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The Trend in Sale Prices of Farm Real Estate in Minnesota

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The trend in sale prices of farm real estate is of interest to owners, prospective purchasers, lending agencies, and others who are dependent in whole or in part upon the prosperity of farmers. Owners are interested because their equities in their farms are measured by what the farms would bring if offered for sale. Prospective purchasers are interested because an analysis of past trends may give some indication of probable future trends. Lending agencies and individuals with surplus funds are seeking investments which will yield returns rather than intending to acquire title to the land as security. Those who depend upon farmers for the sale of their goods and services are also interested, because the trend in sale prices of farm real estate reflects, in part, the ability of farmers to make such purchases.

Wide variations from highly productive agricultural land to that which is essentially non-agricultural are to be found in Minnesota. According to estimates of the National Resources Board, Minnesota ranks third among the 48 states in the extent of grade 1 or excellent land, being exceeded only by Iowa and Illinois. These three states possess slightly more than one half of all of the grade 1 land in the United States. With respect to the amount of grade 2, or good land, Minnesota ranks sixth, being surpassed in order by Texas, Kansas, Wisconsin, Missouri, and Oklahoma. Minnesota ranks second only to Iowa in the amount of both grade 1 and grade 2 land. The wide fluctuation in productivity is naturally reflected in the sale prices of farm land in different parts of the state. Not only is there a marked difference in the quality of the soil in the different districts, but there are considerable variations within each district and even within an individual county.

Table 1. Physical Classification of Productivity of Land in Minnesota, Including Land in Farms and Land Not in Farms*

Grade of Land	Acres
Grade 1, excellent land	12,022,243
Grade 2, good land	12,138,815
Grade 3, fair land	7,511,325
Grade 4, poor land	6,898,992
Grade 5, land not suitable for agriculture	13,144,839

* National Resources Board, Part II. Report of the Land Planning Committee. 1934, p. 127.

With a view to supplying information regarding sale prices of farm real estate in Minnesota, the Division of Agricultural Economics of the Minnesota Agricultural Experiment Station has been assembling

current data on actual transactions by two-year periods since 1910. Results of these studies have been published from time to time.[1] It is the purpose of this bulletin to bring this material up to date by presenting revised figures for the two-year period 1934-1935, and by supplying additional data covering the trend in sale price of farm real estate through 1936-37.

SOURCE AND CHARACTER OF THE DATA

From 1910-11 to 1928-29 the data on sale prices of farm real estate were based on county records of actual transactions as obtained by the Minnesota Tax Commission. Due to the fact that the consideration has been omitted in many transactions as reported to the county officers during recent years, it was necessary to supplement such data for the two-year period 1930-31 with sales made by various lending agencies. For the periods 1932-33 through 1936-37, all figures were based on reports of sales by corporate agencies direct to the Division of Agricultural Economics. These agencies include insurance companies, trust companies, land banks, and the State of Minnesota Department of Rural Credit.

The reporting agencies sold 1,208 farms in Minnesota during 1936, and 1,707 during 1937, or a total of 2,915 farms during the two-year period. These farms were scattered throughout the state, with sales reported in all of the 87 counties. Total sales by districts for the two-year period were as follows: southeastern, 323; southwestern, 633; east central, 592; west central, 303; northeastern, 335; and northwestern, 729. From the standpoint of number and distribution of the transactions, the sample appears to be adequate. The question arises, however, as to whether the sample was representative of all farm-land sales made during this two-year period, including both corporate and private transactions.

Two factors in addition to number and distribution of transactions are involved in arriving at a decision as to the adequacy of the sample. In the first place, were these agencies obtaining the full market price for the individual tracts, or were they dumping land on a demoralized market? Secondly, were the farms included in the sample representative or average farms in their respective communities?

From the available evidence, it does not appear that the corporate owners were dumping land on an inactive market regardless of price. Although data are not available as to the net returns obtained from the properties sold, net returns from cash-rented farms in Minnesota varied from 4.27 to 4.52 per cent from 1934 through 1937.[2] This is in marked contrast to the situation that prevailed from 1921 through 1930, when net returns on the investment varied from 2.82 to 3.69 per cent. It

[1] See Minnesota Agricultural Experiment Station Bulletin 307, also Minnesota Farm Business Notes, March 1936.

[2] See Figure 4, page 18.

does not seem logical to asume that corporate owners would sacrifice farm land investments that were returning higher dividends than most alternative investments. Furthermore, it would not be in the best long-run interest of the corporate owners to depress prices by dumping, when the number of acquisitions through foreclosure or through acceptance of deeds to satisfy delinquent mortgages was equal to or greater than the number of farms sold. Although data are not available with respect to acquisition by insurance and trust companies in Minnesota, the other reporting agencies acquired title to more land than was sold during 1936 and 1937. In Iowa it was found that corporations, including insurance and trust companies, held title to 11 per cent of the farm land in that state in 1937, and that land acquired during that year was about equal to the amount sold.[3] It may be assumed that the same situation prevailed with respect to acquisitions by insurance and trust companies in Minnesota. Consequently, it seems logical to conclude that sales were made only when the prices offered were considered to be in line with the current sale value of the land.

In supplying data on farm land sales for 1936 and 1937, most of the reporting corporations indicated the township and range of each individual tract. It was, therefore, possible to determine, within township limits, the distribution of the sales within the individual counties. An attempt was made to relate the township distributions to type of road, nearness to market, and type of soil, by examining county soil maps of counties in which soils surveys had been completed. Due to the variation in soil types and other physical characteristics in many of the townships, it was not possible, in the absence of complete legal descriptions, to reach more than a general conclusion as to the representativeness of the sample with respect to these factors. There was, however, no evidence that the farms sold were not representative either as to location or type of soil.

METHOD OF ANALYSIS

In arriving at county average sale prices, the individual transactions reported by the various agencies were tabulated separately by counties for 1936 and for 1937. The total acres sold and the total consideration for each year were then combined to obtain the county total for the two-year period. From these data, the county average sale price per acre was obtained.

In arriving at district and state sale prices, four counties were omitted. The number of sales in Cook and Lake counties in the northeastern district was considered to be inadequate, and it was felt that in Hennepin and Ramsey counties in the southeastern district the proximity of the two largest cities in the state might give a distorted picture of current sale prices of farm real estate. The estimate for the total sale

[3] Iowa Farm Economist, January, 1938. You Have to Look Ahead. W. G. Murray and L. K. Soth. p. 4.

value of all land in farms in each of the remaining counties was based upon the average sale price per acre as obtained from actual sales in the county. The district per acre sale prices were then calculated from the total value of all farm land and the total land in farms in each district.

Likewise, the average sale price of farm real estate for the state was obtained from the total calculated sale value of all farm land in the various districts divided by the total acreage of farm land in the state. Index numbers of sale prices of farm real estate for the districts and for the state were obtained by dividing the two-year sale price figures by the corresponding prices in the base period 1912-13.

