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FARM MORTGAGE FORECLOSURES IN MINNESOTA

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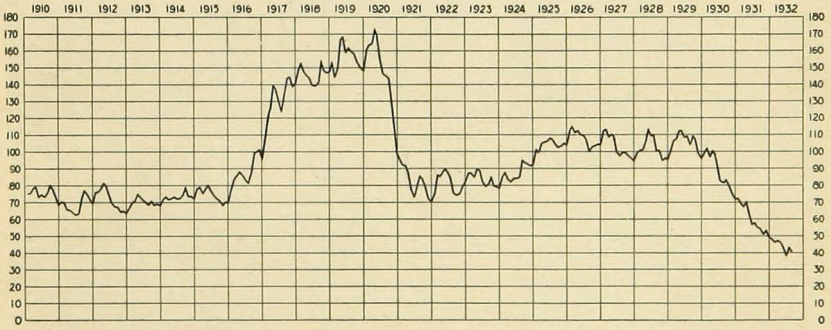

PRICE INDEXES OF MINNESOTA FARM PRODUCTS BY MONTHS 1910 TO 1932
(AVERAGE OF CORRESPONDING MONTHS OF 1924-25-26 = 100)

UNIVERSITY FARM, ST. PAUL

FARM MORTGAGE FORECLOSURES IN MINNESOTA

E. C. JOHNSON

In 1920 and 1921 prices of farm products declined sharply from the high levels that existed during and following the world war. The years 1924-29 saw some recovery in farm prices but on the whole prices were considerably below those of the war period and since 1929 drastic declines have again occurred, bringing farm prices to very low levels. The fall in prices has resulted in a great reduction in income on farms but farm debts have remained comparatively high, interest payments have not decreased, and taxes have increased. This combination of circumstances made it difficult for farmers to meet financial obligations, with the result that many farm mortgages have been foreclosed and many farmers have lost their farms. The discussion which follows presents some facts relative to farm mortgage foreclosures in Minnesota, particularly with reference to reasons for such foreclosures.[1]

FARM MORTGAGE INDEBTEDNESS IN MINNESOTA

The United States Census reports the amount of farm mortgage indebtedness on farms operated by owners but does not report personal indebtedness or the mortgage debts on farms operated by tenants. The figures regarding owner-operated farms are useful in showing the changes that have taken place in mortgage indebtedness. In 1910, 46 per cent of the farms in Minnesota operated by owners were mortgaged and the total debt was $77,866,283 according to the census. In the next decade the farm mortgage debt trebled, 52.4 per cent of the farms were reported as mortgaged and the total debt was $254,475,222. The census of 1925 reported 48.6 per cent of farms operated by owners in Minnesota as mortgaged and the total indebtedness as $267,026,995, a slight increase since 1920. According to the 1930 census, the farm mortgage debt declined $31,912,872 between 1925 and 1930 on farms operated by owners. In 1930, 53.8 per cent of owner-operated farms were reported as mortgaged and the total debt was $235,114,123. It is a significant fact that the great increase in indebtedness in Minnesota came during a period of rising prices and prosperity in agriculture. Farmers paying debts under the lower price level that now exists must

[1] Credit is due Mark Regan, of the Division of Agricultural Economics, for his assistance in obtaining and classifying data from the Federal Land Bank, of St. Paul, and to F. H. Klawon, President of the Federal Land Bank, for information and valuable suggestions. Dr. O. B. Jesness, chief of the Division of Agricultural Economics, contributed many valuable suggestions.

pay back dollars of much greater purchasing power than they received, resulting in hardships for the debtor class.

It is emphasized that the census figures apply only to farms operated by owners, and do not include farms operated by tenants, so actually the total farm mortgage debt in Minnesota is much greater than the figures given. The Bureau of Agricultural Economics of the United States Department of Agriculture estimated that the total farm mortgage debt in Minnesota was $530,025,000 on January 1, 1930, which is equal to 24.5 per cent of the value of all farm land and buildings in the state as reported in the 1930 census. In addition to the debt secured by mortgages on farm real estate, a large indebtedness is secured by personal and collateral security the total amount of which is difficult to estimate. Replies to credit questionnaires received from 502 Minnesota farmers in 1931 indicate that the latter debts amount to $1,463 per farm for all farms operated by owners. Debts of tenants averaged $1,288 per farm. These farmers are not representative of the state as a whole because no reports were from northeastern Minnesota, but on the basis of these reports it seems that the total farm indebtedness other than the real estate mortgages in 1931 was near $200,000,000.

The ratio of the farm mortgage debt to the value of land and buildings per farm in Minnesota did not change greatly between 1910 and 1920. It is true that the debt per farm more than doubled, increasing from $1,864 to $4,419, but farm values increased in almost equal degree. Since 1920, however, the debt has increased and farm values have declined with the result that in 1930 the debt was 44.6 per cent of the value of the farm compared to 27.5 per cent in 1930. These figures are given in Table 1.

Table 1

Ratio of Mortgage Debt to Value of Land and Buildings per Mortgaged Farm in Minnesota (U.S. Census)

Year	Average debt	Average value of land and buildings	Average owner's equity	Ratio of debt to value
				per cent
1910	$1,864	$ 7,062	$ 5,198	26.4
1920	4,419	16,080	11,661	27.5
1925	5,117	11,736	6,619	43.6
1930	4,734	10,610	5,876	44.6

NUMBER OF FORECLOSURES

In many counties foreclosures have been very common in recent years and a large proportion of the farms has passed into hands of creditors. In others the number is relatively small. To illustrate the extent of foreclosures, the number of foreclosure sales of farm real estate since

1920 for four counties is given in Table 2. Polk County is located in northwestern, Stearns in central, Lincoln in southwestern, and Mower in southeastern Minnesota. These data were obtained from county records. While they give the total number of sheriff's sales, they are not complete figures of the number of failures among farmers in these counties. Some farmers, especially in the last two or three years, have deeded their farms to creditors without going through foreclosure and these do not appear in Table 2.

Table 2

Number of Tracts and Acres of Land Sold at Sheriff's Sale in Four Minnesota Counties

Year	Polk County		Stearns County		Lincoln County		Mower County	
	No.	Acres	No.	Acres	No.	Acres	No.	Acres
1920	20	3,996	1	240	2	350	2	1,045
1921	39	8,564	11	2,200	7	1,394	20	5,551
1922	88	19,758	34	5,948	34	6,248	47	8,606
1923	102	21,477	38	5,467	24	5,610	52	7,885
1924	162	36,369	37	5,867	32	6,425	47	6,587
1925	129	25,193	23	2,824	17	2,679	52	8,060
1926	131	28,163	22	3,182	13	2,740	31	5,030
1927	122	23,879	30	5,654	27	4,767	41	7,171
1928	135	28,892	34	4,781	23	3,807	28	4,969
1929	142	30,511	35	5,204	37	7,416	48	8,926
1930	96	19,325	40	5,950	43	8,025	68	12,060
1931	134	30,742	56	8,919	81	14,075	55	9,052
Total sales ...	1,300	276,869	361	56,236	340	63,536	491	84,942
Total number of farms*	4,205		4,656		1,578		2,506	
Total acres in farms*	1,039,614		791,358		329,890		426,408	

* U. S. Census, 1930.

REASONS FOR FORECLOSURES

The important reason for the large number of foreclosures of farm mortgage loans was the inflation of prices and land values during and following the war, which resulted in increased farm indebtedness and an interest burden too heavy for many farmers to bear under the lower level of prices. But this is only a general statement and a more careful analysis of the problem is desirable.

To determine more fully the factors responsible for farm mortgage foreclosures in recent years an analysis was made of 526 Minnesota farms, about 90 per cent of the farms to which the Federal Land Bank of St. Paul had taken title as a result of foreclosures before November, 1930. Most of the loans were made in the years 1917 to 1922 and practically all were foreclosed between 1924 and 1930. Fig-

ure 1 shows the location of these farms and the districting of the state for this study.

