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The Minnesota Rural Real Estate Market in 1983

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Summary

The average estimated value of Minnesota farm real estate declined 10 percent, July 1982 to July 1983. This marks the state's second consecutive year in which a drop of 10 percent occurred in the value of agricultural property. Both estimated values and reported sales prices declined across the state's major agricultural regions, although there was scattered evidence of relative strength in areas more heavily influenced by residential demand. Farm expansion buyers dominated the market, purchasing more than three-quarters of all tracts reported sold. Contracts for deed remained the most popular method of financing farm transfers, although the proportion of cash and mortgage-financed sales increased in 1983.

Introduction

Data on regional and statewide developments in the Minnesota rural real estate market have been collected by the University for over 70 years. Since 1952, information has been collected through a questionnaire mailed each summer to farm brokers, appraisers, finance officers, and others knowledgeable of the market for rural property in their local areas.

Respondents are asked to provide two types of information. First, they are asked to estimate the current average value of various grades of farmland in their communities. Second, they are asked to report on actual sales of farmland occurring during the first six months of the year, including acreage, price per acre, characteristics of buyer and seller, method of finance, and quality of buildings and land. Sales which may not reflect current market conditions, such as those between close relatives, are excluded.

This report is divided into four parts. Part One discusses current market trends using a six-district division of the state for which data extend back to 1910. Part Two examines reported sales by economic development regions. Part Three compares the rural land market in the area surrounding the Twin Cities with that of the remainder of the state. Part Four reports on a special survey of land contract financing in 1981-82.

It is emphasized that the information contained in this report is based on data collected in July and August, 1983. Any effects of last summer's widespread drought, the rise in commodity prices or improved farm incomes will be reflected in the 1984 rural real estate market report.

PART I. The 1983 Farmland Market

Estimated Land Values

The July, 1983 estimated statewide average value of Minnesota farmland was $1065 per acre (Table 1). This figure represents the second consecutive ten percent annual decline in estimated farmland values. In dollar values, the decrease has meant a decline of $114 per acre. Previous to the 1982 decline, Minnesota farmland had experienced continuing annual increases in value since 1960, when the statewide average dropped from $157 to $155 per acre.

Each of the six districts in the state reported declines in estimated farm real estate values in 1983 (Table 2 and Figure 1). In the two southern districts, which contain Minnesota's most valuable farmland, average values fell by 10 and 11 percent. Average estimated values declined even more sharply in the Northwest and Northeast districts, by 12 and 15 percent, respectively. Central Minnesota estimated values fell less dramatically, with the West Central district down 6 percent and the East Central down 4 percent.

Estimates of value in the East Central district in recent years suggest that developments in the rural real estate market there may foreshadow those in

TABLE 1. Estimated Average Value per Acre of Farmland, by District, Minnesota, 1972-83 (Dollars per Acre)

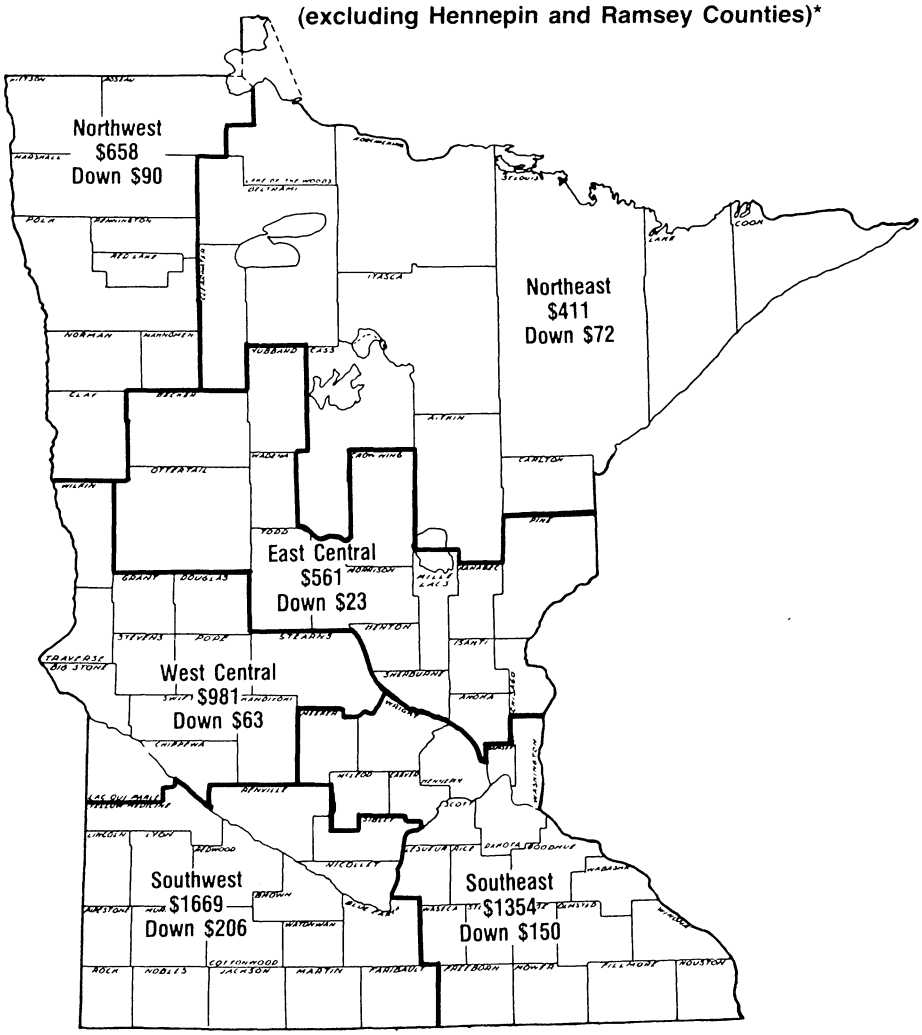
Years	Southeast	Southwest	West-Central	East-Central	Northwest	Northeast	Minnesota
1972	370	379	208	163	117	76	248
1973	433	459	247	194	146	115	298
1974	576	675	378	279	199	144	423
1975	674	844	503	296	295	163	525
1976	856	1106	624	349	378	210	667
1977	1027	1316	730	415	427	279	794
1978	1191	1421	803	498	483	304	889
1979	1453	1620	883	573	599	368	1040
1980	1526	1750	962	596	683	390	1120
1981	1709	2083	1135	679	813	460	1310
1982	1504	1875	1044	584	748	483	1179
1983	1354	1669	981	561	658	411	1065

