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AgLetter

FARMLAND VALUES AND CREDIT CONDITIONS

In the Seventh Federal Reserve District, farmland values for the second quarter of 2007 increased 11 percent relative to the second quarter of 2006, and agricultural credit conditions continued to improve. A survey of 263 agricultural bankers from April 1, 2007, to June 30, 2007, indicated that the value of "good" agricultural land in the District was up 2 percent for the quarter. Forty percent more of the responding bankers expected farmland values to move up rather than down in the third quarter.

Agricultural credit conditions were better than a year ago, with higher non-real-estate loan demand and availability of funds in the second quarter. Renewals and extensions of loans in the same period fell compared with the second quarter of 2006, and the rate of loan repayment rose for the District. The percentage of agricultural loans classified by respondents as having "major" or "severe" repayment problems shrank from a year ago as well. Interest rates on farm loans inched up in the quarter, after drifting downward during the past year. The average loan-to-deposit ratio for District banks retreated to 77.8 percent as of July 1, 2007.

Farmland values

The 11 percent gain from the second quarter of 2006 in the value of "good" farmland in the District was a bit higher than the year-over-year increase last quarter (see table and map). Iowa and Wisconsin had the biggest increases from a year ago; the increases in Illinois and Michigan trailed those of the other states. The quarterly increase (2 percent) in farmland values was smaller in the second quarter of 2007 than the first. Iowa exhibited the strongest quarterly growth in land values at 3 percent, while land values in Illinois, Indiana, and Wisconsin rose only 1 percent.

Higher crop and livestock prices propelled farmland values to higher levels, as the expected stream of earnings from farming increased from a year ago. Elevated corn prices, running 51 percent higher than a year ago in July, had a

CONFERENCE ANNOUNCEMENT

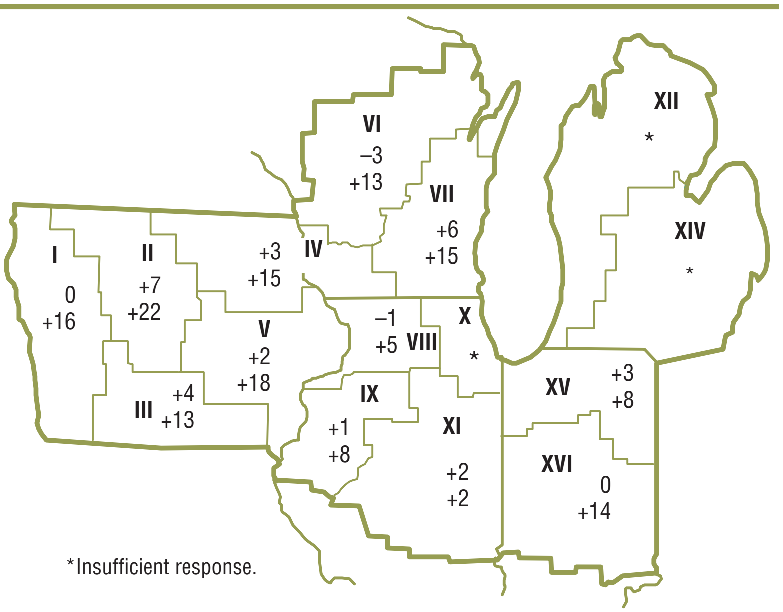
The Role of R&D in Agriculture and Related Industries: Today and Tomorrow

On September 24, 2007, the Federal Reserve Bank of Chicago will hold a conference on the role of research and development (R&D) in agriculture, biotechnology, and the food industry, with a focus on policies that promote industry growth and rural development. The conference will conclude with a tour of the National Center for Food Safety and Technology. Please check the conference website at www.chicagofed.org under "Upcoming Events" for more details and the agenda.

Percent change in dollar value of "good" farmland

Top: April 1, 2007 to July 1, 2007
Bottom: July 1, 2006 to July 1, 2007

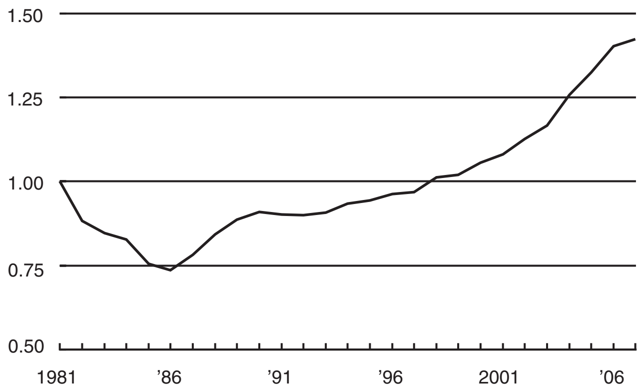
	April 1, 2007 to July 1, 2007	July 1, 2006 to July 1, 2007
Illinois	+1	+3
Indiana	+1	+11
Iowa	+3	+18
Michigan	+2	+1
Wisconsin	+1	+12
Seventh District	+2	+11



*Insufficient response.