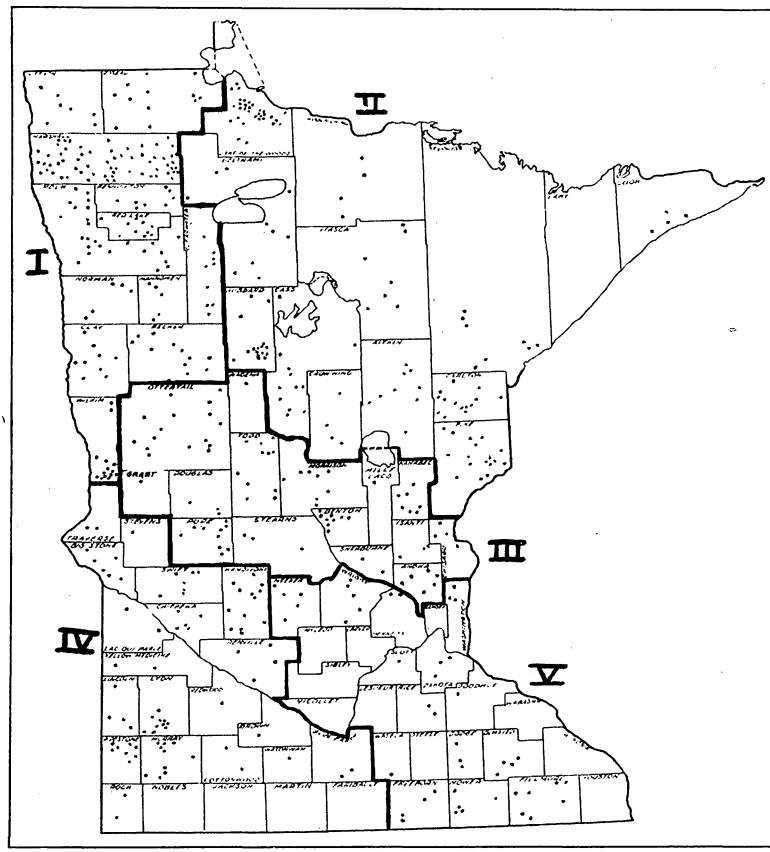

Fig. 1. Agricultural Districts in Minnesota and Location of Foreclosed Farms Used in This Study

From its organization in 1917 to December 31, 1930, the Federal Land Bank of St. Paul made 12,548 loans on farms in Minnesota totaling $58,704,200, of which, on the latter date, 8,456 were outstanding, with a net principal of $36,130,904. In Table 3 the total loans made are classified by districts and the amount of the original loan is given. The foreclosed loans used in this study also are classified by districts and shown as a percentage of all loans. It is apparent from these figures that the largest proportion of foreclosures has been in the northern part of the state, particularly in northwestern Minnesota. Since this study was made, however, foreclosures have been numerous in southern Minnesota.

Table 3

Relationship of Foreclosed Loans to Loans Made in Agricultural Regions of Minnesota

District	Loans made to April 30, 1930		Loans foreclosed		Percentage foreclosed loans studied are of loans in force	
	Number	Original amount of loan	Number	Original amount of loan	Number	Amount
I Northwestern ..	1,832	$ 6,801,500	179	$ 899,100	9.8	13.2
II Northeastern ...	3,185	5,347,300	133	284,900	4.2	5.3
III Central	2,831	11,617,300	87	472,800	3.1	4.1
IV Southwestern ...	2,989	23,694,400	83	714,000	2.8	3.1
V Southeastern ...	1,566	10,548,100	44	435,300	2.8	4.1
	12,403	$58,008,600	526	$2,806,100	4.2	4.8

For 433 of the foreclosed farms, financial statements were available both at the time the loan was made and when it was foreclosed. A comparison of these statements shows what happened to assets and liabilities of these farms during the years intervening. Between the time the loan was made and its foreclosure, the average assets of the 433 farmers decreased 45 per cent and liabilities increased 22 per cent. When the loan was made the average liabilities were only 45 per cent of the assets but when the loan was foreclosed they were 96 per cent of the assets. (See Table 4.)

Table 4

Comparison of Financial Statements of Farms When Loan Was Made and When It Was Foreclosed (Average per farm)

District	No. of farms	When loan was made			When loan was foreclosed		
		Total assets	Total liabilities	Ratio of liabilities to assets	Total assets	Total liabilities	Ratio of liabilities to assets
				per cent			per cent
Northwestern ..	154	$15,491	$ 6,106	39	$ 7,612	$ 8,886	117
Northeastern ..	98	6,840	2,378	35	3,657	3,160	86
Central	75	14,608	6,668	46	8,742	8,096	93
Southwestern ..	72	25,140	13,858	55	14,984	14,570	97
Southeastern ..	34	29,491	14,461	49	19,017	15,729	83
All farms	433	16,084	7,305	45	9,304	8,936	96

The great reduction in assets shown in Table 4 is due mainly to the decrease in land values following the decline in farm incomes. The farms were appraised when the loan was made and again when it was foreclosed and during this time they declined on the average 41 per cent in value, from $12,227 to $7,808 per farm. This decline is shown in Table 5. If the same farms were appraised at present, their value would be still lower. Table 5 shows the appraised values of land and buildings of foreclosed farms and the changes in real estate values.

Table 5

Appraised Value of Land and Buildings When Loan Was Made and When It Was Foreclosed

District	Average value per farm		Average value per acre	
	When loan was made	When foreclosed	When loan was made	When foreclosed
Northwestern	$12,587	$ 6,496	$ 60.71	$31.33
Northeastern	5,630	3,364	37.20	22.23
Central	11,928	7,989	75.24	50.39
Southwestern	21,055	12,952	122.65	75.45
Southeastern	24,323	15,270	138.52	86.97
All farms	12,227	7,808	74.40	43.92

During the last decade many farmers have failed to meet financial obligations and their loans have been foreclosed. However, many others have been able to meet financial obligations, altho frequently they have had to curtail expenditures in the home and in farm operations in order to do so. Even when many farmers fail, others may succeed. Why should this be true?

To throw some light on the question an analysis was made of 1,427 farms on which the Federal Land Bank of St. Paul had loans that were in good standing, indicating that these farmers were able to meet financial obligations. These were selected at random from the files, approximately three in each county for every farm owned by the bank. Some consideration was given to the year in which the loan was made in order to make the sample fairly representative of loans in force. These 1,427 farms were analyzed along with the group of 526 farms owned as a result of foreclosures. Data regarding these farms were obtained mainly from the appraisers' reports altho some facts were obtained from the applicant's report and, in the case of foreclosed farms, from correspondence regarding the loan. Comparisons of these groups of farms follow.

A larger proportion of the loans foreclosed by the Federal Land Bank were made in the years 1917 to 1921 than for all loans. These were years of comparatively high land values, when many farmers were borrowing heavily to purchase farms.[2] Of the loans which had been foreclosed and the farms acquired up to November 1, 1930, approximately 73 per cent were made during the five years 1917-21. On the other hand, only 28 per cent of all loans and 33 per cent of the sample of 1,427 non-delinquent loans were made during this period. (See Table 6.)

[2] The index numbers of Minnesota farm real estate values published by the United States Department of Agriculture for the five years from 1917 to 1921 were 138; 155; 167; 213; 212, respectively with 1912-14=100. The index for 1931 was 116. U. S. Dept. of Agr, Circ. 209, "The Farm Real Estate Situation 1930-31."

Table 6

Year When Minnesota Loans Were Made by the Federal Land Bank Expressed as Percentage of Total for Each Class

Year	Foreclosed loans	All original loans	Non-delinquent loans used in this study
1917-18	33.6	20.3	11.1
1919	19.2	8.5	8.0
1920	6.5	8.4	2.3
1921	13.5	1.2	11.9
1922	10.1	12.8	19.4
1923	7.8	14.8	12.3
1924	4.4	6.8	6.8
1925	3.0	4.7	10.0
1926	0.8	7.3	9.5
1927	0.9	9.0	6.2
1928	0.2	2.6	2.2
1929	...	2.0	0.3
1930	...	1.6	...
	100.0	100.0	100.0

The financial statements of farmers having loans that were foreclosed showed a higher ratio of liabilities to assets at the time the loan was made than those of farmers having loans in good standing. This is one of the outstanding differences between these farms in all regions of the state. (See Table 7.)

