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Mortgage Loans on Farm Real Estate in Turner County, South Dakota, 1910 - 1930

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Mortgage Loans on Farm Real Estate

in

Turner County, South Dakota

1910-1930

With special reference to Middleton, Hurley and Norway Townships

By
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Mortgage Loans on Real Estate in Turner County South Dakota
1910-1930

With special reference to Middleton, Hurley and Norway Townships[1]

by
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Department of Agricultural Economics

Purpose and Method of Study

Purpose of Study.—This study of the farm mortgage situation in Turner county is a part of a larger research project including also the counties of Brookings, Clark, Haakon and Hyde. The immediate purpose has been to determine the facts with respect to the actual farm mortgage situation as revealed by the records in the office of the register of deeds. It is expected that analysis of the data will give rise to certain findings and conclusions on the basis of which recommendations can be made for the improvement of the farm mortgage conditions. Such improvements must benefit both borrowers and lenders if they are to be permanent. Thus, greater safety for the lenders should result in lower interest rates for the borrowers. If the customary loan contract does not fit present needs of farmer borrowers a modification of the terms of the contract in the interest of the mortgagors should in the long run also redound to the advantage of the mortgagees.

Method of Study.—The data for this investigation was procured from the office of the register of deeds in the county courthouse at Parker, the county seat of Turner county. For the sake of economy and accuracy it was found desirable to employ the services of an experienced abstracter to copy the information from the county records. The same method has been followed in the case of all five counties included in this general project. Special forms were prepared for the use of the abstracter in listing all the various documents affecting the title to every piece of land in the three townships from 1905 or earlier, so as to have a complete record covering the period from 1910 to 1930 inclusive. All the documents affecting each piece of land were listed consecutively in chronological order. By this means it was possible in most cases readily to relate to the proper land and the proper document: releases, foreclosures, extensions, renewals, assignments, cancellation by forclosure of prior mortgage, etc. This does not mean, however, that this study is free from error. As mentioned in previous circulars of this series, considerable carelessness seems indicated in connection with the recording of documents. Releases of mortgages that have been paid have not always been recorded promptly. The same applies to mortgages, deeds, assignments, etc. These errors tend to make the total indebtedness appear larg-

1.—Township 98N, of Ranges 52, 53 and 54W.

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er than it actually is. In all doubtful cases, however, efforts were made to ascertain the facts by means of questionnaires sent to mortgagors, mortgagees, assignees and others who were presumed to possess information. Despite this precaution the figures for total indebtedness may be somewhat exaggerated by the inclusion of mortgages which have been paid but not released of record. Unrecorded voluntary payments on short term loans and payments on amortization loans in excess of requirements may cause similar errors. Errors in this direction may, to a certain extent, be counterbalanced by the existence of unrecorded mortgages and by delinquency in the payment of interest, taxes, insurance premiums, etc., which become a charge against the land and which may have to be paid by the mortgagee.

Location of Area Studied.—The location of the area studied in Turner county is shown in Figure 1, a map of South Dakota. This area was selected as representative of the general type of farming in the southern part of the state. According to Bulletin 238, "Types of Farming in South Dakota", and as shown in Figure 1, this is in type of farming "Area I, the intensive livestock feeding area. In the eight counties included in this area, corn is the principal crop, with oats grown on a large acreage. Although some feed crops are sold for cash, much of the feed raised is fed to hogs and beef-cattle. Many farmers feed out each year one or more car loads of cattle that are purchased from western ranches or from terminal stockyards. The soil, rainfall and growing season are more favorable for diversified farming in this area than any other in the state."

Total Indebtedness: Changes in Amount and in the Relative Volume of Loans of Different Ranks

Changes in Total Amount of Indebtedness.—The statistics on indebtedness and other data have been analyzed for every fifth year from 1910 to 1930 unless otherwise specified. Table 1 shows the total amount of indebtedness in the three townships and the amount represented by loans of different ranks. The same information is presented graphically in Figure 2. In 1910 the total indebtedness in these three townships was $677,001. The 1915 total indebtedness was 67 per cent larger. Although the increase in the total from $1,130,443 in 1915 to $1,606,046 in 1920 was a larger actual increase than during the preceding five years, the relative increase, 42.1 per cent, was smaller. In the other counties the largest increase in any five-year period, both absolutely and relatively, came in the five years from 1916 to 1920 inclusive. Apparently the increase in indebtedness from 1910 to 1920 was made possible by the increase in the value of farm land put up as security. The 19.4 per cent increase in indebtedness from 1920 to 1925 carried the total debt to a peak of $1,917,219. Since this increase took place during a period of deflation it is reasonable to interpret the increase as being due to a shortage of local funds in the form of farm income and of bank deposits, making it necessary for farmers to borrow on their land. Such mortgage loans may have been made for the purpose of meeting farm expenses or they might have been incurred as the result of efforts to convert short term bank loans into longer term land mortgage loans on which funds

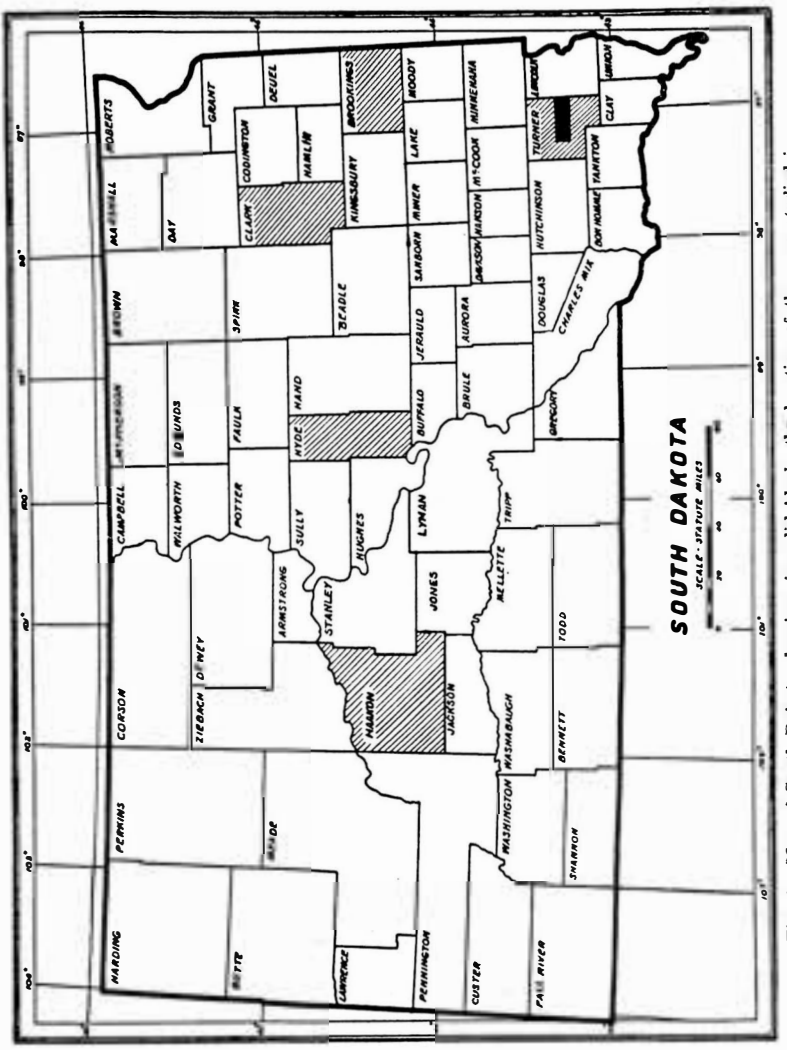

Fig. 1.—Map of South Dakota showing, in solid black, the location of the area studied in Turner county, and other counties studied.

could be procured from other sources than local banks. They may also have been made to increase the security back of existing bank loans previously incurred for production purposes. Foreclosures amounting to $107,588 during this period also emphasize the fact that the farmers were in financial difficulty. As indicated in Tables 1 and 4 the reduction in the volume of indebtedness during the five years after 1925 amounted to 22.9 per cent and left a total debt of $1,559,777 at the end of 1930. Twenty-nine per cent of this reduction was directly or indirectly brought about by foreclosures.

TABLE 1.—Total mortgage indebtedness on farm land and amount of each rank, every fifth year, 1910 to 1930 inclusive

Year	Total Mortgage Indebtedness	Sum of First Mortgages	Sum of Second Mortgages	Sum of Third Mortgages	Sum of Fourth Mortgages*
1910	$ 677.001	$ 499,070	$ 97,031	$56,812	$24.088
1915	1,130,443	871,058	173,315	74,695	11,375
1920	1,606,046	1,245,408	244,913	62,675	53,050
1925	1,917,219	1,580,582	286,877	41,250	8,510
1930	1,559,777	1,430,898	113,609	15,270	0

* The fourth mortgage totals include: $8,645 fifth mortgages in 1910; $910 fifth and $2,475 sixth mortgages in 1915; $9,000 fifth and $20,400 in sixth mortgages in 1920.

Amount and Trend of Junior Mortgage Indebtedness.—The relative proportions of first mortgages and of junior mortgages are indicated in Table 2 and in Figure 3. The changes that have taken place in the relative proportions of first- and junior-mortgage loans in the different counties have not been uniform or alike except that for all counties at the end of 1930 there was a minimum of junior-mortgage loans on record. In Turner county, except for a slowing down of the general trend between 1915 and 1920, junior-mortgage loans seem to be on the way to extinction. This applies especially to loans ranking below second mortgages.

TABLE 2.—Percentage of the total farm real estate mortgage indebtedness represented by loans of each rank every fifth year from 1910 to 1930 inclusive

Year	Total Mortgage Indebtedness	Percentage in First Mtgs.	Percentage in Second Mtgs.	Percentage in Third Mtgs.	Percentage in Fourth Mtgs.*
1910	$ 677,001	73.7	14.3	8.4	3.6
1915	1,130,443	77.1	15.3	6.6	1.0
1920	1,606,046	77.6	15.2	3.9	3.3
1925	1,917,219	82.4	15.0	2.1	.5
1930	1,559,777	91.7	7.3	1.0	0

* See footnote, Table 1.

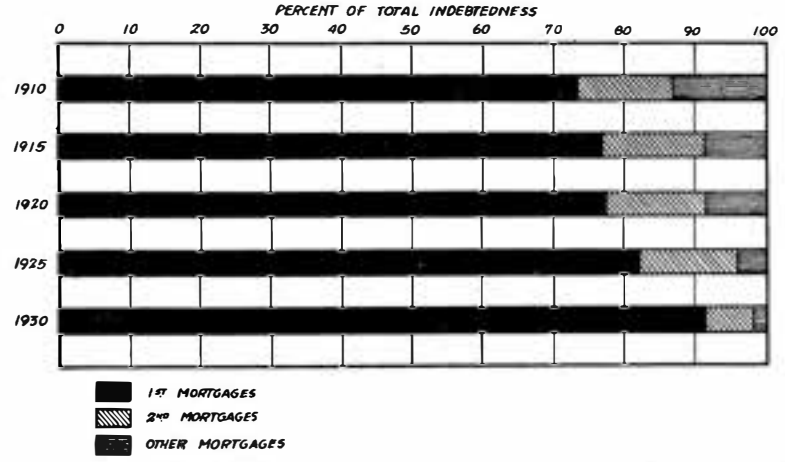

Fig. 3.—Percentage of total indebtedness represented by loans of various ranks, every fifth year, 1910-1930. (Based on Table 2.)

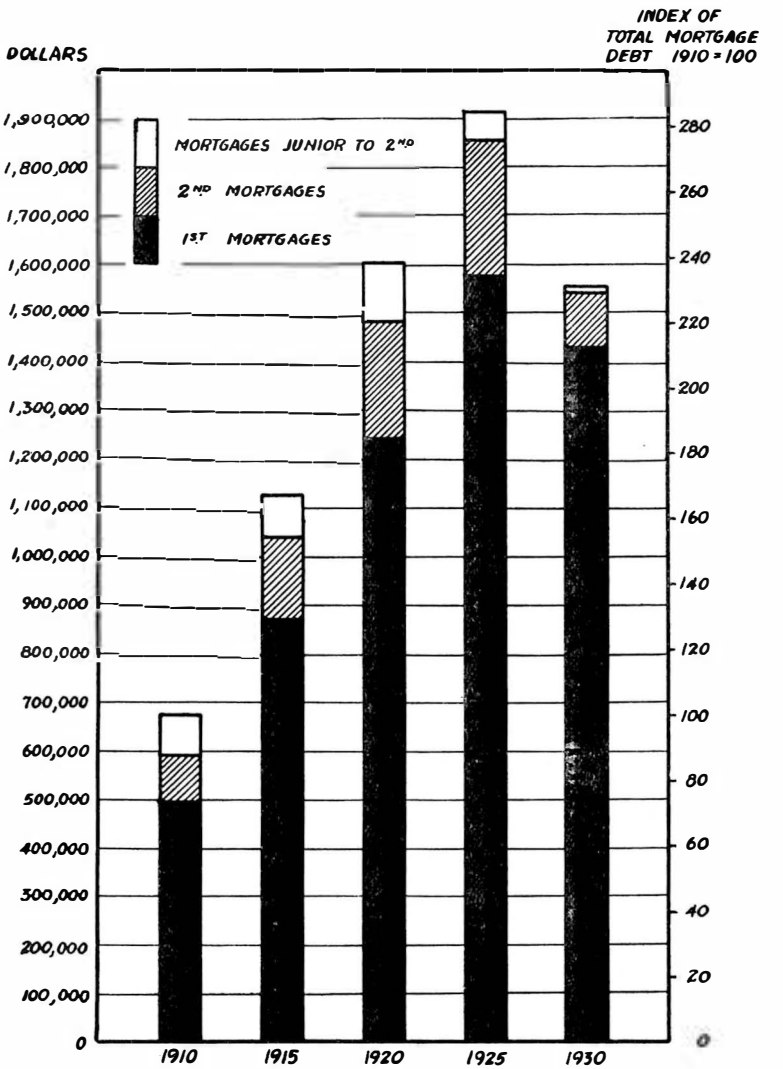

Fig. 2.—Total amount of mortgage indebtedness, index of change in indebtedness, and amount of loans of each rank every fifth year, 1910-1930. (Based on Tables 1 and 3.)

Percentage Changes in Indebtedness.—According to Table 3, the total indebtedness was 183 per cent higher in 1925 than in 1910, and was 130 per cent higher in 1930 than it was 20 years earlier. Table 4 shows the percentage changes by five-year and ten-year periods.

TABLE 3.—Index of change in total farm mortgage indebtedness, every fifth year from 1910 to 1930

Year	Index of Change in Total Indebtedness 1910=100%	Total Mortgage Indebtedness
1910	100	$ 677,001
1915	167	1,130,443
1920	237	1,606,046
1925	283	1,917,219
1930	230	1,559,777

Area Mortgaged and Debt Per Acre

Changes in the Area Mortgaged.—Changes have taken place not only in the amount of the mortgage debt but also in the acreage involved. According to Table 5 and Figure 4 the area of mortgaged land in the three townships in 1910 was 25,680 acres. By 1915 this had increased to 28,693 acres, but during the succeeding five years there was a reduction of 680 acres in incumbered land in spite of a $475,000 increase in the total debt. These opposite changes were undoubtedly due to the fact that some farmers were sufficiently conservative to pay off their mortgage indebtedness while their farm income was high. At the same time others, having become infected with the "boom spirit", borrowed more per acre in order to make improvements on the farm, or farm land was purchased at a high price and a larger mortgage was placed on the land to close the deal.