TABLE 2. Annual Percentage Changes in Estimated Farmland Value per Acre, by Districts, Minnesota, 1972-83

Years July to July	S. East	S. West	West-Cent.	East-Cent.	N. West	N. East	Minn.
1972-73	17	21	19	19	25	51	20
1973-74	33	47	53	44	36	25	42
1974-75	17	25	33	6	48	13	24
1975-76	27	31	24	18	28	29	27
1976-77	20	19	17	19	13	33	19
1977-78	16	8	10	20	13	9	12
1978-79	22	14	10	15	24	21	17
1979-80	5	8	9	4	14	6	8
1980-81	12	19	18	14	19	18	17
1981-82	−12	−10	− 8	−14	− 8	5	−10
1982-83	−10	−11	− 6	− 4	−12	−15	−10

other parts of the state. In 1980 and 1981 land values in East Central Minnesota lagged behind the statewide average increases, presaging the decline in property values that commenced in 1982. That year, the average decline of 14 percent in the East Central district was the steepest in any part of the state. In 1983, the decline in estimated land values in East Central Minnesota was the least severe of any district. If the recent pattern continues to hold, the results from the East Central district suggest that Minnesota farm real estate values may have begun to stabilize.

FIGURE 1. Estimated Land Values per Acre (excluding Hennepin and Ramsey Counties)*



*Based on reported estimates of average value per acre of farmland for the first six months of 1983.

The rural real estate market in the East Central district is influenced by residential, recreational, and other urban-oriented demands for rural land, in addition to livestock agriculture. The relative stability of the market there in 1983 thus may be in part a reflection of improvements in the nonfarm economy. Two other areas subject to similar influences, however, the Southeast and Northeast districts, posted much greater declines in estimated land values. In the three western districts, where cash grain farming predominates and urban influences are much less significant, 1983 estimated farm real estate values followed the 1982 pattern quite closely. Decreases in value ranged from 6 to 11 percent, reflecting the continued poor prospects for income from grain production.

In dollar terms, the state's most valuable farmland continues to be found in the Southwest district, with a 1983 average estimated value of $1669 per acre. This represents a decline of $206 per acre from 1982. The Southeast district follows in second place at $1354 per acre, followed in order by the West Central ($981), Northwest ($658), East Central ($561), and Northeast ($411) districts. This ordering of relative farm real estate values has been quite stable over the years, with the exception of the East Central district which had a higher average estimated value than the Northwest district prior to 1979.

Reported Sales

The Minnesota rural real estate market survey collected data on 1228 sales occurring between January 1 and July 31, 1983. Based on these reports, the average price of an acre of state farmland was $1291 (Table 3). This represents a drop of 5 percent from the 1982 average price of $1360 per acre. This decline of only 5 percent is due to an increased frequency of sales of higher valued land parcels in most parts of the state. Specifically, the Northeast, East Central, and Southeast districts showed movements in market activity toward higher-valued land. Other districts displayed either no shift in the distribution of sales or, as in the Southwest district, a shift to lower-valued land.