Table 7

Financial Statement When Loan Was Made for Foreclosed Farms and Farms With Loans in Good Standing, Average per Farm

District	Foreclosed farms			Farms with good loans		
	Total assets	Total liabilities	Ratio of liabilities to assets	Total assets	Total liabilities	Ratio of liabilities to assets
			per cent			per cent
Northwestern	$15,501	$ 5,994	38.7	$13,573	$ 4,355	32.1
Northeastern	6,650	2,270	34.1	6.734	1,790	26.6
Central	15,947	6,700	42.0	15,179	4,940	32.5
Southwestern	24,441	12,620	51.6	24,400	10,250	42.0
Southeastern	28,155	12,020	42.9	22,515	8,020	35.6

To explain why the ratio of liabilities to assets was higher on foreclosed farms is difficult on the basis of data available. On first thought one is likely to conclude that the farmers on foreclosed farms were heavier in debt because more of them purchased high priced land, but an analysis of the situation shows that this was only one of several factors. Of the farms foreclosed 63 per cent were purchased prior to 1917 and 35 per cent during the years 1917 to 1921, when land values were high. Similar percentages for farms with loans in good standing were 67 and 28 per cent, respectively. In other words, 7 per cent more farms in the foreclosed group were purchased during the period of land

inflation than in the group of good loans, but this is not sufficient to explain the heavier indebtedness of the first group. As a matter of fact, the average purchase price for all foreclosed farms was only $2.00 per acre higher than for the other farms, $48.74 as compared with $46.73. Another reason that might explain why farmers on foreclosed farms had a higher ratio of liabilities to assets is that they lacked capital of their own and had to borrow more. This can not be answered definitely on the basis of data available. However, a study of the amount of mortgage debt on farms at the time the farm was purchased throws some light on this problem. The results of such a study are given in Table 8 and point to the fact that farmers on foreclosed farms lacked capital when they purchased their farms and were forced to borrow a larger amount. The difference, however, is not great except in northwestern and northeastern Minnesota.

Table 8

Average Mortgage Debt per Acre at Time of Purchase of Farm

District	Foreclosed farms	Farms having good loans
Northwestern	$20.83	$15.92
Northeastern	11.05	8.30
Central	23.83	20.37
Southwestern	40.58	39.77
Southeastern	41.80	39.21

If the relatively heavy indebtedness on foreclosed farms can not be explained entirely by the purchase of high priced land or the lack of capital, it seems logical to conclude that the use made of borrowed capital is an important factor. In other words, the higher ratio of liabilities to assets on foreclosed farms is in part explained by poorer management. Productive use of credit is important in the successful operation of farms. Farmers who are not good managers have greater difficulty in making the farm yield a profit. They are likely to have relatively high expenditures and low income. With security available for loans, they no doubt were able to borrow but probably had difficulty in paying debts, with the result that their debts were higher relatively than on farms on which loans were in good standing.

A comparison was made of the average amount of loans placed by the Federal Land Bank on foreclosed farms and on other farms in order to analyze further the effect of heavy indebtedness. The results are shown in Table 9. Again it is apparent that the burden of debt was greater on farms that since have been foreclosed. The loan was greater per farm and also per acre on the foreclosed farms. When the loan is expressed as a percentage of appraised value in all districts, the loans on foreclosed farms were relatively larger than those in good standing.

Table 9

Average Amount of Mortgage Loan per Farm for Foreclosed and Good Loans

District	Average loan per farm		Average loan per acre		Ratio of loan to appraised value	
	Foreclosed	Good	Foreclosed	Good	Foreclosed	Good
					per cent	per cent
Northwestern ..	$5,022	$3,734	$24	$21	40	33
Northeastern ...	2,142	1,764	15	15	38	32
Central	5,434	4,394	34	32	40	34
Southwestern ...	8,602	7,810	52	51	42	38
Southeastern ...	9,892	6,974	58	51	42	37

From the standpoint of the state as a whole, foreclosures have been relatively greater on the lands of low value that include the northwestern and northeastern districts of Minnesota. These are the newer sections with less development and improvement than in the southern districts. Small grains are important cash crops in the northwestern district. The northeastern district is a cut-over region and much of the land in farms is unimproved. It might be expected that failures among farmers would be greater in these regions than in others and we would conclude that foreclosures were more numerous in the districts of low values per acre. Figures in Table 3 show this to be the case. To say, however, that foreclosures have been more numerous on farms of low-appraised value per acre is misleading because within individual districts the appraised values do not differ greatly between foreclosed and good loans if values of land and buildings are combined. Table 10 gives a comparison of appraised value per acre by districts.

Table 10

Appraised Value per Acre for Foreclosed and Good Loans

District	Value of land		Value of buildings		Total value	
	Foreclosed	Good	Foreclosed	Good	Foreclosed	Good
Northwestern	$ 50	$ 45	$10	$17	$ 60	$ 62
Northeastern	28	30	8	17	36	47
Central	65	61	20	28	85	89
Southwestern	101	100	22	27	123	127
Southeastern	108	102	25	34	133	136

Table 10 shows that with the exception of the northeastern district the total appraised values per acre of farms for foreclosed and good loans are practically equal. However, it is apparent that the appraised values of the bare land tend to be higher for foreclosed farms, and the value of buildings lower per acre. Farm land values have declined greatly in recent years and it is obvious that the loans made several years ago were based on inflated values. This is true of all loans but more so of the loans that have been foreclosed. Apparently, in the case

of the latter the land was overvalued to a greater extent. Perhaps an objection to this conclusion might be raised on the grounds that a larger proportion of the foreclosed loans was made during the period of highest land values; therefore the average value for the district would be higher for these loans than for others. However, a comparison of appraised values for single years shows definitely that the land value per acre was lower for the good loans and the value of buildings was higher.

Further information in regard to the value of buildings is given in Table 11. It is evident that the foreclosed farms were not so well improved as the others. Farms with good loans had better houses and larger and better barns. In other words, the farms with good loans had greater value as homes, were better equipped, and were more productive. It seems that a farm with good buildings, providing it was not overbuilt, would represent better security for a loan than farms with fewer improvements. Having a good set of buildings, the farmer no doubt had a greater opportunity to earn the income essential for meeting interest obligations.

Table 11

Appraised Values of Buildings per Farm for Foreclosed and Good Loans

District	Value of house		Value of other buildings		Value of all buildings	
	Foreclosed	Good	Foreclosed	Good	Foreclosed	Good
Northwestern ...	$1,048	$1,540	$1,142	$1,460	$2,190	$3,000
Northeastern ...	730	1,017	530	893	1,260	1,910
Central	1,490	1,908	1,630	2,012	3,120	3,920
Southwestern ...	1,650	2,030	1,860	2,180	3,510	4,210
Southeastern ...	2,100	2,020	2,420	2,650	4,520	4,670

Besides having buildings of greater value, the farms with good loans had a greater investment in machinery and livestock. They seemed to be better equipped, not only in buildings but also in machinery and livestock. A proper proportion between investment in land, buildings, machinery, and livestock is essential for the greatest returns from a farm. The land on the farms having good loans was being used more intensively than land on foreclosed farms and it is likely that they represented a better balanced farm business. Table 12 shows the value of machinery and livestock on these farms. The figures are given as values per one hundred acres of land in order to eliminate the effect of size, the foreclosed farms on the whole being larger.

While it is impossible to give a detailed description of the type of farming for the farms included in this analysis, in general, sales of livestock and livestock products provided a relatively larger share of the income on farms having good loans. On the foreclosed farms sales of grain were relatively more important. The appraisers' reports

have fairly complete information on the number of head of livestock but incomplete information on acres of the various crops. The summary of the average number of head of cattle and hogs on the farms is given in Table 13. These figures give the number of livestock when the loan was made. Changes in livestock were made in the meantime but the figures indicate approximately the relative importance of livestock. In the northwestern and northeastern districts, the farms with good loans had two milk cows more per farm than the foreclosed farms, showing that dairying was relatively more important on the farms whose owners were able to meet their financial obligations. Relatively, the prices of dairy products did not decline nearly so much following the war as grain prices did, so farmers with an important dairy enterprise maintained their incomes at higher levels than those depending largely on the sale of grain for income. The number of cattle other than milk cows, also, was greater on the farms with good loans in northwestern Minnesota than on those that had mortgages foreclosed. In the central and southern parts of the state the difference in number of cattle on the two groups of farms was not great. Hogs and poultry were more numerous on the farms with good loans in all districts.

