The Agricultural Newsletter from the Federal Reserve Bank of Chicago

Number 1998 November 2022

AgLetter

FARMLAND VALUES AND CREDIT CONDITIONS

Summary

Climbing 20 percent in the third quarter of 2022 from a year ago, agricultural land values for the Seventh Federal Reserve District maintained their upward momentum. In addition, values for "good" farmland in the District overall were 4 percent higher in the third quarter of 2022 than in the second quarter, according to the 160 bankers who responded to the October 1 survey. While just over two-thirds of the survey respondents anticipated the District's farmland values to be stable during the fourth quarter of 2022, 25 percent anticipated District farmland values to go up again in the final quarter of this year and 7 percent anticipated them to go down.

On balance, the District's agricultural credit conditions were better in the third quarter of 2022 than a year earlier, despite average interest rates on agricultural loans rising sharply. Repayment rates for non-real-estate farm loans were higher relative to the same quarter of the previous year for the eighth consecutive quarter. Additionally, renewals and extensions of such loans were lower than a year ago. In the third quarter of this year, demand for non-real-estate farm loans was down relative to a year ago for the ninth quarter in a row. Notably, the availability of funds for lending by agricultural banks was lower than in the third quarter of 2021. The average loan-to-deposit ratio for the District edged up to 68.2 percent in the third quarter of 2022.

AGRICULTURE CONFERENCE REMINDER

On November 29, 2022, the Federal Reserve Bank of Chicago will hold a hybrid event to examine the barriers to entry into Midwest farming, as well as some of the issues facing farm family transitions between generations. Registration is available online, https://www.chicagofed.org/events/2022/ag-conference.

Farmland values

With farm incomes still robust, the District had a year-over-year gain of 20 percent in its agricultural land values in the third quarter of 2022. This was the fourth year-over-year increase in a row of at least 20 percent for District farmland values. Indiana led the way with a year-over-year surge in farmland values of 29 percent; the other District states also saw double-digit year-over-year growth in farmland values (see map and table below). After being adjusted for inflation with the Personal Consumption Expenditures Price Index (PCEPI), District farmland values were still up 13 percent in the third quarter of 2022 relative to a year ago (see chart 1 on next page); this was the fifth consecutive quarter with at least as large a year-over-year increase in real farmland values. In nominal terms, the District's agricultural land values in the third quarter of 2022 were 4 percent higher than in the second quarter.

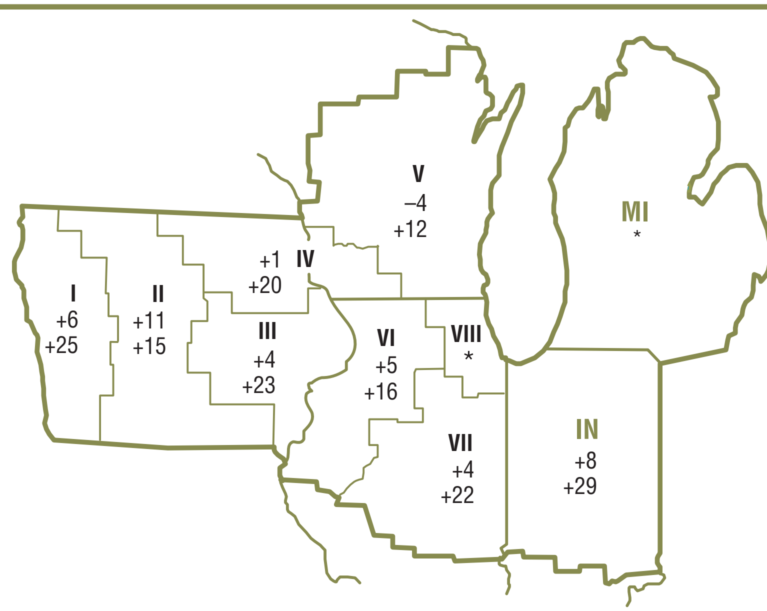
Even though planting delays in the spring and drought over the summer lowered District states' crop potential, 2022