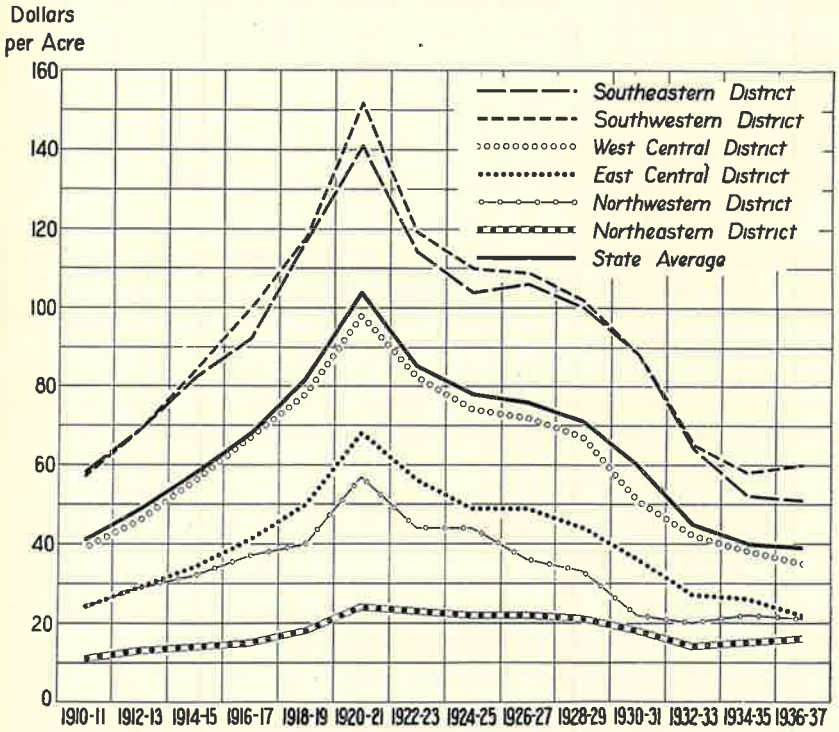

FIG. 1. SALE PRICES OF FARM REAL ESTATE PER ACRE IN MINNESOTA AND BY DISTRICTS BY TWO-YEAR PERIODS, 1910-11 TO 1936-37

TREND IN FARM REAL ESTATE SALE PRICES IN MINNESOTA

The average value of Minnesota farm real estate increased from $12 per acre in 1870 to $14 in 1880, to $18 in 1890, and to $26 in 1900.[4] As shown in Figure 1 and Table 3, the average sale price of farm real estate was $41 per acre in 1910-11 and thereafter advanced to a peak of $104 per acre during 1920-21. This period of rapidly rising farm real

[4] Thirteenth Census of the United States, 1910, Vol. VI, Agricultural Report by States. Bureau of the Census, p. 809.

Table 2. Index of Sale Prices per Acre of Farm Real Estate in Minnesota by Districts, 1910-11 to 1936-37 (1912-13 = 100)

District	1910-11	1912-13	1914-15	1916-17	1918-19	1920-21	1922-23
Southeastern	84	100	119	133	170	204	165
Southwestern	83	100	122	145	171	220	172
West Central	85	100	122	146	170	213	178
East Central	83	100	117	141	172	234	193
Northwestern	83	100	110	128	138	197	152
Northeastern	85	100	108	115	138	185	177
Minnesota	84	100	118	139	167	212	173

District	1924-25	1926-27	1928-29	1930-31	1932-33	1934-35	1936-37
Southeastern	151	154	145	128	93	76	74
Southwestern	159	158	148	128	94	84	88
West Central	161	157	146	111	91	82	75
East Central	169	169	152	124	93	89	78
Northwestern	152	124	114	76	69	76	73
Northeastern	169	169	162	138	108	112	118
Minnesota	159	155	145	122	92	80	79

estate prices was followed by a decline that continued through 1937. The greatest declines occurred in 1922-23 following the sharp break in prices of farm products that took place during the latter part of 1920 and in 1921, and again in 1932-33 following the severe decline in prices of agricultural products in 1930-31. By 1934-35 the average sale price of farm real estate had declined to $39.65 per acre, and a further slight decline to $39.03 per acre occurred during the following two-year period. The average sale price of farm real estate for the state has, therefore, declined to the lowest level in more than a quarter of a century.

In a state with such wide variations in soil and climate as is the case in Minnesota, average sale prices for the state are, of course, of comparatively little value either to prospective purchasers of farm land or to lending agencies. For this reason, the data have been tabulated by districts. Since there are considerable variations in the value of different tracts of farm real estate within each district, due to differences in productivity, location, extent and condition of the improvements, and other factors, the district figures serve chiefly to indicate the trends that have taken place. The value of a particular tract of land can be ascertained only upon inspection.

In the southeastern district, the sale prices of farm real estate advanced from $58 per acre in 1910-11 to $141 in 1920-21 and then declined to $51 per acre in 1936-37. In the southwestern district, sale prices increased from $57 per acre in 1910-11 to $152 in 1920-21, followed by a decline to $58 in 1934-35. During 1936-37 prices in this district increased to $60 per acre. In the west central district, sale prices advanced from $39 per acre in 1910-11 to $98 in 1920-21, and then declined to $35 per acre during 1936-37. Much the same pattern will be noted in the east central district, where sale prices increased from

$24 per acre in 1910-11 to $68 in 1920-21 and subsequently declined to $22 per acre during 1936-37. In the northwestern district, sale prices advanced from $24 per acre in 1910-11 to $57 per acre in 1920-21, followed by a decline to $20 per acre in 1932-33. The average sale price of farm land in this district advanced to $22 per acre in 1934-35, but declined slightly to $21 in 1936-37. Sale prices in the northeastern district increased from $11 per acre in 1910-11 to $24 in 1920-21 and then declined to $14 per acre in 1932-33, following which the trend has been steadily upward to $16 per acre during 1936-37.

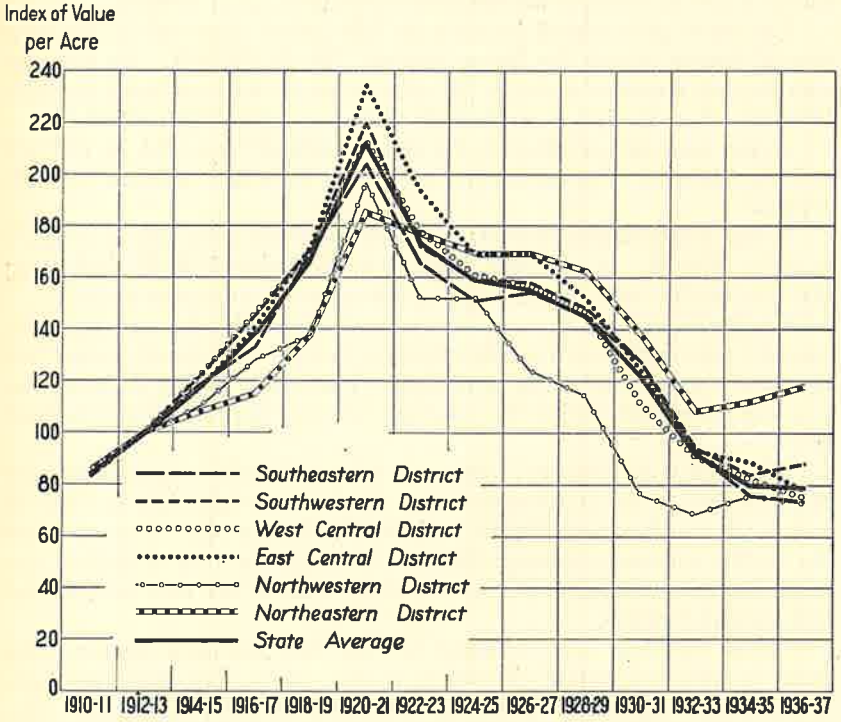

FIG 2. INDEX NUMBERS OF SALE PRICES OF FARM REAL ESTATE PER ACRE IN MINNESOTA AND BY DISTRICTS BY TWO-YEAR PERIODS, 1910-11 TO 1936-37 (1912-13 = 100 PER CENT)

It is thus evident that the rate of the increase and the rate and duration of the subsequent decline varied considerably from district to district. This is shown more clearly in Figure 2 and Table 2, where the sale prices per acre by two-year periods have been converted to index numbers based upon the 1912-13 sale prices in the respective districts.

