

A STUDY OF FARM INVESTMENT IN AN AREA IN NORTHEASTERN KANSAS

by

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TABLE OF CONTENTS

	<u>Page</u>
Introduction.....	5
Terms Used.....	6
Area Studied.....	6
Source of Material.....	9
Accuracy of Data.....	11
Farm Investment in Northeastern Kansas prior to 1929...	12
Investments in Land.....	13
Investments in Improvements and Equipment.....	16
Investments in Livestock.....	19
Investments Made Outside of the Farm Business.....	23
Early Pioneer Investment.....	23
Recent Investments in Stocks and Bonds.....	26
The Farmer's Investment in Life Insurance.....	33
Other Investments.....	38
Future Investments of the Farmer.....	42
The Owner Operator's Investments.....	42
The Renter's Investments.....	51
Summary.....	52
Historical.....	52
Probable Future Investments.....	53
Conclusions.....	55
Acknowledgment.....	55
References.....	56
Appendix.....	57

FIGURES

	<u>Page</u>
1. Location of county where survey was made and area to which data are applicable.....	8
2. The size of investment in land, improvements, livestock, and implements on the average Riley county farm on January 1 of each period.....	14
3. Yearly average investment made on farms during each period.....	18
4. Number and value of livestock in Riley county from 1912 to 1926, inclusive.....	22
5. The percentage of land, improvements, livestock and equipment making up the total investment on the average Riley county farm, January 1 of each period.....	24
6. Amount invested in stocks and bonds on the average farm and the per cent of farmers carrying outside investments on January 1 of each period.	28
7. Total investment in stocks and bonds on 100 Riley county farms expressed in average yearly investment during each period.....	30
8. The average amount of life insurance per farm carried in Riley county and the per cent of farmers carrying life insurance.....	34
9. Yearly investment in life insurance on 100 Riley county farms and per cent of the farmers investing in life insurance each year, by periods ending December 31.....	36
10. The size of the life insurance policies on the Riley county farms reporting insurance, averages for the periods ending December 31.....	39

TABLES

	<u>Page</u>
I. Investment per farm and the per cent which the various phases are of the total investment on the average Riley county farm.....	15
II. Investments in improvements on the average Riley county farm.....	19
III. Comparison of the amount of insurance carried on debt free and debt bearing farms.....	37
IV. The number and cost of vacations taken by farmers and their families.....	41
V. Proportion of the investments and distribution of profits on 43 Riley county farms.....	44
VI. Stocks, bonds, and other securities owned by the 25 master farmers of the state.....	50
VII. Comparison of other counties of northeastern Kansas with Riley, the center of the study....	57
VIII. Sample questionnaire.....	59
IX. Number and value of livestock in Riley county, Kansas.....	60
X. Farmers' investments in stocks, bonds, etc., Riley county, Kansas.....	61
XI. Comparison of the risk in cooperative and non-cooperative investments, 1915-1919.....	61
XII. Importance of life insurance on Riley county farms as shown by survey.....	62

INTRODUCTION

The purpose of this study is to give a clearer understanding of farm investment conditions. A study was made of the trend of investments—land, improvements, livestock, equipment, and outside investments—in an area located in northeastern Kansas with the object of ascertaining the conditions which have been responsible for the various alterations in the farmer's methods of investing his capital. With the historical background obtained from census data and a knowledge of the present conditions secured through a special survey of Riley county farms, an attempt has been made to forecast the future trend of investments in this area and to determine those investments which will prove to be both safe and profitable for the farmer.

Although careful studies have been made of most phases of farm management, little work has as yet been done on this subject. Probably as much money has been lost by farmers through misunderstanding investment problems, or poor judgment in placing investments, as has been lost through poor management of other phases of the farm business. It is important that a study such as this be made and that it should be carried farther than has been possible in the present one.

Terms Used

The term "outside investments" as used in this paper refers to all investment made in enterprises not directly connected with the farm such as life insurance, stocks or bonds of both corporation and cooperative enterprises, and government bonds. This study considers only those outside investments still held by the farmer, omitting those which have been bought and resold.

Life insurance refers to the common life insurance policy and does not include accident insurance. Property insurance is not a part of this study.

Area Studied

In choosing the area for this study, three factors relating both to location and limitation of area were considered.

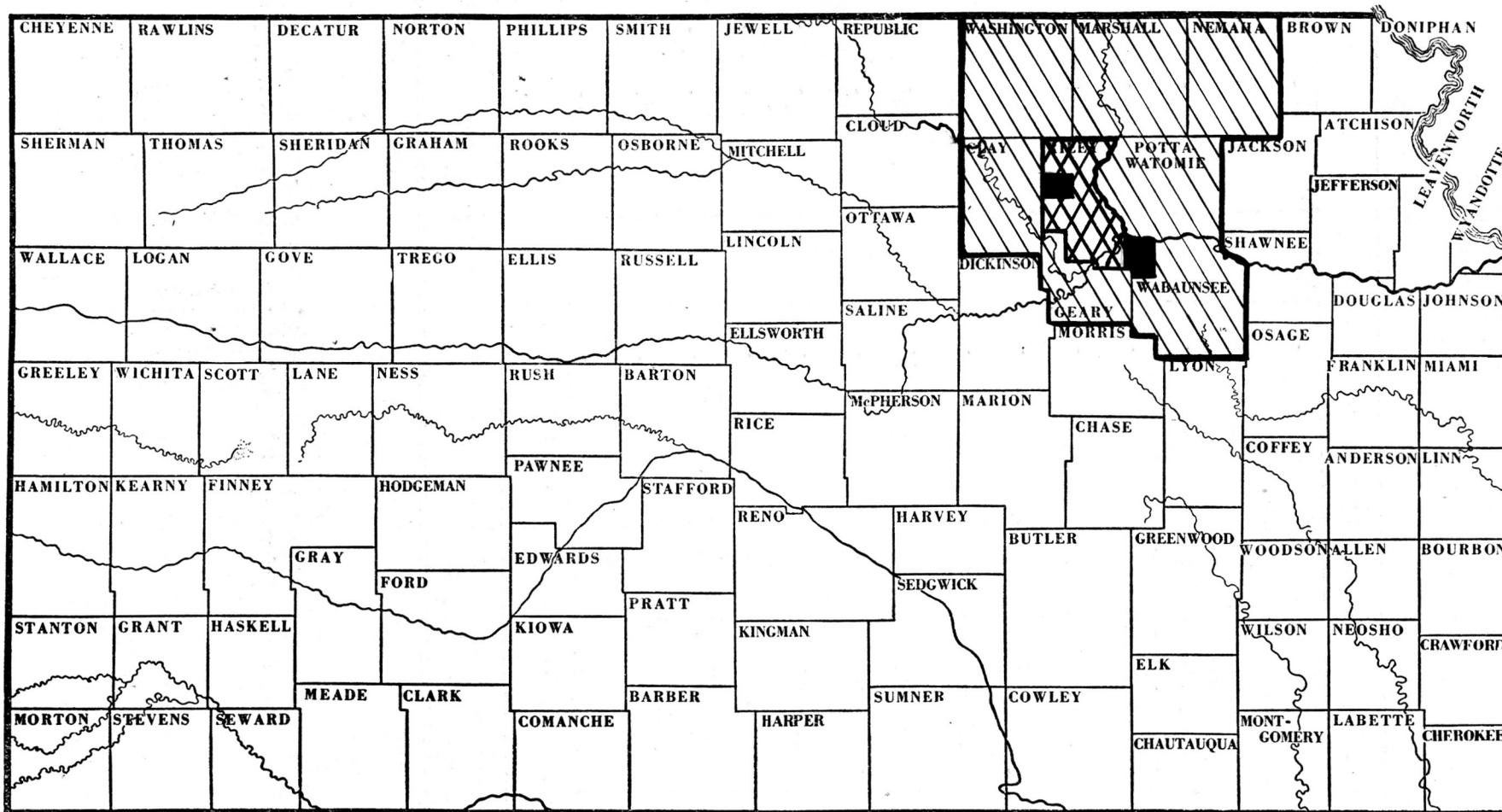
a. An area in which the writer was already familiar with conditions was selected. This was done so that the practical knowledge of conditions in this area would aid in preventing the drawing of false conclusions from the field data secured.

b. When an intensive study is made of a limited area and the results of this study applied to a larger territory, it becomes necessary to know the similarity which the whole

area bears toward the small part studied. To determine this, a ranking was made comparing other counties in northeastern Kansas to Riley, the county in which the survey was made. This ranking, based on the agricultural census of 1925, takes into consideration the following factors: (a) the proportion of the farm investment in the various farm enterprises; (b) the size of the investments per farm; (c) the percentage of the farms mortgaged; and (d) the average size of the mortgage debt. Communities which closely resemble one another in these various respects should have practically the same financial and investment problems. The ranking of the counties in similarity to Riley county are as follows: Marshall, Washington, Wabaunsee, Nemaha, Geary, Clay, and Pottawatomie. These counties with Riley, compose the area studied. (See Figure 1 and Table VII)

c. In the limitation of the size of the area to which this paper is especially applicable, those counties were selected which in no way differ widely from Riley county. In making the selection it was found that there is no sharp line of distinction but rather a gradual grading from one condition to another. Because of this fact, the conclusions drawn from this study will very likely apply not only to the eight counties named but to the entire northeast portion of the state.

This area is generally devoted to corn, alfalfa, cattle,



-  Area of survey
-  County studied
-  Area where applicable

Figure 1.—Location of county where survey was made and area to which data are applicable. (See Table VII)

and hogs with an increasing acreage of wheat toward the western part. The percentage of crop failure each year is low, averaging 1.6 per cent for the entire area in 1924, Riley county having the greatest loss, 3.49 per cent, and Washington, the least with .59 per cent. As this factor is important in influencing investments, any data on Riley county investments should be a conservative indication of conditions in the remainder of the territory.