TABLE 4.—Percentage increase or decrease in the total amount of farm mortgage indebtedness by periods* (Based on Table 1)

Periods	Percentage Change in Total Indebtedness	
	Increase	Decrease
1910 to 1915	67.0	
1915 to 1920	42.1	
1920 to 1925	19.4	
1925 to 1930		22.9
1910 to 1920	137.2	
1920 to 1930		2.9

* In each case the indebtedness figure for the end of the previous period is considered as 100 per cent.

Depression Necessitated Increased Mortgaging of Land.—During the first five years of the deflation following 1920 there was an increase in the incumbered acreage from 28,013 to 32,393 in spite of forclosures involving 2,720 acres. As has been suggested the increase in the acreage mortgaged during the five years following 1920 may have been due to the inability of farmers to meet their current expenses out of income and out of funds accumulated in the banks. Furthermore short term production loans held by the local banks may have had to be converted into land mortgage loans as a means of replenishing the dwindling bank funds or in order to give the banks more adequate security for their outstanding production loans. According to Tables 5 and 6 there was a 9 per cent reduction in the mortgaged acreage between 1925 and 1930, which left 29,485 acres under mortgage in the latter year. The acreage involved in foreclosures equaled 73 per cent of this reduction. Table 5 also gives

TABLE 5.—Area mortgaged and the percentage which such mortgaged acreage was of all land*, at five year intervals, 1910 to 1930

Year	Acres Mortgaged	Index of Change in Mortgaged Acreage 1910 = 100%	Percentage of "All Land"* Mortgaged
1910	25,680	100	37.5
1915	28,693	112	41.9
1920	28,013	109	40.9
1925	32,393	126	47.3
1930	29,485	115	43.1

* "All land," outside city limits, etc., equals 68,473 acres.

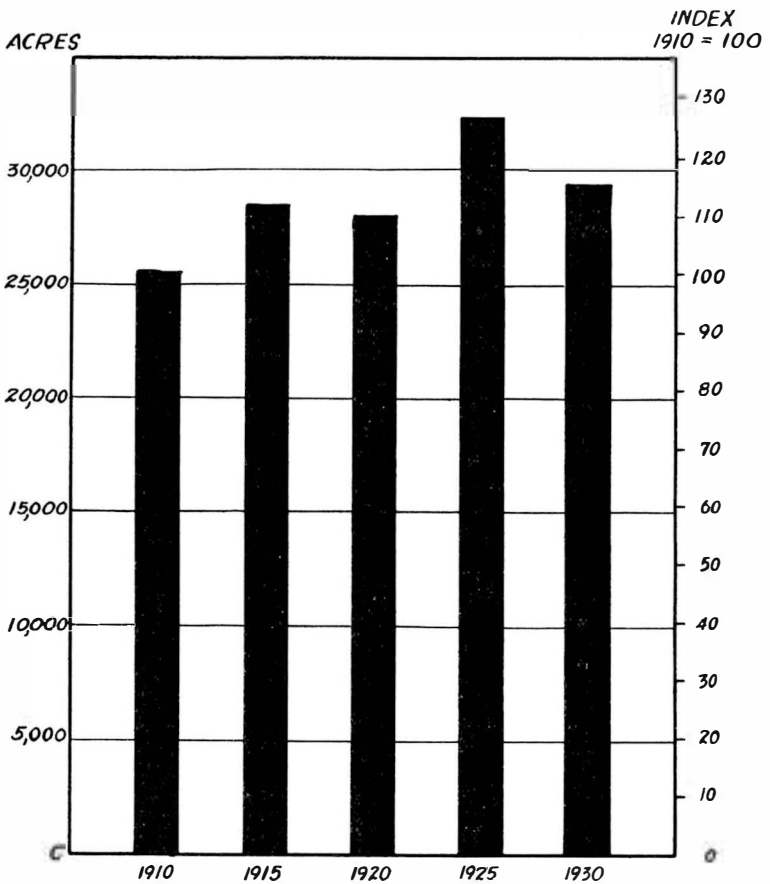

Fig. 4.—Total acreage mortgaged and index of change, every fifth year, 1910-1930. (Based on Table 5.)

the index of change in mortgaged acreage, and the percentage of all farm land under mortgage. This percentage rose from 37.5 in 1910 to 47.3 in 1925. The decline to 43.1 per cent in 1930 cleared 5.6 per cent of the total acreage. Table 6, showing the percentage changes by five and ten-year periods, has already been referred to. Comparing the index of change in total indebtedness in Table 3, with the index of mortgaged acreage in Table 5, and also the percentage changes in Tables 4 and 6, it is evident that the volume of indebtedness has fluctuated much more than has the acreage under mortgage.

TABLE 6.—Percentage increase or decrease in mortgaged acreage by periods* (Based on Table 5)

Periods	Percentage Change in Area Mortgaged	
	Increase	Decrease
1910 to 1915	11.7	
1915 to 1920		2.4
1920 to 1925	15.6	
1925 to 1930		9.0
1910 to 1920	9.1	
1920 to 1930	5.3	

* In each case the incumbered acreage figure for the end of the previous period is taken as 100 per cent.

Indebtedness Per Acre.—These fluctuations are reflected in the debt per acre, as shown in Table 7 and in Figure 5. In 1910 the total debt per acre was $26.36. A 49 per cent increase during the succeeding five years made an average debt of $39.40 in 1915. Though the following five years brought about a smaller percentage increase, 45.5 per cent according to Table 8, the absolute increase per acre was $4.89 greater, which resulted in a total per-acre debt of $57.33 in 1920. For the years considered, i.e. every fifth year, the maximum indebtedness per acre was reached in 1925 with $59.19 mortgage debt per acre of incumbered land. The average total debt per acre of mortgaged land in 1930 was $52.90, or almost exactly twice as much as in 1910. Table 7 also gives the index of indebtedness per acre and likewise shows the amount of the first-mortgage debt per acre of incumbered land. Comparing the two indices it becomes evident that the first-mortgage debt per acre has increased more and has delined less than the total debt per acre of mortgaged land. This is a natural consequence of the gradual reduction in the relative proportion of junior mortgage loans outstanding in this area.

TABLE 7.—Average indebtedness per acre of mortgaged land and index of debt per acre at five year intervals from 1910 to 1930 (Based on Tables 1 and 5)

Year	Average Total Debt Per Acre	Index of Change in Total Debt Per Acre	Average First Mortgage Debt Per Acre	Index of Change in First Mortgage Debt Per Acre
		1910=100%		1910=100%
1910	$26.36	100	$19.43	100
1915	39.40	149	30.36	157
1920	57.33	217	44.46	229
1925	59.19	224	48.79	252
1930	52.90	200	48.52	250

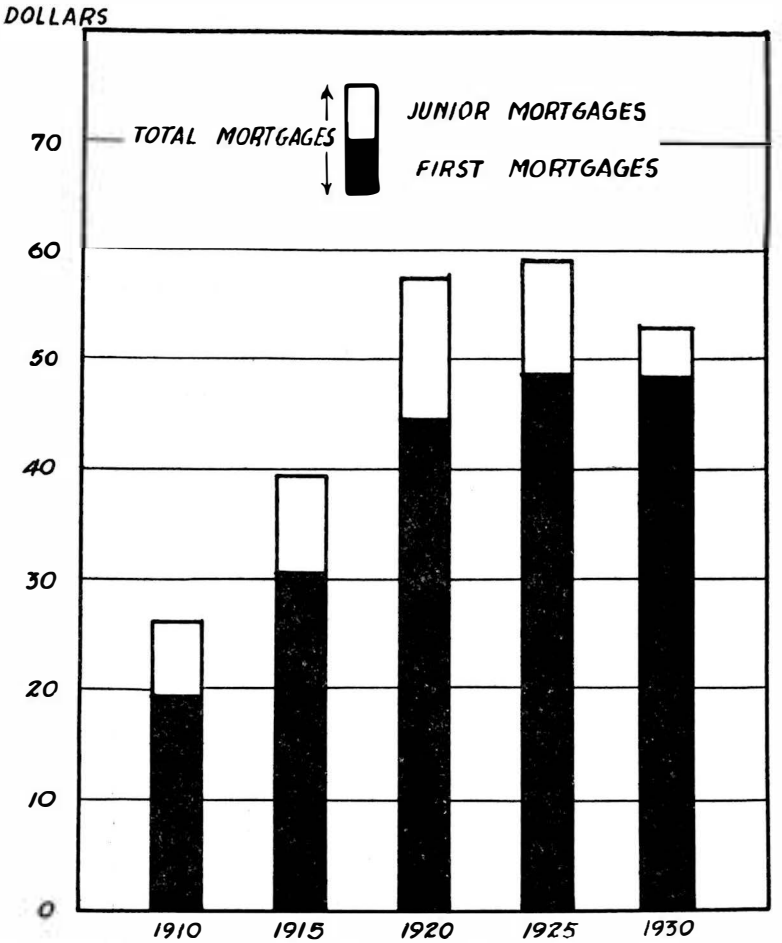

Fig. 5.—Average debt per acre of mortgaged land as to first-, junior-, and total mortgage loans, every fifth year, 1910-1930. (Based on Table 7.)

TABLE 8.—Percentage increase or decrease in the farm mortgage debt per acre of mortgaged land by periods* (Based on Table 7)

Periods	Percentage Change in Total Debt Per Acre	
	Increase	Decrease
1910 to 1915	49.2	
1915 to 1920	45.5	
1920 to 1925	3.3	
1925 to 1930		10.6
1910 to 1920	117.0	
1920 to 1930		7.7

* In each case the debt per acre figure for the end of the previous period is taken as 100 per cent.

Amount of Loans Involved in Forclosures.—Aside from a second mortgage for $3,100 foreclosed on in 1912, there were no foreclosures in these three townships from 1910 to 1920 inclusive, according to Table 9, and Figure 6. This is a splendid record. The reduced prices in force after 1920, however, made it impossible for many farmers to make the required payments on their loans. As a result during the succeeding five years foreclosures amounted to $107,588, but of this amount $28,000 was a second mortgage on 480 acres which was later redeemed. The last five-year period from 1926 to 1930 inclusive recorded $93,654 in foreclosures. The percentage which the amount of foreclosures of each period was of the total debt at the beginning of the respective periods is given in the right hand column of Table 9 and in Figure 7. Table 10 indicates a much

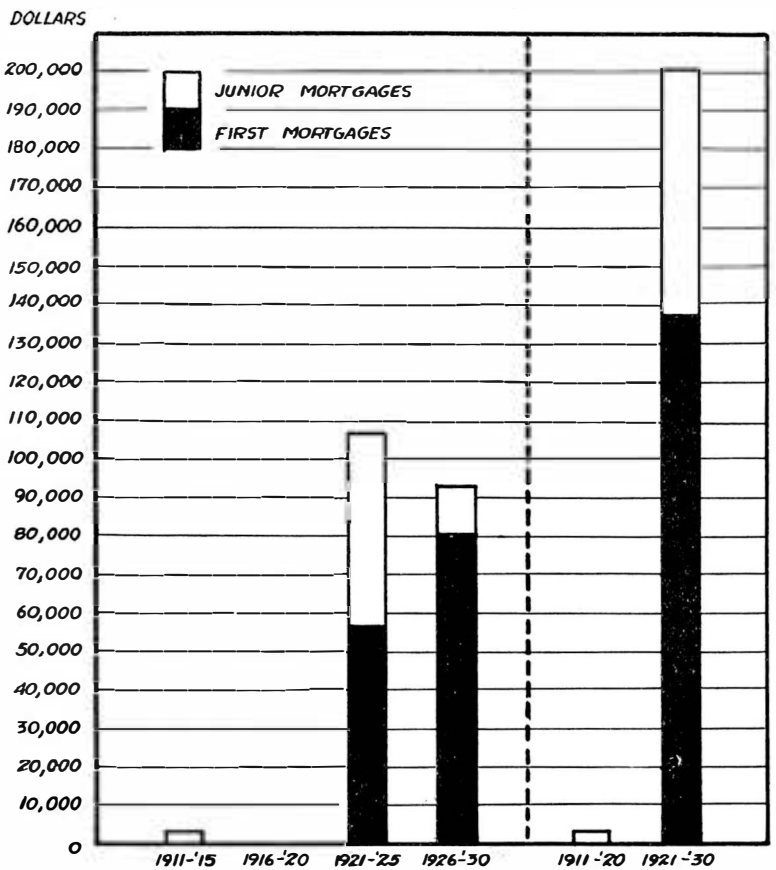

Fig. 6.—Amount of farm mortgages foreclosed upon during four successive five-year periods, and during two successive ten-year periods, 1910-1930. (Based on Table 9.)

TABLE 9.—Amount of farm real estate mortgage loans foreclosed upon during four successive five-year periods and for two successive ten-year periods, with percentage of foreclosures to total indebtedness* at beginning of each period from 1911 to 1930 inclusive.

Periods (first to last year incl.)	Total Amount of Foreclosures	Total Debt at Beginning of Period	Per Cent of Total Debt Foreclosed
1911–1915	$ 3,100	$ 677,001	.5
1916–1920	0	1,130,443	0
1921–1925	107,588†	1,606,046	6.7
1926–1930	93,654	1,917,219	4.5
1911–1920	3,100	677,001	.5
1921–1930	201,242	1,606,046	12.5

* The total indebtedness at beginning of each period is the amount of indebtedness the previous year: 1910 debt for the 1911–1915 period, etc.

† One second mortgage of $28,000 on 480 acres included above was redeemed.

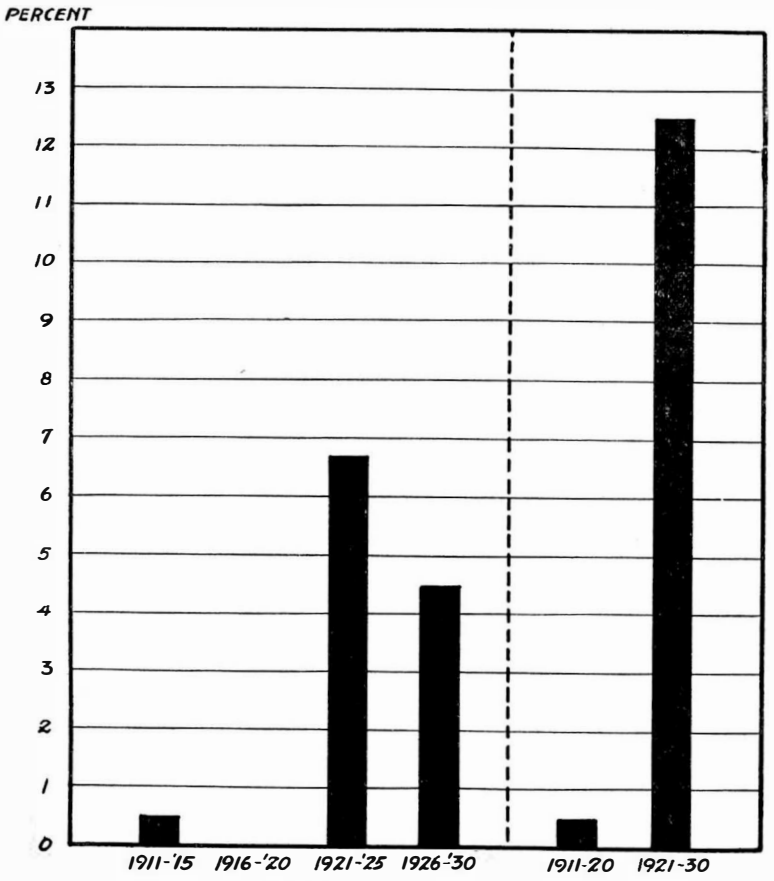

Fig. 7.—Foreclosures during indicated five-year and ten-year periods as percentages of the total debt at the beginning of each period, 1910-1930. (Based on Table 9.)

higher proportion of foreclosures among junior-mortgage loans than among first-mortgage loans. This has undoubtedly contributed to the gradual decline in the volume of outstanding junior-mortgage loans. Although the gross total amount of foreclosures reached its peak in the 1921-1925 period Table 10 shows that first-mortgage foreclosures were greater in the 1926-1930 period than in the preceding five-year period.

