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FEDERAL RESERVE BANK OF CHICAGO
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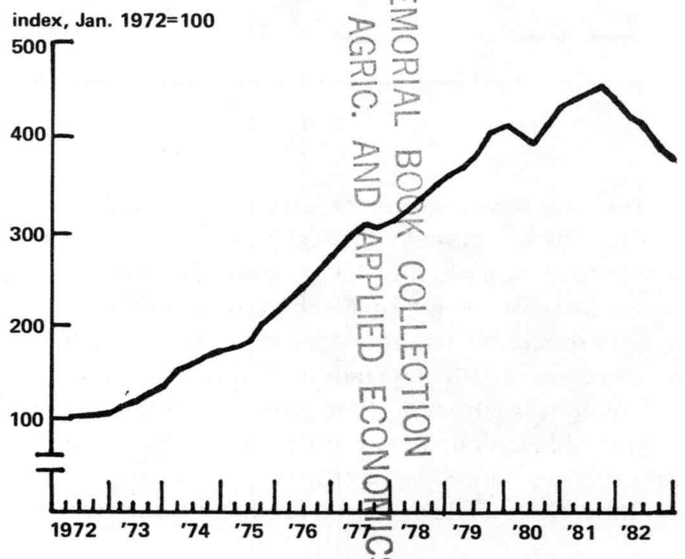
FARMLAND VALUES IN THE SEVENTH DISTRICT eroded further in the fourth quarter. According to a recent survey of agricultural bankers in the Chicago Federal Reserve District, the value of good farmland fell 3.5 percent during the three months ending in December, the fifth consecutive quarterly decline. District farmland values, which, on average, declined 16 percent in 1982 and were down 18 percent from the survey's peak in the third quarter of 1981, are now comparable to the levels of the late 1970s.

Land values declined in all five District states during the fourth quarter (see map on page 2), but the rates of decline varied. Bankers from Iowa and the District portion of Illinois reported the steepest decline, 4 percent. In District portions of Indiana and Wisconsin land values decreased 3 percent, while in Michigan land values were down 2 percent. For all of last year, the change in land values also varied considerably among the states. Annual declines were 22 percent in Indiana, 19 percent in Illinois, and 17 percent in Iowa. However, land values were down 12 percent in Michigan and only 6 percent in Wisconsin from a year ago.

The fourth quarter results cap a three-year period in which farmland values in the Midwest have exhibited divergent trends. After an unusual 4 percent decline in land values during the first half of 1980, land values rose sharply in the second half of that year, reflecting a surge in commodity prices that followed the drought of 1980. The overall measure of crop prices received by farmers averaged a sixth higher during the second half of 1980 than in the first half. The uptrend in land values continued, although at a slowing rate, through the summer of 1981. Plummeting crop prices during the second half of 1981—the composite measure dropped 13 percent—contributed to a weakening of the land market and in the fall of 1981 triggered the current downturn in land values. This downturn continued into 1982 and steepened in the second half as commodity prices eroded further. The composite index of crop prices in 1982 averaged a tenth below the year earlier. Farm earnings also were substantially depressed during 1980, 1981, and 1982. Net farm income (after inventory adjustment) in 1980 was 38 percent below 1979's near record level, while 1981's net farm income was a fifth below 1979. Preliminary estimates indicate that net farm earnings for 1982 were also down nearly 40 percent from the 1979 level. As a consequence, seven of the eight quarterly declines in land values recorded in the surveys since 1962 were reported in these last three years. (Land values also declined in the third quarter of 1977).

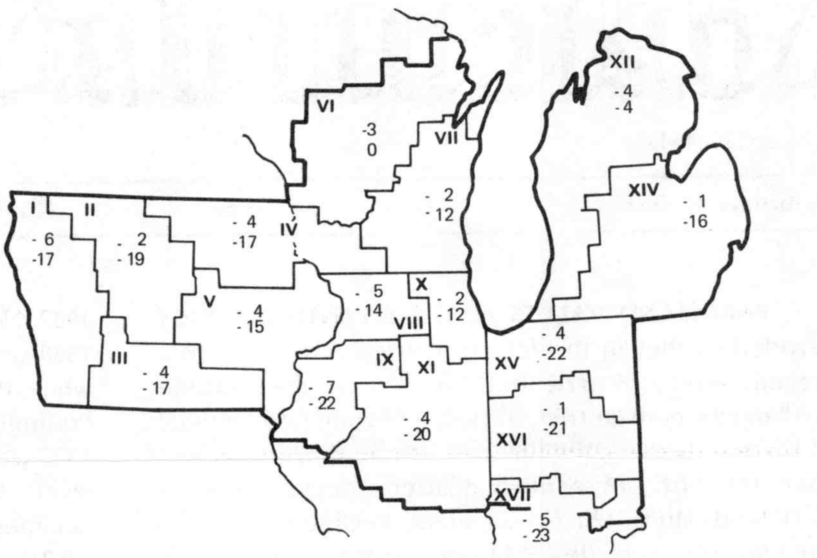
Not only low commodity prices, but also high debt service costs contribute heavily to the overall weakness in land markets. Debt service costs remain relatively high, despite some decline in rates charged by lenders. At the end of the fourth quarter, District agricultural bankers were charging an average of 14¼ percent on farm real estate loans, down from 15½ percent three months ago and the high of 17½ percent in the fall of 1981. But rates charged in the fourth quarter by Federal Land Banks, the largest farm mortgage lender, were still near the previous quarter's high of 12½ percent.