Table 12

Value of Machinery and Livestock per 100 Acres of Land for Foreclosed and Good Loans

District	Value of machinery		Value of livestock	
	Foreclosed	Good	Foreclosed	Good
Northwestern	$540	$630	$ 815	$ 900
Northeastern	260	450	535	750
Central	540	850	1,100	1,120
Southwestern	730	945	1,595	1,800
Southeastern	780	925	1,800	1,940

Table 13

Average Number of Head of Milk Cows, Other Cattle, and Hogs per Farm When the Loan Was Made on Foreclosed Farms and Farms with Good Loans

District	Milk cows		Other cattle		Hogs	
	Foreclosed	Good	Foreclosed	Good	Foreclosed	Good
Northwestern	6.6	8.7	7.7	9.7	7.7	9.0
Northeastern	4.2	6.3	5.6	5.6	2.2	3.0
Central	10.0	11.4	11.1	9.7	11.8	14.4
Southwestern	9.8	10.0	16.2	15.1	36.1	43.0
Southeastern	12.0	12.2	13.7	14.4	32.8	33.0

Foreclosed farms generally were larger than those having loans in good standing. This was true in all districts, as shown in Table 14. In northwestern Minnesota, where small grain production is important,

the farms were largest, foreclosed farms averaging 208 acres and others 175 acres. In northeastern Minnesota foreclosed farms were 151 acres as compared with 114 for other farms but the latter had 37 acres under cultivation and the foreclosed farms 36 acres. In other words, the farmers on foreclosed farms in this region were paying interest and taxes on much unproductive land from which they were receiving little or no return. This, no doubt, was an important reason for failure.

The size of the farm is an important factor in success in farming but it is dangerous to generalize in regard to the most profitable size. Some farmers fail to make maximum returns for their labor and capital because the farms are too small and others because they are too large. There is a most profitable size for each farmer and no particular size will pay best for all farmers. As a rule, however, when prices of farm products are favorable the larger farms give a greater net return than the smaller ones, but in periods of low prices the losses may be much greater on the larger farms. The farmers on the larger farms apparently have had greater difficulty in meeting financial obligations during the agricultural depression, than those on smaller farms with lower overhead costs.

Table 14

A Comparison of Size of Foreclosed Farms and Farms with Good Loans

District	Foreclosed farms		Farms with good loans	
	Total acres	Cultivated acres	Total acres	Cultivated acres
Northwestern	208	141	175	118
Northeastern	151	36	114	37
Central	157	91	142	77
Southwestern	169	114	158	118
Southeastern	176	126	137	97

Personal factors are important causes of failure among farmers and it is unfortunate that a complete comparison can not be made of the two groups of farmers in this study, with respect to experience, ambition, thrift, health, and other personal elements. Farmers that had training, skill, and ambition necessary to efficient management no doubt succeeded where others failed. It is likely that those better able to meet financial obligations used better judgment than those who failed.

From the records studied it was possible to make a comparison of the ages of farmers when the loans were made. This comparison (Table 15) shows no great difference between the two groups in the age distribution at the time the loan was made. The only difference noted is that among the farmers who failed there was a slightly larger proportion of young men. For example, approximately 14 per cent were thirty years of age or under; among those that had loans in good standing, only 8 per cent were thirty years or under when the loan was

made. In other words, among the farmers whose loans were foreclosed we find a somewhat larger number of men who, on account of their age, probably lacked the experience and capital essential to success in farming.

Table 15

Classification of Farmers According to Ages

Ages	Percentage of farmers in age groups	
	Foreclosed loans	Good loans
30 and under	14.3	8.4
31-40	26.4	25.6
41-50	27.8	29.6
51-60	20.6	22.8
61-70	9.6	11.6
70 and over	1.3	2.0

The field men of the Federal Land Bank, when they visited and reappraised foreclosed farms, were asked to give their opinion as to the important reasons why the farmer failed to meet financial obligations. Such reports were available for most of the farms to which title had been acquired as a result of foreclosures and these, along with other records, were analyzed to determine what were important causes of failure. In most cases, several causes were listed, some of major and others of minor importance. In the analysis these causes were classified as primary and secondary. Some were mentioned in only a few cases and have been omitted in this discussion. The more important causes are listed in Table 16 as a percentage of all foreclosed farms for which such reports are available.

Table 16

Important Causes of Failure and Percentage of Farms on Which They Were Mentioned, by Districts

	North-western	North-eastern	Central	South-western	South-eastern	The state
Heavy debts	51	37	36	63	54	47
Poor yields	38	42	25	41	18	34
Poor management	20	32	16	22	32	23
Sickness and death	21	39	17	14	20	23
Low income	15	39	7	7	5	15
Poor farms	14	27	12	7	5	14
Taxes	12	29	3	11	7	12
Renting out	10	23	7	9	7	11

Heavy debts were mentioned as one of the causes in 47 per cent of the farms. Poor yield was mentioned for about one-third of the farms. Low yields may be due to unfavorable weather and crop failure but to some extent they reflect poor land, poor management, or both. Poor management was mentioned specifically as a cause of failure on 23 per cent of the farms and was undoubtedly an important factor. On many farms, the loan became delinquent because of the death of the

owner. Sickness and death were mentioned in 23 per cent of the farms. Low income was mentioned as one of the causes of failure for 15 per cent. To some extent the low income was due to low prices, but as these farms were foreclosed previous to November, 1930, the break in prices in 1931 and 1932 was not a factor, altho it is true that this break in prices has been an important cause of failure since the time these records were obtained. The low income on many of these farms was probably the result of poor management. Some farmers failed because they were operating poor farms, as this fact was mentioned for 14 per cent of the cases. Taxes have been heavy in the last decade and, in part, are responsible for the inability of farmers to meet obligations. They are mentioned specifically as one cause of failure on 12 per cent of the farms. Tenants were operating the farms in 11 per cent of the cases.

An attempt was made, by examining carefully the reports of field men and letters in each case, to state the primary cause of failure on the part of farmers who formerly held the foreclosed farms. The results are given in Table 17. For Minnesota as a whole, poor yield was first as a primary cause, poor management second, heavy debts third, sickness and death fourth, and poor farms fifth. There was considerable variation among the districts, however, as shown in Table 17. Furthermore, in 30 per cent of the cases some cause other than those mentioned was the primary cause of failure. Among these were bank failures, speculation, domestic troubles, and criminality.

Table 17

Primary Causes of Failure and Percentage of All Foreclosed Farms on Which These Causes Were Reported

	North-western	North-eastern	Central	South-western	South-eastern	The state
Poor yields	19	14	21	20	11	18
Poor management	14	16	17	14	23	16
Heavy debts	16	7	14	20	27	15
Sickness and death ..	12	16	15	9	9	13
Poor farm	10	9	10	7	0	8
All other	29	38	23	30	30	30

While the causes of failure just referred to are based upon reports of field men and correspondence and are rather intangible, it is apparent that poor management has been a very important reason for failure. This emphasizes the fact that the personal element is important and creditors granting long-term farm mortgage loans should study carefully the ability of the farmer. The farmer of superior ability may be able to keep loans in good standing even during hard times while the farmer of inferior ability fails. However, these causes of failure relate to farmers failing prior to 1931. Since that time it is obvious that low income, which was the result of extremely low prices for farm products, has been the most important cause of failure among farmers.

RELATION OF LAND VALUES AND PRODUCTIVITY OF LAND TO FORECLOSURES[3]

For the purpose of studying further the reasons for foreclosures of mortgages on Minnesota farms, data were obtained from county records in several counties, giving the location, acreage, and sale value of tracts of farm land sold at sheriff's sale during the twelve years, 1920 to 1931, as a result of mortgage foreclosures. The counties studied are Norman and Polk, in the northwestern part of the state; Hubbard and Aitkin, in the northern cut-over area; Goodhue and Mower, in the southeastern part; Swift, Pope, Kandiyohi, and Stearns, four contiguous counties in the west central part; and Lincoln, in the southwestern part.