Percent change in dollar value of "good" farmland

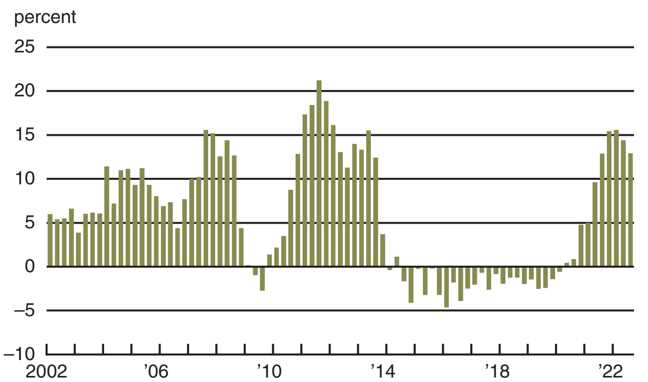
Top: July 1, 2022 to October 1, 2022
Bottom: October 1, 2021 to October 1, 2022

	July 1, 2022 to October 1, 2022	October 1, 2021 to October 1, 2022
Illinois	+5	+20
Indiana	+8	+29
Iowa	+6	+22
Michigan	*	*
Wisconsin	–3	+12
Seventh District	+4	+20

*Insufficient response.



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



Sources: Author's calculations based on data from Federal Reserve Bank of Chicago surveys of farmland values; and U.S. Bureau of Economic Analysis, Personal Consumption Expenditures Price Index (PCEPI), from Haver Analytics.

turned out to be another strong production year. An Iowa banker reported that "harvest to date has exceeded most expectations in light of drought conditions." For the five District states, both corn and soybean yields in 2022 were the second highest of all time—slightly behind the records set in 2021—according to U.S. Department of Agriculture (USDA) data. In October, the USDA forecasted the five District states' 2022 harvests of corn for grain and soybeans to decrease by 2 and 3 percent from the 2021 harvests, respectively. The price of corn in September 2022 was 2 percent lower than in August, but still 30 percent higher than a year ago; likewise, the price of soybeans in September of this year was 8 percent lower than in August, but 16 percent higher than a year earlier (see the final table). In October, the USDA released price forecasts for the 2022–23 crop year of $6.80 per bushel for corn and $14.00 per bushel for soybeans. So, when calculated using these price estimates, the projected revenues from the District states' 2022 corn and soybean harvests would surpass the record levels of 2021 by 11 percent and 3 percent, respectively.

Moreover, the USDA price index for livestock and animal products was up 26 percent in September 2022 from a year earlier (again, see the final table). Compared with a year ago, average prices for cattle, eggs, hogs, and milk in September 2022 were up 14 percent, 157 percent, 5 percent, and 33 percent, respectively. Hence, higher livestock and crop revenues looked to positively impact farmland values, even though farmers also had to deal with inflated expenses for agricultural operations and their households.