TABLE 10.—Distribution of the volume of foreclosures according to the rank of the mortgages foreclosed in successive five-year periods from 1911 to 1930 inclusive and the percentage of the loans of each rank involved in foreclosures

Period (inclusive)	First mortgages foreclosed		Second mortgages foreclosed		Third mortgages foreclosed	
	Amount	Per cent	Amount	Per cent	Amount	Per cent
1911-1915	$ 0	...	$ 3,100	3.2	$ 0	...
1916-1920	0	...	0	...	0	...
1921-1925	57,188	4.6	39,400*	16.1	11,000†	9.5
1926-1930	80,454	5.1	6,500	2.3	6,700	13.5

* One second mortgage of $28,000 on 480 acres included above was later redeemed.
† Includes one fourth mortgage of $600 on 320 acres.

Acreage Lost Through Foreclosure.—The amount of land involved in foreclosures is given in Table 11 and in Figure 8. As previously mentioned, only a second mortgage was foreclosed on in this area from 1910 to 1920. The acreage involved was 320. During the 1921-1925 period the net loss through foreclosures was 2,240 acres, 480 acres having been redeemed. From 1926 to 1930 inclusive, 2,120 acres were lost to the owner-borrowers as a result of foreclosure proceedings. A comparison of the percentage figures in the right hand column of Table 9 and of Table 11 may seem to indicate a smaller debt per acre of mortgaged land than per acre of other land. This indication, however, is erroneous, because the lands foreclosed on carried other mortgages besides those which were foreclosed.

Comparative Debt Per Acre on Foreclosed and on Other Mortgaged Land.—Listing all the mortgaged loans on the lands involved in foreclosure proceedings during each five-year period and comparing the total debt per acre on such land with the average of the debt per acre on all mortgaged land for the beginning and end of each period, the foreclosed land was shown to have a higher indebtedness than the non-foreclosed mortgaged land. Thus, one-half the sum of the 1920 and 1925 average debt per acre of mortgaged land was compared with the total debt per acre on the land foreclosed on from 1921 to 1925 inclusive. The latter had a 109 per cent higher per acre debt. (Foreclosures prior to 1921 were too few for significant comparison.) In the 1926-1930 period the foreclosed land carried a 23 per cent higher debt load. In spite of the fact that this comparison is subject to criticism on the ground that the two sets of mortgages compared are not of contemporary origin, the results seem reasonable. One would naturally expect the owners of some of the more heavily encumbered lands to find it difficult to avoid delinquency and foreclosure.

TABLE 11.—Acreage of land involved in mortgage foreclosures during four successive five-year periods and for two successive ten-year periods, with percentage of foreclosed acreage to mortgaged acreage* at the beginning of each period, 1911 to 1930 inclusive

Periods (inclusive)	Total acres in foreclosure	Total mortgaged acreage at beginning of period	Per cent of mortgaged acreage foreclosed
1911–1915	320	25,680	1.2
1916–1920	0	28,693	0
1921–1925	2,720†	28,013	9.7
1926–1930	2,120	32,393	6.5
1911–1920	320	25,680	1.2
1921–1930	4,840	28,013	17.3

* The total mortgaged acreage at beginning of period refers to the previous year: the mortgaged acreage in 1910 is used with the 1911–1915 period, etc.

† 480 acres redeemed.

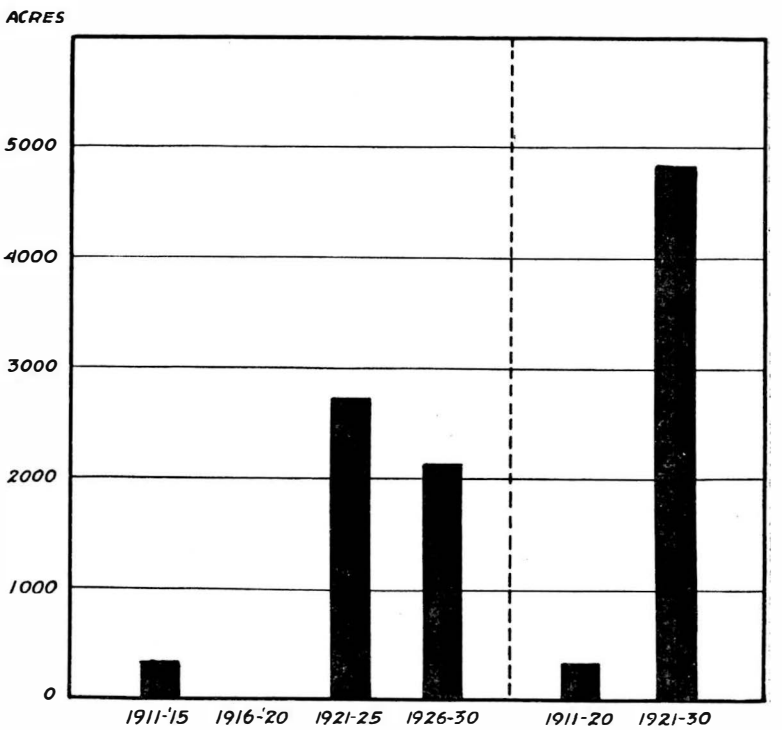

Fig. 8.—Acreage of land on which mortgage was foreclosed during four successive five-year periods, or for two successive ten-year periods, 1910-1930. (Based on Table 11.)

Delinquency

Amount and Percentage of First- and Junior-Mortgage Delinquency.—At the end of 1910 the delinquent loans amounted to $10,131, according to Table 12. Tables 13 and 14 and Figure 9 show that this amount was divided almost equally between first mortgage and junior-mortgage loans. By 1915 the delinquent loans had increased to $115,238, but only a small fraction of this amount was represented by loans below the first rank. This also applies to the total delinquency of $153,489 in 1920. By the end of 1925 this relationship had changed considerably, and a much higher proportion of the total delinquency of $258,772 was represented by loans of junior rank. In 1930 loans to the amount of $134,269 were delinquent and a still larger proportion of the total than before was made up of junior-mortgage loans. The percentage figures in Tables 13 and 14 show that the proportion of first-mortgage loans delinquent every fifth year rose from 1 per cent in 1910 to 12.1 per cent in 1915 and then declined to 5.3 per cent in 1930. Junior-mortgage delinquencies, on the other hand, increased slowly from 2.8 per cent in 1910 to 4.1 per cent in 1920, and then jumped to 27.8 per cent in 1925 and 45.4 per cent in 1930. Figure 10 shows what percentage of the total debt was delinquent. The high proportion of junior-mortgage foreclosures after 1920 would seem to be a natural consequence of high delinquency.

TABLE 12.—Total amount of farm real estate loans of all ranks delinquent* as to principal, and the percentage of the total mortgage indebtedness which was delinquent at the end of every fifth year, 1910 to 1930

	Delinquent mortgages of all ranks		Sum of mortgages delinquent for various periods				
Year	Amount delinquent*	Per cent of total debt delinquent	Up to 30 days	31 days to 6 months	Over 6 months to one year	Over one year	Unknown length of time
1910	$ 10,131	1.5	$ 0	$ 0	$ 7,500	$ 2,631	$ 0
1915	115,238	10.2	7,000	24,045	35,200	48,993	0
1920	153,489	9.6	13,660	13,200	25,800	100,829	0
1925	258,772	13.5	0	10,200	45,500	192,257	10,815
1930	134,269	8.6	0	8,500	1,500	124,269	0

* A mortgage past due and not satisfied of record is counted delinquent in cases where inquiry has not shown extension by agreement between borrower and lender. In the left hand column headed "Amount delinquent" are included two delinquent Rural Credit amortization loans which have been listed separately in the right hand column for delinquencies of unknown length of time.

Accuracy of Delinquency Records.—As previously suggested, there is some possibility that these delinquency figures are exaggerated. As will be seen from Tables 12, 13 and 14 a large number of these delinquent loans had been past due and unpaid of record a year or more. In spite of the fact that attempts were made by means of correspondence to determine the true situation it is possible that some of these loans had been paid in part or in full but had not been released on the records. If the delinquency figures are too large, compensating errors would be the amounts of unrecorded mortgages, delinquent interest, taxes, etc. to be paid by the borrower.

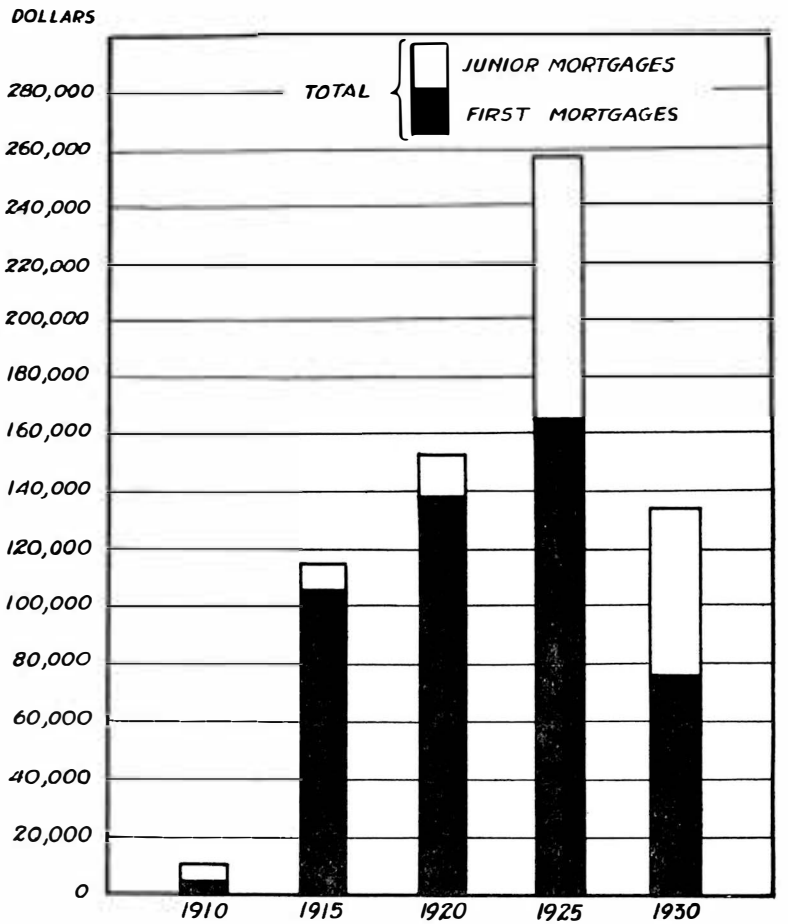

Fig. 9.—Total amount of farm mortgage loans delinquent at the end of every fifth year, 1910-1930. (Based on Tables 12, 13 and 14.)

Acreage With Delinquent Loans.—Table 15 gives the number of acres of land on which the mortgage was delinquent. Both this table and Figure 11 indicate the percentage of the incumbered acreage on which loans were delinquent. The greatest increase in delinquent acreage occurred between 1910 and 1915, the change being from 1,240 to 4,180 acres respectively. Loans on 5,140 acres were delinquent in 1920. By 1925 a peak of 7,020 acres was reached, and then there was a decline to 5,080 acres in 1930. The changes in the acreage with delinquent mortgage loans have naturally somewhat resembled the changes in the amounts

TABLE 13.—Amount of first-mortgage farm real estate loans delinquent* as to principal, and percentage of the total first mortgage indebtedness which was delinquent at the end of the years indicated, 1910 to 1930

Year	Total First Mortgage Loans Delinquent*		First Mortgages Delinquent for Various Periods				
	Amount delinquent	Per cent of total first mtg. debt delinquent	Up to 30 days	31 days to 6 months	Over 6 months to one year	Over one year	Unknown length of time
1910	$ 5,131	1.0	$ 0	$ 0	$ 5,000	$ 131	$ 0
1915	105,493	12.1	7,000	23,800	31,200	43,493	0
1920	138,680	11.1	13,500	8,200	25,800	91,180	0
1925	165,215	10.5	0	8,200	21,000	125,200	10,815
1930	75,800	5.3	0	7,500	0	68,300	0

* Included among the "total first mortgage loans delinquent" are all such loans past due and unpaid of record in cases where inquiry has not shown extension by agreement between borrower and lender. Two delinquent Rural Credit amortization loans are included in the left hand column, and then listed separately in a column at the right for delinquencies of unknown length of time.

TABLE 14.—Amount of junior mortgage loans delinquent* as to principal and the percentage of the total junior mortgage indebtedness which was delinquent at the end of the years indicated, 1910 to 1930

Year	Junior Mortgages Delinquent		Junior Mortgages Delinquent for Various Periods			
	Amount delinquent	Per cent of total junior mortgage debt	Up to 30 days	31 days to 6 months	Over 6 months to one year	Over one year
1910	$ 5,000	2.8	$ 0	$ 0	$ 2,500	$ 2,500
1915	9,745	3.8	0	245	4,000	5,500
1920	14,809	4.1	160	5,000	0	9,649
1925	93,557	27.8	0	2,000	24,500	67,057
1930	58,469	45.4	0	1,000	1,500	55,969

* A mortgage past due and not satisfied on the records is counted delinquent in cases where inquiry has not shown extension by agreement between borrower and lender.

of delinquent loans. On a percentage basis, however, a comparison of Tables 12 and 15 shows that a higher percentage of the land was involved in delinquency than was the case with the total loans. This is accounted for by the fact that not all the mortgages on each piece of delinquent land were delinquent at the same time. In the case of lands with both a first mortgage and second mortgage, or even more junior-mortgage loans, the delinquency of any one mortgage would place the whole acreage in a condition of delinquency.

TABLE 15.—Percentage of mortgaged acreage on which principal of loan was delinquent* as of the years indicated, 1910 to 1930

Year	Acreage on which loans were delinquent	Total mortgaged acreage	Per cent of total mortgaged acreage delinquent
1910	1,240	25,680	4.8
1915	4,180	28,693	14.6
1920	5,140	28,013	18.3
1925	7,020	32,393	21.7
1930	5,080	29,485	17.2

* A mortgage past due and not satisfied of record is counted delinquent in cases where inquiry has not shown extension by agreement between borrower and lender.