Land values in District states have declined to 1979 levels



Percent change in dollar value of "good" farmland

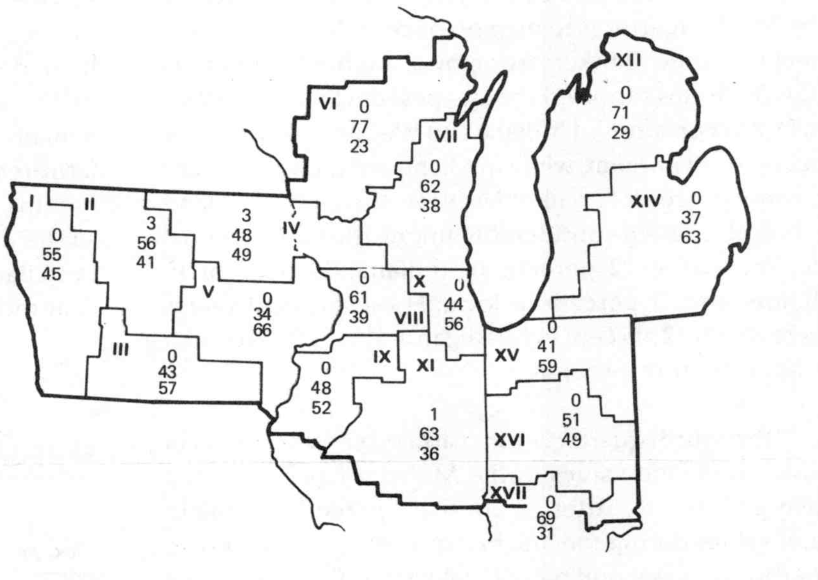
Top: October 1, 1982 to January 1, 1983
Bottom: January 1, 1982 to January 1, 1983



	October 1, 1982 to January 1, 1983	January 1, 1982 to January 1, 1983
Illinois	-4	-19
Indiana	-3	-22
Iowa	-4	-17
Michigan	-2	-12
Wisconsin	-3	-6
Seventh District	-3	-16

Percent of banks reporting the current trend in farmland values is;

Top: Up
Center: Stable
Bottom: Down



	Up	Stable	Down
Illinois	1	59	40
Indiana	0	50	50
Iowa	1	47	52
Michigan	0	44	56
Wisconsin	0	67	33
Seventh District	0	54	46

The near-term outlook for farmland values remains clouded. The USDA sees little likelihood of an improvement in farm earnings this year, making 1983 the fourth consecutive year of low farm earnings. Total cash receipts are not expected to rise above last year's level. Production expenses may decline modestly, but a high level of participation in PIK and other acreage reduction programs could result in a sharper decline in cash production expenses. Moreover, if crop prices improve in line with the renewed efforts to trim production and reduce the large overhang of supplies, net farm income in 1983 could improve from current projections. Nevertheless, while the downturn in land values could level off in the next few months, no upturn seems imminent in 1983.

Bankers' expectations about changes in farmland values are not optimistic. Forty-six percent of the bankers expect farmland values to be down in the current quarter, while the rest think that land values will remain unchanged.

THE U.S. CATTLE INVENTORY declined in 1982, marking the end of an unusually short expansion phase of the latest cattle cycle. According to the USDA, the inventory of all cattle and calves in the United States on January 1 was 115.2 million head, down nominally from a year ago and 4 percent above the trough of the cattle cycle four years ago. The report was surprising to many analysts who were expecting a larger decline. The decline in the beef cow herd foreshadows smaller beef supplies by the second half of the year.

The decline in cattle numbers reflects a smaller calf crop and higher levels of cow and heifer slaughter. The 1982 calf crop, at 44.4 million head, was 1 percent lower than the year before. (The 1981 calf crop estimate was revised upward nominally in the latest report). Cattle and calf slaughter in 1982 rose to 39.2 million head, up 3 percent from the year before. Cow slaughter was up over a tenth from the year-earlier level, while heifer slaughter increased by about 5 percent. Death losses in 1982 were up 4 percent from 1981's 5 million head.

Last year's declines in the beef cow herd and in the number of heifers held for replacement were of significance. According to the inventory report, the nation's beef cow herd, at 38.1 million head, was down 3 percent from the number a year ago, while the inventory of heifers held for beef cow replacement declined 4 percent. The declines in these two categories, especially replacements, set the stage for possible further contraction in cattle and calf numbers over the next couple of years. The nation's milk cow herd increased nominally from the year before and the number of heifers held for milk cow replacements was unchanged from last year. These numbers point toward the end of the expansion in the dairy herd that began in 1980. Assessments on dairy producers, if resumed, could encourage heavier culling rates in dairy herds this year, at least temporarily inducing a decline in dairy herd numbers.

