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# AgLetter

## FARMLAND VALUES AND CREDIT CONDITIONS

### Summary

Values continued to increase in the second quarter of 2005 for "good" agricultural land in the Seventh Federal Reserve District, though the pace of growth slowed down. In the quarter ending July 1, 2005, farmland values rose 1 percent, on average, for the District, based on a survey of 269 agricultural bankers. The year-over-year increase through June 30 was 12 percent, higher than the annual increases recorded for the second quarter of 2004 and the first quarter of 2005. A majority of respondents anticipated farmland values will stabilize in the third quarter, but over 40 percent still predicted land values will go up.

Credit conditions remained in better shape than last quarter and a year ago. Loan demand in the past three months was higher than the same period last year. Renewals and extensions of loans were down slightly from the second quarter of 2004. Also, just 3 percent of farm loans were classified by responding bankers as having "major" or "severe" repayment problems, the same level as a year ago. The rate of loan repayment and the availability of funds were stable compared with the previous year. Interest rates

on agricultural loans continued their upward trends. Few banks required increased collateral relative to a year earlier. Loan-to-deposit ratios jumped to an average of 76.3 percent at the end of the second quarter, the highest since 2000.

### Farmland values

The average year-over-year increase of "good" agricultural land in the District was 12 percent for the second quarter of 2005 (see table and map below), outpacing the gains reported last quarter. Illinois and Wisconsin had the biggest increases from a year ago (16 percent and 15 percent, respectively). Indiana and Iowa both had 11 percent gains in farmland values from a year ago. Michigan seemed to lag the rest of the District. After a strong increase in the first quarter, District farmland values rose just 1 percent in the second quarter. Only quarter-to-quarter farmland values for Wisconsin exceeded the District average, with Indiana and Michigan below the average.

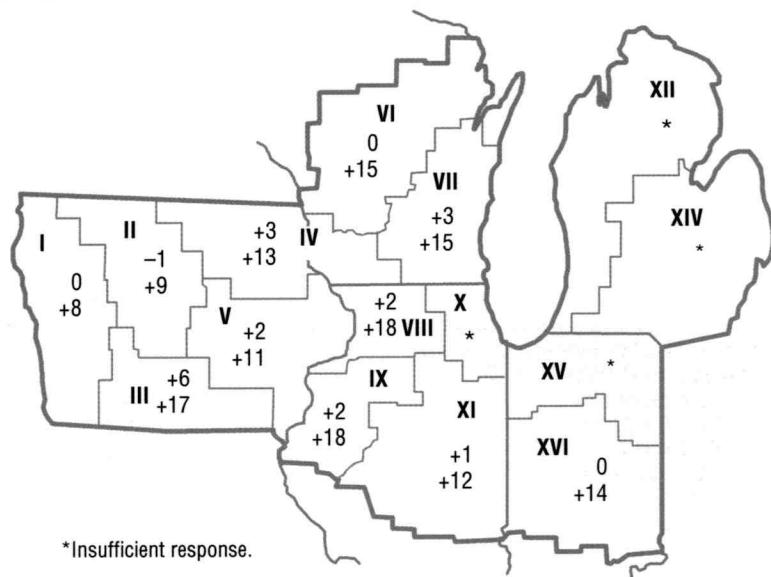
The key factors in sustaining the rise in farmland values include urban sprawl, recreational demand, and speculation. With the housing boom having maintained momentum, there seems to have been additional pressure on land values near urban areas throughout the District.