The effects of changes in frequency of sales of higher and lower valued land on average reported sales prices can be removed by summing and averaging

the 1983 average reported sales prices per acre for Minnesota and the six districts multiplied by the 1982 acreage distribution of sales. This results in an adjusted statewide average price decline of 12 percent from 1982 (Table 4).

In the western half of the state, the adjusted average prices followed quite closely the trend of the estimated values discussed in the previous section. The Southwest and Northwest districts showed declines exceeding those of 1982. Prices also declined in the West Central district, though not to the extent that they did in the Northwest and Southwest. As in 1982, prices in 1983 decreased far more (in percentage terms) in the northwestern part of the state than in the other two western districts. The Northwest district's decline of 20 percent in adjusted sales prices was the largest of any district. The past two years have seen wide variability in the Northwest: the large gains of 1979 to 1981 have been more than eliminated by two years of price declines.

In the eastern half of Minnesota, the Northeast district recorded the largest loss, with average prices declining 17 percent. In the Southeast, prices declined 14 percent. The East Central district showed the smallest decline of any district, falling 7 percent. The sales data tend to support the conclusion suggested by reporters' estimates—that the value of farm real estate fell less sharply in the East Central district in 1983 than in any other part of the state. Adjusted sale prices in the East Central district had actually increased in 1982.

Also included in Table 4 is the change in the Consumer Price Index (CPI) between the first six months of 1982 and the same period of 1983. The increase from 1982 to 1983 is 3.5 percent. When combined with the adjusted 12 percent decline in Minnesota farmland prices, the result is a decline of more than 15 percent in the real value of farm real estate in 1983.

The 1983 decline in real farmland values comes on the heels of a similar 15 percent decline in 1982 following no change in real value in 1981, and a slight decline in 1980. This suggests that since 1979, when the export- and inflation-driven boom in farm real estate values of the 1970's reached its zenith, real land values have declined more than 30 percent. While in nominal terms the value of Minnesota farmland stands approximately equal to the level of 1979, in real terms it is closer to that of 1976.

TABLE 3. Average Reported Sales Price per Acre of Farmland, by District, Minnesota, 1972-83 (Unadjusted) Dollars per Acre

Years	S. East	S. West	West-Cent.	East-Cent.	N. West	N. East	Minn.
1972	389	366	222	145	107	76	293
1973	444	410	223	178	120	122	298
1974	598	630	340	243	204	144	450
1975	792	844	493	299	353	159	607
1976	937	1116	664	321	377	210	735
1977	1216	1340	709	446	432	198	859
1978	1352	1321	908	554	504	256	980
1979	1675	1680	949	618	612	411	1140
1980	1837	1868	1095	603	759	394	1318
1981	1965	2005	1171	680	919	483	1367
1982	1749	2022	1168	746	887	406	1360
1983	1470	1872	1068	679	711	328	1291
% Change 1982-1983	− 16	− 7	− 9	− 9	−20	−19	− 5

TABLE 4. Annual Percentage Changes in Adjusted Sales Price per Acre, by District, Minnesota, and CPI and GNP Implicit Price Deflator, 1975-83

District	75-76	76-77	77-78	78-79	79-80	80-81	81-82	82-83
Southeast	23	23	13	13	6	6	− 8	−14
Southwest	33	20	2	22	12	15	− 8	−11
West Central	32	8	18	4	9	13	− 9	− 9
East Central	6	32	37	16	0	19	4	− 7
Northwest	10	10	12	44	18	18	−14	−20
Northeast	21	8	−24	47	−27	− 4	−18	−17
Minnesota	26	18	10	17	9	11	− 8	−12
CPI	6.2	6.4	6.8	10.3	14.3	10.5	7.2	3.5
GNP Implicit[1,2] Price Deflator	5.6	5.5	6.7	8.8	9.1	8.6	6.4	4.1

[1]The changes in price indexes were calculated by comparing the average prices for the first 6 months of the year with the average prices for the first 6 months of the previous year.

[2]Economists often contend that the gross national product (GNP) implicit price deflator is a better indicator of price changes than the consumer price index (CPI). The CPI measures prices for a specified collection of goods and services which are typically purchased by urban consumers. The GNP implicit price deflator indicates the price changes of all goods and services measured by the GNP. The widening gap between the two in recent years was due largely to the influence of mortgage costs on the CPI. This gap was reversed in 1982-83.