The sale prices of farm real estate in the northeastern district advanced less rapidly and to a smaller extent from 1910-11 to 1920-21 than in any other district. The subsequent decline was also less severe, and the increase since the low point in the decline in 1932-33 has been more

pronounced. This is the only district in which the decline failed to carry farm real estate sale prices below the base period 1912-13. The index of sale prices in this district was 118 during 1936-37, compared with 100 during 1912-13.

The rate and extent of the increase in sale prices from 1910-11 to 1920-21 were only slightly greater in the northwestern district than in the northeastern district. The subsequent decline, however, was the greatest of any of the six districts. By 1932-33 the index of sale prices in this district had declined to 69. Following 1932-33 the index advanced to 76 in 1934-35, but declined 3 points to 73 in 1936-37.

The most pronounced increase in sale prices occurred in the east central district where the index reached 234 in 1920-21. In contrast with the two northern districts, the subsequent decline continued through 1936-37, when the index reached 78 compared with 100 in 1912-13.

In the west central district, the index declined from 213 in 1920-21 to 75 in 1936-37. The decline in this district likewise continued through 1936-37.

In the southwestern district, the index declined from 220 in 1920-21 to 84 in 1934-35. It advanced 4 points to 88 during 1936-37, indicating that the decline was checked during the previous two-year period.

The increase in sale prices in the southeastern district was less pronounced than in the southwestern district, but the subsequent decline has been more severe and more prolonged. The index during 1936-37 was 2 points lower than during the previous two-year period, having declined to 74.

The decline in farm real estate sale prices, therefore, appears to have been checked in the northeastern and northwestern districts in 1932-33 and in the southwestern district in 1934-35. In the other three districts the decline continued through 1936-37, although the rate of decline was much less pronounced in the southeastern than in the west central and east central districts.

When the data are combined for the two northern districts, the trend in farm real estate sale prices in this region has, therefore, been upward since 1932-33. Likewise, the trend in the two southern districts, when combined, has been upward since 1934-35. In the two central districts, on the other hand, the downward trend continued through 1936-37. These were the districts that suffered most severely from the prolonged drouth, and it was due largely to the decline in farm real estate sale prices in central Minnesota that the downward trend for the state as a whole continued through 1936-37.

The trends in sale prices in the individual counties are shown in Table 3. Too much weight should not be given to county comparisons because the number of transactions included for some was limited. Where a county appears to be out of line, the explanation may be that the number of sales reported was too small to give an adequate sample. For this reason, greater emphasis has been given to district rather than county figures.

Table 3. Average Sale Price of Farm Real Estate in Minnesota Counties by Two-Year Periods, 1910 to 1937

Name of county	1910-11	1912-13	1914-15	1916-17	1918-19	1920-21	1922-23	1924-25	1926-27	1928-29	1930-31	1932-33	1934-35	1936-37
District I, Southeastern Minnesota														
Carver	$ 95	$ 94	$116	$123	$158	$187	$116	$155	$168	$153	$135	$ 90	.....	$ 58
Dakota	57	67	70	89	107	135	121	99	78	90	76	74	$ 60	50
Dodge	54	71	87	102	109	140	126	98	101	87	71	47	51	56
Fillmore	.....	71	86	94	127	158	113	98	114	90	74	58	41	33
Freeborn	55	67	89	102	114	155	121	110	117	110	102	62	66	63
Goodhue	54	65	79	86	103	145	110	90	99	101	90	58	51	56
Hennepin	.....	99	125	149	136	169	199	167	.....	—	104	61	63	72
Houston	44	43	49	60	86	90	70	72	74	60	45	48	62	50
LeSueur	74	88	.....	110	142	182	137	139	136	143	107	92	57	52
McLeod	62	54	95	118	133	160	126	124	140	119	120	92	65	73
Meeker	51	58	72	75	88	130	91	93	93	88	71	55	48	47
Mower	61	75	94	110	121	149	126	117	113	102	76	65	54	47
Olmsted	62	69	81	93	121	144	109	111	86	78	76	54	50	54
Ramsey	.....	81	98	97	134	204	165	.....	.....	—	.....	.....	.....	49
Rice	63	83	96	99	125	155	132	108	119	114	97	82	69	63
Scott	66	72	87	101	133	146	154	104	111	104	117	63	52	55
Steele	57	74	90	105	117	150	126	105	114	102	89	63	56	53
Wabasha	55	64	70	75	91	108	95	95	81	79	67	56	34	42
Waseca	57	70	91	92	117	153	124	98	116	106	87	69	53	68
Washington	49	60	69	83	91	108	102	102	76	79	69	55	47	39
Winona	51	64	62	64	92	92	91	82	103	111	76	50	30	32
Wright	58	74	80	90	117	146	115	110	113	109	90	73	55	46
Average	58	69	82	92	117	141	114	104	106	100	88	64	52	51
District II, Southwestern Minnesota														
Blue Earth	62	78	99	104	127	165	137	117	120	110	100	76	63	65
Brown	53	65	81	97	117	148	114	110	119	112	93	77	57	63
Cottonwood	55	64	78	94	111	146	110	114	109	88	84	56	59	58
Faribault	75	82	95	118	128	174	133	121	102	103	108	69	64	70
Jackson	62	71	94	107	124	162	120	115	123	108	89	73	62	71
Lincoln	47	54	65	79	101	127	94	97	88	83	66	54	48	44
Lyon	49	62	77	88	112	144	115	102	98	97	77	60	49	52
Martin	61	74	96	117	136	185	151	126	127	124	112	70	74	77
Murray	51	63	76	89	117	146	122	106	112	108	74	62	51	54
Nicollet	53	68	76	92	106	142	112	98	111	95	84	66	60	50

Table 3—Continued. Average Sale Price of Farm Real Estate in Minnesota Counties by Two-Year Periods, 1910 to 1917