### Percent change in dollar value of "good" farmland

Top: April 1, 2005 to July 1, 2005

Bottom: July 1, 2004 to July 1, 2005

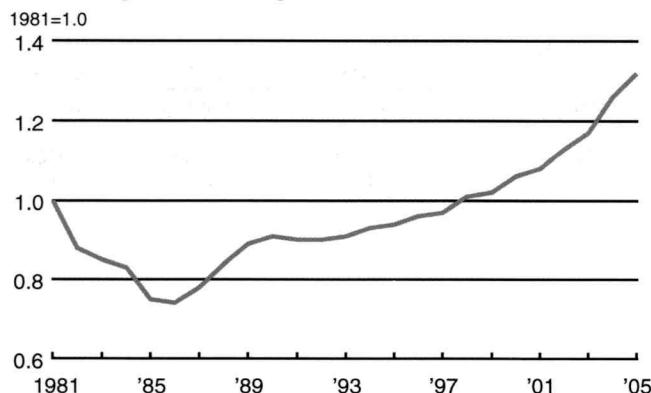
|                  | April 1, 2005<br>to<br>July 1, 2005 | July 1, 2004<br>to<br>July 1, 2005 |
|------------------|-------------------------------------|------------------------------------|
| Illinois         | +1                                  | +16                                |
| Indiana          | 0                                   | +11                                |
| Iowa             | +1                                  | +11                                |
| Michigan         | *                                   | *                                  |
| Wisconsin        | +2                                  | +15                                |
| Seventh District | +1                                  | +12                                |



\*Insufficient response.

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## 1. District price to earnings ratio



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

This upward pressure fueled more tax deferred exchanges, as displaced farmers sought quality farmland and had the cash to pay for it. Nonfarm investors remained aggressive in acquiring farmland as well, so competition for agricultural land was intense. With rising interest rates and a drought in some areas cutting yields, a majority of respondents expected farmland values to stabilize in the third quarter. Even so, over 40 percent of respondents anticipated increases in farmland values during the July to September period.

Yet, a few bankers expressed concerns about a potentially large drop in farmland values. The price to earnings (P/E) ratio is one tool to analyze the sustainability of asset values. According to a basic asset valuation model, the present price of an asset should reflect current profitability and expectations for future earnings. Cash rental rates are one way to estimate the earnings component for farmland. The P/E ratio for farmland can then be constructed as the ratio of an average farmland value per acre and the cash rental rate per acre.

The District P/E ratio for farmland has grown noticeably faster in the last two years (see chart 1), similar to the P/E ratios in many housing markets. This accelerated growth does provide some evidence that farmland values have raced ahead of earnings potential. However, the more contained growth of the prior decade may indicate that the rise of the last two years is atypical and may not constitute a farmland "bubble." There has been a complex interplay of factors in farmland markets, especially last year with record yields and interest rates bottoming out. Powerful forces now work at odds in determining farmland values, and the markets will sort out whether these values continue to increase, stabilize, or retreat.

## Credit conditions

With record net farm income from 2004 providing a buffer, credit conditions improved again in the second quarter of

2005, though the current drought in parts of the District combined with higher operating costs will negatively affect the third quarter. Loan demand for non-real-estate agricultural loans rose at the highest rate in five years, particularly in Iowa. With 32 percent of banks reporting increased demand in the second quarter this year and 13 percent seeing lower demand, the index of non-real-estate agricultural loan demand reached 119, unmatched since 2000.

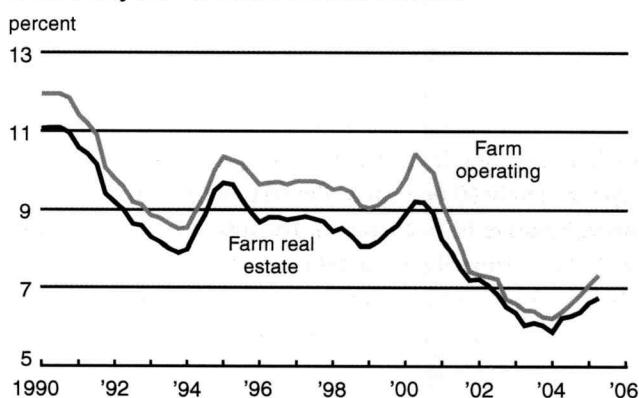
Repayment rates for non-real-estate farm loans from April to June were slightly above the levels of a year earlier. The index of loan repayment rates was 103, with 14 percent of the respondents reporting higher rates of loan repayment and 11 percent noting lower rates. In addition, only 3 percent of the respondents' loan volume was classified as having "major" or "severe" repayment problems, the same proportion as a year ago.

Renewals and extensions reflected better credit conditions than the second quarter of 2004 as well, with 10 percent of respondents noting an increase and 15 percent reporting a decrease for their respective banks. There was a marginal improvement in fund availability during the quarter, indicated by the lowest index value (101) since early 2001. Collateral requirements were tightened at only a few banks relative to the previous year.