1. District price to earnings ratio

1981 = 1.0



Note: Derived from indexes based on Federal Reserve Bank of Chicago's *Land Value and Credit Condition Surveys.*

particular impact on the District, since over half of U.S. corn production comes from the five-state region. The U.S. Department of Agriculture (USDA) estimated the 2007 harvest of corn for grain would increase 24 percent from 2006 for the nation and 22 percent for the five-state region. (An 18 percent decrease in U.S. soybean production partially offsets this increase in agricultural output.) Even with this record corn harvest forecast by the USDA, corn prices continued to be supported both by lower stocks (19 percent below the level of a year ago on June 1) and by strong demand, especially from expanded ethanol production for fuel. According to the Renewable Fuels Association, ethanol production capacity, as of August 1, 2007, was 6.5 billion gallons per year, a 32 percent increase from 2006 production of 4.9 billion gallons.

Survey respondents expected increases in farmland values to continue in the third quarter of 2007. With 42 percent of the respondents expecting gains in land values between July and September and 2 percent forecasting decreases, there seemed to be momentum for further land value increases. However, 56 percent of those surveyed anticipated farmland values to remain stable in the third quarter. Responses for individual states mirrored those for the District. This was topped by Iowa respondents—49 percent expect higher land values.

Growth in the District price-to-earnings (P/E) ratio for farmland slowed in 2007, indicating a larger gain in the earnings potential of farmland relative to land values. In an asset valuation model, the present price of an asset should reflect both current profitability and expectations for future earnings. Since cash rental rates represent the earnings potential of farmland, the P/E ratio for farmland can be constructed as the ratio of an average farmland value per acre to the cash rental rate per acre.

Following the rapid increases of the past few years, the District P/E ratio increased at a somewhat slower pace in 2007 (see chart 1). Farmland values seem to have risen less quickly relative to earnings potential than in recent years, given the surge in 2007 cash rental rates due to higher agricultural prices and competitive bidding for available land to rent. Moreover, rental rates may jump again for 2008, given the persistence of agricultural price increases and the ability to reprice rental rates for more acres this year. Under these circumstances, the P/E ratio is likely to grow at closer to its long-run trend. The interplay of land values and higher rental rates also reinforces the view that farmland values have room to rise, given recent trends in the P/E ratio for the District.

Credit conditions

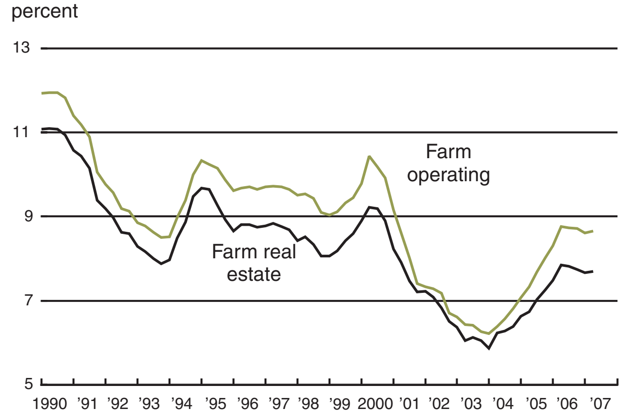
In the second quarter, higher agricultural prices contributed to healthier credit conditions in the District. Repayment rates for non-real-estate farm loans from April through June rose relative to the previous year. The index of loan repayment rates was 117, with 23 percent of the responding bankers noting higher rates of loan repayment and 5 percent lower rates. Moreover, only 2.5 percent of the respondents' farm loan volume was classified as having "major" or "severe" repayment problems, lower than both six months ago and a year ago.

For three and a half years, demand for non-real-estate agricultural loans has increased, when compared with the previous year. With 36 percent of the banks reporting increased demand compared with the second quarter last year, and 16 percent reporting decreased demand, the index of non-real-estate agricultural loan demand was 121, the highest second quarter number in a decade. However, the situation in Michigan differed from the rest of the District, as 11 percent fewer bankers reported higher rather than lower loan demand.