The decline in the real value of farm real estate in the 1980's has been caused by a number of factors. Inflation has been reduced, and with it the incentive for farmers and others to seek an inflation hedge in farmland assets. At the same time, the real interest rate (the nominal interest rate minus the inflation rate) has increased sharply, depressing farm real estate values. The high value of the dollar relative to other currencies has increased the price of American farm products to foreign buyers. This has magnified the effects of the world recession by reducing export demand for U.S. farm commodities, resulting in lower domestic crop prices and reduced income from cropland. High interest rates have also made it more difficult for buyers to finance the purchase of agricultural property, by simultaneously lowering current income from land ownership while raising the opportunity costs of capital in farm land.

Type of Buyer

The Minnesota Rural Real Estate Market Survey distinguishes among three types of farm real estate buyers. Expansion buyers are those farm owners, whether operators or investors, who purchase farmland to add to an existing farm unit. Agricultural investors are those whose purchase does not enlarge a farm already owned, and who intend to rent out or otherwise

manage the land for agricultural purposes. Sole-tract operator buyers are those farmers who are not using their purchase to expand an existing farm.

Over the years expansion buyers have steadily increased their share of farm real estate purchases. In the mid-1950's they accounted for only 25 percent of all transfers. This percentage has risen dramatically and in 1983 farm expansion buyers figured in 78 percent of the transactions reported (Figure 3). This is the highest proportion of expansion purchases ever recorded in this survey.

Expansion buyers increased their share of purchases in four of the six districts (the Southeast, East Central, Northwest, and Northeast). In the Southwest district, where land values are the highest in the state, the proportion of farmland sales to expansion buyers is also the highest—88 percent in 1983.

The growth in the proportion of purchases by farm expansion buyers since the 1950's has come largely at the expense of sole-tract operator buyers. These buyers figured in more than half of all reported transactions as late as the early 1960's, but their share of the market has since declined precipitously. In 1983, sole-tract operators purchased 13 percent of the tracts transferred statewide, a new all-time low for this survey. Sole-tract operator buyers have been increasingly concentrated in the East Central and Northeast districts in recent years, where in 1983 they accounted for 37 and 35 percent, respectively, of the total purchases reported.

Agricultural investor buyers figured in the remaining 9 percent of sales statewide in 1983, equal to the previous year. These buyers' share of farm real estate purchases has remained relatively stable over the past three decades, although it has declined somewhat since 1980.

As a result of the heavy influence of farm expansion buying, the Minnesota rural real estate market is extremely local in nature. Statewide, the 1983 median distance of the buyers' residence from the tract purchased was four miles. Buyers tend to come farther to purchase farmland in the East Central and Northeast districts, where sole-tract operators are a more significant element in the market and where recreational and residential uses of rural land have greater influence. In these two districts 45 and 23 percent, respectively, of the buyers lived within 10 miles of the tract purchased. In the state's other four districts this proportion was much higher—78 percent or more.

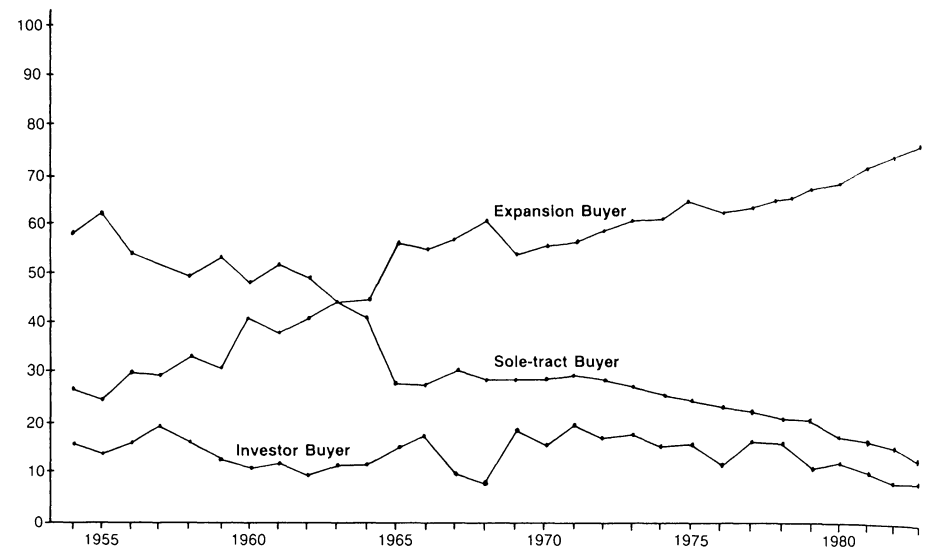


FIGURE 2. Minnesota: Percent of Farmland Sales by Type of Buyer, 1954-1983

Reason for Sale

Retirement is the single most commonly-cited reason for the sale of farm real estate in Minnesota, figuring in 29 percent of the transfers reported in 1983. "Reducing the size of the operation" was cited as the reason for 23 percent of the sales. This category may reflect a number of different motivations, including financial difficulties, health problems, and preparation for retirement. Death was the reason for sale in 14 percent of the transactions reported, while 12 percent of the sellers did so in order to leave farming for another job. Other reasons cited for farmland sales included divorce, bankruptcy, and forced liquidation.