It is generally believed that failures have been most numerous in regions where inflation was greatest in farm land values during the land boom, but it is difficult to establish this relationship in the counties studied. The extent of inflation was determined for each township in the counties by the use of sales data obtained from the Minnesota Tax Commission. These data exclude forced sales and sales to relatives, and the sales are sufficient in number for making useful comparisons of values in difficult townships. Average sale values were computed for each township for the two-year periods 1912-13 and 1920-21. The average sale values for 1920-21 were then expressed as a percentage of values in 1912-13 to indicate the degree of inflation, and the relation of this percentage to the percentage of farm land foreclosed was studied. Generally, it would be expected that in the townships where inflation was great the percentage of land foreclosed would be high and vice versa. However, this relationship can not be established. Because a township had a greater increase in land values than another does not mean that it had more foreclosures. As a matter of fact, it is just as likely to show fewer foreclosures.

It should not be inferred from this statement that the inflation in land values was not an important cause of failure among farmers. The rise in land values accompanied by a great increase in debts was very definitely a main cause. In all sections of the state there was inflation but apparently it does not follow that just because a community or a county experienced a relatively greater rise in land values during the land boom than some other region, it has had relatively more land foreclosed and taken over by creditors. This fact is shown in Table 18, giving the degree of change in land values in some counties and the percentage the acreage foreclosed is of all land in farms.

In some of the counties where the rise in farm land prices was least the acreage foreclosed was actually greater, relatively, than in other counties. For example, in Polk, Hubbard, and Aitkin Counties the

[3] The study on which this section of the bulletin is based was financed in part from fluid research funds administered by the Graduate School of the University of Minnesota.

land prices for 1920-21 sales were 184, 188, and 200 per cent, respectively, of prices in 1912-13. In these counties, the acreage foreclosed was 26.1, 31.1, and 33.6 per cent of all land in farms in the respective counties.[4] On the other hand, in Kandiyohi, Lincoln, and Stearns Counties, where land values showed a greater increase, 227, 233, and 242 per cent, the percentages of land sold on foreclosure were 13.0, 19.3, and 7.1. In other words, it seems that the tendency is for counties in which land prices showed the greatest rise, to show the lowest proportion of land sold as a result of mortgage foreclosures. These figures also emphasize the fact that many factors besides a rise in land values are responsible for failures among farmers.

Table 18

Relative Changes in Farm Land Values and Percentage of Farm Land Foreclosed During 1920-31 in Representative Minnesota Counties

County	Total acres foreclosed as a percentage of all land in farms	Land values as a percentage of 1912-13 values	
		Values in 1920-21	Values in 1930-31
Polk	26.6	184	120
Hubbard	31.1	188	153
Aitkin	33.6	200	153
Mower	19.9	200	99
Norman	22.0	207	114
Swift	17.7	224	122
Pope	14.7	224	112
Goodhue	3.8	224	139
Kandiyohi	13.0	227	152
Lincoln	19.3	233	130
Stearns	7.1	242	152

In this discussion it was mentioned that foreclosures were relatively more numerous in the northern part of the state. This fact is again brought out by an analysis of county foreclosure data. Such analysis also shows that the percentage of land involved in foreclosures is relatively greater where the sale price per acre is low. Sale price is a rough measure of the productivity of farms, therefore we can conclude that, on the whole, failures among farmers have been more numerous in regions where the land is low in productivity, and low in price. (See Table 19.)

The relationship of productivity of soil to mortgage foreclosures was given further study in Pope, Swift, Kandiyohi, Stearns, Norman, and Goodhue Counties. All tracts of land sold at sheriff's sale were located on county maps and the farms classified according to soils. The classification of soils was based on surveys made by the Division of Soils, of the University of Minnesota.[5] In Norman County and Good-

[4] Some of the acreage foreclosed in Aitkin and Hubbard Counties was wild land not in farms.

[5] Dr. F. J. Alway and P. R. McMiller, Division of Soils, provided the description of soils in these counties. Their valuable assistance made this analysis possible.

hue County a detailed soil survey has been completed and in the other counties a general reconnaissance has been made. In the latter counties, the areas for various soil types are only approximate and no allowance has been made for the area included in lakes which are scattered through Pope, Stearns, and Kandiyohi Counties.

Table 19

Relationship Between Average Sale Price per Acre of Farms in Minnesota Counties and Percentage of Farm Land Sold at Foreclosure Sale

County	Average sale price per acre			Percentage foreclosed acreage is of all land in farms
	1912-13	1920-21	1930-31	
Aitkin	$14.32	$ 28.68	$21.95	33.6
Hubbard	16.68	31.36	25.62	31.1
Polk	32.78	60.43	39.38	26.6
Norman	35.25	73.06	40.24	22.0
Pope	39.82	89.25	44.66	14.7
Stearns	43.09	97.38	65.47	7.1
Swift	44.06	98.79	53.83	17.7
Kandiyohi	50.24	114.79	76.62	13.0
Lincoln	54.31	126.66	70.41	19.3
Goodhue	64.77	144.74	90.33	3.8
Mower	74.92	149.39	73.89	19.9

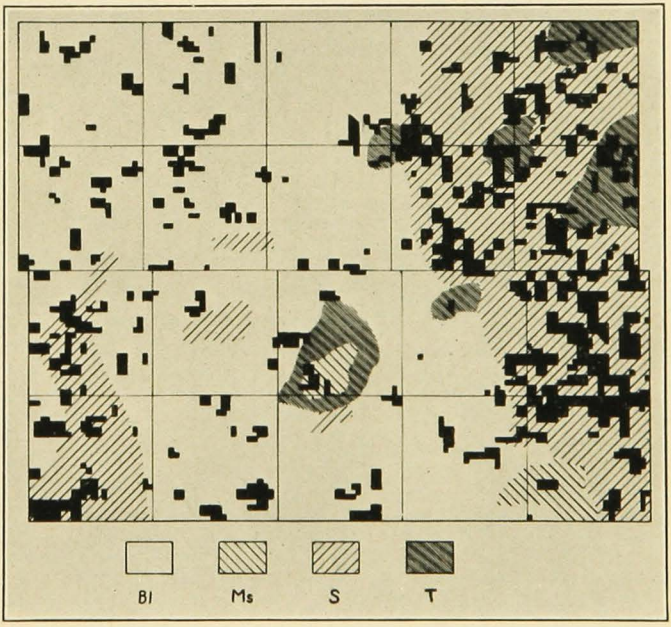

Fig. 2. Map of Pope County Showing Tracts of Land Sold at Sheriff's Sale in 1920-31
The unshaded area includes dark loams and silt loams with heavy subsoil; shaded area, sandy soils, mainly fine sandy loams with sandy or gravelly subsoil (see Table 20).

Pope County

Pope County is located in west central Minnesota. Its agriculture is diversified and much of the crop area is planted to small grains. Figure 2 shows the location of the land sold at sheriff's sale as a result of mortgage foreclosures from 1920 to 1931, inclusive. The white areas on this map are regions of dark loams and silt loams with heavy subsoils, the most productive soils in the county. The shaded area includes the light sands and sandy loams, which are less productive. Much of the latter area is droughty and very inferior to the other regions in productivity. A large part of the land foreclosed is located in the regions of sandy soils of low productivity, mostly in the eastern and southwestern parts of the county. This is also shown in Table 20, which gives an estimate of the total area in various soil types and the percentage of this area sold in foreclosure sales.

Table 20

Relation of Farm Land Foreclosed to Soils in Pope County

Soils		Estimate of total area, square miles	Total area foreclosed, square miles	Percentage foreclosed
Bl	Dark loams and silt loams, heavy subsoil	406	29.4	7.2
T	Loams and sandy loams, sandy loam, sandy clay subsoils	44	6.9	15.7
Ms	Light sandy loams, gravelly sandy subsoils	15	2.0	13.3
S	Fine sandy loams and sands, sandy or gravelly subsoils	228	48.9	21.5

In Pope County foreclosures were relatively greater on the poor than on the good soils. The analysis shows that on the dark loams and silt loams with heavy subsoils, which are the best soils of the county, only 7.2 per cent of the area was sold on foreclosure sales compared to 20.1 per cent as an average for all other soils. In the past there has been a very definite tendency to over-value the poorer lands. This may be illustrated by citing sale prices of land in two townships of different soil type. The township in the northwestern corner of the county has a dark loam with a heavy subsoil, a highly productive soil. A township in the east central part has a fine, sandy loam with a sandy or gravelly subsoil, a soil that is droughty and low in productivity. While these soils differ greatly in productivity, sale prices in former years were nearly the same on an average. Farms sold in the two-year period, 1912-13, averaged $46.20 per acre in the township in the northwestern part and $37.44 in the township in the eastern part of the county. In 1920-21 the land sold averaged $95.26 and $87.51 per acre, respectively.[6]

[6] Sales values were obtained from records of the Minnesota Tax Commission.