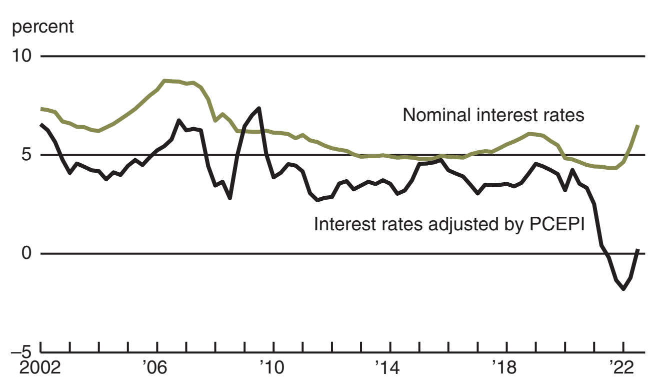
Credit conditions

Agricultural credit conditions for the District showed improvement overall in the third quarter of 2022, although higher expenses due to rising interest rates cut into net farm incomes. Agricultural interest rates—in both nominal and real terms—increased rapidly during the third quarter of 2022. As of October 1, 2022, the District's average nominal interest rates on new operating loans (6.52 percent) and feeder cattle loans (6.58 percent) were at their highest levels since the third quarter of 2008; in addition, its average nominal interest rate on farm real estate loans (6.13 percent) was last higher in the second quarter of 2009. In real terms (after being adjusted for inflation with the PCEPI), the average interest rate on farm operating loans was slightly above zero in the third quarter of 2022, after being in negative territory for the four previous quarters (see chart 2); the average real interest rate on feeder cattle loans followed a similar trajectory over this period. Yet, the average real interest rate on farm real estate loans remained negative for the fifth quarter in a row.

For the July through September period of 2022, repayment rates for non-real-estate farm loans were again higher than a year earlier. The index of loan repayment rates was 121 in the third quarter of 2022, as 23 percent of responding bankers observed higher rates of loan repayment than a year ago and 2 percent observed lower rates. Also, renewals and extensions of non-real-estate agricultural loans were lower in the third quarter of 2022 than a year ago, with just 3 percent of the responding bankers reporting more of them and 15 percent reporting fewer. Collateral requirements for loans in the third quarter of 2022 were up slightly from the same quarter of last year, as 6 percent of the survey respondents reported that their banks required more collateral and 1 percent reported that their banks required less.

In the third quarter of 2022, the District saw weaker demand for non-real-estate farm loans relative to a year ago—this marked the ninth consecutive quarter of such softer demand. The index of loan demand was 91 in the third quarter of 2022, as 25 percent of survey respondents noted higher demand for non-real-estate farm loans than a year earlier and 34 percent noted lower demand. The availability of funds for lending by agricultural banks was lower than

2. Quarterly average interest rates on Seventh District farm operating loans



Sources: Author's calculations based on data from Federal Reserve Bank of Chicago surveys of farmland values; 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)*
2021							
Jan–Mar	79	162	146	69.7	4.42	4.58	4.08
Apr–June	63	160	146	67.5	4.40	4.55	4.02
July–Sept	78	161	143	68.8	4.34	4.51	4.01
Oct–Dec	76	152	153	67.2	4.34	4.53	4.03
2022							
Jan–Mar	83	148	159	65.0	4.64	4.74	4.44
Apr–June	82	129	133	67.0	5.42	5.53	5.17
July–Sept	91	96	121	68.2	6.52	6.58	6.13

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

a year ago for the first time since the second quarter of 2019. The index of funds availability dropped to 96 in the third quarter of 2022, as 21 percent of the survey respondents indicated their banks had more funds available to lend than a year earlier and 25 percent indicated their banks had less. The District's average loan-to-deposit ratio rose to 68.2 percent in the third quarter of 2022. The gap between the average loan-to-deposit ratio and the average level desired by the responding bankers was 12 percentage points; moreover, 78 percent of the survey respondents stated that their respective banks were below their targeted levels.

Looking forward

Sixty-eight percent of survey respondents anticipated District farmland values to stay the same in the final quarter of 2022, 25 percent anticipated them to rise, and 7 percent anticipated them to fall. Also, the survey respondents who expected farmers and nonfarm investors to have stronger demand to acquire farmland this fall and winter compared with a year earlier outnumbered the respondents who expected these groups to have weaker demand. On the whole, respondents anticipated a rise in the volume of farmland transfers during this fall and winter relative to a year ago.