Name of county	1910-11	1912-13	1914-15	1916-17	1918-19	1920-21	1922-23	1924-25	1926-27	1928-29	1930-31	1932-33	1934-35	1936-37
District II, Southwestern Minnesota (continued)														
Nobles	64	82	101	122	140	179	128	130	125	117	98	77	72	71
Pipestone	54	64	80	106	115	153	105	110	95	94	73	64	55	55
Redwood	55	65	67	89	106	141	110	95	97	94	81	65	55	56
Renville	51	65	78	90	105	130	113	103	99	90	78	56	49	53
Rock	72	93	103	123	153	189	140	133	137	110	92	68	69	60
Sibley	56	68	83	95	117	142	106	106	112	105	105	69	53	77
Watonwan	54	68	90	106	112	150	132	113	109	101	96	66	60	67
Yellow Medicine	49	58	76	88	103	132	105	100	92	98	81	54	44	44
Average	57	69	84	100	118	152	119	110	109	102	88	65	58	60
District III, West Central Minnesota														
Big Stone	43	46	53	66	82	105	79	88	65	68	38	35	35	43
Chippewa	46	51	67	81	103	129	106	88	93	87	72	52	47	45
Douglas	37	44	58	62	69	98	72	75	73	60	53	43	36	29
Grant	34	43	49	61	64	84	68	59	60	57	42	35	32	29
Kandiyohi	41	50	64	73	75	115	74	81	85	78	62	52	40	38
Lac qui Parle	48	60	67	82	101	131	95	103	98	86	77	61	47	47
Pope	31	40	46	51	63	89	86	66	63	56	44	25	33	27
Stearns	37	43	53	62	78	97	97	70	75	69	59	43	35	36
Stevens	36	48	57	72	75	102	88	65	69	58	43	39	41	35
Swift	37	44	55	67	76	99	73	69	70	58	47	38	37	35
Traverse	43	47	54	72	84	93	84	66	57	61	43	28	38	25
Wilkin	34	39	45	55	62	79	51	57	39	53	32	33	33	23
Average	39	46	56	67	78	98	82	74	72	67	51	42	38	35
District IV, East Central Minnesota														
Anoka	34	38	45	52	59	61	70	64	59	61	45	30	25	24
Becker	22	26	32	39	42	50	39	26	24	26	23	24	24	17
Benton	30	38	46	55	66	107	68	67	65	58	48	33	38	29
Chisago	38	49	53	62	81	99	71	74	66	75	51	44	45	39
Crow Wing	8	16	19	26	25	20	35	32	35	24	23	19	16	17
Hubbard	14	17	21	22	24	31	25	26	27	22	25	20	17	11
Isanti	27	31	40	49	64	97	62	66	88	58	45	39	33	30
Kanabec	23	22	32	32	45	70	56	40	47	52	34	28	24	22
Mille Lacs	22	28	33	36	64	96	58	54	50	57	48	28	26	24

Table 3—Continued. Average Sale Price of Farm Real Estate in Minnesota Counties by Two-Year Periods, 1910 to 1917

Name of county	1910-11	1912-13	1914-15	1916-17	1918-19	1920-21	1922-23	1924-25	1926-27	1928-29	1930-31	1932-33	1934-35	1936-37
District IV, East Central Minnesota (continued)														
Morrison	23	24	29	41	44	58	55	55	51	37	37	27	20	21
Ottertail	26	32	35	43	55	75	57	50	49	40	33	24	28	23
Pine	16	14	23	27	38	51	44	36	40	48	27	23	19	19
Sherburne	30	36	41	52	58	75	76	57	55	43	36	25	20	20
Todd	27	33	40	46	50	76	62	64	55	51	41	32	26	23
Wadena	19	22	29	31	33	51	33	33	28	30	29	22	21	18
Average	24	29	34	41	50	68	56	49	49	44	36	27	26	22
District V, Northwestern Minnesota														
Clay	32	44	42	47	55	77	68	61	52	51	31	23	33	29
Kittson	25	27	26	32	41	51	35	29	33	26	19	18	17	20
Mahnomen	15	22	27	32	36	51	40	34	30	20	15	21	24	22
Marshall	18	23	25	33	41	50	38	32	30	28	18	16	16	17
Norman	27	35	40	44	47	73	48	61	42	44	31	25	26	20
Pennington	18	22	27	29	29	41	30	48	28	22	19	18	19	25
Polk	27	33	37	42	48	60	51	48	42	37	33	25	25	24
Red Lake	23	26	31	34	.....	48	41	49	29	24	19	17	22	21
Roseau	14	17	17	20	22	34	21	23	20	14	14	12	13	15
Average	24	29	32	37	40	57	44	44	36	33	22	20	22	21
District VI, Northeastern Minnesota														
Aitkin	12	14	17	18	24	29	24	25	22	27	21	15	17	16
Beltrami	11	11	13	13	14	17	22	18	21	18	13	10	12	13
Carlton	14	16	17	15	28	37	36	27	36	29	17	20	18	22
Cass	12	14	15	19	19	28	22	22	24	21	19	14	14	12
Clearwater	10	15	17	18	21	34	29	31	26	23	22	15	19	19
Cook	13	10	8	7	7	10	.....	.....	.....	.....	.....	.....	.....	.....
Itasca	9	11	12	12	14	19	20	17	18	15	17	14	12	19
Koochiching	11	10	10	12	12	14	13	15	16	10	12	8	12	13
Lake	8	11	9	12	14	16	.....	.....	.....	.....	.....	.....	.....	15
Lake of the Woods	.....	.....	.....	.....	.....	.....	10	13	12	19	.....	8	11	11
St. Louis	12	.....	14	15	16	19	.....	.....	.....	.....	.....	15	15	15
Average	11	13	14	15	18	24	23	22	22	21	18	14	15	16
Minnesota	41	49	58	68	82	104	85	78	76	71	60	45	40	39

The period covered by this study of farm real estate sale prices in Minnesota was marked by a decade of sharply rising prices, followed by a decline that has continued for the last 17 years. These wide fluctuations were the most violent in the history of the state. Whereas a former generation experienced constantly rising prices and confidently expected the increase to continue, the present generation has witnessed a decline that has resulted in wholesale foreclosure and general distress. What factors were responsible for these wide variations in the sale prices of farm real estate? Is it possible to avoid a recurrence in the future?

The following pages discuss some of the more important factors affecting farm land values. This should not only throw light on the causes of past trends, but serve as a basis of judgment as to probable future trends. The first section presents a brief analysis of factors that appear to be unfavorable to an increase in land values. This is followed by a discussion of factors that appear to be favorable to an increase in land values. In the closing section, attention is directed to the possibility of stabilizing land values in the future.

Factors Unfavorable to an Increase in Farm Land Values

With the commercial type of agriculture so dominant in Minnesota, farm income and the resulting land values are necessarily directly affected by both foreign and national demand for agricultural products.

Foreign demand.—The decline in foreign demand for farm products is one of the most important of the unfavorable factors affecting land values. As shown in earlier studies, approximately 60 million acres, or one acre out of every six in crops, were required to produce our net direct and indirect exports during the 11-year period, 1920-30.[5] During this period the trend was slightly upward in the case of cotton and tobacco, but sharply downward with respect to grain crops and pork, and slightly downward in the case of lard. Although the trend in exports of all agricultural products combined was downward, the output of about 47 million acres, or one acre out of each seven or eight in crops, was exported as late as 1930. Following 1930, there was a sharp drop in the value of agricultural exports, but the total volume was fairly well maintained until about 1934. Thereafter the total volume declined greatly. During the fiscal year 1936-37 agricultural exports were the smallest in over 60 years.[6] This decline was due in part to the prolonged drouth which greatly reduced the domestic output of such export products as wheat, pork, and lard, and in part to the world-wide depression and to restrictions placed on imports by many countries. While the volume of exports has increased greatly since the

[5] A. A. Dowell and O. B. Jesness, The American Farmer and the Export Market. The University of Minnesota Press. 1934.