Source of Material

The difficulty of securing accurate data on this subject, rather than its lack of importance, has probably been responsible for the small attention given it by investigators. Data for this paper have been secured from the three following sources:

1. A personal interview with over 100 Riley county farmers, recording their investments in the various phases of the farm business, the amount of outside investments reported, and their opinions on various phases of the credit situation. (See Appendix B) The farmers interviewed represent about 50 per cent of all the farmers in Bala and Zeandale townships and were selected at random, being evenly distributed over the area of the survey. Zeandale township, in the southeast corner of the county (see map) is representative of the eastern portion of the county which is

largely devoted to cattle feeding. This condition continues over into Geary and Wabaunsee and up into Pottawatomie and Marshall counties.

Quite a number of livestock are fed in Bala township but there is a tendency toward fewer cattle and more hogs in this area than in Zeandale. Also, there is a greater proportion of the crop acreage in small grains. This condition is typical of the western portion of Riley, Washington, and Clay counties, with the acreage of small grains still larger in the latter. The investment data obtained from these two townships show no outstanding differences between the two localities so they have been combined to give an average for the county. This survey is the source of all statistical data on outside investments and of all opinion data from the farmer which are used in this paper.

2. The second source of material consisted of the account books from 43 Riley county farms, kept by members of the Riley county Farm Bureau. These books are a record of the farm business for the year 1928 and contain an inventory of the farm at the close of the year. All data pertaining to investments made on the farm during the 1926-1928 period are obtained from this source.

3. The United States census reports and the Biennial reports of the Kansas State Board of Agriculture supply practically all data concerning investments made on the farm

prior to 1926.

Accuracy of Data

The combination of the two local areas of survey is a fair sample of the total territory. These townships were chosen with that purpose in view and they each represent one of the two types of farming found in this territory. The sample may be considered an accurate representation of conditions.

It will be noticed that in the tables and charts relating to investments made on the farm, the data from the census reports up to 1925 have been combined with the figures from the farm account books. With the exception of the investment in livestock, for which we have other figures, these two sets of data check very closely. The trends secured are probably reliable but the chance for error should not be overlooked.

The data secured by the survey are probably as accurate as it is possible for such material to be. Occasionally, in questioning the farmers, it was evident that they were withholding some of the information desired. This did not occur often and whenever possible these reports were marked incomplete and were later discarded.

The total early investment in stocks and bonds and life insurance as shown in Figures 6 to 9 must be smaller than the

actual amount owned at that time. Many of the men who were farming then have either died or retired. As the reports were secured only from those on the farms at present it was impossible to get accurate data concerning the amount carried 20 years ago by those who are no longer farming. This bias caused by natural changing of the farm population occurs only in the case of data secured by the survey and will have no effect on that secured from other sources. The data which are submitted and the conclusions drawn may be taken for what they seem to be worth. Before accurate estimates of these conditions can be made it will be necessary to secure data from the farm population over a period of years.

FARM INVESTMENTS IN NORTHEASTERN KANSAS PRIOR TO 1929

It is impossible to secure accurate information on investments made by farmers in this area prior to 1900, the only sources being the various histories of the state and the early settlers themselves. The growth of the total farm investment and any variation in the proportion of each of the four factors making up the total investment can be directly connected in each case with the changes which have occurred at different times in the economic conditions affecting rural life.

Investments in Land

Due to a revision of the methods of taking and recording census data, comparable material on this subject is not available prior to 1900. Although these data cannot be secured, an extension of the curves in Figure 2 back from 1900 indicates that the greatest change that has occurred in the trend of the total farm investment took place during the 10 years prior to that date, and that this change was due to the rapid increase in the value of farm land which began at that time and continued up until 1920. If these curves were extended back at the same slope as they show from 1900 to 1920 all but the one indicating the investment in livestock would reach zero before 1890. Although this is only an indication of conditions at that time, other data from historical sources show that it is surprisingly accurate.

The history of the federal land policy of the United States shows that all land of agricultural value had been taken up by 1890. Prior to this date, while land which was both fertile and accessible was still available under the homestead act, it was impossible for that which was already under cultivation to experience any great rise in value. As soon as this supply of good land was exhausted, land values began to rise. This continued up until 1920 when the high

Thousands of
dollars

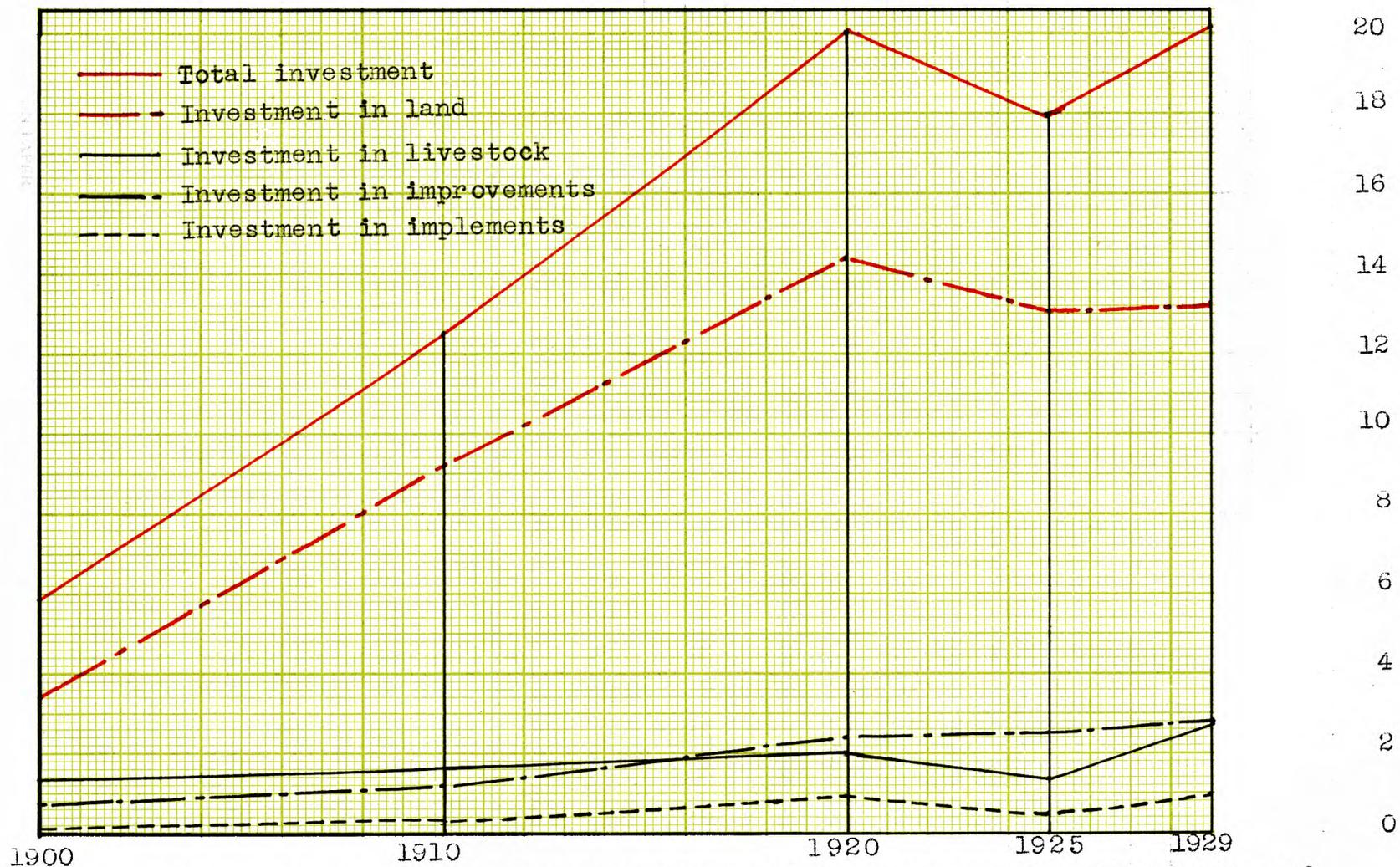


Figure 2.--The size of investment in land, improvements, livestock, and implements on the average Riley county farm on January 1 of each period. Data 1900-1925, U. S. Census reports. Also 1928 Riley county farm account books. (See Table I)

Table I.—Investment per farm and the per cent which the various phases are of the total investment on the average Riley county farm. United States census reports.

Year	Land		Improvements		Equipment		Livestock		Total investment
	Value	Per cent of total	Value	Per cent of total	Value	Per cent of total	Value	Per cent of total	
1900	\$3,474	59.0	\$818	13.9	\$159	2.7	\$1,437	24.40	\$5,888
1910	9,270	73.2	1,393	11.0	304	2.4	1,697	13.40	12,664
1920	14,527	72.4	2,505	12.5	1,001	5.0	2,035	10.14	20,065
1925	13,210	73.0	2,676	14.8	697	3.85	1,509	8.34	18,083
1928(a)	13,217	65.6	2,927	14.5	1,199	5.95	2,808	13.93	20,157

(a) Data for 1928 secured from farm account books kept by members of the Riley county Farm Bureau. (See Figure 2)

production per farm and the greater degree of efficiency which had been built up due to the increased war demand proved too great for post-war conditions. The surplus which resulted caused a more rapid decline in the prices of farm products than of other commodities and this later brought about a slump in agricultural land values from which there has, as yet, been only slight recovery.