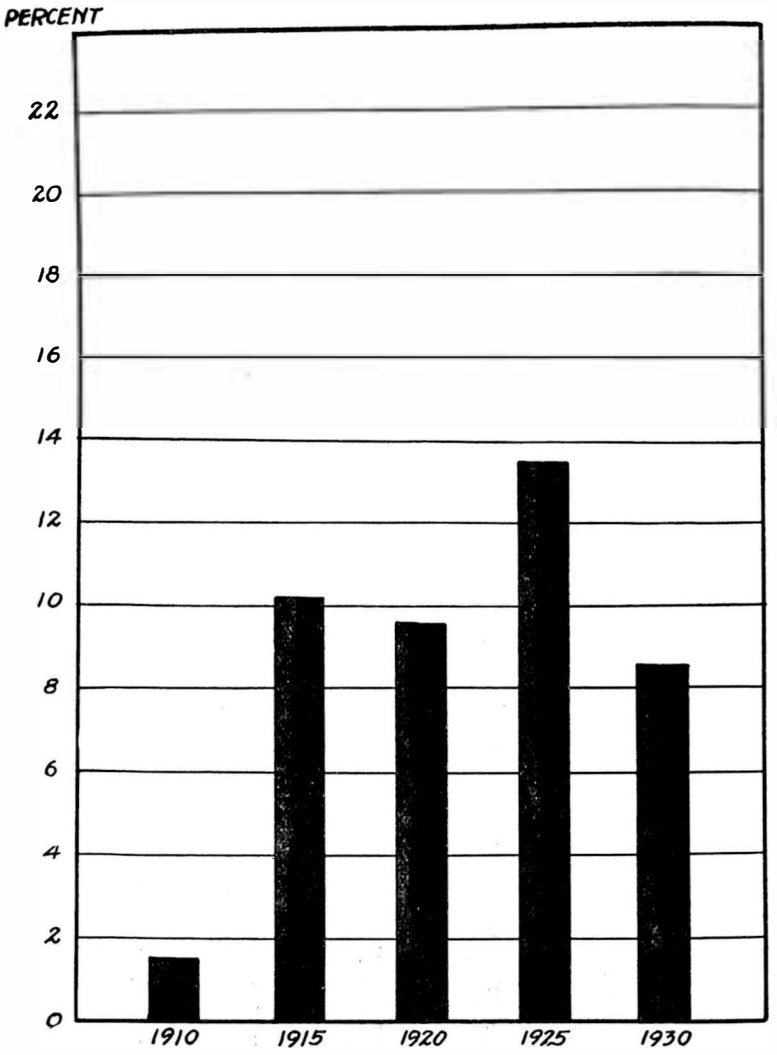

Fig. 10.—Percentage of total farm mortgage indebtedness delinquent at the end of every fifth year, 1910-1930. (Based on Table 12.)

Indices of Prices and Debt Per Acre.—The foregoing recital of foreclosures and delinquency indicate a heavier burden of debt in the more recent years than in the earlier years. While data are not available to show exactly the relationship between farm incomes, and the debt burden for the various years in the area studied, or even in Turner county, comparison of the following indices may be of interest. All the indices are based on 1910 conditions taken as 100 per cent.

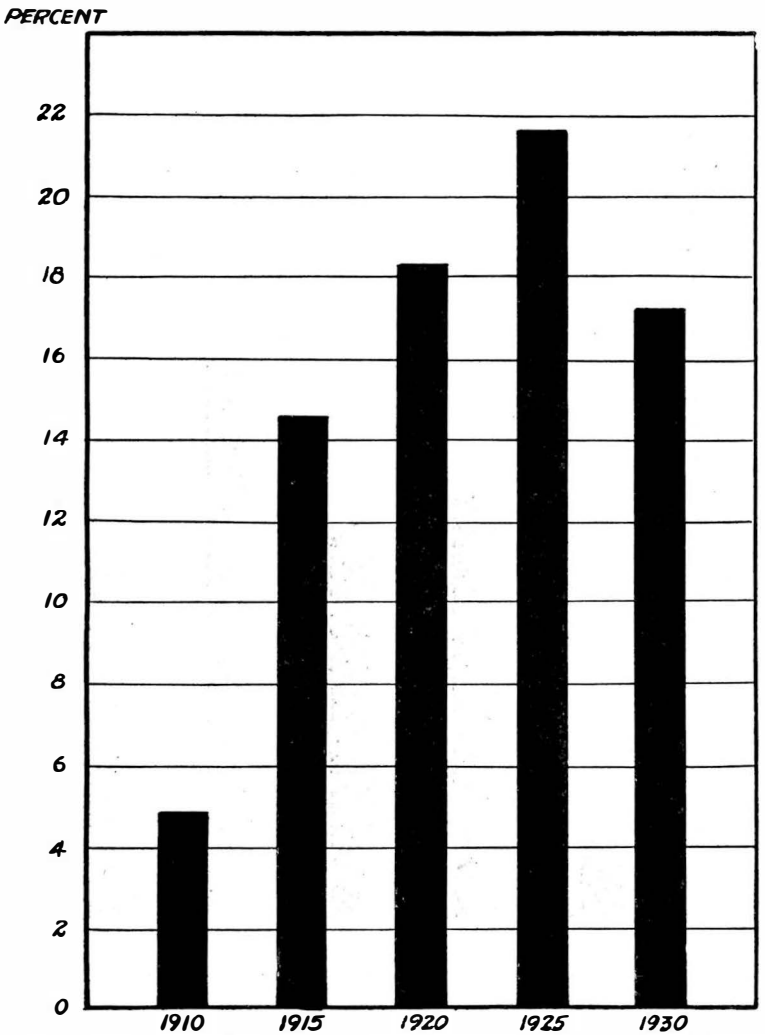

Fig. 11.—Percentage of the encumbered acreage on which the principal was delinquent at the end of each five-year period, 1910-1930. (Based on Table 15.)

TABLE 16.—Index numbers of prices and debt per acre

	Index of prices received by South Dakota farmers for farm products*	Index of debt per acre of mortgaged land in three townships in Turner County†	Index of prices received by South Dakota farmers for beef cattle*	Index of prices paid by United States farmers for commodities bought‡
1910	100	100	100	100
1915	96.7	149	132.6	108
1920	195.9	217	172.6	210
1925	152	224	147.7	162
1930	121.2	200	176.7	149

* Index compiled by Professor R. E. Post, and converted to a 1910 base of 100 per cent.
† Table 7 of this circular.
‡ From 1932 Yearbook of Agriculture, U. S. Department of Agriculture, page 900, converted to a 1910 base of 100.

Debt Burden Heavier After 1920.—The above indices show the relative conditions in later years as compared with what they were in 1910. To the extent that the farmers in these three townships have marketed a constant volume of farm products of the various kinds in the same proportions as the average of all South Dakota farmers, their relative income, as shown in the extreme left hand column, has increased less and decreased more than the average debt per acre of incumbered land. Not only changes in price but also changes in the amounts sold have naturally influenced the farm income. The prices paid for commodities used in living and in production also have remained above selling prices for the years after 1910. To the extent, however, that the farmers in this area have received a larger share of their total farm income from beef cattle than is true for the average South Dakota farmer they were somewhat better off in 1930. But even on this basis their burden was relatively greater in that year than was the case in 1910. These indices thus coincide with the data on foreclosures and delinquencies in indicating that the burden of debt was relatively heavier after 1920 than in 1910. This is the price paid for war inflation and its almost inevitable successor, deflation. The individual must try to protect himself against the economic consequences of these forces by pursuing a policy of extreme conservatism in the matter of contracting long term debts when the price level is high.

Classification of Mortgaged Land and Loans As to Debt Per Acre

How Classified.—Table 17 and Figure 12 were prepared in order to get a more detailed view of indebtedness than is furnished by the average for each period. In this table and in the figure based on it, the incumbered land has been divided into classes of indebtedness varying by $10.00 per acre. The table shows the average debt per acre in each class, and indicates what percentage of the total indebtedness and what percentage of the mortgaged land falls in each such class. These percentages are shown graphically in Figure 12.

Distribution of Debt Per Acre in 1910 and 1915.—In 1910, 67.6 per cent of the total debt was distributed over land which was mortgaged

at the rate of from $10.01 to $50.00 per acre. The class between $10.01 to $20.00 carried a higher percentage than any other class. Of the incumbered land 83.4 per cent fell in the four classes up to $40.00 inclusive. The $10.01 to $20.00 was the modal class, the same as for the indebtedness. In 1915 three classes, ranging from $20.01 to $50.00 per acre, carried 44.9 per cent of the total debt; the modal class being the middle one of the three. In the case of the mortgaged acreage four classes accounted for at least 10 per cent each, the total for the four being 73.1 per cent of all the mortgaged land. Here the modal class was the one from $30.01 to $40.00 of debt per acre.

Wide Dispersion in 1920.—The dispersion in 1920 was much wider than in the two earlier years with the result that only two classes registered more than 10 per cent of the debt, and these two were wide apart. Slightly more than one-fifth of the total debt was divided about equally between the $40.01 - $50.00 class and the $90.01 - $100.00 class. The incumbered land showed greater concentration. The four classes of indebtedness ranging from $10.01 to $50.00 per acre contained 55.1 per cent of all the mortgaged acreage.

Greater Concentration by 1925 and 1930.—The tendency toward greater concentration in 1925 is noticeable not so much in the upper range as in the percentage contained in the largest class. The distributions for both 1925 and 1930 appear to have two points of concentration. In 1925, 24.3 per cent of the debt fell in the two classes from $30.01 to $50.00 per acre. The next class contained less than 10 per cent, but the two classes of from $60.01 to $80.00 contained 28.6 per cent of the debt. These two groups of classes contained respectively 36.1 and 24.4 per cent of the mortgaged land. By the end of 1930 most of the very large mortgages had been eliminated and the loans were concentrated within a narrower range. Of the debt, 64.1 per cent was accounted for by the four classes from $40.01 to $80.00. Of the mortgaged land 62.2 per cent was concentrated in the four classes from $30.01 to $70.00 debt per acre. For both the indebtedness and the acreage the highest concentration was in the class from $40.01 to $50.00 debt per acre.

Causes of Wide Range in Amount of Debt Per Acre.—This shows that even in 1930 there were still some loans of less than $10.00 per acre, but much of the excessive indebtedness on record in 1920 and 1925 had been reduced or eliminated entirely. In 1930 the debts in excess of $110.00 per acre involved only about the same acreage of land as the debts of $10.00 or less per acre. The "land boom" ending with 1920 creating higher loan values, and the heavy mortgaging of land in connection with sales at inflated prices brought about the wide scatter or range in amounts loaned per acre which is indicated in Table 17 and in Figure 12. This gives a much better conception of what took place than is indicated by Table 7 and Figure 5 showing the average debt per acre. Undoubtedly it has been the loans amounting to around $100 or more per acre that have caused difficulty to both borrowers and lenders. From 1920 to 1930 the loans of more than $110.00 per acre have declined from 23.8 per cent of the total indebtedness to 3.5 per cent.

TABLE 17.—Distribution of the total farm real estate mortgage indebtedness according to the amount of debt per acre of mortgaged land, every fifth year, 1910 to 1930

Classes of indebtedness per acre	Average debt per mortgaged acre in each class, per cent of total indebtedness and per cent of mortgaged land falling in each indebtedness class														
	1910			1915			1920			1925			1930		
	Average debt per acre	Per cent of total debt	Per cent of mortgaged land	Average debt per acre	Per cent of total debt	Per cent of mortgaged land	Average debt per acre	Per cent of total debt	Per cent of mortgaged land	Average debt per acre	Per cent of total debt	Per cent of mortgaged land	Average debt per acre	Per cent of total debt	Per cent of mortgaged land
$ 0.01 - $ 10	$ 5.88	3.2	14.2	$ 7.09	.6	3.6	$ 4.90	.2	2.0	$ 5.55	.2	2.1	$ 3.13	.1	1.1
10.01 - 20	16.48	23.0	36.8	15.80	8.0	19.6	15.69	2.9	10.7	14.74	1.1	4.5	16.09	2.4	8.0
20.01 - 30	24.80	17.9	18.9	26.20	13.3	20.1	26.14	6.9	15.1	29.79	3.0	5.9	23.16	3.3	7.5
30.01 - 40	33.72	16.7	13.2	33.90	18.8	21.9	34.13	9.4	15.7	33.77	10.4	18.3	34.47	8.0	12.2
40.01 - 50	44.41	10.0	5.9	45.13	12.8	11.2	45.42	10.7	13.6	46.47	13.9	17.8	45.71	21.1	24.4
50.01 - 60	54.07	7.7	3.7	57.78	7.4	5.0	56.37	3.0	3.0	55.82	8.8	9.4	56.38	11.4	10.6
60.01 - 70	63.88	7.5	3.1	65.01	7.8	4.7	63.82	8.9	8.0	64.62	14.3	13.1	64.99	18.5	15.0
70.01 - 80	79.22	3.7	1.2	74.25	9.2	4.9	76.63	9.9	7.4	74.62	14.3	11.3	74.08	13.1	9.4
80.01 - 90	86.72	3.1	.9	82.58	4.7	2.2	83.51	8.7	6.0	83.45	4.7	3.3	84.18	7.1	4.5
90.01 - 100	96.15	3.7	1.0	95.60	7.6	3.1	98.00	10.4	6.1	95.84	7.5	4.6	92.21	6.1	3.5
100.01 - 110	0	-	-	104.15	3.7	1.4	105.67	5.2	2.8	105.54	5.7	3.2	105.56	5.4	2.7
110.01 - 120	111.88	2.6	.6	113.50	2.0	.7	118.13	3.5	1.7	115.54	3.4	1.7	0	-	-
120.01 - 130	0	-	-	127.67	3.1	1.0	125.08	5.0	2.3	124.75	2.6	1.2	0	-	-
130.01 - 140	0	-	-	135.63	1.0	.3	0	-	-	135.84	3.1	1.4	0	-	-
140.01 - 150	0	-	-	0	-	-	144.46	9.0	3.6	146.15	2.4	1.0	0	-	-
150.01 - 160	152.50	.9	.2	0	-	-	0	-	-	158.75	.7	.2	158.75	.8	.3
160.01 - 170	0	-	-	0	-	-	168.75	1.7	.6	168.75	1.4	.5	162.50	1.6	.5
170.01 - 180	0	-	-	0	-	-	171.88	3.4	1.1	0	-	-	0	-	-
180.01 - 310	0	-	-	0	-	-	237.50	1.2	.3	240.50	2.5	.5	218.75	1.1	.3

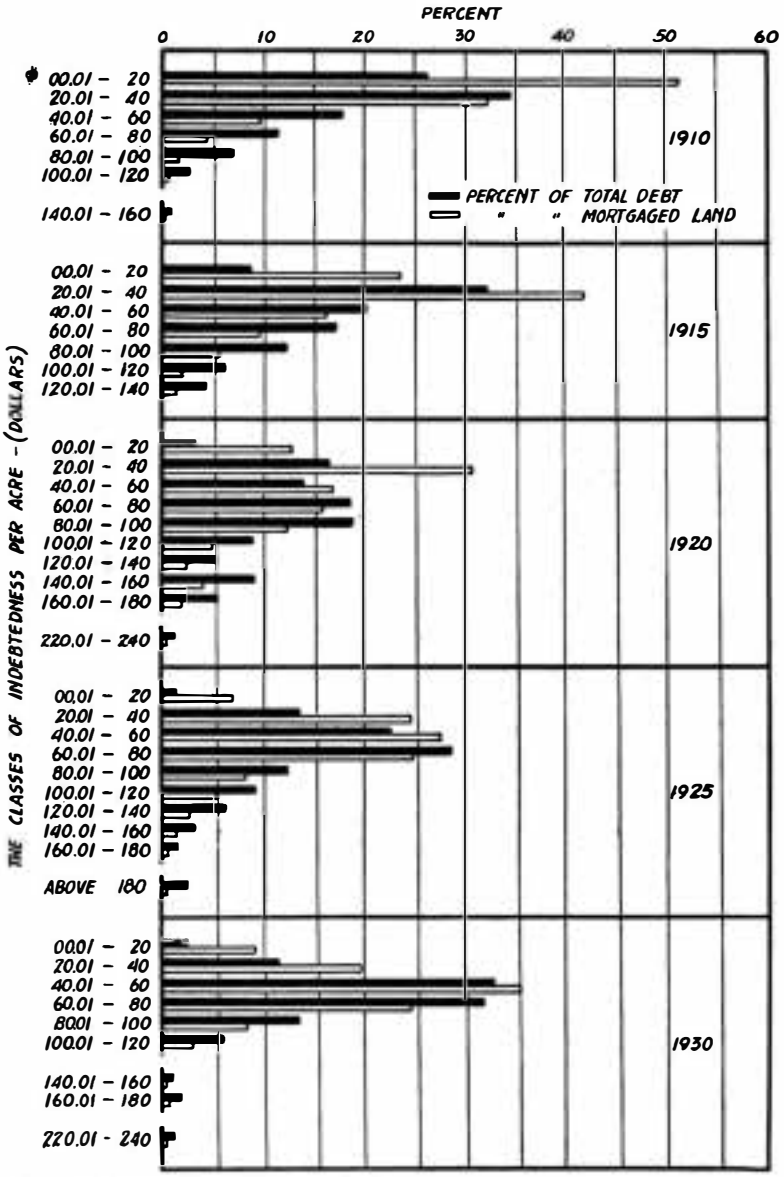

Fig. 12.—Percentage of total indebtedness and percentage of mortgaged land falling in different groups or classes of indicated indebtedness per acre 1910-1930.
(Based on Table 17.)