[6] The Outlook for Agricultural Exports. L. A. Wheeler. In charge Foreign Agricultural Service Division, Bureau of Agricultural Economics. Address delivered at the Meeting of the Farm Economics Association, Atlantic City, N. J., Dec. 28-30, 1937.

low point of the depression, it has failed to return to former levels. Unless foreign demand can be revived to a point where the surplus above domestic requirements can be disposed of, it seems obvious that less land will be required. If less agricultural land is required, land values will be affected accordingly.

Decline in horses and mules.—The decline in number of horses and mules in the United States from a peak of 26,436,000 on January 1, 1919, to 15,640,000 on January 1, 1938, has released about 38,000,000 acres of crop land for other uses. In the absence of a corresponding increase in demand, this has had a depressing effect on land values. If this trend away from horse power to mechanical power continues, additional land will be released. This appears to be one of the unfavorable factors with respect to future land values.

Decline in rate of population increase.—Prior to 1870 the population of the United States doubled every 25 years. This was due to a high birth rate and to the influx of immigrants. As a result of a steady decline in the birth rate and recent immigration restrictions, the rate of increase has been declining for several decades. The increase averaged slightly less than 1,700,000 per year during the decade 1920-30, and declined still further to less than one million a year from 1930 to 1936. If the present rate of decrease continues, it is likely that the peak in population will be reached within the next two or three decades. As it requires slightly over two acres of crop land per person to meet food and non-food requirements, it may at first appear that around two million additional crop acres per year will be required for the next few years to feed and clothe the increase in population. However, due to the shift in consumption habits of the people away from products that require relatively large acreages, such as cereals and certain types of meat, to products that require less land, such as vegetables and fruits, and due further to the changing of the age distribution of the population, it is doubtful whether land requirements for food and fiber in the future, even with a slightly larger population, will be much greater than at present.

For these reasons, the earlier fear of a shortage of land has been replaced with the problem of the surplus. The decline in the rate of population growth and change in the age composition and consumption habits of the people are, therefore, unfavorable factors from the standpoint of rising land values.

Taxes on farm real estate.—Since farm real estate taxes must be met out of the gross earnings from the land, this expense is reflected in current land values. With a given gross income, the net earnings are naturally higher when taxes are low and lower when taxes are at a higher level. It is the current and prospective net incomes rather than gross incomes that are capitalized into current sale values.

The trend in taxes per acre and the index numbers of farm real estate taxes per acre for Minnesota and for the United States are shown

in Table 4. The index of farm real estate taxes in Minnesota more than doubled between 1913 and 1919 and almost trebled from 1913 to 1930. Taxes increased for a decade after land values had reached a peak in 1920. Following 1930, farm real estate taxes in Minnesota declined from an index of 291 to 195 in 1934, and advanced to 212 in 1936. Taxes at the end of 1936 were more than double the prewar level.

For the United States as a whole, the index of farm real estate taxes reached a peak of 241 in 1929 and declined to 153 per cent of prewar by 1934. By 1936, the index had advanced to 156. It will be noted that taxes advanced more rapidly and higher and the subsequent decline was less in Minnesota than in the United States. In both instances, the trend has been upward since 1934. The effect of advancing tax rates on land values can be shown by a simple illustration.

The average per acre tax on farm real estate in Minnesota was 30 cents per acre in 1913 and 64 cents per acre in 1936. If the net income per acre was $4 in 1913 after paying taxes and upkeep and other operating expenses, the value of this net income capitalized at 5 per cent would be $4.00 ÷ .05 or $80 per acre. Assuming the same gross income in 1936 and the same expenses except for an increase of 34 cents in

Table 4. Trend in Taxes on Farm Real Estate in Minnesota and in the United States*

Year	Minnesota		United States	
	Taxes per acre	Index number of taxes per acre	Taxes per acre	Index number of taxes per acre
		(1913 = 100)		(1913 = 100)
1913	$0.30	100	$0.24	100
1914	.34	114	.24	101
1915	.35	117	.26	110
1916	.39	129	.28	116
1917	.46	152	.31	129
1918	.48	158	.33	137
1919	.64	212	.41	172
1920	.76	254	.51	209
1921	.79	264	.54	223
1922	.77	255	.54	224
1923	.84	281	.55	228
1924	.75	250	.55	228
1925	.78	261	.56	232
1926	80	268	.56	232
1927	.81	270	.57	238
1928	.85	281	.58	239
1929	.86	287	.58	241
1930	.87	291	.57	238
1931	.83	278	.52	217
1932	.67	223	.45	188
1933	.67	224	.39	161
1934	.59	195	.37	153
1935	.61	202	.37	155
1936	.64	212	.38	156

* Data for 1913 to 1936 from Bureau of Agricultural Economics Mimeograph reports, Feb. 5, 1937, and Feb. 18, 1938.

Table 5. Index Numbers of General Trend of Prices, and Wages and Ratio of Prices Received to Prices Paid by Farmers in the United States, 1920 to 1937 (1910-14 = 100)*

Year	Wholesale prices of all commodities	Industrial wages	Farm wages	Prices paid by farmers for commodities used in—			Farm prices	Ratio of prices received to prices paid by farmers
				Living	Production	Living and production		
1920	225	222	239	222	174	201	211	105
1921	142	203	150	161	141	152	125	82
1922	141	197	146	156	139	149	132	89
1923	147	214	166	160	141	152	142	93
1924	143	218	166	159	143	152	143	94
1925	151	223	168	164	147	157	156	99
1926	146	229	171	162	146	155	145	94
1927	139	231	170	159	145	153	139	91
1928	141	232	169	160	148	155	149	96
1929	139	236	170	158	147	153	146	95
1930	126	226	152	148	140	145	126	87
1931	107	207	116	126	122	124	87	70
1932	95	178	86	108	107	107	65	61
1933	96	171	80	109	108	109	70	64
1934	109	182	90	122	125	123	90	73
1935	117	191	98	124	126	125	108	86
1936	118	199	107	122	126	124	114	92
1937	126	215	120	128	135	130	121	93

* The Agricultural Situation. Bureau of Agricultural Economics. March 1, 1938. p. 24.

taxes per acre (64—30), the net income would be reduced from $4.00 to $3.66 per acre. Capitalized at 5 per cent, this net income would warrant a value of $73.20 per acre for the land. If the upward trend in taxes on farm real estate which occurred in 1935 and 1936 continues, farm land values will be depressed.

Disparity between prices received and prices paid by farmers.—The disparity that has existed from 1921 to date between prices received for farm products and prices paid by farmers for commodities used in living and production is another factor that has tended to depress sale prices of farm real estate. This disparity is shown in the last column in Table 5. The ratio of prices received to prices paid declined sharply from 105 in 1920 to 82 in 1921, following which it fluctuated between 89 and 99 through 1929. The subsequent decline reached a low point of 61 in 1932. The disparity which was acute from 1931 through 1934 was reflected in a demoralized land market, with sale prices of farm land declining below the pre-war level, as discussed earlier in this bulletin.

This condition cannot be explained entirely by the decline in prices of farm products. It is true that the low prices that prevailed from 1931 through the early months of 1934 made it impossible for heavily encumbered farm owners to meet the fixed carrying charges and were therefore chiefly responsible for the wholesale foreclosures that took place during that period. However, it was the relationship between prices received and prices paid that prevented tenants and other prospective purchasers from accumulating savings toward the purchase of farms.