Investments in Improvements and Equipment

In the early days of settlement there was little capital invested in either improvements or equipment. Buildings were made of stone, logs, or sod, the greatest expense being labor which was obtained without actual cash outlay by the exchange of work between neighbors. The implements required on the average farm at that time were the ax, plow, and wagon. While these articles would represent a small investment today, it is probable that before land values entered in they composed a much higher percentage of the total farm investment than is made up by farm machinery at present. On January 1, 1929, the average investment in equipment was more than five times greater than it was in 1900 and probably 10 times what it was in 1890. This increase is due to the advance in farm practices and the use of more improved farm machinery.

The data secured in this study show a definite relation-

ship between the general trend of economic conditions and the increase of the value of improvements on the farms. We have already noted that if we extend the improvement curve back from 1900, it reaches zero about 1890. Evidently the investment in improvements began a more rapid rise during this period. In 1893, the major cycle of general economic conditions stopped its downward movement and conditions began to improve. This improvement became marked toward the end of the decade. The increase in improvements during this period indicates that this change in economic conditions was felt on the farms. This favorable period continued until the close of the World War and the value of improvements on the farms rose steadily until 1920. Then although they did not diminish in value they maintained practically the same level during the slump period. With the improvement of economic conditions and the period of good crops that has occurred since 1926, this investment is again increasing.

The close relationship between farm prosperity and the improvements built is shown more clearly by data secured from the 100 farmers interviewed. (See Figure 3) These data were obtained from the farmer by securing whenever possible, the date of building and the original cost of construction of the major farm buildings. While these data check closely with those secured from the census reports, they are included because the dates of construction are more definitely

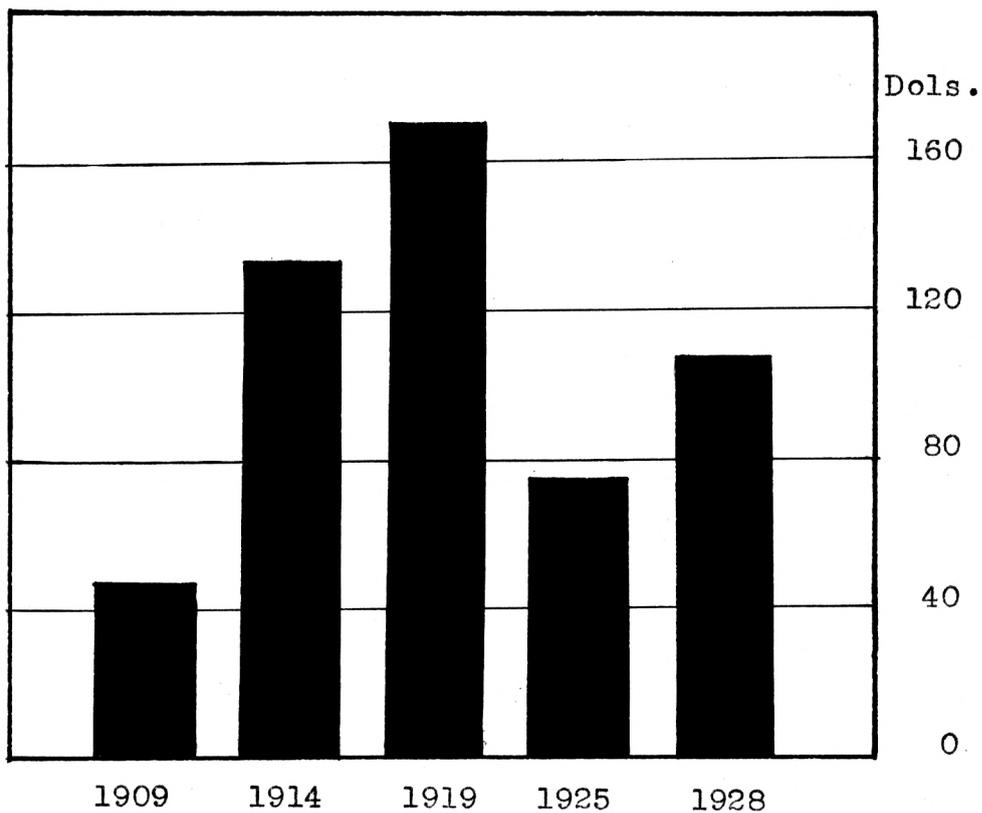


Figure 3.—Yearly average investment made on farms during each period, ending December 31. (See Table II)

Table II.—Investments in improvements on the average Riley county farm.(a)

Period	Average yearly expenditure per farm on improvements during period	Total value of improvements per farm at end of period
1900	---	\$611
1900-1909	\$48.20	1093
1910-1914	134.60	1766
1915-1919	170.65	2619
1920-1925	57.21	2963
1926-1928	107.57	3285

(a) Data from Riley county survey. (See Figure 3)

shown. The greatest average yearly construction occurred during the war period, with the five years preceding this period ranking second.

Investments in Livestock

The livestock trend as shown from 1900 to 1920 if extended back prior to 1900 would not reach zero by 1890 as is the case with the other three phases of investment. In fact it would extend back to about 1850 which is near the time of the first settlements in Riley county. This trend

indicates the same fact which is emphasized by the early settlers, that livestock was their most important investment. There were few cattle in the country, one or two cows to each family which were used both for milk and as work animals. Horses were even more scarce and more highly valued. If a man lost his horse or his cow he lost not only a valuable piece of property but also his means of securing a living. Without them he could not cultivate his farm and with the loss of the cow his milk supply was cut off. Such losses were difficult to replace due to the scarcity of livestock. The importance of the horse may be realized when it is recalled that hanging was the penalty for horse stealing.

Due to the wide variation from year to year in the number of livestock on the farms it has been necessary to construct a special chart of this phase of the farm investment. Figure 4 shows both the total value and number of livestock in Riley county from 1912 to 1926 inclusive. It will be noted that with the exception of 1914 when the price of livestock rose due to increased war demands the value of livestock on farms has followed from one to two years behind the trend of the total number on the farm. This lag in the value is brought about by the time required for overproduction or underproduction to be felt. In 1923, when the number of livestock reached its highest peak since 1911,

their total valuation was at nearly the lowest point, and during the two following years their value increased in spite of the rapid decline in numbers, indicating the increase in market price of meat animals. This furnishes a good illustration of a condition which is already generally understood, that beyond a certain point each additional unit produced by the farmers makes them poorer instead of adding to their total wealth.

If data were available for 1927 and 1928, it is likely that the total value would continue to rise; at least any other data which are available indicate that to be the trend. The curve of investment in livestock as shown in Figure 2 is of value only in giving a general indication of the long-time trend.

Before leaving the study of the investments which have been made on the farm, it should be of interest to note what proportion of the total investment is made up by each of the various branches of the farm investments. (See Figure 5) This chart shows that there is little fluctuation in the various percentages. A comparison of this with Figure 2 shows that those which do occur are caused largely by the changes in the value of farm land. (Table I)

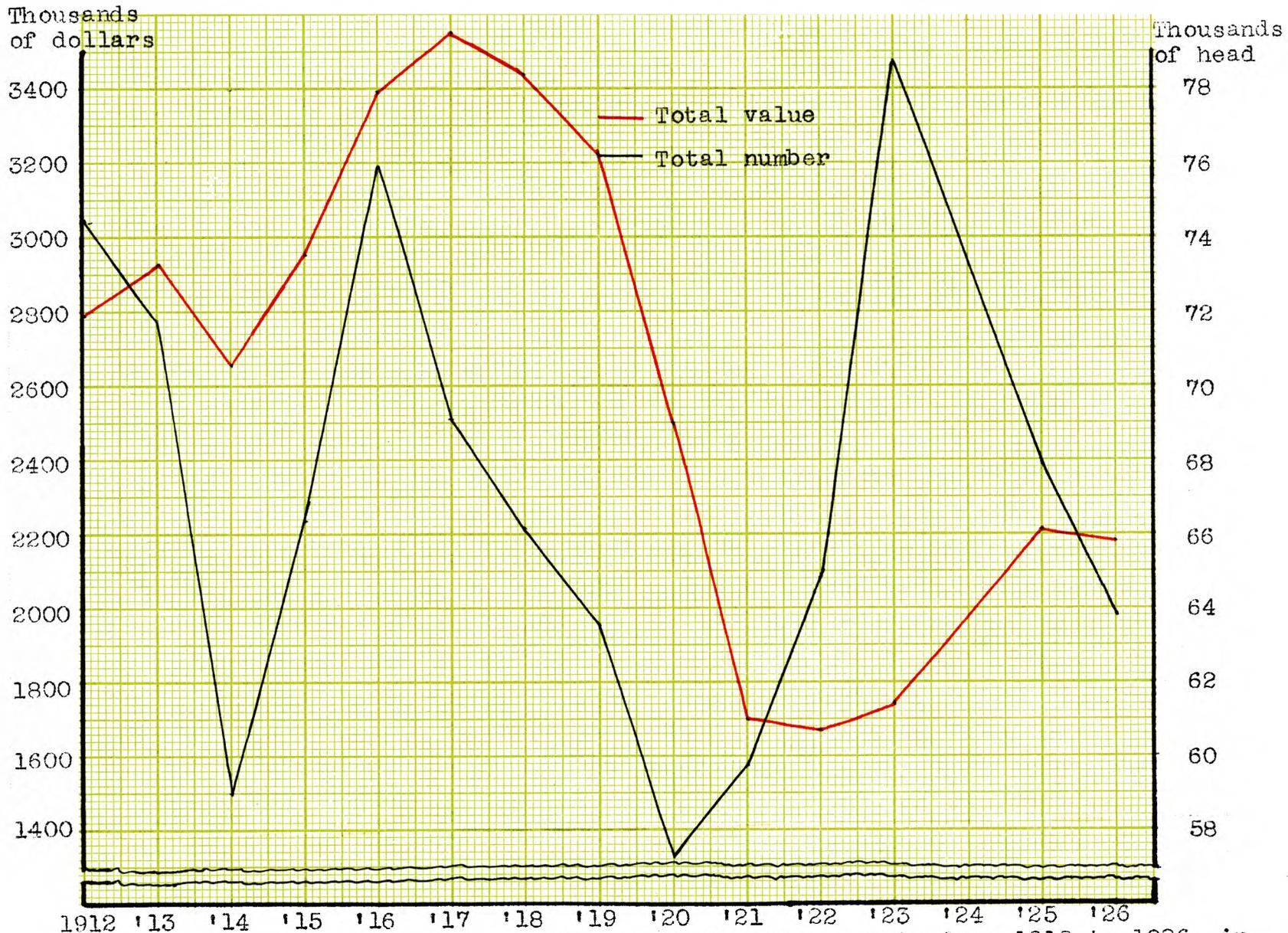


Figure 4. — Number and value of livestock in Riley county from 1912 to 1926, inclusive. Biennial Reports of Kansas State Board of Agriculture. (See Table IX, Appendix).