Fewer renewals and extensions of non-real-estate agricultural loans in the second quarter of 2007 compared with the second quarter of 2006 further bolstered credit conditions, with 7 percent of respondents reporting an increase

2. Quarterly District farm loan interest rates

percent



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*
2004							
Jan–Mar	116	131	128	73.2	6.22	6.28	5.87
Apr–June	101	117	118	73.7	6.39	6.46	6.23
July–Sept	109	111	112	74.5	6.57	6.61	6.28
Oct–Dec	109	121	127	74.1	6.81	6.80	6.39
2005							
Jan–Mar	117	112	116	74.4	7.07	7.08	6.63
Apr–June	119	101	103	76.3	7.33	7.30	6.74
July–Sept	115	97	87	76.9	7.68	7.65	7.02
Oct–Dec	120	110	90	75.8	8.02	7.95	7.25
2006							
Jan–Mar	131	102	87	76.7	8.30	8.27	7.48
Apr–June	115	101	85	78.0	8.76	8.66	7.85
July–Sept	124	95	87	79.1	8.73	8.70	7.82
Oct–Dec	109	116	130	76.6	8.71	8.70	7.74
2007							
Jan–Mar	128	113	131	78.4	8.61	8.60	7.67
Apr–June	121	115	117	77.8	8.65	8.63	7.70

Note: Historical data on Seventh District agricultural credit conditions is available for download from the *AgLetter* homepage, www.chicagofed.org/economic_research_and_data/ag_letter.cfm.

[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 percent of bankers that responded "lower" from the percent that responded "higher" and adding 100.

and 23 percent a decrease. Michigan again stood out from the other states with more renewals and loan extensions.

The availability of funds grew for 25 percent of the banks and declined for 10 percent, producing an index value of 115. Relative to the previous year, the amount of collateral required for loans was higher at 7 percent of the reporting banks, and lower at 1 percent. The average loan-to-deposit ratio in the District was 77.8 percent, lower than a year ago and 3.6 percent below the ratio desired by the banks.

Interest rates for agricultural loans rose after drifting downward for three quarters (see chart 2). As of July 1, the District average for interest rates on new operating loans was 8.65 percent, eleven basis points below a year ago. Interest rates for farm mortgages edged up to 7.70 percent, fifteen basis points lower than a year ago.

For the first half of 2007, the Farm Credit System (FCS) generated a greater number of farm loans that pushed its share of the total loan market higher relative to other lenders in the District. With 26 percent more banks having higher versus lower than normal operating loan amounts, the FCS's share of the market expanded; 40 percent more banks reported the amounts of FCS operating loans in their area increased rather than decreased. This expansion was stronger for farm mortgages, with only 7 percent more banks having higher rather than lower mortgage amounts versus 47 percent for FCS lenders. Merchants, dealers, and other input suppliers also boosted their loan production above normal, as noted by 27 percent more of the respondents. The amount of loans provided by life insurance companies was down slightly, with higher amounts of loans reported by 9 percent of responding banks and lower amounts by 13 percent.

Looking forward

Thirty percent of the respondents anticipated farm non-real-estate loan volume to be higher in the third quarter of 2007 than in the third quarter of 2006, while 10 percent anticipated lower volume. Operating loans (23 percent more responding higher than lower), farm machinery (31 percent), and grain storage construction loans (36 percent) were expected to have higher volumes from July to September. Bankers predicted an increase in real estate loan volume (23 percent higher versus 11 percent lower) for the third quarter of 2007.

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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, 1990–92=100)*	July	142	2.2	21	22
Crops *(index, 1990–92=100)*	July	143	1.4	16	27
Corn *($ per bu.)*	July	3.23	– 8.0	51	53
Hay *($ per ton)*	July	131.00	0.0	22	31
Soybeans *($ per bu.)*	July	7.92	5.5	41	19
Wheat *($ per bu.)*	July	5.37	6.8	41	68
Livestock and products *(index, 1990–92=100)*	July	140	2.2	26	20
Barrow and gilts *($ per cwt.)*	July	53.40	–3.1	5	6
Steers and heifers *($ per cwt.)*	July	94.3	1.1	5	7
Milk *($ per cwt.)*	July	21.7	7.4	85	47
Eggs *(¢ per doz.)*	July	94.6	39.7	117	80
Consumer prices *(index, 1982–84=100)*	July	208	0.0	2	7
Food	July	203	0.3	4	6
Production or stocks					
Corn stocks *(mil. bu.)*	June 1	3,534	N.A.	–19	–18
Soybean stocks *(mil. bu.)*	June 1	1,091	N.A.	10	56
Wheat stocks *(mil. bu.)*	June 1	456	N.A.	–20	–16
Beef production *(bil. lb.)*	June	2.35	2.8	– 4	5
Pork production *(bil. lb.)*	June	1.65	– 6.1	–1	–3
Milk production *(bil. lb.)**	July	14.5	2.0	4	6
Agricultural exports *(mil. dol.)*	May	6,623	2.7	13	31
Corn *(mil. bu.)*	May	152	–5.1	–28	5
Soybeans *(mil. bu.)*	May	51	–39.0	11	18
Wheat *(mil. bu.)*	May	90	16.2	20	16
Farm machinery *(units)*					
Tractors, over 40 HP	July	8,657	–14.6	4	– 6
40 to 100 HP	July	7,261	–11.0	1	–5
100 HP or more	July	1,396	–29.4	22	–13
Combines	July	753	3.2	14	1

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.