The sales figures indicate clearly that the lands of low productivity were greatly overvalued and we would expect foreclosures to be more numerous on these lands. The figures for the two townships mentioned show this to be the case. In the former, 1,225 acres of the township were sold at sheriff's sale during 1920-31 and in the latter 9,253 acres, which expressed as a percentage of farm land is 5.5 per cent and 58.9 per cent, respectively. These lands were not overvalued alone by buyers and sellers in the market, but by creditors who did their part by being willing to extend a large amount of credit secured by mortgages on poor land. As a matter of fact, the claims of creditors against farms sold at sheriff's sales averaged $34 per acre in the township with light soils compared to $37 per acre in the township having heavy soils.

Swift County

Swift County borders Pope County on the south. Sales of cash grain, cattle, and hogs provide most of the farm income. The greater part of this county has a black loam soil with heavy subsoil which, with proper drainage, is quite productive. Much of the land requires drainage, however, and many large ditches have been constructed. In the southwestern and central parts of the county there are areas of sandy loams and sands with gravelly or sandy subsoils which are droughty and of lower productivity.

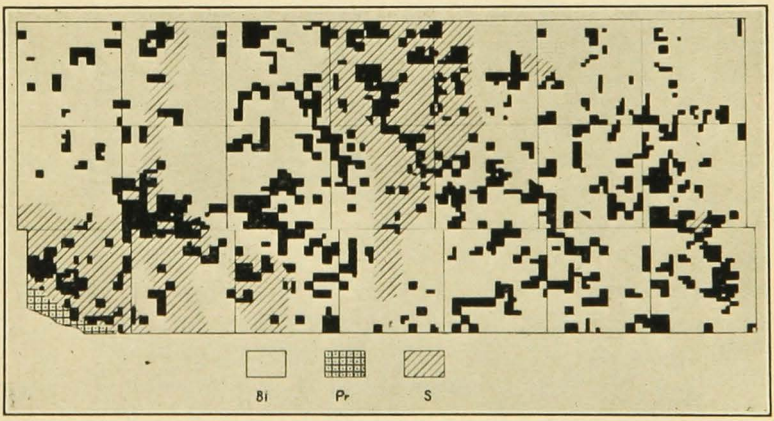

Fig. 3. Map of Swift County Showing Tracts of Land Sold at Sheriff's Sale in 1920-31
Unshaded area includes black loams and silt loams with heavy subsoil; shaded area fine sandy loams to sands with a sandy or gravelly subsoil (see Table 21).

Foreclosures have been numerous in Swift County. The total acres sold at sheriff's sales since 1920 equal 17.7 per cent of all land in farms. As Figure 3 indicates, the foreclosures in this county are not confined to any one region but are scattered over the county. Here again, however, the tendency is for failures to be greater on the less

productive soils. On the black loam with heavy subsoil, 16.3 per cent of the area was foreclosed; on the other soils 22 per cent was foreclosed. (See Table 21.)

Table 21

Relation of Farm Land Foreclosed to Soils in Swift County

Soils		Estimate of total area, square miles	Total area foreclosed, square miles	Percentage foreclosed
Bl	Black loams and silt loams, heavy subsoils	564	92.2	16.3
S	Fine sandy loams to sands, sandy or gravelly subsoils	172	38.1	22.2
PR	Stony land along Minnesota River	5	0.94	18.8

A township on the sandy soil in the north central part of the county had 6,387 acres of land sold on foreclosure sales, more than any township of the county. All of the soil in this township is a sandy loam or sand with sandy or gravelly subsoil, a soil of low productivity. A township in the western end of the county had the smallest acreage foreclosed, 1,380 acres. There are some light soils in the southern part of this township but over three-fourths of the area is heavy productive soil. In comparing these two townships we again have an illustration of overvaluation of poor land. Land in the latter township sold for a higher price per acre than land in the former but not in proportion to productivity. Sale prices in 1912-13 averaged $47.62 per acre in the township of heavy soils and in the township on the sand, where at that time much of the land was undeveloped, the price averaged $30.40. In 1920-21 the prices were $105.00 and $52.91, respectively.

Stearns County

Bordering Pope County on the east is Stearns County, a large county of varied soils. It ranks as one of the leading dairy counties of Minnesota, which is no doubt one reason why failures among farmers have been less in this region than in many other sections of the state during the period studied. The lands sold at sheriff's sale in this county from 1920 to 1931 were only 7.1 per cent of the land in farms.

The lands sold at sheriff's sale in Stearns County are shown in Figure 4. While they are scattered widely, it is apparent that there is a concentration of foreclosures in the western and southeastern parts of the county. Much of the land in these regions is fine sandy loam with sandy or gravelly subsoil, a soil inferior in productivity on the whole. On this soil 9.4 per cent of the area was foreclosed compared with 5.1 per cent for all other soils of the county.

The most productive soils are the black loams and silt loams with heavy subsoils. They cover about one-third of the county. Another important soil type is the loams and sandy loams with cobbly, sandy loam or sandy clay subsoils, a productive soil but slightly inferior to the

former. There is not a great difference in the percentage of the area foreclosed, the percentage being 5.6 for the former and 4.7 for the latter. (See Table 22.)

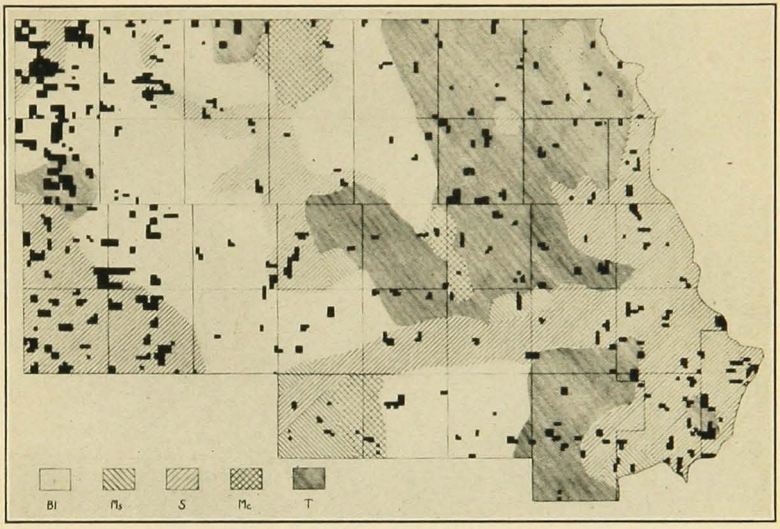

Fig. 4. Map of Stearns County Showing Location of Tracts of Land Sold at Sheriff's Sale, 1920-31
See Table 22 for key to description of soils.

Table 22

Relation of Farm Land Foreclosed to Soils in Stearns County

Soils	Estimate of total area, square miles	Total area foreclosed, square miles	Percentage foreclosed
Bl Black loams and silt loams, heavy subsoils	452	25.1	5.6
T Loams and sandy loams, with cobbly sandy loams or sandy clay subsoils	393	18.3	4.7
Mc Loams with heavy subsoils	53	2.2	4.3
Ms Light sandy loams, gravelly sandy subsoils	33	1.56	4.7
S Fine sandy loams to sands, sandy or gravelly subsoils	431	40.3	9.4

Stearns County provides many examples of relatively greater overvaluation in the past of lands of low productivity. One striking example is the case of two adjoining townships in the southwestern part of the county. In one of these most of the soil is fine, sandy loam with gravelly, sandy subsoil that is droughty and generally very inferior to the dark loams with heavy subsoil which include most of the land of the other township. In the former, 3,213 acres were sold at sheriff's sale, in the latter only 273 acres. While the lands of these two townships, on the whole, differ greatly in productivity, the sale price per

acre in former years on the average did not differ proportionately. Farms of which a record is available sold in the township of sandy soil in 1912 and 1913 averaged $35.41 per acre and in the township of heavy soil $47.91. The sale prices in 1920 and 1921 were $94.66 and $96.03, respectively.