INVESTMENTS MADE OUTSIDE OF THE FARM BUSINESS

While the investment made on the farm is usually the most important factor in farm finance it does not constitute the total of the farmer's investment. Data obtained from the Riley county survey show that the average farmer interviewed had invested on December 31, 1928 more than \$1800 in life insurance and stocks and bonds valued at \$506. As it has been necessary to secure all data on this subject directly from the farmer and to rely on his memory, it is impossible to obtain any accurate estimate of the amount invested in either of these prior to 1900. Any stocks or bonds reported in this survey have been purchased since 1915.

Early Pioneer Investments

Information on investments prior to this time is obtained from the Cyclopedia of Kansas History, Vol. II, by Frank M. Blackmar. This publication states that in 1867 Douglas county voted \$300,000 in bonds for railroad construction. Also in 1868, when one of the lines was completed to Waterville, the company was given a large bonus in bonds. He shows that this policy was followed by most of the counties in the eastern part of the state and that in some cases a group of farmers would agree to buy a certain

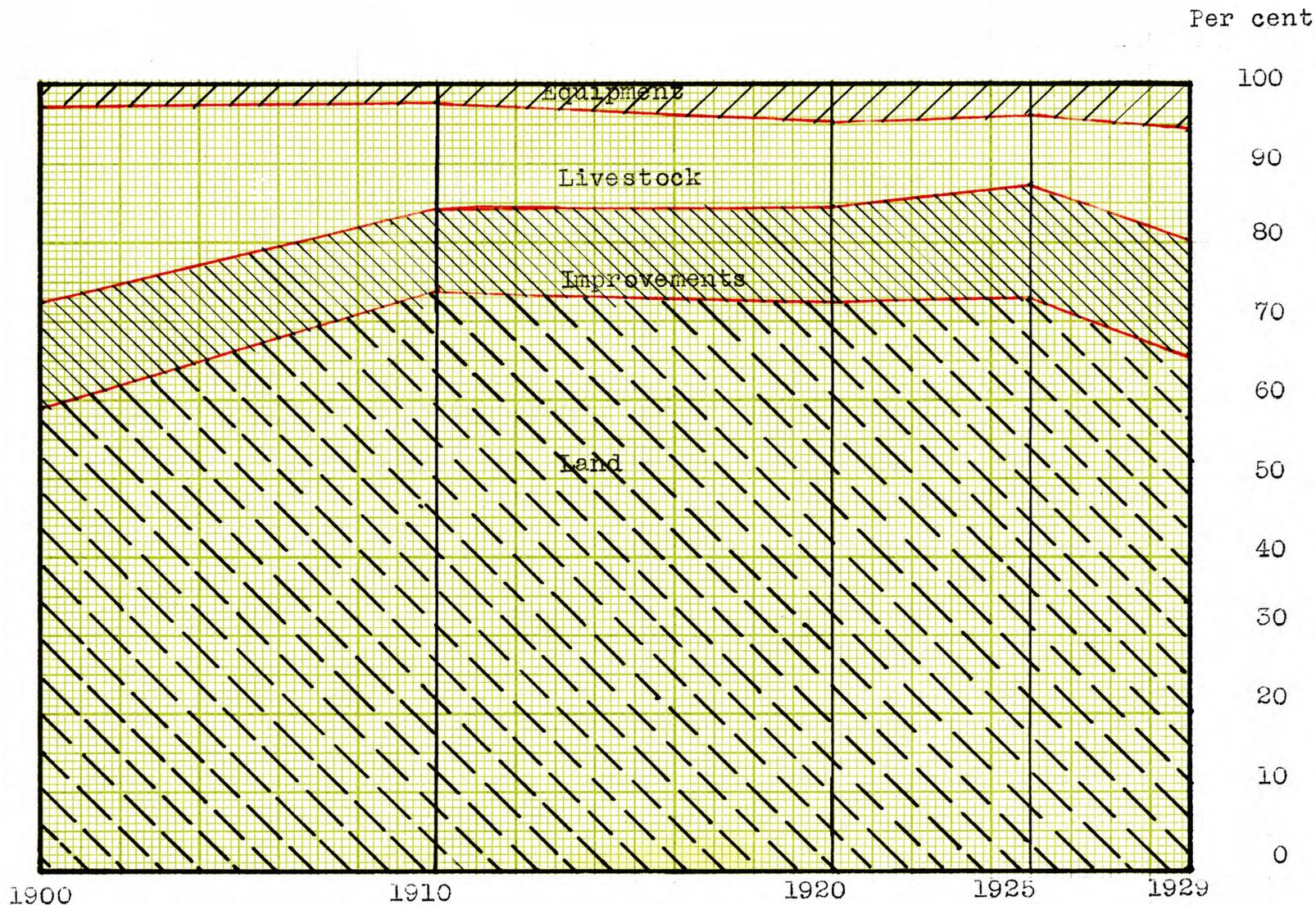


Figure 5.—The percentage of land, improvements, livestock, and equipment making up the total investment on the average Riley county farm, January 1 of each period. Source of data—The U. S. Census reports and Riley county farm account books. (See Table II)

amount of railroad stock if the company would build through their community. Due to the fact that the population was almost entirely rural, the first case as well as the latter was largely an investment by farmers.

As already stated in the introduction, the degree of success or failure of these investments is also of interest. According to Blackmar, most of these first railroad companies either changed hands or reorganized, sometimes several times, before 1900; but he does not say what became of their stock during these changes. Other records of the activities of railroads prior to 1910 show that in many cases their financial policy was to issue stock, go bankrupt, reorganize, and issue more stock.¹ By inquiry among the older farmers interviewed, it was found that in a few instances either they or some of their neighbors had lost through this method. No attempt was made to secure data on the actual amount of railroad stock taken out or the dates when such stock was purchased. It is the belief of the writer that chance of error through inaccuracy of memory, and the small number of early settlers now on farms is so great that any figures secured from such sources would be of little value. The general knowledge that such investments

1. Jones, Eliot—Principles of Railway Transportation.
Daggett, Stuart—Principles of Inland Transportation.

were made and that losses occurred may be taken as an indicator of the conditions existing at that time.

Recent Investments in Stocks and Bonds

After their experience with railroad securities, the farmers evidently reached the conclusion that investments off the farm were not profitable. Figure 6, which represents the results of the Riley county survey, shows that, according to the reports given, there were few, if any, investments in stocks or bonds made prior to 1915. So for a period of from 10 to 15 years, the farmers, when they had any surplus capital, either spent it on non-productive goods or reinvested it in their farm business. The price of farm real estate boomed and stocks and bonds were unpopular with the farmers. The possibility of bias in this data should not be overlooked. Farmers who now have surplus capital to invest were 15 to 20 years ago struggling with debt, and those who were then leaders in the community have passed on. Few farmers are able to become debt free before they are 45 years old.

With the development of the oil industry and the coming of cheap money due to war measures the farmer was again tempted into speculation. In the five years prior to 1920, the investment in outside securities on the average farm interviewed grew from practically zero to \$290. It should

be remembered that during this same period the total investment on the farms increased over \$4000 per farm. It was a general period of prosperity and the farmer felt that he could afford to risk a little on speculation.

All this outside investment of the farmers during the war period cannot be classed as speculation. It was during this period that the greatest growth of the farmers' cooperatives occurred. Approximately 13 per cent of the amount invested in securities off the farm and 66 per cent of the number of such investments made were in farmers' cooperatives. Only 10 of the 100 farmers interviewed made outside investments other than in cooperatives during this period. War bonds issued by the government were not considered in this survey unless they were still held as an investment. The purchase of such bonds was the result of the war and does not represent normal conditions.