Agricultural interest rates continued to go up (see chart 2). As of July 1, the District average for interest rates on new operating loans was 7.33 percent, the highest average in three years. Interest rates for farm mortgages rose to 6.74 percent, on average.

With farmers facing higher input costs, more operating loans than normal were closed this year by banks and the Farm Credit System (FCS). Over 30 percent of respondents saw higher than normal operating loan volume versus approximately 10 percent lower volume for banks and 5 percent lower for FCS lenders. Merchants, dealers, and other input suppliers also provided more loans than usual,

## 2. Quarterly District farm loan interest rates



## Credit conditions at Seventh District agricultural banks

|             | Loan demand          | Fund availability    | Loan repayment rates | Average loan-to-deposit ratio <sup>1</sup> | Operating loans <sup>1</sup> | Interest rates on farm loans |                          |
|-------------|----------------------|----------------------|----------------------|--|------------------------------|------------------------------|--------------------------|
|             | (index) <sup>2</sup> | (index) <sup>2</sup> | (index) <sup>2</sup> | (percent)                                  | (percent)                    | Feeder cattle <sup>1</sup>   | Real estate <sup>1</sup> |
| <b>2000</b> |                      |                      |                      |  |                              |                              |                          |
| Jan-Mar     | 121                  | 95                   | 77                   | 72.9                                       | 9.78                         | 9.72                         | 8.89                     |
| Apr-June    | 109                  | 76                   | 72                   | 75.5                                       | 10.43                        | 10.14                        | 9.21                     |
| July-Sept   | 106                  | 82                   | 77                   | 76.9                                       | 10.17                        | 10.14                        | 9.18                     |
| Oct-Dec.    | 105                  | 92                   | 81                   | 74.9                                       | 9.92                         | 9.90                         | 8.90                     |
| <b>2001</b> |                      |                      |                      |  |                              |                              |                          |
| Jan-Mar     | 118                  | 101                  | 67                   | 75.0                                       | 9.16                         | 9.17                         | 8.23                     |
| Apr-June    | 106                  | 109                  | 73                   | 75.1                                       | 8.60                         | 8.58                         | 7.91                     |
| July-Sept   | 91                   | 127                  | 86                   | 74.9                                       | 8.01                         | 8.07                         | 7.47                     |
| Oct-Dec     | 101                  | 129                  | 75                   | 72.8                                       | 7.41                         | 7.51                         | 7.21                     |
| <b>2002</b> |                      |                      |                      |  |                              |                              |                          |
| Jan-Mar     | 108                  | 118                  | 66                   | 72.7                                       | 7.33                         | 7.48                         | 7.22                     |
| Apr-June    | 105                  | 120                  | 71                   | 75.1                                       | 7.28                         | 7.35                         | 7.08                     |
| July-Sept   | 99                   | 124                  | 76                   | 75.7                                       | 7.21                         | 7.26                         | 6.84                     |
| Oct-Dec     | 101                  | 130                  | 88                   | 73.2                                       | 6.70                         | 6.78                         | 6.51                     |
| <b>2003</b> |                      |                      |                      |  |                              |                              |                          |
| Jan-Mar     | 109                  | 130                  | 79                   | 72.4                                       | 6.61                         | 6.75                         | 6.36                     |
| Apr-June    | 99                   | 138                  | 84                   | 72.7                                       | 6.43                         | 6.52                         | 6.04                     |
| July-Sept   | 95                   | 129                  | 86                   | 72.9                                       | 6.41                         | 6.47                         | 6.12                     |
| Oct-Dec     | 97                   | 127                  | 104                  | 71.8                                       | 6.26                         | 6.35                         | 6.05                     |
| <b>2004</b> |                      |                      |                      |  |                              |                              |                          |
| 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                     |
| <b>2005</b> |                      |                      |                      |  |                              |                              |                          |
| 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                     |

<sup>1</sup>At end of period.

<sup>2</sup>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.

according to 40 percent of the respondents (only 8 percent thought such lending was lower than normal). In terms of farm mortgages, about 50 percent reported above normal levels of FCS lending and just 25 percent for banks, with 15 percent reporting lower lending levels by both. Life insurance companies slipped further behind other lenders, as only 6 percent of respondents noted higher volumes and 19 percent noted lower loan volumes.