Net cash earnings (which include government payments) for crop, cattle, and hog farmers were expected to be up during the fall and winter from their levels of a year earlier, according to the responding bankers. For crop farmers, 61 percent of survey respondents forecasted net cash earnings to rise over the next three to six months relative to a year ago, and 18 percent forecasted these earnings to fall. For cattle and hog farmers, 28 percent of survey respondents expected net cash earnings to increase over the next three to six months relative to a year ago, and 21 percent expected these earnings to decrease. The District's dairy industry was expected to do less well, with 17 percent of responding bankers forecasting higher net cash earnings for dairy farmers over the next three to six months relative to a year earlier and 20 percent forecasting lower such earnings.

Twenty-five percent of the responding bankers predicted a higher volume of farm loan repayments over the next three to six months compared with a year earlier, while 7 percent predicted a lower volume. Also, forced sales or liquidations of farm assets owned by financially distressed farmers were expected to decrease in the next three to six months relative to a year ago, according to 30 percent of the responding bankers (only 4 percent expected them to increase). Even in a rising interest rate environment, the non-real-estate farm loan volume of the survey respondents' banks was generally anticipated to be higher in the October through December period of 2022 than in the same period of 2021; yet their banks' farm real estate loan volume was generally anticipated to be lower. In regard to the current situation facing Midwest agriculture, one Indiana banker noted: "Inputs are much above norms, and if commodity prices begin to fall, it will not be pretty. We still have good equity on most farms, but that can dissipate quickly."

David B. Oppedahl, *policy advisor*

AgLetter (ISSN 1080-8639) is published quarterly by the Economic Research Department of the Federal Reserve Bank of Chicago. The information used in the preparation of this publication is obtained from sources considered reliable, but its use does not constitute an endorsement of its accuracy or intent by the Federal Reserve Bank of Chicago or the Federal Reserve System. Opinions expressed in this article are those of the author(s) and do not necessarily reflect the views of the Federal Reserve Bank of Chicago or the Federal Reserve System.

SELECTED AGRICULTURAL ECONOMIC INDICATORS

	Latest period	Value	Percent change from: Prior period	Year ago	Two years ago
Prices received by farmers *(index, 2011=100)*	September	131	–0.2	21	48
Crops *(index, 2011=100)*	September	127	–1.3	17	36
Corn *($ per bu.)*	September	7.09	–2.1	30	108
Hay *($ per ton)*	September	242.00	–1.6	25	60
Soybeans *($ per bu.)*	September	14.10	–7.8	16	53
Wheat *($ per bu.)*	September	8.85	3.5	14	87
Livestock and products *(index, 2011=100)*	September	136	1.3	26	62
Barrows & gilts *($ per cwt.)*	September	73.80	–14.2	5	45
Steers & heifers *($ per cwt.)*	September	145.00	0.7	14	38
Milk *($ per cwt.)*	September	24.40	0.4	33	38
Eggs *($ per doz.)*	September	2.65	36.6	157	219
Consumer prices *(index, 1982–84=100)*	September	297	0.2	8	14
Food	September	313	0.7	11	16
Production or stocks					
Corn stocks *(mil. bu.)*	September 1	1,377	N.A.	11	–28
Soybean stocks *(mil. bu.)*	September 1	274	N.A.	7	–48
Wheat stocks *(mil. bu.)*	September 1	1,776	N.A.	0	–18
Beef production *(bil. lb.)*	September	2.39	–4.6	4	1
Pork production *(bil. lb.)*	September	2.26	–1.9	0	–3
Milk production *(bil. lb.)*	September	18.3	–4.0	1	1
Agricultural exports *($ mil.)*	September	13,622	–11.9	14	11
Corn *(mil. bu.)*	September	104	–20.3	3	–31
Soybeans *(mil. bu.)*	September	78	–36.0	–2	–73
Wheat *(mil. bu.)*	September	112	21.3	32	14
Farm machinery *(units)*					
Tractors, 40 HP or more	September	8,393	3.3	–6	0
40 to 100 HP	September	5,744	–2.2	–9	–7
100 HP or more	September	2,649	17.4	3	22
Combines	September	904	14.4	7	43

N.A. Not applicable.
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.