The inventory of cattle on feed on January 1, at 12 million head, was up 13 percent from the low year-earlier level. Most of the increase resulted from higher placements in the latter half of 1982. Evidence from the 13 quarterly reporting states shows an 11 percent year-to-year increase in third-quarter placements was followed by a 16 percent fourth-quarter increase. Low feed costs and ample supplies of feed were major factors. Fed cattle marketings in 1982 exceeded the year-earlier level by 3 percent.

A year-to-year comparison for Seventh District states revealed a 9 percent increase in the January 1 cattle-on-feed inventories. January 1 feedlot inventories in Iowa, which account for over half of the cattle on feed in District states, were up 7 percent from the year before. In Indiana and Michigan, cattle-on-feed numbers were up 15 percent and 11 percent, respectively. Inventories on feed in Illinois and Wisconsin were 4 percent and 3 percent, respectively, above the year earlier.

Trends in January 1 inventory of all cattle and calves

	1980	1981	1982	1983 Number	1983 Change (percent)
All cattle and calves	111.2	114.3	115.6	115.2	0
Cows and heifers that have calved	47.9	49.6	50.3	49.1	− 2
Beef cows	37.1	38.7	39.3	38.1	− 3
Dairy cows	10.8	10.9	11.0	11.1	0
Heifers 500 pounds and over	17.2	17.8	18.3	18.8	+ 3
For beef cow replacement	5.9	6.1	6.6	6.3	− 4
For milk cow replacement	4.2	4.3	4.5	4.5	0
Other	7.1	7.3	7.2	8.0	+11
Steers 500 pounds and over	16.0	15.5	15.5	16.2	+ 5
Bulls 500 pounds and over	2.5	2.5	2.6	2.6	0
All calves under 500 pounds	27.6	28.9	28.8	28.4	− 2

Available feeder cattle supplies outside feedlots were down 1 percent as of January 1. The number of steers and non-replacement heifers over 500 pounds outside feedlots was up about 2 percent. Steers and heifers under 500 pounds were down about 2 percent.

In line with the higher inventory of cattle on feed, beef supplies in the first half of 1983 likely will exceed year-earlier levels. However, in the second half beef production will likely trail year-earlier levels. The increase in beef production this year, however, is likely to be more than offset by lower pork production, so that red meat supplies will fall below year-earlier levels. As a result, cattle prices could rise later in the year, particularly if consumer demand improves. Nevertheless, the near-term outlook for cattle prices is still aggravated by the prospects for higher beef production in the first half. Choice steer prices at Omaha have averaged $60 per hundredweight recently, up from $58 per hundredweight a year ago. Prices may show some further strength in the first half, averaging in the low $60s.

The financial climate for cattlemen has deteriorated recently. According to Iowa State budget analysts, returns from finishing out yearling steers were negative in the fourth quarter of 1982, following an 8-month string of profits. Prior to 1982, cattle feeders had sustained a two-and-one-half year period of low or negative returns. In the months ahead, feeding margins may deteriorate further if prices of feed firm in response to PIK and related developments.

Jeffrey L. Miller

Selected agricultural economic developments

Subject	Unit	Latest period	Value	Percent change from	
				Prior period	Year ago
Farm finance					
Total deposits at agricultural banks†	1972-73=100	January	269	+ 3.0	+10
Total loans at agricultural banks†	1972-73=100	January	277	– 0.9	+ 5
Production credit associations					
Loans outstanding					
United States	mil. dol.	December	20,102	– 1.8	– 4
Seventh District states	mil. dol.	December	4,078	– 3.9	– 6
Loans made					
United States	mil. dol.	December	3,229	+39.1	–11
Seventh District states	mil. dol.	December	630	+42.3	–10
Federal land banks					
Loans outstanding					
United States	mil. dol.	December	47,281	+ 0.2	+ 8
Seventh District states	mil. dol.	December	11,282	+ 0.2	+ 8
New money loaned					
United States	mil. dol.	December	316	+ 2.1	–51
Seventh District states	mil. dol.	December	67	+ 6.9	–52
Interest rates					
Feeder cattle loans††	percent	4th Quarter	14.96	– 8.7	–16
Farm real estate loans††	percent	4th Quarter	14.92	– 7.6	–12
Three-month Treasury bills	percent	1/27-2/2	8.09	+ 1.5	–39
Federal funds rate	percent	1/27-2/2	8.53	–16.5	–42
Government bonds *(long-term)*	percent	1/27-2/2	10.93	+ 4.7	–23
Agricultural trade					
Agricultural exports	mil. dol.	November	3,050	+ 5.6	–19
Agricultural imports	mil. dol.	November	1,243	–15.8	+ 2
Farm machinery sales[P]					
Farm tractors	units	December	5,424	+ 8.1	–33
Combines	units	December	2,261	+30.9	+18
Balers	units	December	234	– 9.3	–14

†Member banks in Seventh District having a large proportion of agricultural loans in towns of less than 15,000 population.

††Average of rates reported by District agricultural banks at beginning and end of quarter.

[P]Preliminary.

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