Source of Funds

Sources of First-Mortgage Funds.—The outstanding change that has taken place in the source of first-mortgage funds is a shift from individuals to insurance companies as the chief source of supply. This is shown in Table 18 and is visualized in Figure 13. In 1910 individuals furnished 52.9 per cent of all first-mortgage funds in these three townships, while insurance companies furnished 23.4 per cent. By 1915 the proportion furnished by individuals had declined to 51.7 per cent, and the insurance companies had increased their share to 29.6 per cent of the total. In 1920 these two chief sources accounted for practically the same amounts, 41 per cent coming from individuals and 40.4 per cent from insurance companies. Following 1920 individuals apparently were unable or unwilling to furnish funds to the same relative extent as formerly, and the decline in the proportion of funds coming from them was accelerated. In 1925 individuals furnished only 23.7 per cent and insurance companies had increased their share to 61.9 per cent of the total first-mortgage funds. Even from 1925 to 1930 there was a small decline in the proportion of funds coming from individuals. Their share was 19 per cent in the latter year, while insurance companies held mortgages representing 71.2 per cent of all first mortgage funds in the three townships studied. The proportion coming from savings banks has declined from 11.9 per cent to .8 per cent. None of the other sources has accounted for more than 5 per cent of the total in any of the years studied. Federal Land Bank loans increased from .6 per cent in 1925 to 2.4 per cent in 1930. The Rural Credit loans have not been a significant part of the total in this area.

Fewer Sources of Second-Mortgage Funds.—As to the source of funds for second mortgages Table 19 and Figure 14 make it evident that individuals had furnished more than half of all such funds outstanding during every one of the five years under consideration. The proportion gradually declined from 69.4 per cent in 1910 to 65.1 per cent in 1920. Then it dropped to 56.4 per cent in 1925, but rose again to 61.8 per cent in 1930. Commercial banks and savings banks were the second and third most important sources of second-mortgage funds as indicated by mortgages on record during 1920, 1925 and 1930. Naturally there is greater risk in lending on second-mortgage security, and consequently lending agencies at a distance prefer not to become interested, and this reduces the number of regular sources of second-mortgage funds. The considerable increase in the proportion of second-mortgage funds held by commercial banks after 1920 may in part have been due to actual advances to clients in need of funds, and in part due to the banks' demand for additional security in connection with pre-existing short term bank loans.

TABLE 18.—Source of first mortgage funds: Amount and percentage of total coming from each source, every fifth year, 1910 to 1930

Source of Funds	1910		1915		1920		1925		1930	
	Amount	Per cent	Amount	Per cent	Amount	Per cent	Amount	Per cent	Amount	Per cent
Insurance Companies	$116,795	23.4	$258,093	29.6	$502,700	40.4	$978,879	61.9	$1,019,282	71.2
Savings Banks	59,330	11.9	67,800	7.8	80,500	6.5	29,200	1.8	11,500	.8
Commercial Banks	16,600	3.3	43,500	5.0	37,900	3.0	41,100	2.6	2,400	.2
Indviduals	264,020	52.9	449,840	51.7	510,463	41.0	375,293	23.7	271,800	19.0
Federal Land Banks	*	*	*	*	*	*	9,078	.6	34,951	2.4
South Dakota School Fund	21,000	4.2	32,400	3.7	32,800	2.6	29,800	1.9	20,800	1.5
South Dakota Rural Credit	*	*	*	*	5,000	.4	15,580	1.0	*	*
Mortgage Bankers	3,325	.7	6,025	.7	60,245	4.8	56,475	3.6	13,500	.9
Miscellaneous, including Joint Stock Land Bank	18,000	3.6	13,400	1.5	15,800	1.3	45,177	2.9	56,665	4.0

* No loans.

TABLE 19.—Source of second mortgage funds: Amount and percentage coming from each source, every fifth year, 1910 to 1930

Source of Funds	1910		1915		1920		1925		1930	
	Amount	Per cent	Amount	Per cent	Amount	Per cent	Amount	Per cent	Amount	Per cent
Savings Banks	$ 3,800	3.9	$ 1,500	.9	$ 36,000	14.7	$ 25,000	8.7	$ 9,474	8.3
Commercial Banks	12,391	12.8	17,885	10.3	35,800	14.6	76,767	26.8	25,750	22.8
Individuals	67,312	69.4	118,550	68.4	159,367	65.1	161,767	56.4	70,250	61.8
Mortgage Bankers	12,926	13.3	17,480	10.1	7,346	3.0	8,943	3.1	6,035	5.3
Miscellaneous	600	.6	17,900	10.3	6,400	2.6	14,400	5.0	2,100	1.8

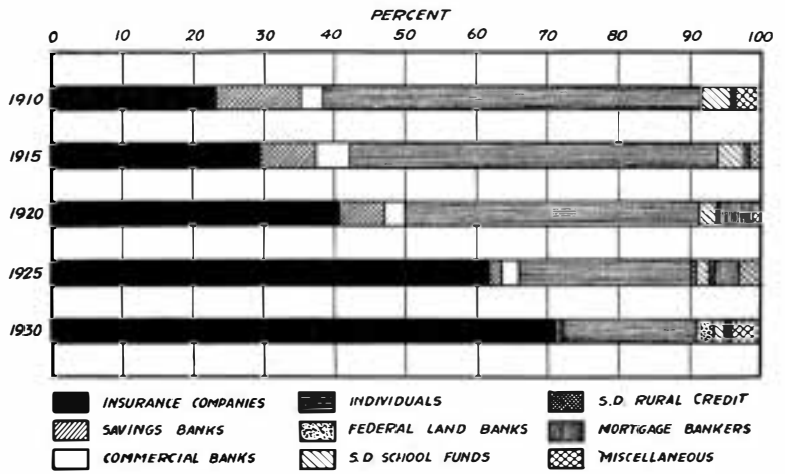

Fig. 13.—Percentage of first-mortgage funds coming from various sources, 1910-1930. (Based on Table 18.)

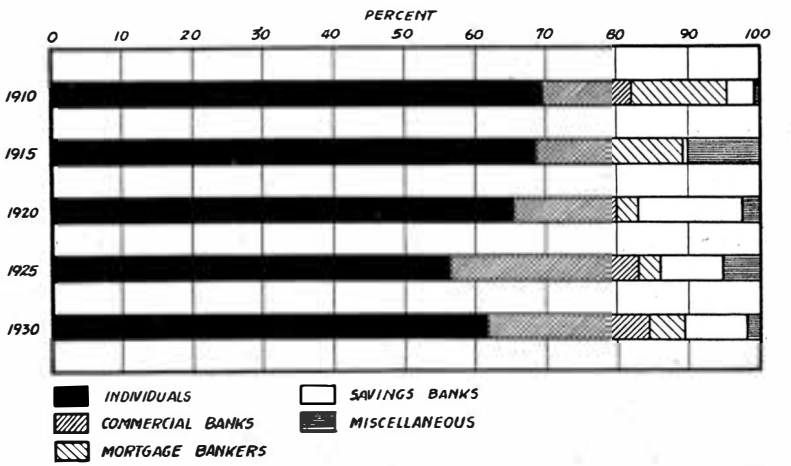

Fig. 14.—Percentage of second-mortgage funds coming from various sources, 1910-1930. (Based on Table 19.)

The Cost of Funds

Components and Causes of Loan Costs.—The major cost of a farm mortgage loan is usually the interest charge that must be paid. Sometimes also a commission has to be paid to the local agent or mortgage banker as compensation for his services in making out the papers, etc., and finding an investor to put up the money for the loan. Other costs include the recording fees and the price paid for the abstracter's services in bringing the abstract of title to the land up to date. The interest rate on farm loans is influenced by many factors, such as the amount of savings or loanable funds seeking investment in long term securities, and the relative attractiveness to the investors of the various available or competing long term investment securities. This attractiveness will depend not only on the relative interest rate but also on the security, the maturity, the size of the loan, note, bond, etc.; the promptness with which payments of interest and principal will be made when due; and the ease or difficulty with which the security can be marketed at any time and place without loss. It is obvious that individual farm mortgages are less satisfactory to the investor in some respects than are the standardized bonds of the federal land banks. The regulations governing the making of farm mortgage loans by the federal land banks and the method of issuing bonds with these mortgages as security is a matter of public information. Impartial information as to the capital structure and financial standing of the federal land banks is also readily available to any investor. In order to get comparable information about a mortgage given by John Doe, farmer, one would have to go to considerable effort and expense. There would be no assurance that the contractual repayments on the mortgage given by John Doe would be made as punctually as the payments on the federal land bank bonds are made. Furthermore there would be no daily market and no daily market quotations on John Doe's mortgage to enable the investor to sell his mortgage for cash at any time. Because of this situation the services of a local agent or mortgage banker is often required to make contact between the farmer borrower and the investor. The services of this middleman are usually paid for in the form of a commission, which may be paid either in cash or in deferred installments according to the terms of a commission mortgage.

First-Mortgage Interest Rate.—According to Table 20 there has been a slightly downward trend of interest rates on first mortgages in the area studied. For the years 1910 and 1915 the weighted average rate of interest on first mortgage loans was 5.6 per cent. The weighted average for 1920 and 1925 was 5.5 per cent, and for 1930 it was 5.3 per cent. The commission has varied from .6 per cent to .8 per cent. The figures for the number of observations or the number of commission mortgages on record indicate that the taking of a commission mortgage was much more common in the earlier years. According to the statement of farm mortgage bankers who are familiar with the situation, it is now more customary to collect a cash commission, especially in the older sections of the state. The total first-mortgage interest charges to the mortgagor have thus been about 6 per cent or more except possibly for 1930.

TABLE 20.—Cost of first and second mortgage funds: The rate of interest and commissions, as weighted averages of loans in force, every fifth year, 1910 to 1930

Year	First Mortgages				Second Mortgages	
	Rate of Interest		Rate of Commision		Rate of Interest	
	Per Cent	Number of Observations	Per Cent	Number of Observations	Per Cent	Number of Observations
1910	5.6	138	.7	46	6.1	30
1915	5.6	171	.8	39	6.1	47
1920	5.5	189	.6	15	5.9	38
1925	5.5	226	.7	3	6.5	59
1930	5.3	201	.8	1	6.7	42

Second-Mortgage Interest Rate.—The interest rates on second mortgage loans have been not only higher, according to Table 20, but the trend of the rate has been upward instead of downward. For 1910 and 1915 the rate averaged 6.1 per cent. It was down to 5.9 per cent in 1920, but rose to 6.5 in 1925 and 6.7 in 1930. This increase in the rate of interest on second mortgages in this area as well as the gradual reduction in the total volume of second mortgage loans indicate that investment in second-mortgage securities have become gradually less attractive during the period considered.

Frequency Distribution of Rate on Current First-Mortgage Loans.—In order to get a better picture of the changes that have taken place in the rate of interest than is indicated by the average of outstanding mortgages, Table 21 was prepared. In this table only current mortgages for each period are considered. In order to base the results on a larger number of mortgages than those recorded in one year only, a 24-month period was taken. For each year studied the period covers the last six months of the previous year and the first six months of the succeeding year besides the year specified. There is an exception to this rule for the year 1930, in that the period for that year covers only the 18 months ending with December 31, 1930. Only such mortgages were included in this study as were actually put on record during each period. Figure 15 is a graphic presentation of the same information given in Table 21. It is evident that in the 1910 period the 5 per cent and the 6 per cent rates were the most common, 43.7 per cent of the loans specifying 5 per cent, and 38.2 per cent of the loans drawing 6 per cent interest. In 1915 the 5½, 5 and 6 per cent rates accounted for respectively 34.4, 31.1 and 27.9 per cent of all mortgages recorded. In the 1920 period the 6 per cent rate accounted for 40 per cent of all loans, and the 5½ per cent rate came second with 33.9 per cent of all loans currently recorded. By 1925 the interest rate was down again and the most common rate, 5 per cent, accounted for 83.1 per cent of all loans. In no other period studied were the interest rates as low. By 1930 the 5½ per cent rate had become the most common, with 51 per cent of the mortgages drawing that rate, and 28.6 per cent of them were drawing 5 per cent interest. Twelve per cent of the loans specified the 6 per cent rate.