Prices of commodities required by farmers did not fall in proportion to the decline in prices of farm products. To the extent that this disparity continues, net income will be reduced through relatively higher operating and upkeep costs, and farm land values will be depressed.

Number of foreclosed farms awaiting buyers.—The large number of farms that have been acquired involuntarily by individuals and lending agencies and are now awaiting buyers also appears to be an unfavorable factor from the standpoint of an early increase in the sale price of farm real estate. Even though the acquired properties may not be pressed onto the market regardless of price, the fact remains that, in many cases, they are in the hands of unwilling owners, who are anxious to dispose of them. In some cases these properties are being offered at some sacrifice on the original investment, while in other cases they are being offered for sale at a price that will cover the original investment plus the delinquent interest and other costs incurred in the process of acquisition. The sale price of farm real estate will naturally be influenced by the liquidation of this distress real estate.

Factors Favorable to an Increase in Farm Land Values

In contrast to the unfavorable factors, a number of other factors appear to be favorable to an increase in farm real estate values in Minnesota. Among these are the prevailing low interest rates on farm mortgages, the current rate of return on farm land, the upward trend in volume of agricultural exports since the low point of the recent depression, and the reduction in taxes on owner-occupied farms.

Low interest rates on farm mortgages.—As previously stated, the real value of farm land at any given time depends upon the net income that can be obtained from the land together with the rate of capitalization. In other words, the net return per acre capitalized at the mortgage rate of interest gives the value of the land per acre, if value is based upon current earnings.[7] For example, if the net earnings, commonly measured in the form of net rent, amount to $3 per acre and the interest rate is 6 per cent, the land will be worth $50 per acre ($3.00 ÷ .06). If the interest rate is reduced one-half while other things remain unchanged, the value of the land will be doubled. It will be worth $100 per acre ($3.00 ÷ .03) instead of $50 per acre. Hence it is evident that the rate of interest has a direct effect on land values.

Three or four decades ago the rate of interest on farm mortgages in Minnesota was around 6 or 6½ per cent. In the decade before the federal land banks were established, it averaged around 5½ per cent. These rates were not uniform throughout the state but varied according to the assumed variations in risks in the different areas. During the World War and early post-war period rates again advanced, but more recently the trend has been sharply downward. Federal land bank

[7] For a more complete discussion, see U. S. Dept. of Agr. Bul. 1224. "The Relation of Land Income to Land Value," by Clyde R. Chambers, 1924.

loans are now being made at a contract rate of 4 per cent,[8] while some of the insurance companies are placing loans in some parts of the state at 4½ per cent.

This decline in the rate of interest, accompanied by an even greater decline in returns from savings accounts and from other alternative investments with which farmers are familiar, is the most important single factor among those that appear favorable to an increase in land values. Not only are rates low at the present time, but the vast reservoir of available investment funds in the country gives evidence of a continuation of low rates at least in the more immediate future. Low interest rates will increase the demand for farm land when farmers accumulate sufficient funds for investment.

Rate of return on investment in farm land.—The return on the investment in farm real estate has varied greatly during the last third of a century. This is shown in Figure 3, which gives the average value per acre of cash-rented farms in Iowa together with the ratio of the net rents to the value of the land for the period 1900 to 1936. It will be noted that the return on the investment during the boom year 1920 was only 2.4 per cent. As this represented only about one half of the mortgage rate of interest at that time, it is evident that one half or more of the then current sale value of farm land was based upon speculative value rather than upon the current earning power of the land. When this increase in return failed to materialize, it was inevitable that a drastic decline should occur. This decline was accentuated by the decline in the price of farm products. However, much of the time since 1931, the rate of return has been about equal to or above the mortgage rate of interest.

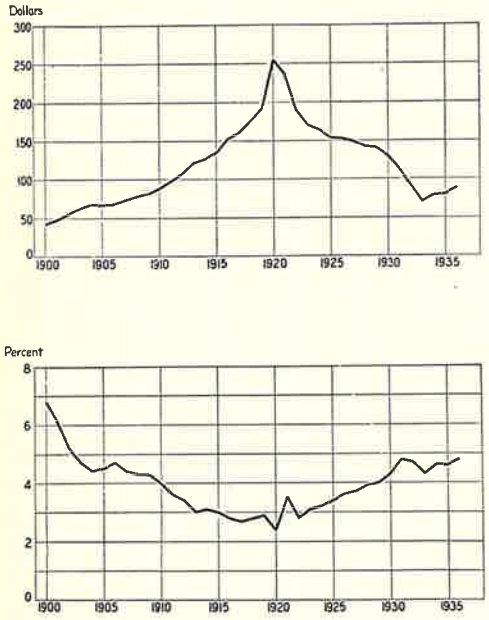

FIG. 3. Top, APPROXIMATE VALUE PER ACRE OF CASH-RENTED FARMS IN IOWA, 1900 TO 1936; Bottom, APPROXIMATE NET RETURN ON INVESTMENT IN FARM LAND RENTED FOR CASH IN IOWA, 1900 TO 1936. (U. S. DEPT. AGRI. CIR. 417, OCTOBER 1936, P. 20)

[8] A temporary reduction of the federal land bank rate has been in effect since July 1, 1933. From July 1, 1933 to July 1, 1935 the reduced rate was 4½ per cent, and since July 1, 1935 the reduced rate has been 3½ per cent. Under existing law, the contract rate will apply after July 1, 1940.

Although similar data are not available for Minnesota for the period 1900 to 1920, it can be assumed that the rate of return on the investment in farm land in the southern part of the state followed much the same pattern as in Iowa. Data for Minnesota for the period 1921 to 1937 are shown in Figure 4. A striking similarity will be noted in the return on investment in cash-rented farms in both states during this period, if the graphs in Figure 4 are compared with the corresponding part of the graphs in Figure 3.

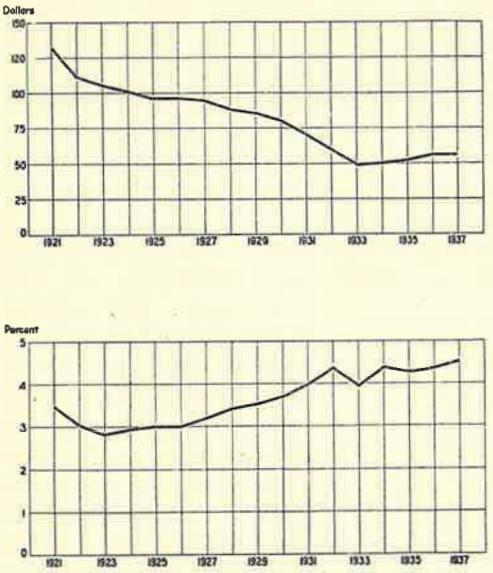

FIG. 4. Top, APPROXIMATE VALUE PER ACRE OF CASH-RENTED FARMS IN MINNESOTA, 1921 TO 1937; Bottom, APPROXIMATE NET RETURNS ON INVESTMENT IN FARM LAND RENTED FOR CASH IN MINNESOTA, 1921 TO 1937. (DATA FROM BUREAU OF AGRICULTURAL ECONOMICS)

The trend in gross cash income of farmers in Minnesota from 1910 to 1937 is shown in Table 6. Gross cash income increased from $166,000,000 in 1910 to a maximum of $451,000,000 in 1918 and remained at about the same level through 1919. The break in prices of farm products that occurred during the latter part of 1920 carried through the following year, so that the gross cash income declined to $229,000,000 in 1921. The subsequent rise in prices resulted in a fairly high annual income from 1924 through 1929. However, incomes were not sufficient to maintain the wartime value of farm land, which, as previously explained, was based in considerable part on speculative value. As increasing numbers of owners and prospective farm owners reached the conclusion that incomes were not likely to return to the level that prevailed during the war period, and that increases above that level were even more improbable, the sale prices of farm real estate gradually declined as shown in Figure 1.