Land and Building Quality

A comment on one questionnaire was representative of many received from survey participants: "Bare land is selling well, but it's almost impossible to sell a farm with buildings, particularly if they are numerous. Some of the livestock farms with good buildings are impossible to sell." This is another reflection of the dominance of farm expansion buyers in the Minnesota farm real estate market, who directed 61 percent of their purchases to unimproved land (land with no buildings) in 1983. Investor buyers also sought land without expensive improvements, with 71 percent of their purchases including poor buildings or none at all. In contrast, sole-tract operators included buildings of good or average quality in 67 percent of their purchases. As a result, improved land sold at a premium over unimproved land in the East Central and Northeast districts, where sole-tract operator buyers have a significant influence on the market. In other districts this relationship is less prominent or even reversed, with unimproved land selling at prices equal to or higher than those for land with buildings.

The state average price of land judged by survey respondents to be "good" quality relative to the standards of their local area was $1517 per acre in 1983, while the average price of "poor" land was $829 per acre. The data also indicate that the different types of buyers seek land of varying quality. While all buyers purchased "average" land most frequently, farm expansion buyers bought "good" quality land relatively more often, and investors were more likely than other buyers to purchase land rated as "poor." Expansion buyers included "good" land in 42 percent of their purchases, while investors did so in only 22 percent of theirs. "Poor" land amounted to 31 percent of investors' total purchases, but only 11 percent of those by farm expansion buyers.

Method of Finance

Contracts for deed remained the most popular method of financing farm real estate transfers in Minnesota in

1983, appearing in 51 percent of the sales reported. This represents a decline from the levels of previous years, and may be a reflection of the reduction in mortgage interest rates that occurred during 1983, making institutional financing a more attractive alternative for buyers. At the substate level, contracts for deed were the most commonly-used means of finance in five of the six state districts, with a high of 71 percent in the East Central district.

Mortgage financing regained some of its popularity in 1983. This method of finance was used in 26 percent of Minnesota farmland transfers, up from the all-time low of 19 percent recorded in 1982. Mortgages were most frequently used in the Northwest district (38 percent of reported sales), continuing a longstanding pattern. The share of cash purchases also increased in 1983, to 23 percent of the transfers reported statewide.

Average prices in cash sales averaged the lowest of the three finance methods in four districts (the Southeast, Southwest, West Central, and East Central), while the highest average prices were reported on contract for deed sales in the Southeast, East Central, and Northeast Districts. Mortgage-financed sale prices averaged the highest in the Southwest and West Central districts. In the Northwest, where there has traditionally been a relatively large number of cash sales in the higher-valued Red River Valley area, cash prices averaged the highest of the three methods of financing in 1983.

PART II. Market Trends by Economic Development Region

The state of Minnesota has designated 13 economic development regions, comprising four to eleven counties, to aid in the planning and delivery of government services. Analysis of reported sales by economic development region affords an alternative perspective on the Minnesota rural real estate market in 1983. These regions are delineated in Figure 3, and Table 5 presents average reported sales prices per acre by region. Annual percentage changes in average prices are reported in Table 6.

Region 9, in south central Minnesota still contains the state's highest-priced farmland, averaging $2139 per acre in 1983. This represents a 14 percent decline from the previous year, and, follows a 13 percent drop in 1982. Adjusting for inflation, real prices declined 20 percent in 1982 and 18 percent in 1983. Prices declined in the state's other predominately cash grain regions as well, with the only exception being the southwest corner of Minne-