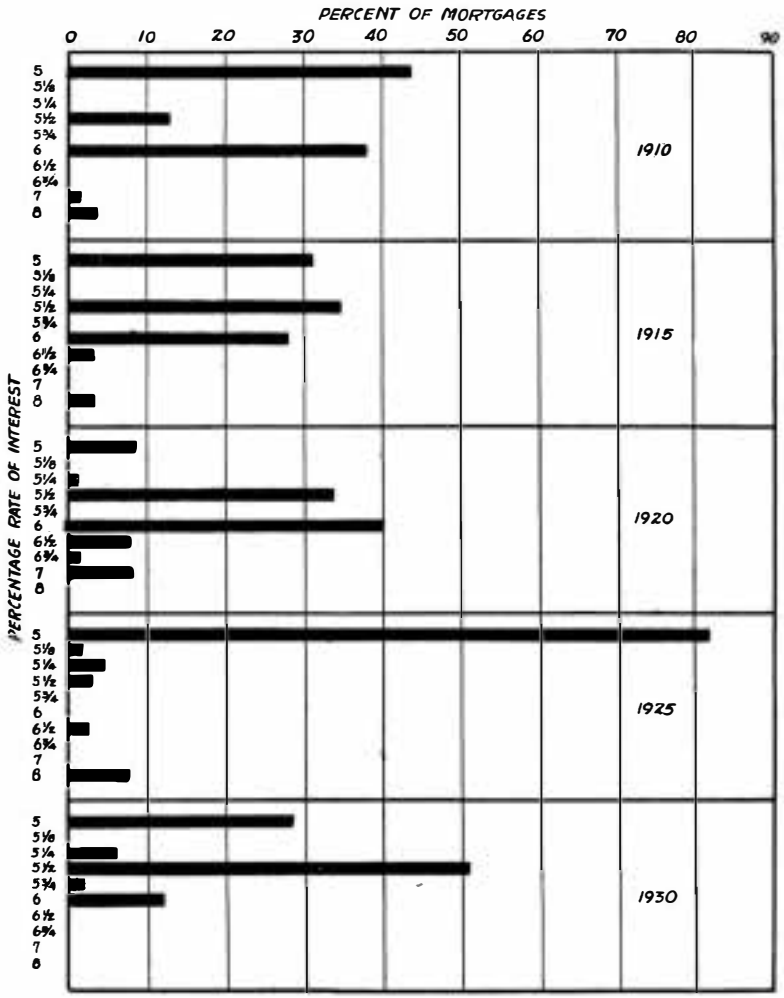

Fig. 15—Percentage of first mortgages drawing various rates of interest at different periods*, 1910-1930. (Based on Table 21.)

* The mortgages are such as were recorded during each year indicated plus six months before and six months after, but for 1930 the period covers only the 18 months ending December 31, 1930.

TABLE 21.—Frequency distribution of the interest rate of first mortgages RECORDED during various periods*, 1910 to 1930

Per'tage Rate of Interest	1910		1915		1920		1925		1930	
	No. of Mtgs	Per cent of Mtgs	No. of Mtgs	Per cent of Mtgs	No. of Mtgs	Per cent of Mtgs	No. of Mtgs	Per cent of Mtgs	No. of Mtgs	Per cent of Mtgs
5	24	43.7	19	31.1	5	7.7	54†	83.1	14	28.6
5¼	0	—	0	—	1	1.5	3	4.6	3	6.1
5½	7	12.7	21	34.4	22	33.9	2	3.1	25	51.0
6	21	38.2	17	27.9	26	40.0	0	—	7‡	14.3
6½	0	—	2	3.3	5	7.7	1	1.5	0	—
7	1	1.8	0	—	6§	9.2	0	—	0	—
8	2	3.6	2	3.3	0	—	5	7.7	0	—

* The periods mentioned in this table refer to periods of 24 months each including 6 months before and 6 months after the years specified at the top of the columns, except that for 1930 the period covers only the 18 months ending with December 31, 1930.

† Includes one loan at 5⅛ per cent interest.

‡ Includes one loan at 5¾ per cent interest.

§ Includes one loan at 6¾ per cent interest.

Rates on Current Second Mortgages.—Second mortgages naturally draw a higher rate of interest. Table 22 deals with second mortgages in the same manner as previously discussed in connection with Table 21 on first mortgages. In 1910, 56 per cent of the current second mortgages were drawn at 6 per cent, and 20 per cent specified an 8 per cent rate. In the case of second mortgages, as with first mortgages, the rate was higher in 1915 than in 1910. In 1915, 62.5 per cent of the second mortgage loans drew 8 per cent and 16.7 per cent of the loans cost the borrowers 6 per cent interest. The most common or model rate in 1920 was 6 per cent. During both the 1925 and 1930 periods the most common interest rate was 8 per cent. Fewer mortgages were placed on record during these years, and the rates averaged higher than in 1920. Some of the second mortgages of the 1920 period specifying low interest rates are undoubtedly purchase-money mortgages, and not outright loans.

TABLE 22.—Frequency distribution of the interest rate on second mortgages RECORDED during various periods,* 1910 to 1930

Per'tage Rate of Interest	1910		1915		1920		1925		1930	
	No. of Mtgs	Per cent of Mtgs	No. of Mtgs	Per cent of Mtgs	No. of Mtgs	Per cent of Mtgs	No. of Mtgs	Per cent of Mtgs	No. of Mtgs	Per cent of Mtgs
5	2	8.0	0		0		3	15.8	3	30.0
5½	0		2	8.3	4	14.8	1	5.3	0	
6	14	56.0	4	16.7	11	40.8	3	15.8	1	10.0
6½	2	8.0	1	4.2	4	14.8	0		0	
7	1	4.0	2	8.3	1	3.7	2	10.5	0	
8	5	20.0	15	62.5	4	14.8	10	52.6	6	60.0
10	1	4.0	0		3	11.1	0		0	

* The periods mentioned in the title of this table refer to periods of 24 months each including 6 months before and 6 months after the years specified at the top of the columns, except that for 1930 the period covers only the 18 months ending with December 31, 1930.

Length of Term

The Length of Term in Relation to Needs of Borrowers.—The length of term of farm mortgage loans is of importance in relation to both the cost and convenience of borrowing. If renewals have to be made at frequent intervals this may add materially to the cost of borrowing. In addition to the usual renewal costs the cost of a new loan may be increased by virtue of renewal having to be made at a time of higher interest rates. Short term loans may be of advantage to the lender in that the frequent renewals make it possible for him to check up on the progress of the borrower, changes in the value of the security, etc., enabling him to demand full or partial repayment, increase in the amount of security or an advance in the rate of interest charged. If the lender is operating on only short term funds his desire for short term loans is natural and unavoidable. However, since the evidence in most farm mortgage studies point to the fact that farm indebtedness is a long term proposition, it becomes obvious that most farm loans should be made for a long term of years. It is not good business to invest short term funds in a long term investment. Furthermore, there is no necessity for it. The customary five-year term seems a relic of the time when individuals who might soon need the money furnished the bulk of all farm mortgage funds. A proper set-up of the investment machinery and the methods of financing will make it possible to place the farm loans on a basis where the term of the loan will correspond with the probable needs of the borrower. The long term amortization loans of the federal land banks and of some of the insurance companies are examples. In the case of the insurance companies a large and fairly constant volume of receipts in relation to disbursements make it possible to invest some of the funds in either long term bonds or amortization farm land mortgages. In the case of the federal land banks the long term bonds provide funds for long term farm mortgage loans. Furthermore the constant market for such bonds under ordinary circumstances makes it possible for the investors to buy them and sell them again at any time without the need for demanding repayment of any of the farm mortgages used as security for the bonds. Since the federal land bank amortization loans can be repaid at any time after the first few years it is possible for the borrower to refinance such a loan at a time when the interest rates are low. Another advantage of the long term amortization loan is, of course, that it provides a systematic way of gradually paying off the debt.

Average Term of Outstanding First Mortgage Loans.—Five years was the average length of term of all first mortgages in force in 1910, according to Table 23. By 1915 a few loans with longer terms had been placed on record which raised the average to 5.3 years. Similiar causes resulted in the average length of term being extended to 5.9 years in 1920, 6.1 years in 1925, and 6.2 years in 1930. The amortization loans of thirty years or more, placed by the Rural Credit board, the Joint Stock Land Banks and the Federal Land Bank have been excluded in making up this average, but some other loans of ten years or more increased the length of the average term.

TABLE 23.—Length of term of first- and second-mortgage loans as averages of farm loans in force, every fifth year, 1910 to 1930

Year	First Mortgages		Second Mortgages	
	Length of Term in Years	Number of Observations	Length of Term in Years	Number of Observations
1910	5.0	143	5.0	47
1915	5.3	172	4.9	67
1920	5.9	198	5.9	45
1925	6.1	228	4.4	60
1930	6.2	197	2.8	43

South Dakota Rural Credit, Federal Land Bank and Joint Stock Land Bank loans are not included in the above tables. The number and term of such loans are as follows:

	1920		1925		1930	
	No. of Loans	Term in Years	No. of Loans	Term in Years	No. of Loans	Term in Years
South Dakota Rural Credit loans	1	30	3	30		
Joint Stock Land Bank loans			5	28.5	7	35.2
Federal Land Bank loans			1	33	3	34.7

Average Term of Outstanding Second Mortgages.—Second mortgage terms, on the other hand, became shorter during the period studied, as indicated in Table 23. With the exception of the average for 1920 the length of the second mortgage term was gradually shortened from 5 years in 1910 to 2.8 years in 1930. The 1920 average of 5.9 years may have been influenced by long term purchase money mortgages.

Frequency Distribution of Terms of Current First-Mortgage Loans.—As mentioned in the discussion on the interest rate the average is not always a satisfactory measure or indicator because it does not reveal any of the details. In Table 24 and Figure 16, the distribution of the terms of first mortgages are shown. Here, again, in order to have a larger number of mortgages to work with than were recorded in a single year, the loans considered are all such as were currently recorded during a 24-month period including the six months before as well as the six months following the year indicated. For 1930, however, only the mortgages recorded during the 18 months ending with December 31,1930 are used. Both Table 24 and Figure 16 make it clear that in 1910 very few of the mortgages recorded specified anything but the five year term. The percentage of all current mortgages placed on record which were for five-year terms rose from 82 per cent for the 1910 period to 85.5 per cent in the 1915 period. In the 1915 period no loans specified a longer term than five years, but for the other periods many loans were made for longer terms. During the 1920 period 67.6 per cent of all first mortgages placed on record were five-year loans. Next in order of importance came the 10-, 20-, 30- and the 1-year loans. In the 1925 period 66.2 per cent of all current loans recorded were of the five year term; 17.6 were for 10 years. The greatest concentration on the five-year term was found in the 1930 period with 90 per cent of all first mortgages being for five years. Figure 16 gives this information at a glance. Undoubtedly it was the lenders and not the borrowers who decided for what terms the loans should be made.

TABLE 24.—Frequency distribution of the term of first mortgages RECORDED during various periods*, 1910 to 1930

Length of Term in Years	1910		1915		1920		1925		1930	
	Number of Mortgages	Per cent of Mortgages	Number of Mortgages	Per cent of Mortgages	Number of Mortgages	Per cent of Mortgages	Number of Mortgages	Per cent of Mortgages	Number of Mortgages	Per cent of Mortgages
1 year or less	3	5.4	2	3.2	3	4.2	4	5.9	0	
2 and 3	2	3.6	1	1.6	0		4	5.9	0	
4	0		6	9.7	1	1.4	0		0	
5	46	82.0	53	85.5	48	67.6	45	66.2	45	90.0
6	1	1.8	0		2	2.8	3	4.4	0	
7 and 8	0		0		2	2.8	0		0	
10	3	5.4	0		5	7.1	12	17.6	3	6.0
14	1	1.8	0		1	1.4	0		0	
20	0		0		5	7.1	0		2	4.0
30	0		0		4	5.6	0		0	

* The periods mentioned in the title of this table refer to periods of 24 months each, including 6 months before and 6 months after the year specified at the top of the columns, except that for the year 1930 the period covers only the 18 months prior to December 31, 1930.

Terms Most Frequently Used With Current Second-Mortgage Loans.—The distribution of the terms of second mortgages is given in Table 25. For the 1910 period the bulk of these, or 62.2 per cent, were for five years, while 17.3 per cent were for one year. In the 1915 period 23.1 per cent of the current second mortgages specified the three-year term while 26.9 per cent were for five years and the same percentage were one-year loans. From 1920 on the most common term for second mortgages was one year. Of the second mortgages recorded in the 1920 period 31.8 per cent were one-year loans. The five-year and the ten-year loans each accounted for 18.2 per cent, and 13.7 per cent specified a term of three years. During

TABLE 25.—Frequency distribution of the term of second mortgages RECORDED during various periods*, 1910 to 1930

Length of Term in Years	1910		1915		1920		1925		1930	
	Number of Mortgages	Per cent of Mortgages	Number of Mortgages	Per cent of Mortgages	Number of Mortgages	Per cent of Mortgages	Number of Mortgages	Per cent of Mortgages	Number of Mortgages	Per cent of Mortgages
1 year or less	5	17.3	7	26.9	7	31.8	9	45.0	5	50.0
2	2	6.9	3	11.5	2	9.1	1	5.0	1	10.0
3	1	3.4	6	23.1	3	13.7	4	20.0	2	20.0
4	0	—	2	7.7	1	4.5	0	—	0	—
5	18	62.2	7	26.9	4	18.2	4	20.0	2	20.0
8 and 9	0	—	0	—	1	4.5	1	5.0	0	—
10	1	3.4	0	—	4	18.2	1	5.0	0	—

* The periods mentioned in the title of this table refer to periods of 24 months each, including 6 months before and 6 months after the years specified at the top of the columns, except that for the year 1930 the period covers only the 18 months prior to December 31, 1930. One loan in 1910 was due "according to note;" in 1910 and also in 1915 one loan was due in installments.

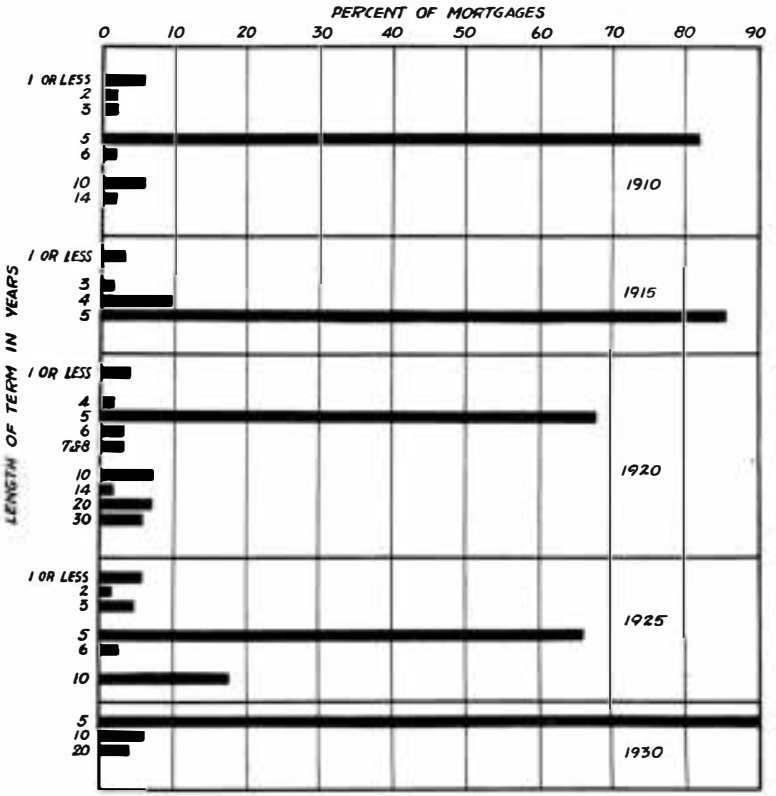

Fig. 16.—Percentage of first mortgages falling in various term groups during different periods*, from 1910 to 1930. (Based on Table 24.)