Kandiyohi County

Kandiyohi County adjoins Pope and Stearns Counties on the south and Swift on the east. Most of the income on farms is derived from the sale of cattle, hogs, and dairy products.

The total area of the county is 801 square miles and approximately 672 square miles consist of black loams and silt loams with heavy subsoils. Within this soil type there is considerable variation because of drainage but when the land is well drained it is very productive. On these soils 12 per cent of the land was foreclosed in the period 1920-31.

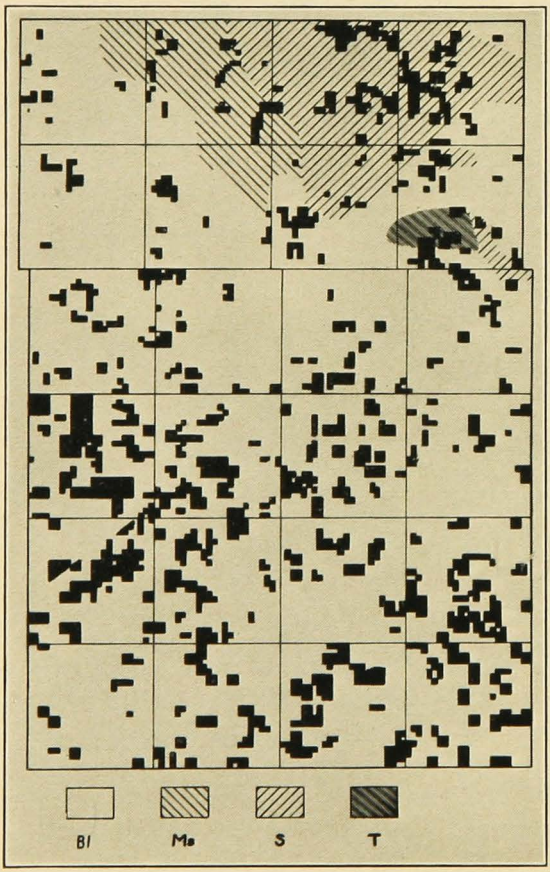

Fig. 5. Map of Kandiyohi County Showing Location of Farms Sold at Sheriff's Sale, 1920-31. Unshaded area includes black loams and silt loams with heavy subsoils; shaded area, sandy soils, mainly fine sandy loams to sands with sandy or gravelly subsoil (see Table 23).

Figure 5, giving the location of farms sold at sheriff's sale, shows that there is some concentration of foreclosures in the west central and the southeastern parts of the county. These happen to be areas that, to a considerable extent, are poorly drained or have drainage ditches that involve heavy taxes. Some of these lands are low with many alkali spots and inferior in productivity. There is an area of fine, sandy loams with sandy or gravelly subsoils in the northeastern part of the county where foreclosures also have been numerous and about 14.8 per cent of the land has been foreclosed. (See Table 23.)

Table 23

Relation of Farm Land Foreclosed to Soils in Kandiyohi County

Soils		Estimate of total area, square miles	Total area foreclosed, square miles	Percentage foreclosed
Bl	Black loams and silt loams, heavy subsoils	672	80.9	12.0
T	Loams and sandy loams, cobbly sandy loams to sandy clay subsoils	5	0.3	6.0
Ms	Light sandy loam. gravelly sandy subsoils	38	1.8	4.7
S	Fine sandy loams to sands. sandy or gravelly subsoils	86	12.7	14.8

A township in the west central part of the county has had the largest amount of land sold at foreclosure sales of all townships of the county, 6,544 acres. This township has a soil of lower productivity than in some other townships because of poor drainage. The second township to the north of this had the smallest acreage foreclosed, only 529 acres. This is a township of excellent farms which has a well drained soil of high productivity. Comparing sale prices per acre, we find that sale values in 1912-13 averaged $52.94 in the former and $55.40 in the latter. In 1920-21 the sale prices were $123.82 and $103.33.

In the former there were many sales and more speculation; in the latter fewer farms were sold. Here again, we have a case of poorer soils being overvalued relatively more than better soils.

Norman and Goodhue Counties

The previous discussion of foreclosures in four central Minnesota counties probably is sufficient to illustrate the fact that foreclosures have been greater on the less productive soils, but it may be useful to point out briefly the situation in Norman and Goodhue Counties where some studies were made of the same problem.

Norman County is in the Red River Valley, in northwestern Minnesota. Small grains, potatoes, and butterfat are the chief sources of farm income. The land area sold at sheriff's sale in this county between 1930 and 1931 is equal to 22 per cent of the land in farms. In the

townships along the Red River, where much of the soil is well drained clay loam, there have been comparatively few foreclosures. The township in the northwestern corner, for example, had only 1,160 acres sold at foreclosure sales. On the other hand, on some of the poorly drained clay loams foreclosures were numerous. In one township having soils largely of the second type, 10,190 acres were sold. On the sandy soils, 17.2 per cent of the area was foreclosed, about the same as on the well drained clay soils. These sandy soils are, on the whole, less productive but other factors enter in which, in part, explain why foreclosures were no greater. Much of this land is in small farms where livestock production is relatively important. The land is to a greater extent in the hands of original settlers or their families and transfers have been fewer than in some other regions. A survey made in this region also indicates that these people are thrifty and live within their incomes. Table 24 shows the percentage of land foreclosed, according to soils.

Table 24

Relation of Farm Land Foreclosed to Soils in Norman County

Soils	Estimate of total area, square miles	Total area foreclosed, square miles	Per cent foreclosed
Well drained clay loams	171	29.3	17.2
Poorly drained clay loams	54	26.0	48.1
Silt loams, well ditched	162	35.0	21.6
Sand	261	45.0	17.2
Swamps and slough	36	7.0	19.4
Gravel ridges	27	7.5	27.7
Rolling uplands	162	13.2	8.1

Goodhue is in southeastern Minnesota, bordering the Mississippi River. It is an important dairy county and most of the farm income is from sales of dairy products and livestock. Of the counties studied, Goodhue has had the least foreclosures, the land sold at sheriff's sale amounting to only 3.8 per cent of all land in farms. Most of the land sold as a result of foreclosure is located in the northeastern and southwestern parts of the county.

The soil survey classifies 43 per cent of the land area of Goodhue County as Knox silt loam.[7] Not only is this soil the most extensive type but it is also the most productive. The report of the soil survey refers to Knox silt loam as a soil "held in high esteem, both on account of its natural productiveness and fine quality of its products. . . . The soil does better under adverse climatic conditions than any other upland soils." An analysis of foreclosures shows that on this type of soil failures have been relatively fewer than on inferior soils. Between 1920 and 1931, 17,594 acres were sold at foreclosure sale in

[7] U. S. Dept. of Agr. Soil Survey of Goodhue County, Minnesota.

Goodhue County and it is estimated that 3,800 acres were Knox silt loam. In other words, while Knox silt loam includes 43 per cent of the land area of Goodhue County only 21.6 per cent of all the land foreclosed in the county was of this type.

Number of Transfers of Land

Foreclosures have been numerous in the communities where many farms were sold in the years of high land prices. While land values increased generally during the days of the land boom in 1917-20, in some communities comparatively few farms changed hands; in others many farms were sold. The high prices for farm products in those years, easy credit, and activities of real estate agencies encouraged a great deal of speculation in farm land. Studies of this situation indicate that speculative trading in land was carried on to a much greater extent in communities of inferior soils. In the regions of highly productive farm lands, the situation was more stable because farmers chose to hold their farms rather than to sell them. It is true that in the better regions some farms were sold at high prices and that the debts on many farms increased greatly because the increase in farm values gave the farmers more security to offer for loans, but the burden of the debt has been relatively less in these regions and the foreclosures fewer in number. On the other hand, in regions of less productive soil the trading in land became very active and when the collapse in farm prices occurred and speculative activity declined, many individuals found themselves holding farms that they had purchased largely with borrowed money. Apparently, in these poorer regions more of the farms were in the hands of real estate agencies and individuals holding land for development and for speculative purposes and the situation became a trading proposition.