FIGURE 3. Minnesota Economic Development Regions

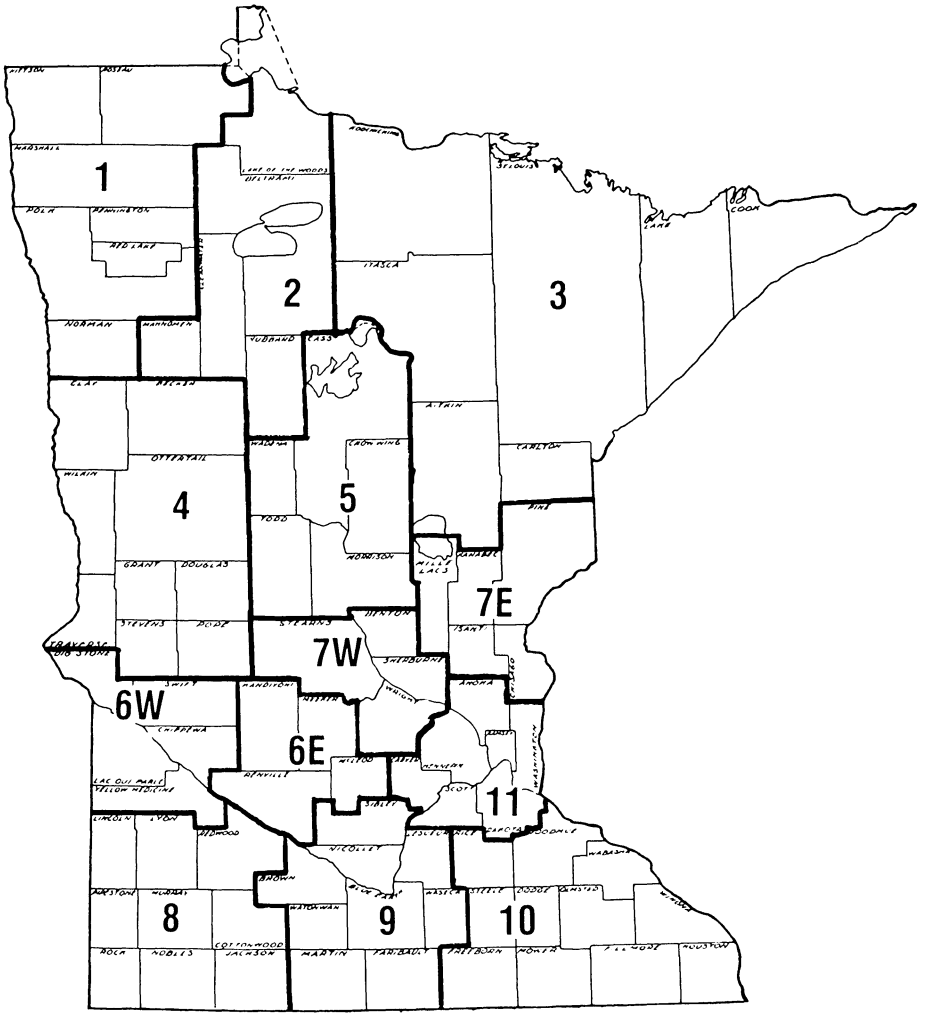


TABLE 5. Average Reported Sales Price per Acre of Farmland, by Economic Development Regions, Minnesota, 1974-83

Economic Development Region	74	75	76	77	78	79	80	81	82	83
	Dollars per Acre									
1	199	344	330	367	433	560	732	888	806	671
2	141	206	250	277	321	520	452	645	459	515
3	148	157	162	179	280	310	271	386	325	141
4	317	446	542	558	853	828	868	973	987	874
5	197	259	235	297	478	483	506	695	556	605
6W	341	537	696	746	906	960	1051	1303	1259	1090
6E	569	691	923	1027	1171	1528	1735	1949	1876	1589
7W	430	472	596	778	927	1112	1056	1300	1240	1187
7E	254	316	455	473	575	768	741	790	873	780
8	534	710	906	1058	1199	1574	1674	1646	1701	1743
9	829	1115	1464	1835	1682	2111	2320	2865	2484	2139
10	565	753	915	1197	1373	1645	1864	1941	1713	1395
11	882	1035	1150	1437	1396	1799	1778	1830	1711	1878
Minnesota	450	607	735	859	980	1140	1318	1367	1360	1291

TABLE 6. Annual Percentage Changes in Sales Price per Acre, by Economic Development Regions, Minnesota, and the CPI and GNP Implicit Price Deflator, 1974-83

Economic Development Region	% Change in Sales Price								
	74-75	75-76	76-77	77-78	78-79	79-80	80-81	81-82	82-83
1	73	− 4	11	18	29	31	21	− 9	−17
2	46	21	11	16	62	−13	43	−29	12
3	6	3	10	56	11	−13	42	−16	−56
4	41	22	3	53	− 3	5	12	1	−11
5	31	− 9	26	61	1	5	37	−20	9
6W	57	30	7	21	6	9	24	− 3	−13
6E	21	34	11	14	30	14	12	− 4	−15
7W	10	26	31	19	20	− 5	23	− 5	− 4
7E	24	44	4	22	34	− 4	7	11	−11
8	33	28	17	13	31	6	− 2	3	2
9	35	31	25	− 8	26	10	24	−13	−14
10	33	22	31	15	20	13	4	−12	−19
11	17	11	25	− 3	29	− 1	3	− 7	10
Minnesota	35	21	17	14	16	16	4	− 1	− 5
CPI	10.4	6.2	6.4	6.8	10.3	14.3	10.5	7.2	3.5
GNP Implicit Price Deflator	10.9	5.6	5.5	6.7	8.8	9.1	8.6	6.4	4.1

sota in region 8, where average farmland prices increased 2 percent to $1743 per acre. Otherwise, average prices in the southern and western districts (1, 4, 6E, and 6W) declined between 11 and 17 percent in 1983.