*The years refer to periods of 24 months each, including 6 months before and 6 months after the specified year, except that for 1930 the period covers only 18 months prior to December 31.

the 1925 period 45 per cent of the second mortgages placed on record were due in one year. Another 40 per cent was divided equally between three and five-year loans. The total number of second mortgages recorded in the 18 months of the 1930 period was only 10, and one-half of these were for one year. The holder of a second mortgage naturally runs the risk not only of failure to receive payment from the mortgagor, but he also is in danger of having his security wiped out by foreclosure of the first mortgage. In view of the greater risk the holders of second mortgages naturally demand a higher rate of interest as well as a shorter term.

Term and Rate on Loans From Different Sources

Average Rates of Interest.—Loans from the school fund have consistently held first place as drawing the lowest rates of interest. As indicated in Table 26 this has been true for all first mortgages outstanding during every year studied. Loans from insurance companies occupied third place in 1920, but for all the other years considered the insurance company loans have had the second lowest rates of interest. In this comparison commissions have not been considered. To the extent that commissions have been charged it is possible that the insurance company loans have cost more than the loans from the federal land bank. Loans from individuals seem to have cost less than the loans from savings banks. The next higher rates seems to have been charged by commercial banks and by mortgage bankers. The loans from the miscellaneous sources have specified a low rate of interest, but exact comparison is made difficult by the lack of information as to commissions charged on the various loans. To the extent that the interest rate may have been varied according to unrecorded differences in risk the indicated variations in rate may be justified.

Average Length of Term of Loans.—Aside from the 30-year Rural Credit loans and the still longer term federal land bank loans, the loans from most of the various lending agencies were for a term of about five years. In some cases, as shown in Table 26, a few loans of slightly longer term raised the average. The terms of loans from some sources averaged less than five years. The one-year average length of term of loans from commercial banks for 1930 may indicate the need for more liquid bank assets at that time than earlier.

TABLE 26.—The average weighted percentage rate of interest* and the average unweighted length of term in years, of outstanding† first-mortgage loans from various sources, every fifth year, 1910 to 1930

Source of Funds	1910		1915		1920		1925		1930	
	Interest	Term	Interest	Term	Interest	Term	Interest	Term	Interest	Term
Insurance Companies	5.3	5.0	5.3	5.0	5.5	6.1	5.5	6.4	5.3	6.4
Savings Banks	6.0	5.3	5.7	5.2	5.5	4.6	5.7	4.6	5.9	5.0
Commercial Banks	6.1	4.9	6.1	5.2	5.3	5.0	5.7	4.1	8.0	1.0
Individuals	5.7	4.9	5.6	5.7	5.5	6.2	5.6	6.2	5.5	5.8
Federal Land Bank	‡	‡	‡	‡	‡	‡	6.0	33.0	5.4	34.7
S. D. School Fund	5.0	4.5	5.0	4.4	5.1	4.8	5.0	5.4	5.0	5.5
S. D. Rural Credit	‡	‡	‡	‡	6.0	30.0	7.0	30.0	‡	‡
Mortgage Bankers	8.0	5.0	7.0	3.0	6.5	4.9	6.0	5.0	5.8	10.0
Miscellaneous	5.3	6.7	5.4	7.5	5.9	9.8	5.6	10.0	5.5	7.5

* In addition to the interest cost, the borrower usually is required to pay a commission averaging about 0.6 per cent, except in case of loans from the Federal Land Bank, South Dakota and some local loans.

† The outstanding first mortgages include all, both old and recent mortgages, unsatisfied on the record.

‡ No loans.

Average Rates and Terms of Second Mortgages.—According to Table 27 the interest rates on second mortgages averaged higher and the terms were shorter than was the case with first mortgage loans. Another dif-

ference is that there were fewer regular sources of second mortgage funds. In most cases the number of loans from each source was too small to warrant any critical comparison on the basis of the data in this table. Most of the second mortgage loans were held by individuals and commercial banks. Many of the second mortgages held by mortgage bankers appeared to be commission mortgages.

TABLE 27.—The average weighted percentage rate of interest and the average unweighted length of term in years of outstanding* second-mortgage loans from various sources every fifth year, 1910 to 1930

Source of Funds	1910		1915		1920		1925		1930	
	Interest	Term	Interest	Term	Interest	Term	Interest	Term	Interest	Term
Savings Banks	6.0	5.0	6.0	5.0	5.4	10.0	6.1	4.0	7.7	0.8
Commercial Banks	7.3	3.2	7.5	4.1	6.8	6.1	7.5	2.2	8.0	1.5
Individuals	5.7	5.5	5.9	5.2	5.7	6.0	5.9	5.6	6.1	3.0
Mortgage Bankers	6.0	5.3	6.5	4.7	7.9	5.0	7.6	4.1	7.3	5.8
Miscellaneous	6.0	1.2	5.5	4.3	5.5	5.0	6.0	6.2	5.3	5.0

* All second mortgages on the records as not satisfied are included.

Amounts Loaned Per Acre by Different Agencies

Basis Lacking for Satisfactory Comparisons.—The average amounts loaned per acre by the different agencies may have been influenced by a variety of causes. Since land values have been changing from time to time the averages in Table 28 would not necessarily be comparable unless the loans on which the averages are based were made at about the same time. Another difficulty is that no information is available as to the value of the land on which the different agencies have placed their loans. To be comparable the loans should be on lands of comparable quality and value, including structures. Other things being equal one might expect to find borrowers tending to seek loans from those agencies making the largest loans per acre. There would seem to be some indication of this in the averages for 1910 and 1915, in that the loans from individuals were most numerous and were for larger average amounts per acre than the loans from other sources. Insurance companies furnish the second largest number of loans, and for 1915 theirs were the second largest loans on a per acre basis. During these years the loans from mortgage bankers and from miscellaneous sources were too few to make the average signficant. From 1920 on the loans from insurance companies were more numerous than the loans from any other source; nevertheless the loans from individuals continued to be larger per acre. The average for miscellaneous loans in 1920 and for the loans from savings banks, commercial banks and mortgage bankers in 1930 were too few to be significant. The other averages are based on six or more loans. The loans from savings banks and from the South Dakota school fund seem to have been consistently conservative in amount per acre. As a compensation the school fund loans have drawn the lowest rate of interest.

TABLE 28.—Average amount loaned per acre on first mortgages by various agencies, as indicated by outstanding* mortgages for the years specified, 1910 to 1930

Source of Funds	1910 Loans Per Acre	1915 Loans Per Acre	1920 Loans Per Acre	1925 Loans Per Acre	1930 Loans Per Acre
Insurance Companies	$18.48	$27.25	$42.17	$50.01	$48.20
Savings Banks	19.02	24.93	28.75	25.17	†
Commercial Banks	12.24	24.17	41.20	35.43	‡
Individuals	22.53	37.55	54.42	50.04	53.72
Federal Land Bank	———	———	———	‡	§
S. D. School Fund	16.41	21.89	27.33	37.25	30.59
S. D. Rural Credit	———	———	‡	§	———
Mortgage Bankers	3.20	†	44.30	64.18	†
Miscellaneous—including Joint Stock Land Bank	21.43	†	44.76	49.07	44.27

* The mortgages included here are all such as were outstanding, that is, in force during the years specified. Naturally many of them had been recorded earlier than the year listed.

† Only two loans.

‡ Only one loan.

§ Only three loans.

Land Values and Ratio of Debt to Value

Bases of Farm Income.—While this is not an investigation into the factors that determine the value of land, yet the relationship between changing land values and the debt burden is so intimate as to warrant comment. Land values are presumably based on the earning power of the land. The earning power of farm land, in turn, is based on two general factors, one of which is stable and the other of which is subject to wide fluctuations. Under normal farming conditions the physical quantity of products to be expected or the yield per acre does not vary greatly when comparing averages of different series of years. This factor is dependent on climate, soil and management. The income determinant, which gives rise to most of the variation, is the price factor. The relative instability of this factor is caused by its considerable dependence on or origin in, social and economic forces. The changes in the prices of different commodities influence farm income by differences both in the amount of the changes and in the time of such price changes. Some price or cost elements may remain relatively constant while others change, as for example old debts and taxes in a period of rapidly falling prices of farm products. It is this lag or irregularity in price and cost changes that causes most of the trouble. The fact that certain prices and costs either change only slowly or else are relatively fixed makes it possible for farm income either to rise very rapidly as during the war and post-war inflation, or fall precipitately as in 1920 and 1921 and again from 1929 to 1933.

Dangerous to Mortgage Land During Inflation Period.—Since land prices tend to equal the capitalized value of the present and prospective net income from the land it is understandable that the war-generated rise in the prices of farm products, in connection with a long time trend toward higher land values, should have led to almost fabulously high prices of farm land. If no land had been purchased at these prices, or if all purchases had been made for cash and no mortgages had been given, little

trouble would have been experienced. The chief difficulty in this connection arose from the fact that the higher nominal land values were used as the basis for much larger land mortgage loans. Even these large farm loans might have caused no insurmountable difficulty had not the prices of farm products descended to unexpectedly low levels. The resulting predicament in which the farmer found himself, figuratively between the upper and lower millstones of inflation-inherited high fixed costs and rock bottom prices, calls attention to the need for greater stability in land values.

Land Values Should be Based on Income During Years of Both High and Low Prices.—In estimating the value of farm land, experience shows that one cannot safely determine the value by means of capitalizing the net income of a single year. If the same rate of interest is used, such as 6 per cent for example, a net money income of $12.00 per acre will result in land prices of $200 per acre, and similarly $3.00 net per acre will give us a $50 land value. Changes in the prices of farm products can readily bring about such fluctuations in the net income per acre. Usually it takes more than one profitable year to boost land prices, but even three or four years of abnormally high or low farm income gives an inadequately brief experience on which to base the calculation of future land values. The average net income over a period of time sufficiently long to include both the inflation and the deflation years of the price cycle should give a much more reliable figure from which to compute the expected future value of farm land. Such a method of evaluating the land would eliminate the placing of excessively large mortgage loans in times of high prices, and consequently would also largely obviate the necessity for foreclosure and loss of the farm during the succeeding period of deflated prices.

Need Public Effort to Stabilize Economic Activity and Prices.—But the precautionary measures available to the individual are not enough. The state and every large public and private institution should be required to establish measures to promote greater stability in our economic life. If the purchasing power of the dollar could be materially stabilized one of the greatest hazards would be removed from the field of long-term borrowing and lending.

Sale Prices Per Acre.—The average sale price of farm land in the three townships, according to Table 29, rose from $62.10 per acre in 1910 to $134.42 in 1920, and then declined to $92.60 in 1930. These figures are based on the average prices specified in the deeds recorded during the three three-year periods of 1908-1910, 1918-1920 and 1928-1930 respectively. Periods longer than one year were selected in order to deal with a sufficient number of sales to attain a stable average. While attempts were made to determine whether the sale price or consideration was properly recorded and interpreted, there are, of course, possibilities of error. The exact price may not have been specified in the deed. Sheriff's sales and transfers of title between relatives were not considered as sales. The 1930 census report places the land values in these three townships at $112.43. Unfortunately, the earlier census reports do not deal separately with units as small as the township. The changes in county values as reported in the census, however, are interesting in comparison and show a much higher price inflation in 1920, according to Table 29.

TABLE 29.—Land values per acre as indicated by sales*, and by the United States census reports, 1910, 1920 and 1930

Year	Sale Price Per Acre in Three Townships	Census Value Per Acre for County
1910	$ 62.10	$ 69.49†
1920	134.42	226.92†
1930	92.60	112.07‡

* The sales cover those recorded during the three three-year periods of 1908-10, 1918-20, and 1928-30.

† Fourteenth census of the United States, 1920, Volume VI, Part I, page 660.

‡ Fifteenth census of the United States, 1930, Agriculture, Volume I, page 582.

Ratio of Debt to Value High in 1930.—The ratio of the debt per acre to the sale price per acre was about 43 per cent both in 1910 and in 1920, as indicated in Table 30. In other words, between 1910 and 1920 the increase in the debt per acre recorded in Table 7 had been just about proportional to the increase in the sale price per acre shown in Table 29. The bad effects of price fluctuations as regards consequences to the farmer usually come in periods of declining prices. This is indicated by Table 30 in that in 1930 the debt equalled 57.1 per cent of the sale value of the mortgaged land. A decrease in the farmer's equity in his mortgaged land naturally can be expected when an extended period of inflation is followed by a drastic deflation of farm prices and land values. The 1930 census reports a ratio of 47 between debts and values per acre in the three townships of this study. By comparison, the census ratio of debt to value for the county shows that the farm loans in 1920 were more conservative in proportion to value than in 1910, and even in 1930 the debt per acre amounted to only 36.9 per cent of the value. Both reports indicate that the 1930 debts absorbed a higher proportion of the value of the mortgaged land than was the case either in 1910 or in 1920.

TABLE 30.—The ratio of debt to value of land and building per acre, 1910, 1920 and 1930

Year	Ratio of Debt to Sale Price* in Three Townships	Census Ratio† of Debt to Value for County
1910	42.4	22.6‡
1920	42.6	17.3§
1930	57.1	36.9♯

* Sale prices are from Table 29 and debts per acre are from Table 7, this circular.

† The census ratio of debt to value applies only to owner operated farms.

‡ Thirteenth census of United States, 1910, Volume VII, page 551.

§ Fourteenth census of United States, 1920, Volume VI, Part I, page 677.

♯ Fifteenth census of the United States, 1930, Agriculture, Volume II, Part I, page 1,193.

Land Purchases and Indebtedness

Method of Analysis.—If the purchase of a farm has any bearing on the indebtedness one cannot properly interpret the significance of the trend of farm mortgage indebtedness unless one knows something of the relative volume of sales during different periods. Tables 31 and 32 and Figure 17 are intended to show the influence of land purchases on farm indebtedness in the three townships studied. In the preparation of these tables only such sales were considered as could be classified as a normal sale to a farmer purchaser. Foreclosures and transfers of title between relatives, etc., were excluded from sales and the lands involved were regarded as not sold. The lands were classified as sold or not only with reference to sale or non-sale during the particular 5, 10, 15, or 20 year period under consideration.

Relatively Moderate Activity in Land Sales During Inflation Period.—According to Table 31 there was a gradual and fairly constant decline in the proportion of total acreage which was sold during the successive five-year periods from 1911 to 1930 inclusive. The amount declined from 23.8 per cent of the land in the 1911 to 1915 period to 12.2 per cent in the 1926-1930 period. Sale or purchase as used here refer only to the type of sale previously mentioned. Comparing the two ten-year periods it is seen that most of the sales fell in the first period, or 35.9 per cent in the 1911-1920 period and 20.6 per cent in the 1921-1930 period. Generally the longer the period the higher the percentage of land sold. But even for the 20-year period 51.8 per cent of all the land was not sold.