Special studies were made of transfers of land in four townships in both Pope and Swift Counties. A record was obtained of all warranty deeds of transfers of land in these townships, which include the bona fide sales for the years 1910 to 1932. The results are given in Tables 25 and 26.

In Pope County, comparisons were made between two townships of highly productive black loam soil with clay subsoil, and two townships of fine sandy loam with sandy and gravelly subsoil, inferior in productivity. About three times as much land was sold in the townships of inferior soil as in those of highly productive soil during the boom days of 1917-20, indicating that in the former there was great speculative activity. Some tracts of the inferior land changed hands two or three times during the four-year period. Not only were there more sales on the poorer lands but these lands sold for prices which, on the

average, were nearly as high as the prices for land sold in the better townships. No measure is available of the relative productivity of the land, but the heavy soils are much superior to the light soils. Farmers who purchased the latter paid prices that relative to productivity were very high, and when prices of farm products declined they were unable to meet the interest on the large debts incurred in the purchase of the land. The result was foreclosure of the mortgages and in the townships of inferior soils where many farms were sold, about seven times as much land was sold at foreclosure sale in 1920-31 as in the better townships.

Table 25

Summary of Bona Fide Sales of Tracts of Land in Representative Townships of Good and Poor Soils in Pope County

	Townships	Tracts sold, 1917-20			Tracts sold, 1910-32		Acres foreclosed, 1920-31
		Number	Total acres	Av. price per acre	Number	Total acres	
Good soils, black loam, clay subsoil	No. 1	24	3,277	$78	124	14,436	1,225
	No. 2	43	5,437	74	135	14,944	840
Poorer soils, sandy loam, sandy and gravelly subsoil	No. 3	96	14,471	76	363	57,532	9,253
	No. 4	86	11,332	70	318	42,730	5,789

Table 26

Summary of Bona Fide Sales of Tracts of Land in Representative Townships of Good and Poor Soils in Swift County

	Townships	Tracts sold, 1917-20			Tracts sold, 1910-32		Acres foreclosed, 1920-31
		Number	Total acres	Av. price per acre	Number	Total acres	
Good soils, black loam, clay subsoil	No. 1	28	3,499	$81	160	16,700	2,514
	No. 2	19	2,720	80	122	18,603	1,380
Poorer soils, sandy loam, sandy and gravelly subsoil	No. 3	106	14,289	56	314	46,408	5,220
	No. 4	25	4,514	54	274	46,523	6,387

Similar comparisons made in Swift County show that transfers of land were greater on the poorer soils. In one township of light sandy soil there were 106 tracts of land sold during the four years, 1917-20, inclusive. That there was great speculative activity is shown by the fact that in this township 1,480 acres were transferred twice, 840 acres three times, and 400 acres four or more times. The average sale price

in this township was $56 per acre compared with about $80 in the better townships, but on the basis of relative productivity, the poorer land was greatly overvalued. The other township of light soils in Swift County shows only 27 tracts sold in 1917-20, but much of the speculative selling of land in this township came during the period 1910-15. As in Pope County, foreclosures in Swift County were more numerous in the regions where many farms were sold at speculative prices.

We are passing through a period when the hardships which arise out of land speculation are very much in evidence. The farmer who bought a farm at inflated values, paying it out of his savings and going into debt for the rest, may have lost his farm and also his savings. Our experiences in recent years emphasize that it is unwise to invest savings in land at inflated prices. If land inflations and the hardships that follow are to be avoided in the future, buyers must give careful attention to the productivity of the land. This means that they must obtain information regarding the type of soil and the yields expected. Also they must bear in mind that it is the prices of farm products over a period of years that should be considered in buying a farm and not those prevailing at a particular time. Creditors can aid in preventing land inflation by refusing to make loans except on the basis of a conservative valuation of the farm. Public regulation of agencies, like land development and real estate companies may be essential to any program which seeks to prevent speculative prices for farm land.

CONCLUSIONS

Foreclosures of farm mortgages have been numerous in Minnesota since 1920 and a large number of farms in all sections of the state have become the property of creditors. Mortgage debts increased greatly along with the increase in land value from 1910 to 1920. In later years, when farm prices declined to low levels, many farmers were unable to meet financial obligations. Failures among farmers have been more numerous in the northern part of Minnesota than in the southern, but recently there have been a great many foreclosures also in southern Minnesota, largely because of the decline in prices of hogs.

On the whole, foreclosed farms had higher indebtedness than those with loans in good standing, partly because more of these farms were purchased at high prices, but perhaps due more to the fact that the operators were men of less ability who often failed to use borrowed funds productively. There is evidence that the farms foreclosed, on the whole, were not so well organized and so well managed as those on which financial obligations were met. Obviously, the personal element is an important factor in the success or failure of any business,

particularly in farming, in which the management is usually in the hands of one individual. While the personal factor is uncertain and the ultimate security for a mortgage loan is the land, yet the farm must be viewed as a business concern and its power to yield a profit depends to a great extent on the ability of the operator. Granting credit to a man who can not use it to advantage may result in hardships for both borrower and lender. Greater attention, therefore, must be given to the personal element in granting farm mortgage loans. One difficulty in doing this in the future will be the increased number of farms operated by tenants instead of by owners, who borrow the farm mortgage funds.

Studies of foreclosures in individual counties show clearly that failures among farmers have been relatively greater on the poorer lands. There has been a tendency to overvalue the lands of low productivity. In the past, and particularly during the land boom from 1918 to 1921, land was often looked upon as mere land and poor soils sold at prices often equal to the prices of highly productive soils. The failure of purchasers, real estate agents, and creditors to give adequate attention to differences in productivity of land has been an important cause of failure of farmers to meet financial obligations. To a great extent, in former years, loan agencies limited their loans to a certain percentage of appraised values of the real estate and the appraised values were based to a considerable extent on current sale values of land. If land sold at a high price, the loans would likely be high. If poor land was overvalued the burden of debt was relatively greater on these lands than on the better lands. This policy of creditors was an important factor causing failures among farmers.

From the short-time point of view, the farm mortgage situation in Minnesota presents a very serious problem. Nearly half of the farms are free from mortgage but on the other hand thousands of farmers in the state are heavily burdened with debts and many of them delinquent in payments. Unless there is a substantial increase in the prices of farm products, many of these farmers will ultimately fail unless adjustments are made, because the burden of debt is very great under low levels of prices. Creditors are likely to find it to their advantage in many cases to make adjustments that will enable farmers to hold their farms. If the operator is a good farmer, it may be to the advantage of the creditor to make adjustments in interest or principal to enable the farmer to continue operating the farm. If the creditor forecloses and takes the farm, he is faced with the problem of taking a loss in selling the farm or operating with a tenant, in which case he may get very little or no return. The final result is that he takes a greater loss than by making adjustments in the mortgage contract.

The important point is that adjustments are possible that will be to the mutual benefit of both debtors and creditors.

If we are to avoid a repetition of the present financial difficulties among farmers, credit policies must be changed. Appraisals of land for purposes of farm mortgage loans must be based upon a capitalization of probable earnings of the land over a long period rather than sale values at any particular time. This means giving careful attention to the productivity of land in all regions where loans are made, care being taken not to overvalue the poorer lands. Loan agencies will find it essential to study each case carefully in making a loan and not to follow rule-of-thumb methods. One farmer, for example, may be in position to use a larger loan to advantage than another on a farm of the same size in the same region. The question of risks, also, must be considered more carefully and rates established accordingly. If income from agriculture in one region is uncertain, then the rates charged on loans should be higher than in the region where the income is more certain and the risk less. Because income in agriculture, on the whole, is uncertain, preparation must be made in years of favorable returns to meet financial obligations in the lean years. It seems desirable, therefore, to make more of the mortgage loans in a form that requires some payment on the principal during the life of the loan. Creditors might, also, during years of good returns, encourage farmers to make additional payments on the debt as a means for promoting thrift and reducing failures. Careful attention must be given to the reasons for borrowing and the farmer must be guided with respect to use of capital. Obviously, if loan agencies are to provide this guidance, they must carry on studies that will give them the facts with regard to economic as well as technical problems in agriculture. Only by careful study of these problems can a sound credit policy for agriculture be established.