The fall in prices that occurred from the latter part of 1929 through the next three years resulted in a gross cash income of only $155,000,000 in 1932. Although this gross cash income was about equal to that which prevailed from 1910 to 1912, the net income was far below the earlier period due to higher taxes and higher upkeep and operating costs. The result was a further decline in land values. Due to the fact

Table 6. Gross Cash Income of Farmers of Minnesota, 1910 to 1937*

Year	Millions of dollars	Year	Millions of dollars
1910	166	1924	342
1911	144	1925	395
1912	163	1926	398
1913	182	1927	366
1914	184	1928	367
1915	201	1929	384
1916	228	1930	326
1917	308	1931	235
1918	451	1932	155
1919	438	1933	177‡
1920	379	1934	218‡
1921	229	1935	241‡
1922	256	1936	303‡
1923	287	1937†	305‡

* Data for 1910 to 1927 from Minn. Agr. Exp. Sta. Tech. Bul. 72, p. 24. Data for 1928 to 1937 from Division of Agricultural Economics, University of Minnesota. Data based upon 16 principal commodities which account for about 95 per cent of total cash farm income.

† Preliminary.

‡ Exclusive of benefit payments.

that changes in land values lag behind changes in farm income, the decline continued after the gross cash income began to recover in 1933. With a gross cash income, exclusive of agricultural adjustment payments of $303,000,000 in 1936, and a further slight increase in 1937, it appears that the sale value of productive farm land in Minnesota declined more than was warranted by earnings during that time. There is, therefore, some justification for the belief that sale prices of farm real estate may advance, provided prices of farm products and taxes and other expenses of production remain at levels somewhat comparable to those prevailing during recent years.

Trade recovery.—The failure of foreign demand to return to former levels was presented in an earlier section as one of the unfavorable factors with respect to farm real estate values. It was, however, indicated that the total volume of agricultural exports had increased considerably since the low point of the recent depression. This upward trend deserves some consideration in a discussion of factors that appear to be favorable to an increase in land values.

It is too early to conclude that the upward trend in agricultural exports will continue and that the output of about 50,000,000 acres of crop land will ultimately find an outlet abroad. Such an eventuality will depend upon many factors which lie outside the scope of this bulletin. Time only will answer the question as to whether the nations of the world are prepared to reduce the numerous restrictions that have greatly reduced world trade. However, the recent upward trend is one of the most hopeful factors in so far as the demand for farm land is concerned. The extent of trade recovery for agricultural products will have a direct bearing on future land values in Minnesota.

Homestead tax reduction.—In 1933 the Minnesota State Legis-

lature passed an act reducing the valuation for tax payments on homesteads, with a view to encouraging resident ownership of farms and homes. Prior to the passage of this act, farm real estate was assessed for taxation purposes at 33⅓ per cent of the full and true value. The act reduced the assessment on owner-occupied farms from 33⅓ per cent to 20 per cent on the first $4,000 of full and true value, with the full 33⅓ per cent rate applying to all valuation above $4,000. Additional relief was provided by a more recent act of the state legislature whereby the first $4,000 of full and true value of homesteads was exempt from the state levy on all current operating expenses of the state. Homesteads were not relieved of the state levy covering indebtedness of the state incurred prior to the passage of the act. At the present time the state levy on farm real estate amounts to 10 mills, of which 2.59 mills is for current state expense and 7.41 mills for previously incurred expenses. The current state levy on owner-occupied farms is therefore 2.59 mills less on the first $4,000 of full and true value than on tenant-operated farms.

The homestead tax legislation tends to affect the distribution among properties rather than to affect the size of the load as a whole. It tends to reduce the burden on owner-occupied farms and, unless other sources of revenue are made available, to increase the burden on tenant-operated farms and on industrial property. Its effects will vary with the proportion of property occupied by owners within a given taxing district. The reduction will be relatively greater on small farms and on farms with a low total value than on larger farms and on farms that represent a larger total investment.

The benefit of the tax reduction will accrue to the owner-operator until capitalized into higher land values. When the law first went into effect, the full benefit accrued to the owners who were operating their own farms at that time except where rates had to be raised on all property. Whether the benefit will accrue to subsequent purchasers depends upon when capitalization takes place. To the extent that owner-operators or owners of tenant farms are able to pass the increased capitalization on to subsequent purchasers, it is clear that the latter will not benefit from the tax reduction.

Although it is not possible to make a broad generalization as to the effect of the tax reduction on land values, it is clear that anything that increases the net returns from the land, whether it be the result of higher prices for farm products, reduced costs of upkeep and operation, or a reduction in taxes, tends to increase the value of farm real estate. To the extent that the homestead tax reduction is capitalized into the value of the property, it will tend to increase the value of farm land.

Can Land Values be Stabilized?

Since violent fluctuations in the sale prices of farm real estate cause widespread disaster, attention should be directed to the possibility of preventing a recurrence in the future. It is during the period of rising

prices for farm real estate that the seeds of ultimate reaction are planted. Owners view with satisfaction the steady increase in their equities, which flow from the rise in the sale value of land. In fact, much of the apparent wealth that was accumulated by farm owners during the first two decades of this century was based upon this foundation rather than upon the actual income from the land itself. Lending agencies, likewise, are pleased with the apparent soundness of their investments. As the period of rising sale prices is prolonged, owners begin to value the land not on the basis of current earnings but upon the expectation that these earnings will increase in the future. The higher prices for farm land also check the usual flow of tenants into the land-ownership class, for the current earnings are not sufficient to meet carrying charges on the mortgages. The result, therefore, is not only a top-heavy debt structure but an increase in farm tenancy.

A prolonged period of rising farm real estate prices thus leaves farm owners who are heavily in debt in a very weak position. The mere fact that incomes fail to continue to advance means that a sharp shrinkage in land values must take place. The decline is accentuated in the event there is a decline in the price of farm products, which in turn would cause current incomes to decline. Thus, the current market value of the land is attacked from two directions, first because the anticipated increase in income fails to materialize, and second because the current income actually declines.

It thus appears that the attack on this problem should be directed toward preventing an undue rise in farm real estate prices from occurring. In short, if prices of farm land could be kept in line with actual current and future incomes, much of the difficulty could be avoided. But can land values be stabilized?

Stabilizing farm incomes.—A discussion of the possibility of stabilizing land values drives us back to the factors that are responsible for the determination of land values. As already explained, one of the most important of these factors is the net income that can be obtained from the land. This depends in part upon the prices received for farm products. These prices are closely associated with the general price level. Although there is considerable lag in the movement of prices of individual products, they are influenced by the same underlying forces. Since control of the general price level appears to be basic to the control of farm incomes, the stabilization of the latter must await a time when the business cycle itself can be brought under control.