In regions 2 and 5 in north central Minnesota, areas of relatively low land values influenced by livestock agriculture and recreational demand, average prices increased 12 and 9 percent, respectively. These two regions in 1982 had experienced the most severe decline in prices paid in the state, and the 1983 data may thus represent a correction in the market. Region 3, in extreme northeast Minnesota, suffered a precipitous decline in average reported prices in 1983. This region is subject to great variability in average prices, due in part to the small number of sales reported each year.

In the southeastern quarter of Minnesota, where dairying is an important land use and urban-oriented demands are also influential due to the close proximity of the bulk of the state's population, sales data appear to reflect the divergent developments in the agricultural and nonfarm economies. In the areas further from the Twin Cities, regions 7E, 7W, and 10, average prices dropped from 4 to 19 percent in 1983. The steepest decline came in region 10, a traditional dairy area that had been the second-highest priced region in the state as recently as 1980. The 1983 average reported price of $1395 per acre in region 10 places it fifth among the state's thirteen regions. Taking inflation into account, real prices in region 10 fell 20 percent in 1982 and 23 percent in 1983.

Region 11, consisting of the seven county Twin Cities metropolitan region, apparently reflected the resurgence of residential demand for farmland in 1983 with a 10 percent increase in average reported prices. Until 1975, region 11 had been the state's highest-priced district. The surge in farm real estate prices of the 1970's, which had its most dramatic impact in areas producing grain crops for export, pushed the Twin Cities region out of its top position. The decline in prices reported paid in cash grain areas in recent years, coupled with the relatively stronger performance of the farm real estate market in the metropolitan area, suggests that region 11 may be about to regain its position as the state's highest-priced region.

PART III. A Comparison of Farm Real Estate Prices in Metro and Non-Metro Minnesota

In order to compare the performance of the farm real estate market in the Twin Cities metropolitan area with that of the remainder of Minnesota, average reported sales prices were computed for the seven county metropolitan area (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington counties) and the remaining 80 counties of Minnesota from 1969 to 1983. The results of this analysis are presented in Table 7.

The rural real estate market has followed varying patterns in the two areas over the past 15 years. From 1969 to 1973, average farmland prices in the two areas increased at a similar pace, rising a total 27 percent in the metropolitan area and 31 percent in the remainder of the state. After 1973, however, the patterns diverge markedly.

Between 1973 and 1981, when farm real estate values appreciated more rapidly than at any other time in the state's modern history, average

TABLE 7. Average Reported Price per Acre, Greater Twin Cities Metro Area and Minnesota (Less the Metro Area) and annual percentage changes in price

Year	Seven County Metro Area		Minnesota (Less Metro Area)	
1969	551		225	
1970	591	7%	236	5%
1971	465	−21%	254	8%
1972	601	29%	288	8%
1973	698	16%	295	2%
1974	896	28%	446	51%
1975	1023	14%	601	35%
1976	1164	14%	726	21%
1977	1442	24%	845	16%
1978	1423	− 1%	971	15%
1979	1799	26%	1129	16%
1980	1778	− 1%	1310	16%
1981	1830	3%	1360	4%
1982	1711	− 7%	1352	− 1%
1983	1878	10%	1282	− 5%

prices increased much more rapidly in non-metro Minnesota. From an average price of $295 per acre in 1973, prices in the 80 non-metropolitan counties increased 361 percent to $1360 per acre in 1981. Prices rose much more slowly in the metropolitan area over the same period—a total of 162 percent. Since 1981, average prices have increased somewhat in the metro area while declining in the rest of the state.

These results suggest that the Twin Cities area has been a stabilizing influence in the Minnesota farm real estate market during the past decade. When land prices were rising rapidly during the 1970's, the slower rate of increase in metro area prices dampened the rate of increase for the state as a whole. In the 1980's, with farm real estate prices declining, the effect of the Twin Cities area appears to be to lessen the effects of price reductions in non-metro Minnesota.

These results also shed light on the effects of urban influences on the stability of the rural real estate market. Since 1973, prices appear to have fluctuated more in those areas less subject to urban influences than in the counties adjacent to the Twin Cities. This in turn suggests that instability in farm real estate values is largely due to fluctuations in agricultural prices and income rather than to any nonfarm influences.

PART IV. Characteristics of Minnesota Land Contracts, 1981-82

There is little data currently available regarding the financial characteristics of land contracts transferring farm real estate. With these gaps in the farm finance data base in mind, a sample of Minnesota contracts for deed transferring farm real estate in 1981 and 1982 was examined in order to investigate the terms of credit offered under land contracts.