### Looking forward

Bankers expected farm loan volume in July, August, and September to exceed the volume during the same period in 2004. In particular, 24 percent of the respondents anticipated higher non-real-estate loan volume relative to the previous year, while 14 percent anticipated lower volume (approximately 60 percent of the respondents expected loan volumes to be unchanged). The increased loan activity was linked primarily to operating loans, with decreases anticipated for feeder cattle and dairy loans. Only in Iowa and Wisconsin did bankers expect higher volumes of grain storage construction loans. Similar to their forecasts

for non-real-estate loan activity, bankers predicted increased real estate loan volume (15 percent higher versus 10 percent lower), though fewer did so than last quarter.

David B. Oppedahl, *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 (index, 1990-92=100)</b> |               |        |                     |          |               |
| <b>Crops (index, 1990-92=100)</b>                      | July          | 119    | -0.8                | -4       | 13            |
| Corn (\$ per bu.)                                      | July          | 119    | -2.5                | -1       | 9             |
| Hay (\$ per ton)                                       | July          | 2.15   | 5.9                 | -14      | -1            |
| Soybeans (\$ per bu.)                                  | July          | 99.70  | -2.3                | 10       | 13            |
| Wheat (\$ per bu.)                                     | July          | 6.84   | 4.0                 | -19      | 18            |
| <b>Livestock and products (index, 1990-92=100)</b>     | July          | 3.25   | 0.6                 | -4       | 10            |
| Barrow and gilts (\$ per cwt.)                         | July          | 118    | 0.0                 | -8       | 17            |
| Steers and heifers (\$ per cwt.)                       | July          | 49.80  | -0.2                | -14      | 15            |
| Milk (\$ per cwt.)                                     | July          | 89.6   | -2.5                | -2       | 14            |
| Eggs (¢ per doz.)                                      | July          | 14.8   | 2.1                 | -8       | 22            |
| Eggs (¢ per doz.)                                      | July          | 53.0   | 17.8                | -9       | -23           |
| <b>Consumer prices (index, 1982-84=100)</b>            |               |        |                     |          |               |
| Food   | July          | 195    | 0.5                 | 3        | 6             |
| Food   | July          | 191    | 0.2                 | 2        | 6             |
| <b>Production or stocks</b>                            |               |        |                     |          |               |
| Corn stocks (mil. bu.)                                 | June 1        | 4,320  | N.A.                | 45       | 45            |
| Soybean stocks (mil. bu.)                              | June 1        | 700    | N.A.                | 70       | 16            |
| Wheat stocks (mil. bu.)                                | June 1        | 540    | N.A.                | -1       | 10            |
| Beef production (bil. lb.)                             | July          | 2.09   | -6.4                | -1       | -15           |
| Pork production (bil. lb.)                             | July          | 1.51   | -11.8               | -5       | -5            |
| Milk production (bil. lb.)*                            | July          | 13.7   | -0.1                | 4        | -4            |
| <b>Receipts from farm marketings (mil. dol.)</b>       |               |        |                     |          |               |
| Crops**  | April         | 18,073 | -1.2                | 4        | 18            |
| Livestock  | April         | 8,521  | 12.8                | 14       | 20            |
| Livestock  | April         | 9,552  | -11.0               | -4       | 16            |
| <b>Agricultural exports (mil. dol.)</b>                |               |        |                     |          |               |
| Corn (mil. bu.)  | June          | 4,885  | -4.3                | 10       | 12            |
| Soybeans (mil. bu.)                                    | June          | 158    | 8.0                 | 13       | 9             |
| Wheat (mil. bu.)                                       | May           | 35     | -29.0               | 74       | 10            |
| Wheat (mil. bu.)                                       | May           | 77     | -8.0                | -18      | 27            |
| <b>Farm machinery (units)</b>                          |               |        |                     |          |               |
| Tractors, over 40 HP                                   | July          | 9,332  | -10.6               | 1        | 37            |
| 40 to 100 HP   | July          | 7,697  | -10.3               | 2        | 32            |
| 100 HP or more   | July          | 1,635  | -11.9               | 0        | 67            |
| Combines   | July          | 746    | 16.9                | 12       | 61            |

N.A. Not applicable

\*23 selected states.

\*\*Includes net CCC loans.

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