Adjustments in the mortgage rate of interest.—It was also shown that the mortgage rate of interest directly affects the sale value of farm land. Consequently, the question arises as to whether land values might not be stabilized through adjustments in the mortgage rate of interest. This would, of course, be a radical departure in farm mortgage procedure in this country. To be effective such adjustments would need to apply not only to new loans but to existing loans as well. This

would mean breaking away from the market rate with a view to preventing fluctuations in land values. Does this appear to be practical under conditions that prevail in the United States?

At the present time the Farm Credit Administration is the chief lending agency in the farm mortgage field. The object in establishing the federal land bank system was to supply farm mortgage credit at the lowest possible rate including cost of operation. The contract rate on federal land bank loans has been reduced greatly during recent years. For example, the rate was reduced from 5½ to 5 per cent in July, 1933, to 4½ per cent on April 1, 1935, to 4¼ per cent on April 10, 1935, and to the present rate of 4 per cent on June 24, 1935. However, for some time, pressure has been placed upon Congress to reduce the rate below the market. As a result of this pressure, a temporary reduction in rates has been granted since July 1, 1933, and the deficit met by the federal treasury. For example, rates on both old and new loans were reduced to 4½ per cent from July 1, 1933 to July 1, 1935, and to 3½ per cent from July 1, 1935 to date. Under existing law the 3½ per cent rate will expire June 30, 1940. Thereafter the contract rate will apply unless further action is taken by Congress.

Reduced rates have also been granted on Commissioner loans. The Commissioner loans, which were provided for in the Farm Credit Act of 1933, have carried a contract rate of 5 per cent. An emergency rate of 4 per cent went into effect July 22, 1937, and under existing law will continue on both old and new loans to June 30, 1940.

It has been suggested that the reduced rates have served as a form of agricultural relief during the depression. However, they have been a subsidy to federal land bank borrowers only, and they were not based upon actual need. They applied to farmers with modest loans as well as those with excessive loans and to favored and distressed areas alike. The reduced rates no doubt were necessary in certain distressed areas, but such a subsidy carries with it the seeds of inflation, which if continued will place the burden of paying current benefits on the shoulders of subsequent purchasers in the form of higher land values. The higher land values which may be expected to follow will tend to make it more difficult to operate the federal program designed to reduce tenancy.

In view of the fact that public pressure has resulted in reducing the mortgage rate of interest below the market rate, it does not appear likely that a policy aimed at maintaining a rate above that prevailing in the market, with a view to preventing an increase in land values, would be supported by public opinion at this time. Such a policy could only be carried out through the creation of a type of control not now existing and for which the Farm Credit Administration is not adapted.

The attitude of buyers and lenders.—Attention should also be called to the fact that buyers and lenders could do much toward stabilizing land values in the future. As previously stated, the net incomes that can be obtained from the land determine what the purchaser can afford to pay for it. Likewise, these net incomes indicate

the amount of the loan that can be placed on the property as security. Since payments are to be made out of a stream of future incomes, it follows that buyers and lenders should take a long-run view of the situation. This involves a careful appraisal not only of the yields that may be expected from the land over a period of years, but of the many other factors that influence net incomes and hence influence land values. Are current sale prices of farm real estate justified by current earnings? Is it probable that current earnings will be maintained in the future? Buyers and lenders should give more consideration to these questions than they have in the past.

Raising farm living standards.—One of the most fruitful approaches to the problem of stabilizing land values appears to lie in the direction of encouraging farmers to use surplus funds to improve living standards rather than to bid up the price of land to add to their present holdings. The old adage that farmers "raise more corn to feed more hogs to buy more land to raise more corn, etc." was a reflection of the land hunger that possessed many farmers during the past. Assuming that satisfactory incomes can be obtained from the land in the future, it is to be hoped that when a farm of sufficient size to permit efficient production has been acquired, surplus funds will be used in improving farm living conditions. This would do much toward the stabilization of farm land values in the future.

SUMMARY

The sale prices of farm real estate in Minnesota increased from an average of $41 per acre during the two-year period 1910-11 to $104 per acre during 1920-21. This period of rapidly rising farm real estate prices was followed by a decline that continued through 1936-37. The greatest declines occurred in 1922-23 following the sharp break in prices of farm products that took place during the latter part of 1920 and 1921, and again in 1932-33 following the severe decline in prices of agricultural products in 1930-31. By 1934-35 the average sale price of farm real estate had declined to $40 per acre, and a further slight decline to $39 per acre occurred during the following two-year period. The average sale price of farm real estate for the state during 1936-37 was the lowest in more than a quarter of a century.

The trend in sale prices of farm real estate was likewise upward in each of the six agricultural districts of the state from 1910-11 to 1920-21. Following 1920-21, the decline was also pronounced in each district. However, the rate of the increase and the rate and duration of the subsequent decline varied greatly from district to district. The decline was checked in the northeastern and northwestern districts in 1932-33 and in the southwestern district in 1934-35. In the other three districts the decline continued through 1936-37, although the rate of decline was much less pronounced in the southeastern district than in the west central and the east central districts.

When the data are combined for the two northern districts, the trend in farm real estate sale prices has been upward since 1932-33, and in the two southern districts, when combined, the trend has been upward since 1934-35. It was largely due to the decline in the two central districts, which had suffered severely from the prolonged drouth, that the downward trend for the state continued through 1936-37.

These wide fluctuations in the sale prices of farm real estate have resulted in a large number of foreclosures and general distress. Prospective purchasers of farms as well as lending agencies are therefore keenly interested in the future prices of farm land.

At the present time a number of factors appear to be unfavorable to an improvement in farm real estate prices, while others appear to justify greater optimism. Factors that appear to be unfavorable to an increase in farm real estate prices include (1) the decrease in foreign demand for farm products as compared with the decade 1920-29, (2) the decline in number of horses and mules which has released about 38 million acres of crop land for other uses, (3) the decline in the rate of population growth and the change in the age composition and consumption habits of the people, (4) taxes on farm real estate which were more than twice as high per acre in Minnesota in 1936 as in 1913, (5) the continued disparity between prices received and prices paid by farmers, which adds to the difficulty of accumulating sufficient funds with which to make a down payment on a farm, and (6) the large number of farm properties that have been acquired and are available for sale by individuals and lending agencies.

Factors that appear to be favorable to an increase in farm real estate prices include (1) the current and prospective low interest rates on farm mortgages, (2) the rate of return on the investment in farm land in some areas during the last few years, (3) the increase in foreign demand for farm products that has taken place since the low point of the recent depression, (4) the tax reduction on owner-occupied farms.

If the sale prices of farm real estate could be stabilized in the future, much of the difficulty that has resulted from the sharp fluctuations that have occurred since 1910 would be avoided. One possibility of stabilizing farm real estate sale prices lies in the direction of stabilizing farm incomes. However, the latter depend, in part, upon the prices obtained for farm products, and these prices in turn are influenced by the general price level. Consequently, the stabilization of farm incomes must await the time when the general price level can be brought under control. Another possible approach would be to adjust the rate of interest on farm mortgages with a view to preventing a rise or fall in the sale prices of farm real estate. This would depend upon a type of control which we do not now have. Buyers and lenders could do much toward stabilizing sale prices by taking a longer view of probable yields and by giving more attention to the many other factors that influence land values through their influence on net returns.