It should be noticed that contrary to expectations, there was an increase in outside investments of approximately \$6.00 per farm during the slump period following the war. Examination of the investments reported during this period shows that only three were made. Two of these with a total value of \$260 were stock in a cooperative store, taken out early in 1920 before the effect of the slump was felt. The remaining one of \$3000 was an inherit-

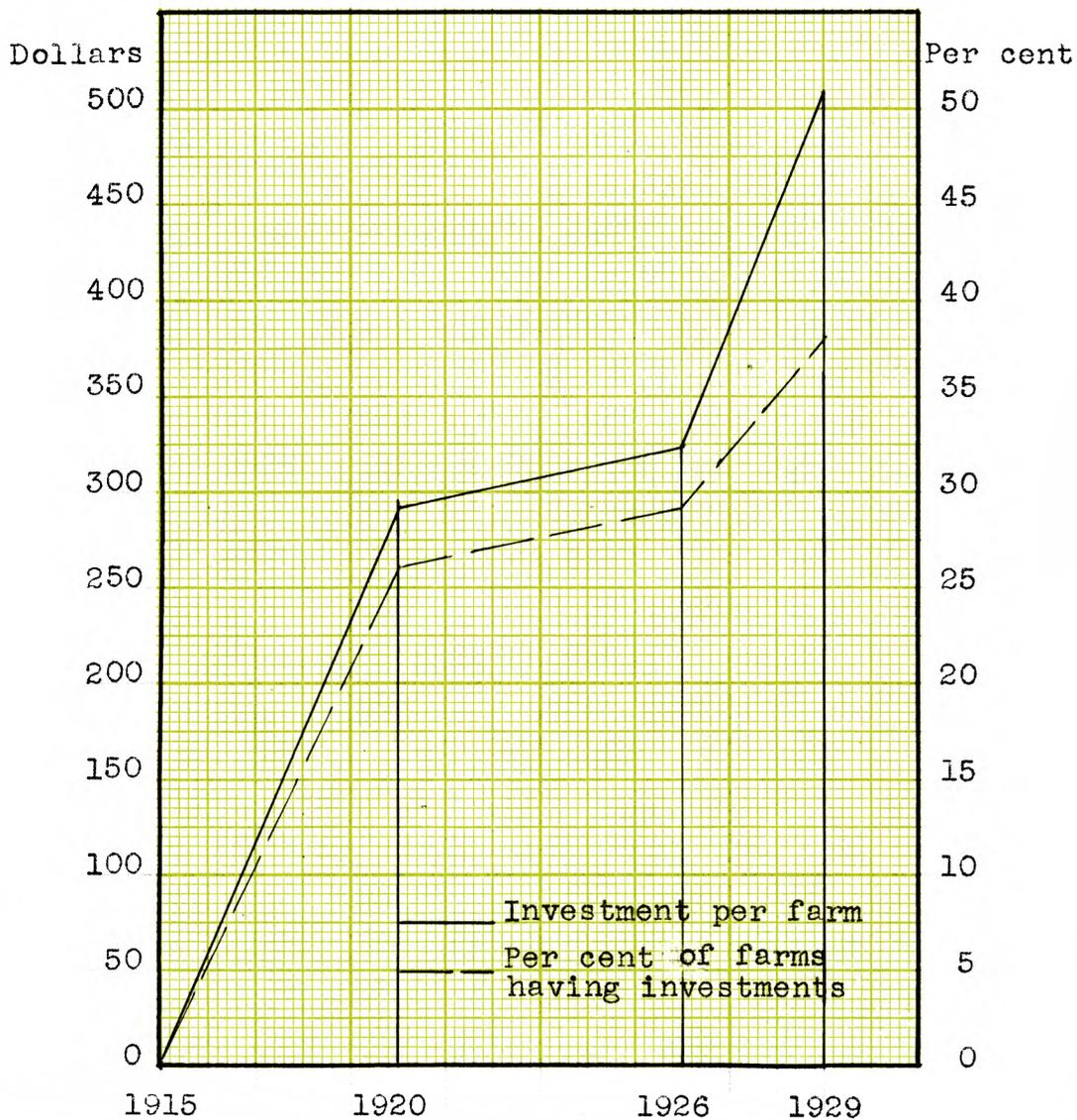


Figure 6.—Amount invested in stocks and bonds on the average farm and the per cent of farmers carrying outside investments on January 1 of each period. (See Table X, Appendix)

ance which was invested in school bonds. As soon as the effects of the slump were really felt, outside investments ceased.

In the study of the outside investments as in the study of the investments in improvements on the farm the data indicate that since January 1, 1926 conditions on the farms have shown a marked improvement. The average yearly investment since that date has been even higher than the amount invested each year during the war period. (Figure 7) Also, by comparing the two curves in Figure 6, it is evident that the size of each farmer's investment is increasing. This may be accounted for by the fact that less money is being invested in cooperatives, the par value of cooperative stock usually being smaller than that of other business enterprises.

Besides showing the average yearly investment during each period, Figure 7 compares the purchase value of these investments with the present value and shows the average yearly loss during the different periods. Approximately 43 per cent of the amount invested in stocks and bonds during the war period was lost. By dividing the investments into cooperative and non-cooperative, we find that 45 per cent of the money invested in non-cooperatives was lost while the loss in cooperative enterprises was 36 per cent. (Table XI)

Judging from these figures cooperative stocks were slightly safer than the oil or other similar investments sold during the war. This difference is so small and the per cent of loss in cooperatives so large **that** the farmer should investigate cooperative enterprises about as carefully as he should examine strange stocks before he decides to support them.

No loss occurred due to the investments made during the 1920-1925 period and those made since 1926 resulted in a loss of only 2.7 per cent or they were about 15 times safer than the investments made during the war. The farmers have evidently profited by the experience they received during this period of speculation and are using better judgment in the selection of their outside investments. Instead of going out of the market altogether as might have been expected, they have made a greater average investment per year in securities since 1925 than they did in any other previous period.

The farmers themselves have not been entirely responsible for the increased number of **good** investments which they have made. The chambers of commerce in many of the large cities, farm newspaper publishers, and other organizations have established "Better Business Bureaus" which have carried on a great deal of educational work with the

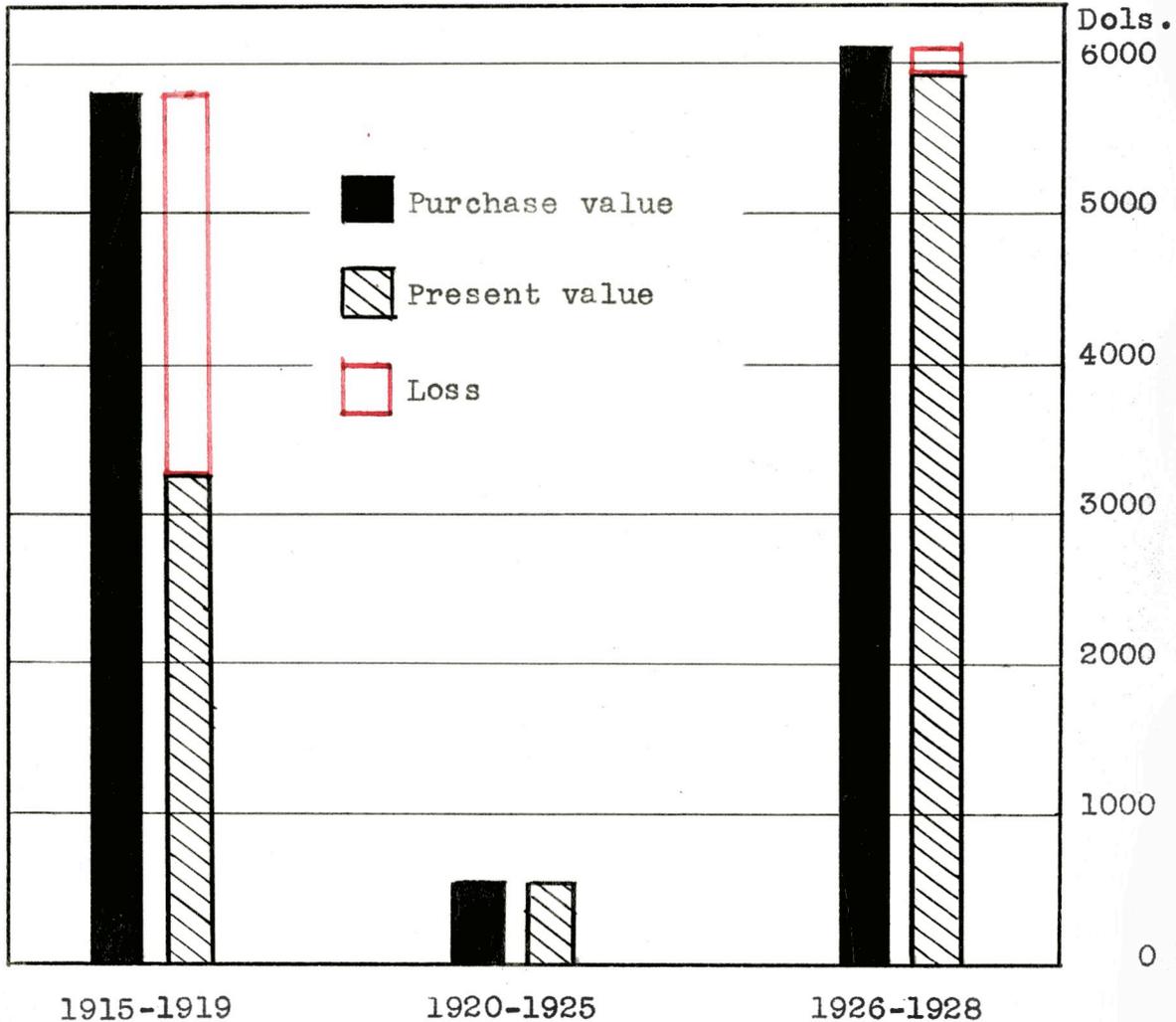


Figure 7.— Total investment in stocks and bonds on 100 Riley county farms expressed in average yearly investment during each period. (See Table X, Appendix)

object of preventing further exploitation of their trade area by fake stock salesmen. The Kansas City Chamber of Commerce, for example, attempts by issuing a monthly publication to show to the savings banker the importance of helping his depositors invest their savings in reliable securities, and to emphasize to the public the necessity of investigating any investment thoroughly before it is made. They are using newspapers, pamphlets, and the radio to put their program before the public. In reply to an inquiry concerning the response which their work is receiving, George M. Husser, Manager of the Better Business Bureau of the Kansas City Chamber of Commerce, makes the following statement: "Our records show that we receive an average of about 100 inquiries per month from country bankers, farmers, and housewives. We also get numerous telephone calls from outlying sections and whenever we make addresses at country gatherings we are usually asked a great many questions. It is estimated that during the past year, the Bureau stopped the sale of approximately \$3,000,000 of fraudulent or unreliable securities in Kansas City and the trade territory." One would judge from this that many of those living in rural communities are interested in the question of outside investments and are taking advantage of the opportunities given them to safeguard themselves against the fake stock seller.