Contracts for deed from two agricultural regions were sampled. The South Central sample area is a predominantly corn and soybean producing area that included Sibley, Nicollet, Brown, Watonwan, Blue Earth, and Martin counties. The Northwest sample area consists of Polk and Red Lake Counties, and has been further divided into Valley and Non-Valley areas to reflect distinct differences in the land market there.

Data were collected by visits to county courthouses during January and February, 1983. Names of the parties or the specific locations of the tracts involved were not recorded. Transfers between close relatives or where the property was purchased in order to convert it to a non-agricultural use were excluded in order to develop a data set representative of arms-length farm sales in the areas sampled. Usable data were obtained on 143 land contracts, transferring a total of 21,827 acres, an average of 152.6 acres per contract.

The analysis of the data included the application to each individual contract of discounting procedures to estimate the present value transferred under the contract. The discount rate used was the effective Federal Land Bank rate on new Minnesota farm mortgages, including stock purchase requirements and district and local association loan fees. The Federal Land Bank rate was chosen because it represents the cost of borrowing from the main institutional lender in the farm real estate market and is thus a reasonable measure of the alternative interest rate available to buyers. During the time period studied average annual effective interest rates on new Federal Land Bank loans ranged from 11.58 percent in January 1981 to as high as 15.13 percent in March and April 1982.

Table 8 summarizes the results of this analysis, along with other contract characteristics, by sample area and year. Perhaps the most noteworthy result is the relatively large discounts from the stated contract prices that are suggested by the estimates of present value, particularly in the South Central and Non-Valley sample areas. In these two areas the calculated present values of the contracts averaged about 14 to 15½ percent below the nominal prices in 1981, and this percentage rose to approximately 17½ percent in 1982. In the Valley sample area, on the other hand, discounts from face value averaged much lower, and in 1981 the average present value of the contracts there actually exceeded the nominal value. This was the result of a number of contracts carrying interest rates higher than the discount rate used. It must be noted, however, that the averages for the Valley sample area are based on a very small sample of contracts.

Inspection of the finance terms in the three areas helps to explain much of the variation in the degree of discounting from face value. Down payments in the Valley areas averaged among the highest, the interest rates charged there were significantly higher than in either of the other two areas, and the average contract length was the shortest of the three areas during both years. Overall credit terms were thus much stiffer in the Valley than in the Non-Valley and South Central areas in both 1981 and 1982. The prices paid for farm real estate purchased on land contracts there

TABLE 8: Summary Statistics on Minnesota Land Contracts by Sample Area, 1981 and 1982. (treating each acre as a unit)

Sample Area	South Central		Valley		Non-Valley	
Year	1981	1982	1981	1982	1981	1982
No. of Sales Sampled	56	33	9	10	20	15
Average Size of Tract Sold (Acres)	93.5	97.5	208.3	147.3	403.6	121.9
Average Contract Price (Dollars Per Acre)*	2518.50	2252.04	900.39	985.41	740.76	582.56
Average Present Value of Contract (Dollars Per Acre)	2157.72	1859.36	901.95	915.59	620.17	471.77
Average Annual Contract Interest Rate (Percent)	9.39	9.45	12.84	12.27	9.36	10.08
Average Down Payment (Percent of Total Price)	20.51	22.46	22.50	22.56	12.93	15.70
Average Contract Length (Years)	11.91	11.04	10.01	9.96	13.5	12.47
Average Discount From Stated Contract Price (Percent)	−13.95	−17.40	+.09	−7.80	−15.50	−17.78

*All averages calculated on the basis of one acre equals one unit.

were judged to be more nearly comparable to those that would have been paid if alternative financing arrangements had been used. In the Non-Valley area, on the other hand, where discounts from face value averaged the greatest in both years, contracts tended to feature significantly lower down payments, relatively low interest rates, and longer repayment periods.

Contrary to some expectations, sellers appear not to have softened their credit terms in 1982 compared with the year before, despite a declining market for farm real estate. Instead, interest rates rose in two of the three areas and down payments increased somewhat in all of them, along with the shortening of the repayment periods. Thus any softening of land contract credit terms in 1982 was in relative rather than absolute terms, and the increasing discounts from face value were largely a function of an increasing discount rate rather than any easing of contract credit arrangements.

These results hold important implications for the evaluation of Minnesota farm real estate values. If the discount rates used in the analysis were appropriate and the sample areas chosen for study are representative of the rest of the state as well, then nominal prices for property purchased on land contracts in 1981-82 can be estimated to have been 15 percent or more higher than those paid for comparable property using cash or institutional financing. Research aimed at estimating more precisely the price effects of land contract financing is currently under way and will be reported in future issues of the *Minnesota Agricultural Economist*.

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