Sold Land Showed Higher Proportion Under Mortgage.—Although the land which was not sold constituted the larger proportion of all land, the land that was sold showed the higher percentage of land under mortgage. By five-year periods the incumbered proportion of the land rose from 86.6 per cent at the end of the 1911-1915 period to 90.3 per cent at the end of the 1921-1925 period, according to Table 31. The lands not sold increased their percentage of incumbered acreage during the same time from 27.9 per cent to 38.6 per cent. The lands classed as not sold showed a proportionally greater increase in the area mortgaged between 1920 and 1925 than the sold lands. The proportional decrease in incumbered area from 1925 to 1930 was also smaller in the lands classed as not sold. The reason for these differences may be found in the fact that a relatively small proportion of the lands not sold had been mortgaged by 1920. However, when the depression came on in 1921 farm incomes were reduced and a number of such farmers had to borrow on their land. The proportion of the land sold was rather small, and presumably the land that was sold during this deflation period passed into financially stronger hands, making it less necessary to mortgage more land. It will be noted by Table 31 and also in Figure 17 that at the end of the 20-year period from 1911 to 1930 inclusive there was a smaller proportion of the sold land under mortgage than at the end of the shorter periods. The reason is that at the end of the longer period some of the land which had been mortgaged as a result of a purchase during the early part of such period had subsequently become free of debt. Perhaps the most significant part of Table

TABLE 31.—Comparison between lands which have not been sold and land which have been sold during specified periods as to the percentage of each class of land under mortgage at the end of each period, 1911 to 1930, inclusive

Periods Covered	Length of Period in Years	Lands Not Sold		Lands Sold	
		Per cent of All Land	Percentage Mortgaged	Per cent of All Land	Percentage Mortgaged
1911-1915	5	76.2	27.9	23.8	86.6
1916-1920	5	80.8	29.7	19.2	88.3
1921-1925	5	83.1	38.6	16.9	90.3
1926-1930	5	87.8	37.7	12.2	81.8
1911-1920	10	64.1	23.0	35.9	72.9
1921-1930	10	79.4	31.6	20.6	87.1
1911-1925	15	55.6	28.4	44.4	70.9
1911-1930	20	51.8	23.0	48.2	64.6

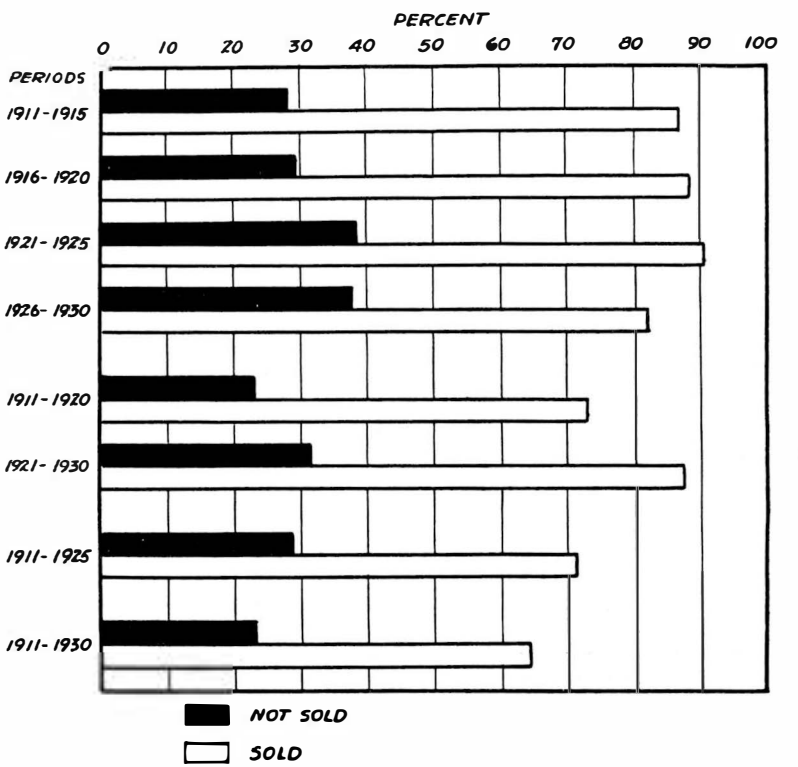

Fig. 17.—Comparison of lands that have been sold and lands not sold during given periods as to percentage of such land covered by mortgage at the end of each period, three townships, Turner county, South Dakota. (Based on Table 31.)

31 and of Figure 17 is the evidence that the sold land shows a much higher proportion of its total area under mortgage than the lands not sold. This being the case, two different areas or the same area at different periods cannot properly be compared as to mortgage indebtedness without due allowance being made for the relative proportions of the acreages which have changed hands through purchase in a given period.

Influence of Land Purchases on Debt Per Acre of Incumbered Land, During Period of Rising Prices.—Table 32 compares the debt per acre of the sold land which was mortgaged, with the debt per acre of the mortgaged land which was not sold. It must be borne in mind that sales are considered only such as result from a normal purchase of land by a farmer. Also, each period is considered by itself and the lands are classified only on the basis of such sales during each period without reference to whether the land also was sold in the preceding period or not. It is evident that up to the end of the two first five-year periods, with rising prices, the debt per acre of incumbered land was increasing fast on both the sold and the unsold land. In 1915 the per acre debt on the unsold mortgaged land equaled 57 per cent of the debt per acre on the incumbered land which had been sold. At the end of the 1916-1920 period the comparison was as 55 to 100.

Comparison of Debt Per Acre on Sold and on Unsold Incumbered Land During Period of Falling Prices.—Beginning with 1921 a marked change appears in the relative trend of debt per acre on the two classes of land. By the end of the 1921-1925 period the unsold but mortgaged land had increased its debt per acre from $42.83 in 1920 to $57.96 in 1925. On the other hand the debt per acre on the incumbered sold land had declined from $77.93 to $61.77. The debt per acre was less on both classes at the end of the 1926-1930 period, but by far the greatest decline was recorded in the class of sold and mortgaged land. The lands sold and mortgaged carried $48.41 of debt per acre, while the mortgaged land which had not been sold during that period was incumbered for $54.26 per acre. These changes brought on by the deflation following 1920 may be explained as follows: Even those farmers who had not purchased their farms during either one of the two five-year deflation periods found it difficult to make expenses and had to resort to borrowing. It is also possible that current debts at the bank had to be converted into land loans. The lands that were sold during these times, on the other hand, naturally changed owners at a low price, which limited the loan value and tended to reduce the mortgage debt per acre on the mortgaged and sold land. Another reason, for the great increase after 1920 in the debt per acre of mortgaged land which had not been sold, is found in the fact that this class includes land which had been sold and heavily mortgaged during the inflation years of 1916 to 1920 inclusive. Thus, it was found that of the land which had not been sold during the 1921-1930 period but which was mortgaged at the end of that period, the part which had been sold during the 1916-1920 period was incumbered for $63.25 per acre at the end of the 1921-1930 period while other land in this class was mortgaged for only $48.49 per acre. Similarly, of the land which had not been sold during 1926-1930 inclusive but which was mortgaged at the end of that period, that part which had been sold during 1916-1920 inclusive was mortgaged

for $62.05 at the end of the 1926-1930 period, while the other land was incumbered for $51.16 per acre. Comparisons by 5, 10, 15 and 20-year periods thus show a higher debt per acre on the mortgaged land which had been sold than on the unsold but mortgaged land. The apparent contrary result, in Table 32, for the difficult years following 1920, however, appears to be due to the inclusion in the not-sold-but-mortgaged class, of land sold and heavily mortgaged during the inflation years up to 1920.

TABLE 32.—Comparison between incumbered lands which have not been sold and incumbered land which have been sold during specified periods as to debt per acre in each class at the end of each period, 1911 to 1930, inclusive

Periods Covered	Length of Period in Years	Lands Not Sold		Lands Sold	
		Per Cent of All Land	Debt Per Acre of Mortgaged Land	Per Cent of All Land	Debt Per Acre of Mortgaged Land
1911-1915	5	76.2	$28.75	23.8	$50.37
1916-1920	5	80.8	42.83	19.2	77.93
1921-1925	5	83.1	57.96	16.9	61.77
1926-1930	5	87.8	54.26	12.2	48.41
1911-1920	10	64.1	37.15	35.9	68.68
1921-1930	10	79.4	52.31	20.6	53.73
1911-1925	15	55.6	48.25	44.4	64.67
1911-1930	20	51.8	47.33	48.2	55.04

Sales Activity and Changes in Price Level Influence the Trend of Farm Indebtedness.—As previously mentioned these data in Tables 31 and 32 indicate that the raw statistics of farm mortgage indebtedness readily may be misinterpreted unless consideration is given to such factors as the relative volume of land purchases. A period of high activity in land sales tends to produce high mortgage indebtednes and consquently two different periods or two different areas should not be compared without considering the relative activity in land purchases. Similarly, the data on the changes in the total indebtedness during the period covered by this study indicate that marked changes in the trend of the price level also must be considered when interpreting the trend of farm mortgage indebtedness. Radical and sustained changes in the price level may have unlike effects on the indebtednes trend, depending both on the direction of the price change and on whether the land has been purchased within that period or not.

Conclusions

Economic Maladjustment Resulting From the War.—It is an unavoidable conclusion from this study that farmers have suffered heavy financial losses as a result of the economic maladjustment brought about by the World War. The war and post-war inflation of prices brought about much higher land values, stimulated land purchases at high prices, and expanded the acreage under mortgage as well as the indebtedness per acre. A further increase in the debt burden was forced on the farmers by the deflation following 1920. Farm incomes declined so much faster than farm expenses that farmers were driven to increase their farm mortgage debt in order to procure funds to cover operating expenses and possibly to relieve the local banks of short term loans. A shocking evidence of the farmers' economic difficulty is presented by the statistics of greatly increased delinquency and foreclosures subsequent to 1920.

Some Debt Revision May be Desirable.—Since the post-war mortgage difficulties have been brought on largely by forces beyond the control of farmers it is reasonable that they should wish to secure some alleviation of their debt burdens. In many cases it may be possible to make changes in the terms of the mortgage which would be mutually advantageous to both the mortgagee and the mortgagor. In attempting to bring about such revision of the loan contract the borrower's ability to pay and the lender's needs as well as the changes in the purchasing power of money should be considered. Thus while recognizing the validity of the existing mortgages an attempt would be made to harmonize the payments with the present reduced farm income. Although this may seem to shift some of the burden on the lender it may in reality save him from still greater loss.

Precautions for the Future.—In order to avoid similar catastrophes in the future it will be necessary for farmers to exercise greater caution about purchasing and mortgaging land during periods of high prices. It is always well not to mortgage any more land than absolutely necessary to furnish the required security for the needed loan. As long as the economic system is characterized by the alternating periods of high and low prices the assumption of heavy, long term financial obligations based on inflated prices is fraught with grave danger of future loss. Land values ought to be based on the average farm income over a period of time sufficiently long to include both the high priced and the low priced years. In addition to this the state and all influential private institutions and concerns should use their efforts to promote more even balance and greater stability in all economic affairs. For long term contracts it would be well to have a standard of value which would remain relatively stable in relation to the general price level. The benefits of these improvements would accrue to both borrowers and lenders, as well as to the general public.

Influence of Sales Activity and of Changes in Price Level.—Land purchases tend to increase the volume of indebtedness, both the acreage and the debt per acre, to such an extent that conclusions drawn from statistics of the farm mortgage trend in any area may be entirely misleading

unless consideration is given to the relative frequency of sales and acreage involved in sales. This seems essential in comparing different periods or different regions. Attention must also be given to the trend of the price level and the purchasing power of farm products during a series of years leading up to the period of time under consideration. Accurate forecasts of the future farm mortgage trend cannot be made unless cognizance is taken of these conditioning factors.

Need Loans of Longer Term.—The continued existence of a large volume of farm mortgage indebtedness indicates the need for loans of much longer term than the traditional five-year loan. It is impossible for the average farmer to pay off a large debt in as short a time as five years. It is unjust to continue to make short-term loans that force the farmer to go to the expense, trouble and anxiety of making a number of renewals before he can possibly repay the loan. Furthermore, it is not necessary. The change in the chief source of funds from individuals to corporate specialized lending agiencies having at their disposal an ample supply of funds available for continuous investment should make possible the placement of long term loans. This applies to first-mortgage loans. Local individuals and agiencies can handle the junior-mortgage loans.

Gradual Repayment of Debt Desirable.—Not only should the length of term be increased but the prevailing method of repayment should also be changed. Since the farmer's annual net income will enable him to repay only a small part of his farm debt each year it logically follows that his farm loan should provide for a partial repayment each year. The best arrangement would seem to be embodied in the amortization loan running over a period of thirty years or more. Usually such loans can be paid off and refinanced at the end of three years or more. This would enable the borrower to procure his permanent loan at a time when the interest rate is low. He would then have a loan at low cost, free from renewal worries, and with repayment provisions which would permit and induce gradual and systematic reduction of the farm debt.

Vary the Repayments According to Farm Income.—An improvement on the standard amortization loan might be made by incorporating provisions for larger payments on the debt during years of high farm income. This would reduce the burden of payments in years of reduced income and would consequently minimize the danger of delinquency and foreclosure. With the consequent greater attractiveness of the farm mortgage as an investment security the interest rate would be lower. Under these conditions of conservative borrowing and wise lending both parties to the farm loan should be benefited.

Summary

The data for this study have been procured from the records in the office of the county register of deeds.

By five-year periods the total indebtedness in the three townships increased from $677,001 in 1910 to a peak of $1,917,219 in 1925, and then declined to $1,559,777 in 1930. On an index basis these changes are 100, 283 and 230 per cent respectively.

The acreage covered by mortgage rose from 25,680 in 1910 to 32,393 in 1925 and fell to 29,485 in 1930. The corresponding index numbers are: 100, 126 and 115 per cent respectively. The respective percentages of mortgaged acreage to all land in farms are: 37.5, 47.3 and 43.1 per cent.

The indebtedness per acre was $26.36 in 1910, reached $59.19 in 1925, and declined to $52.90 in 1930.

There were no foreclosures between 1910 and 1920, with the exception of a $3,100 fourth mortgage. Unredeemed foreclosures involved $79,588 during 1921 to 1925 inclusive; $93,654 during 1926-1930 inclusive, or respectively 4.9 and 4.5 per cent of the total debt at the beginning of each period. The acreage lost was respectively 8 and 6.5 per cent of the area under mortgage at the beginning of each period.

Delinquencies as a percentage of the total debt, were: 1.5 per cent in 1910, 10.2 per cent in 1915, 9.6 per cent in 1920, 13.5 per cent in 1925 and 8.6 per cent in 1930. Figures for the amount of indebtedness and delinquency may be exaggerated, due to failure of borrowers and lenders to record all pertinent documents. However, attempts were made to eliminate such errors.

The chief source of first-mortgage funds has shifted from individuals to insurance companies. Of such loans on record in 1910, 52.9 per cent had come from individuals, and 23.4 per cent from insurance companies. In 1930 insurance companies accounted for 71.2 per cent and individuals 19.0 per cent of all first-mortgage loans on record.

Second mortgage funds have come predominantly from individuals and commercial banks. Junior mortgage loans have been declining in importance relative to the volume of first-mortgage loans.

Common rates of interest (not including commissions) were 5 and 6 per cent in 1910, 5½, 5 and 6 per cent in 1915, 6 and 5½ per cent in 1920, 5 per cent in 1925 and 5½ and 5 per cent in 1930.

The prevailing length of term of first-mortgage loans has been 5 years; second mortgage terms have been shorter.

The ratio of debt to recorded sale prices was 42.4 per cent in 1910, 42.6 per cent in 1920, and 57.1 per cent in 1930.

Lands which had been purchased showed more than twice as high a percentage under mortgage as the land not sold. While prices were rising the indebtedness per acre was also much higher on the mortgaged land which had changed ownership through purchase. With declining prices after 1920 land sales declined in volume and were made at lower figures. As a consequence the sold land temporarily tended to be mortgaged for smaller amounts.