The Farmer's Investment in Life Insurance

Although life insurance is not yet considered as an investment by the majority of farmers, it can properly be discussed here under that heading. It is only during the last 15 or 20 years that life insurance has been generally accepted by the farmer. Prior to that time the fake companies which existed and the unethical practices of some life insurance companies, especially in rural communities, caused the farmer to consider all such investments as unsafe. Religious opposition was another factor in the slow expansion of life insurance among the farmers. It is still possible to find a few of the older farmers, with the puritan type of religion, who believe that the insuring of one's life is defying the powers of the Almighty.

Although the data secured by the survey cannot be very accurate prior to 1915, they will at least show the trend of conditions before that time. Only two of the 100 farmers interviewed, and at least half of them were farming at that time, reported that they were carrying insurance prior to 1900. (See Figure 8) This number increased steadily until 1920 when 37 of the 100 farmers owned life insurance and on January 1, 1929, 61 of these farmers owned insurance. Although life insurance has increased rapidly among the far-

Dollars

Per cent

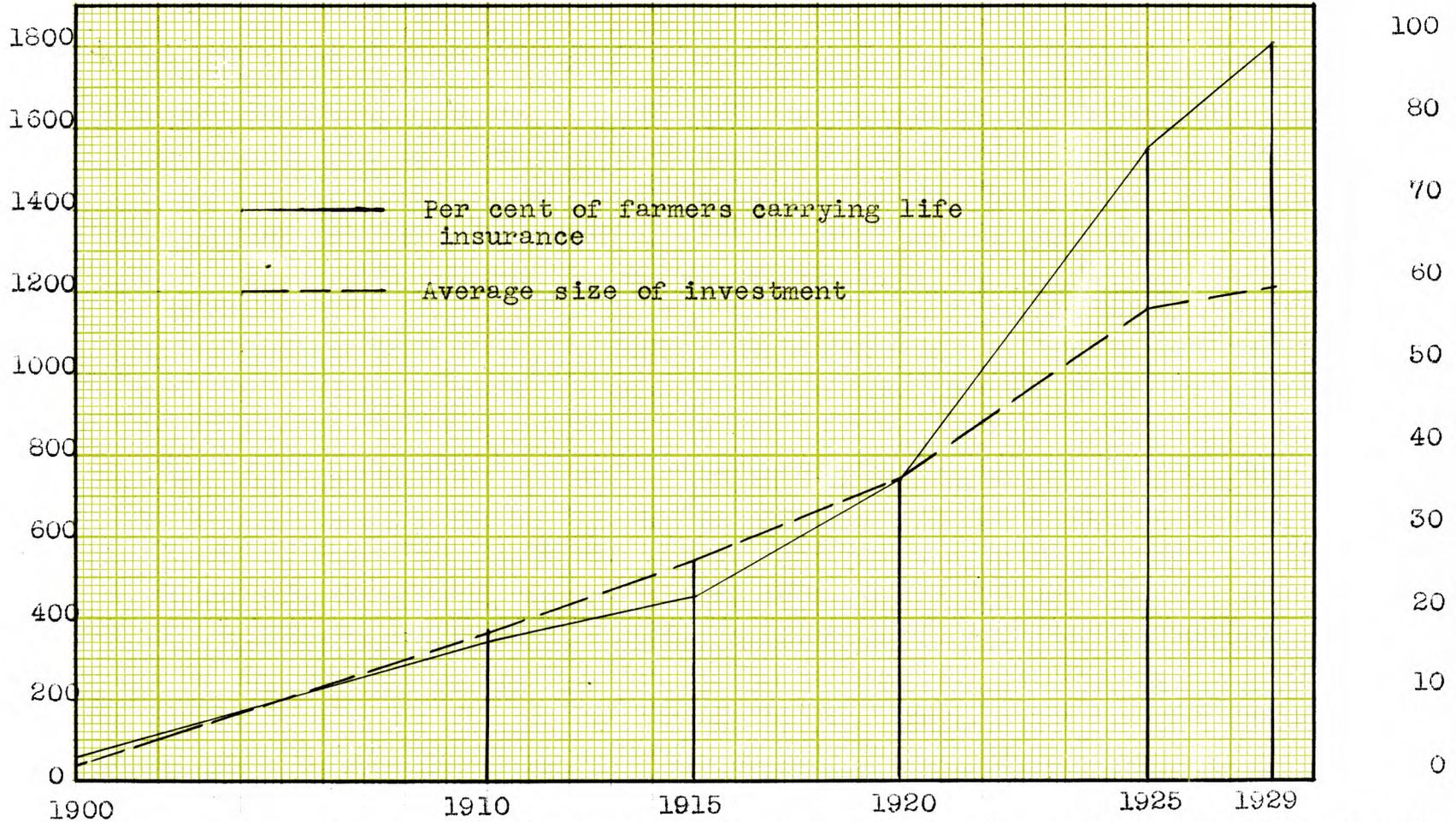


Figure 8.—The average amount of life insurance per farm carried in Riley county and the per cent of farmers carrying life insurance, January 1 of each period. (Table XII, Appendix)

mers during the last few years, there is still much room for growth.

It has already been stated that farmers do not in general consider life insurance as an investment but rather as a protection. This is shown by their attitude toward, and their methods of buying insurance. The latter is shown plainly in Figure 9. From 1900 until 1920, the average yearly investment in life insurance increased slowly. This period is generally recognized as one of increasing prosperity among the farmers, and it has already been shown that the area under study was no exception to this condition. Yet the insurance taken out during the average year for the period ending January 1, 1920, the most prosperous period that farmers have known, was little more than that taken out during the period ending January 1, 1915. Only a normal growth, which could be expected due to the increased safety of insurance companies and the general advancement of education among farmers, occurred during this time.

Then during the slump following the war, from 1920 to 1925, when conditions on the farms were the poorest and all other investments were restricted as much as possible, the yearly investment in insurance jumped to three times the size of that of the preceding five years of prosperity. Some of this increase was due to the taking over of government war policies by individuals but most of it was brought

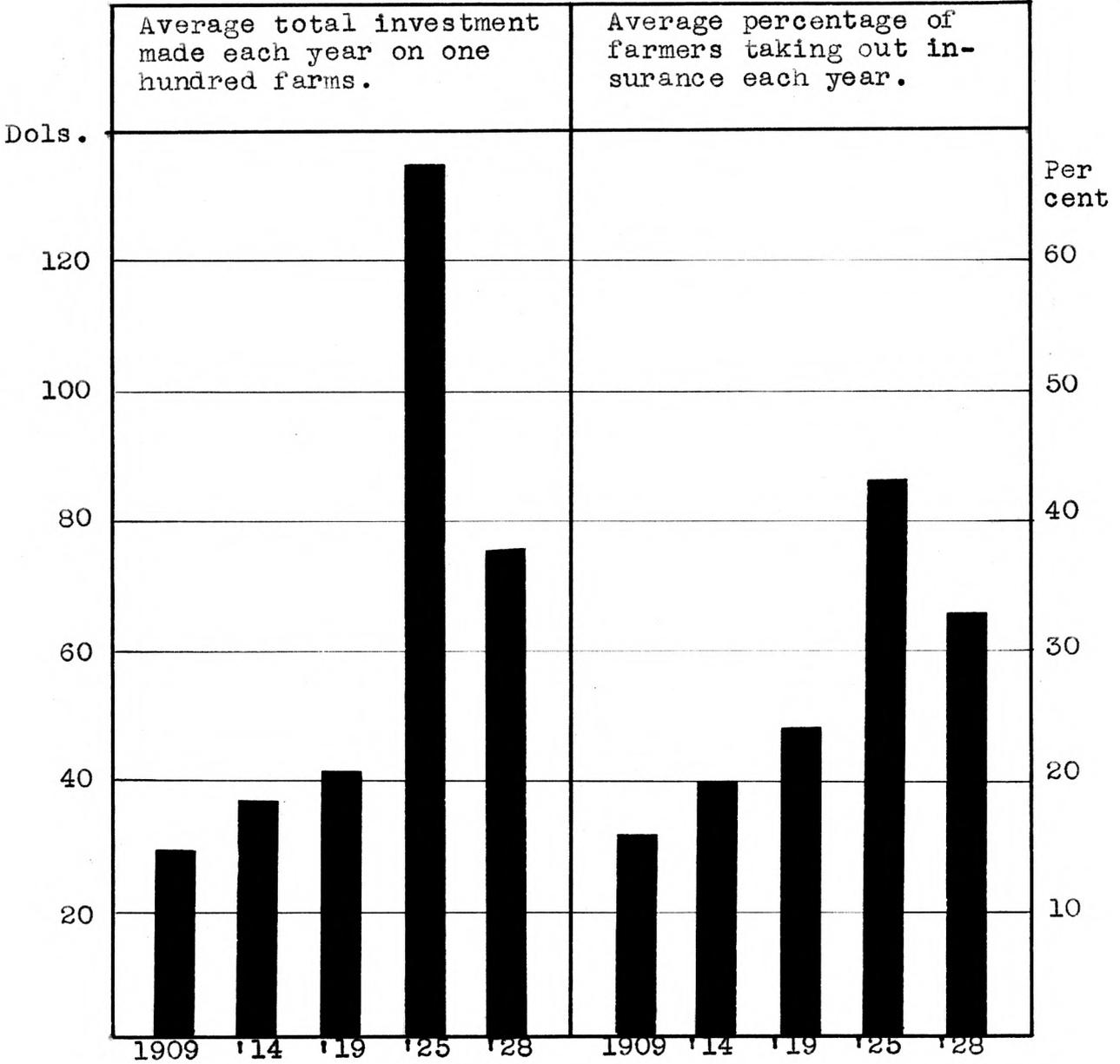


Figure 9. — Yearly investment in Life Insurance on 100 Riley county farms and per cent of the farmers investing in life insurance each year, by periods ending December 31. (See Table XII, Appendix).

about by the taking out of new policies.

