricultural lending than typical.

### Looking forward

Fifty-nine percent of responding bankers anticipated stable farmland values in the third quarter of 2015. However,

the majority of the survey respondents may have been influenced by the summer rally in crop prices, which waned as survey responses were being collected. In addition, with only 1 percent of responding bankers expecting farmland values to increase in the third quarter of 2015 and 40 percent expecting them to decrease, the survey results, on the whole, indicated ongoing weakness in farmland values.

Survey respondents predicted higher volumes for non-real-estate agricultural loans—especially operating loans and loans guaranteed by the Farm Service Agency of the USDA—in the third quarter of 2015 relative to the same quarter of 2014. Volumes for farm machinery and grain storage construction loans, as well as for farm real estate loans, were forecasted to be lower than the levels of a year ago in the July through September period of 2015 for the District. Given lower prices for key crop and livestock products, many farm operators have returned to lenders in order to shore up reserves of working capital while attempting to ride out the downward cycle in agriculture.

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
<b>Prices received by farmers</b> ( <i>index, 2011=100</i> )	June	105	-1.9	-7	-5
<b>Crops</b> ( <i>index, 2011=100</i> )	June	88	-2.2	-11	-20
Corn (\$ per bu.)	June	3.58	-1.1	-20	-49
Hay (\$ per ton)	June	162	-7.4	-18	-16
Soybeans (\$ per bu.)	June	9.58	-0.2	-33	-37
Wheat (\$ per bu.)	June	5.43	1.9	-16	-26
<b>Livestock and products</b> ( <i>index, 2011=100</i> )	June	121	-0.8	-5	11
Barrows & gilts (\$ per cwt.)	June	60.80	1.3	-28	-19
Steers & heifers (\$ per cwt.)	June	156.00	-3.1	5	26
Milk (\$ per cwt.)	June	16.90	1.2	-27	-13
Eggs (\$ per doz.)	June	2.01	16.2	84	117
<b>Consumer prices</b> ( <i>index, 1982-84=100</i> )	June	238	0.3	0	2
Food	June	247	0.3	2	4
<b>Production or stocks</b>					
Corn stocks ( <i>mil. bu.</i> )	June 1	4,447	N.A.	15	61
Soybean stocks ( <i>mil. bu.</i> )	June 1	625	N.A.	54	44
Wheat stocks ( <i>mil. bu.</i> )	June 1	753	N.A.	28	5
Beef production ( <i>bil. lb.</i> )	June	2.00	3.9	-3	-7
Pork production ( <i>bil. lb.</i> )	June	2.00	7.2	15	19
Milk production ( <i>bil. lb.</i> )*	June	16.4	-4.7	1	3
<b>Agricultural exports</b> (\$ mil.)	June	9,963	-6.5	-10	1
Corn ( <i>mil. bu.</i> )	June	166	-12.7	-12	265
Soybeans ( <i>mil. bu.</i> )	June	35	-21.1	57	78
Wheat ( <i>mil. bu.</i> )	June	59	-9.6	-23	-37
<b>Farm machinery</b> ( <i>units</i> )					
Tractors, 40 HP or more	June	8,384	N.A.	-1	-8
40 to 100 HP	June	6,071	N.A.	4	4
100 HP or more	June	2,313	N.A.	-12	-29
Combines	June	351	N.A.	-50	-62

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.