Farmers, during periods of prosperity, evidently feel that the returning of their capital to the farm in the form of further investment or improvements is the best precaution that they can take for the care of their families. Then during periods of hard times they lose their faith in the stability of the farming industry and see the necessity of taking other steps to secure protection. This is further emphasized by the decrease in the yearly investment which has occurred with the increase in prosperity since 1926.

The fact that life insurance is considered largely as a protection measure is also shown by a comparison of the average amount of insurance carried on debt free farms and on farms bearing either mortgages or notes. These data are available only from the 51 farms in Bala township of Riley county. (See Table III)

Table III.—Comparison of amount of insurance carried on debt free and debt bearing farms.

	No. of farms	Average insurance carried
Debt free farms	26	\$1212
Mortgaged farms	17	1441
Farms carrying notes	11	1909
Debt bearing farms (both note and mortgage)	25	1540

The amount of life insurance carried on the average debt free farm is only 63 per cent of the amount carried on farms bearing note or short time debts and 79 per cent of that carried on all debt bearing farms. This indicates that the need of further protection is more keenly felt by the farmers who are in debt and especially by those unable to secure mortgage loans.

The amount of insurance owned by those farmers who are carrying insurance has also increased since 1910. Figure 10 shows, first this increase in size of investment per farm carrying insurance and, second the size of the policies taken out during an average year of each period. The greatest increase in the size of the policies occurred between 1920 and 1925 but those taken out since 1925 are larger than those carried prior to 1920, showing that there is not only a greater number of farmers becoming interested in insurance but that those interested are increasing the size of their policies.

Other Investments

Farmers, within recent years, have been spending an increasing amount of money for home conveniences, educational, and recreational purposes. Of the 100 Riley county farmers visited, 43 had radios in their home, 15 had lighting sys-

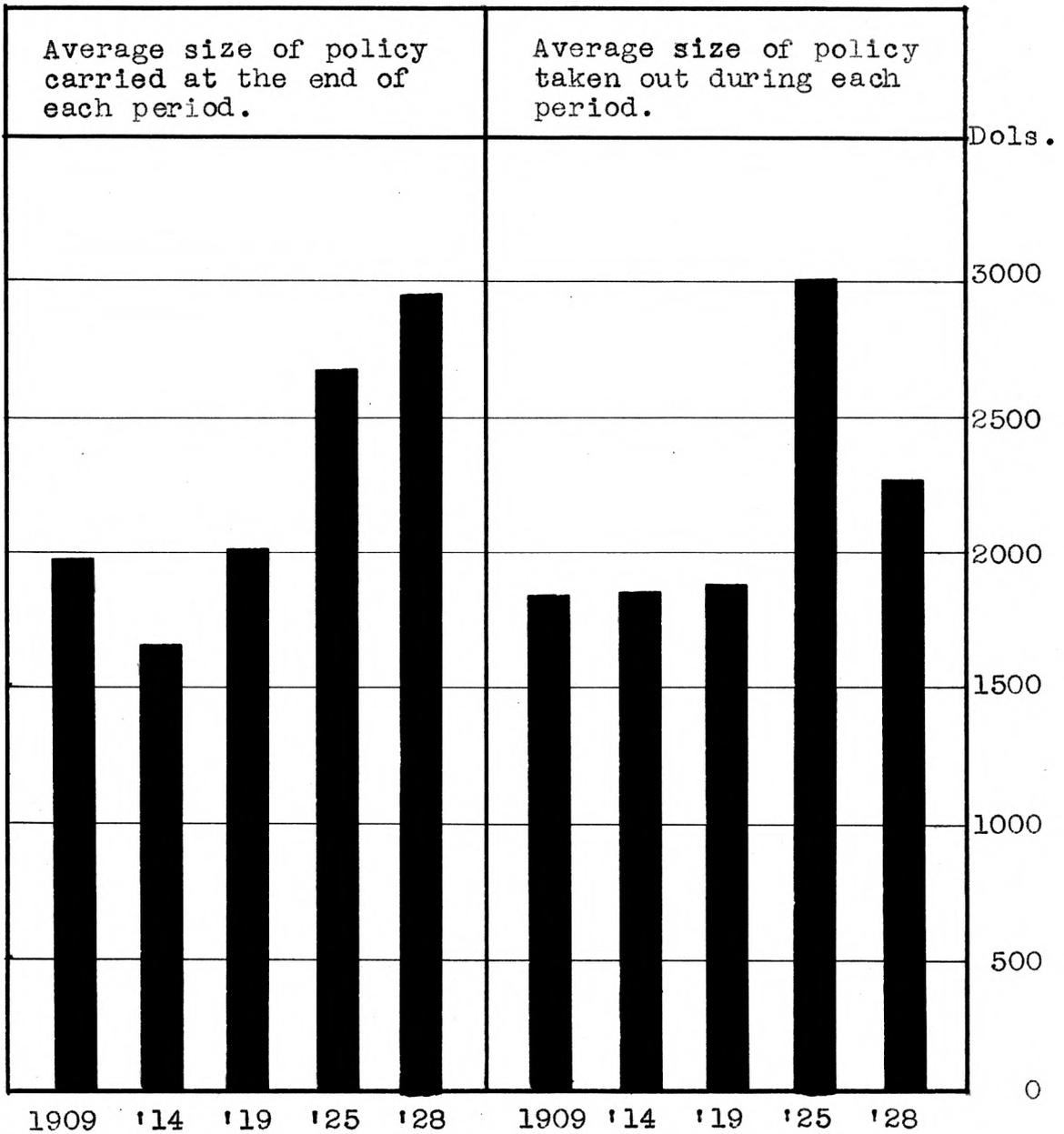


Figure 10. — The size of the life insurance policies on the Riley county farms reporting insurance. Averages for the periods ending December 31. (See Table XI, Appendix).

tems, and there were 23 children from these farms attending colleges. The radios have all been installed since 1920 and the lighting systems since 1915. The children reported as in college were those who have attended during or since the winter of 1926 and 1927. This is probably a larger number than will be found attending colleges in the average community due to the proximity of the agricultural college. The farmers are realizing the need of education probably more than any other non-professional group of society and the proportion of their income spent for this purpose will probably continue to increase in the future.

A study was also made of the number of farmers who have taken vacation trips during their life on the farm and of the amount spent on such trips. Table IV shows the results.

While the number of persons taking vacations has increased during each period the greatest growth has taken place during the last three years. The total amount spent on vacations has also increased during this time but the cost per person has decreased. These changes have all been brought about by the increase in automobiles and the improvement of roads, and more profitable farm conditions. The latter has been most effective during the last year, while the effect of the first two began to appear about 1920. Previous to the coming of the motor car, whenever a vacation

Table IV.—The number and cost of vacations taken by farmers and their families.(a)

Period	Per cent of the farms reporting vacations during average year of each period	Number taking vacation during average year of each period	Amount spent during average year of period	Average cost per person
1900 - 1910	---	---	---	---
1910 - 1914	0.4	0.6	\$80	\$133.00
1915 - 1919	0.4	1.0	50	50.00
1920 - 1925	2.5	5.8	371	64.00
1926	10.0	31.0	1200	38.70
1927	8.0	33.0	1295	39.20
1928	18.0	55.0	1420	25.45

(a) Data from survey by author. May be biased previous to 1915 due to older farmers retiring.

was taken, it was by only one or two members of the family. Now it is possible for the whole family to go with practically the same expenditure that was formerly required for one person. Although there has been a surprising increase in the number of persons taking vacations the percentage of farms reporting vacations is still small. (See Table IV)

FUTURE INVESTMENTS OF THE FARMER

In this attempt to forecast the probable future of farm investments and to determine those which will be the most profitable, it will be necessary to divide the study, taking up first the investment of the owner operator and then those of the renter. It will be observed that the conditions under which they operate vary widely. The study of the Riley county farm account books showed that the average return on investment on owner operated farms in 1928 was 12.24 per cent while on rented farms it was 31.2 per cent. (See Table V) At the same time the average net profit on owned farms was \$3781 while it was only \$2393 on rented farms. The renter received a much higher return on his investment but his total income was less, leaving less for investment purposes.

The Owner Operator's Investments

In the October 1928 number of the "Financing of Farm-

ing," the house organ of the Wichita Federal Land Bank, we find the following statement: "The safest possible investment for a farmer who is in debt is to apply surplus funds to the reduction of his indebtedness." It also states that this is what the farmers in this area are doing at present. Such a policy will prove to be the safest and in nearly every case the most practical investment for the farmer now in debt. But as these mortgages are paid off will it be practical to contract another debt by further investment in more land?

In the same issue of this publication there is a statement that the net proceeds from the land, either present or expected, determine its value. If we are to determine the profitableness of an investment in land, we must know what factors may affect the net proceeds in the future. Omitting the possibility of variations in production or the discovery of mineral wealth, the three most important factors, besides farming practices, which affect net proceeds are prices of farm products, taxes, and interest rates.

The long-time trend in the prices of farm products as already shown depends to a great extent upon the increase in population. This factor was largely responsible for the rise in land prices from 1890 to 1920. As population increases, may land prices be expected to rise again as they

Table V.—Proportion of investment and the distribution of profits on 43
Riley county farms.(a)

Investments	Total		Per cent of total investment		Average per farm	
	Owned	Rented	Owned	Rented	Owned	Rented
Real estate	613,583	---	74.50	---	21,379	---
Land alone	502,219	---	61.00	---	17,505	---
Buildings	111,292	---	13.50	---	3,874	---
Livestock	106,770	23,040	12.97	43.43	3,722	2,560
Equipment	45,612	12,173	5.54	22.94	1,590	1,352
Feeds, etc.	57,231	17,836	6.95	33.67	1,994	1,985
Totals	823,196	53,049			28,696	5,894

	<u>Owner operated</u>	<u>Renter operated</u>
Number of farms	29	9
Total net profits	\$109,644	\$21,539
Net profits per farm	\$3,781	\$2,393
Average per cent of returns on investment	12.24	31.2

(a) Riley county farm account books.

did during this previous period? We cannot hope that improved methods of production will always keep pace with the growth of population. Unless there is a radical revision in the tariff policy of this country or some startling discovery in the chemical field, it seems probable that increased demand for farm products will eventually result in an increase in their price and a similar change in land prices. Such a change will probably be slow to come and very gradual when it does arrive. Its chief value will be in strengthening the land prices against minor tendencies in the downward direction.

The tax burden on the farm land of Kansas since 1920 has been important in depressing the price and keeping it down. If taxes continue to increase as they have during the past 15 years, all profit due to land rent, will soon be wiped out. But if on the contrary land taxes should decrease, net returns from land will increase and the price of land will raise proportionately.

In buying a farm it is usually necessary to place a mortgage on the land. The rate of interest at which a mortgage can be secured is important in the making of such an investment. Due to the Federal Farm Loan system, the land owner now has available a safe source of credit at low interest with an easy method of payment. Also in many com-

munities there are local sources of short time credit at reasonable rates. In Bala township of Riley county where a large per cent of the population is of German decent, one-fifth of the farmers interviewed and one-fourth of those reporting debt, secured their credit from private sources, usually relatives. This occurred in only a few cases in Zeandale township where the population is well mixed, there being no large proportion of any certain nationality in that area. Probably similar credit conditions will be found in other communities of close foreign extraction. In such cases the local credit may be sufficient to care for all the needs at a reasonable interest rate. Over two-thirds of the farmers who gave their opinion on the subject said the credit was already easy enough or too easy. While there is opportunity for some improvement in the short time credit system, we must call the present credit conditions in this area, good. It seems that, as long as the Federal Land Bank exists there is little danger of an increase in interest rates sufficiently large to influence the value of farm land although there will probably be a slight raise in the near future due to higher money rates generally. The raise in the price of farm products resulting from increased population and increased demand is the most important factor in the land prices of the future. Taxes, unless measures are

taken to counteract present tendencies, may bring about an important reduction in land values, with interest rates probably having little effect. Conditions seem to indicate that although land prices in this territory fell slightly in 1928 they have about reached the lowest point of their down trend. As the returns on investments in land are lower at present than returns from other securities, and as any rise will necessarily be slow, land, although it is always a safe investment if bought at a reasonable price will not yield very high returns, at least during the next decade.

The much higher return on investment which the Riley county renter received over the landowner has been noted. This is due, in most cases, to the owners large fixed investment in real estate. It is due to this fact that the renter at present has the best opportunity. The landowner should restrict all further investment in improvements which would increase the size of this fixed capital unless such improvements will so facilitate farming operations that he will be fully compensated for his expense. Such improvements would probably be in the class of home comforts. A little of this has already taken place as is shown by the increase in the number of radios and lighting systems on the farm.

In referring to condition of farm improvements in the eastern states, E. H. Wiecking of the United States Depart-

ment of Agriculture makes the following statement: "Great changes have taken place since these buildings were first built. The old fashioned farm homes with eight or 10 or more rooms have become obsolete with the disappearance of the large families and the replacement of the large labor force rendered unnecessary by the development of power machinery." ² When the present farm buildings are replaced the new buildings will probably be smaller although their cost may be greater due to the rise in price of building materials. Figure 2 shows us that the investment in improvements has increased during the last few years. It seems likely that with the increase of modern conveniences on the farm this rise in the value of improvements may continue for several years although the actual size of and the investment in the buildings themselves may decrease. It will be a move towards quality rather than quantity.

The percentage of the investment in both livestock and equipment should increase. A great deal of educational work is being done by the Extension Division of the Kansas State Agricultural college with the object of increasing both the quality and quantity of livestock on the farms. There is still opportunity for many of the farmers, by increasing these factors, to make their business more efficient. Until

2. United States Department of Agricultural Circular No. 60, p. 34.

this highest point of efficiency is reached the best investment for any farmer is the increase of those factors which are limiting his production. Beyond that he should turn to land or outside investments. It has been shown that while land will probably be a safe investment, it will not yield high returns. When the landowner becomes free from debt and feels that his farm is well-equipped and well-stocked he must look for an investment for any surplus income he may have. The returns from land are low in comparison to other investments and they cannot show any important increase in the near future. Due to these facts, outside investments should rapidly become more important on the farm. Their advantages to the farmer are: (1) They offer as safe or a safer form of investment than land; for example, the bonds of the Federal Land Bank; (2) they can be obtained in any desired size, eliminating the necessity of going in debt as is usually necessary in buying land; (3) the returns come in regularly; and (4) they can be disposed of easily without loss if there is an unexpected need for surplus capital. With the exception of the first, land has none of these qualities and its ownership often involves inconveniences.

That these facts are already recognized by the leading farmers of the state is shown in the reports of the 25 "Master Farmers" of Kansas. (See Table VI)

Table VI.—Stocks, bonds and other securities
owned by the 25 master farmers of
Kansas.

Kind of securities owned	Number of master farmers owning these securities
Total number owning stocks, bonds and various securities	17
City bonds	1
Farmers Union Cooperative Association bonds	2
Government bonds	7
Bank stock	6
Railroad stock (Santa Fe)	1
Liberty bonds	1
Real estate mortgages	3
Filling station bonds	1
Farm notes	2
Grain surplus bonds	1
Kansas Cooperative Wheat Marketing Pool	1
Life insurance policies were carried by	21

The Renter's Investments

The renter is, to a certain extent, limited in his actions by the authority of the landlord. The size of his investment in both livestock and equipment must be adjusted to the requirements of the owner. If the stock share lease is used, it supplies a means by which the renter may increase his business by investing his surplus capital in livestock. At present the Riley county renter has about two-thirds as much invested in livestock as does the owner operator. (See Table V) It often occurs even in the case of the stock share lease that the renter may reach the point where it will be more profitable to invest in dependable outside securities than to continue to increase his investment in livestock. This is usually the case when the renter is saving part of his income with the intention of becoming a farm owner. If a renter decides to buy a farm he must have sufficient capital saved to cover at least half of the original cost before he can hope to pay off the remainder with the earnings of the farm. Outside investments will often prove to be the most convenient and profitable form in which to keep this accumulating capital. Before investing in land, the expected psychic value should be balanced against the lower returns received from land than outside

investment to determine if it will really make up the difference. As already shown, means are being provided by the use of which the farmer can determine the dependability of any prospective investment. Investments in securities will offer the same advantages to the renter as they do the landowner. It is even more necessary for the renter to have easily convertible resources in case of emergency. The rates on intermediate and short time farm credit are still high. The renter will be in a much more substantial condition if he can maintain a surplus to fall back on in slack periods. To be profitable this must be kept in easily convertible securities. If these facts and the conclusions to which they indicate are accepted, it would seem that the increasing percentage of tenancy is, at least in this area, not as serious a problem as it is sometimes thought to be.

SUMMARY

Historical

The total farm investment began a rapid increase during the decade preceding 1900 and continued to rise until the close of the war. It fell off more than \$2000 per farm during the slump but it has entirely recovered since 1925.

Up until 1925, land values were largely responsible for the fluctuation in the total investment. Since then the

combined effect of livestock, improvements, and machinery has been more important as shown by the fact that the total investment recovered completely while land values have remained practically stationary.

During the war period, farmers lost a great deal through faulty investments outside the farm business. In the two townships studied, investments made in farmer's cooperatives proved only slightly safer than those in oil, mining and other similar stocks, the percentage of loss being 36 in the first case and 45 in the latter.

The fact that farmers consider life insurance as a protection rather than as an investment is shown by the slow increase of the amount on farms up until 1920 and its rapid growth during the slump period when the farmers in general lost faith in the security of their business. We can expect this growth in the amount of life insurance carried by the farmers to continue in the future but not at the rapid rate which occurred between 1920 and 1925.

Probable Future Investments

Present conditions indicate that the tendency in land values during the next few years will be steady to slightly upward. Outside of a radical change in our tariff program there are no factors visible at present that would cause any

sudden change in land values. The investment in improvements and equipment will increase slightly, while that in livestock will in all probability continue to fluctuate as affected by the cycles of production. With the increase in population and the further improvement of farm practices, the farmers should find a gradual increase in livestock to be profitable.

The average rate of return on investment in land over the last few years is lower than that which is paid on dependable securities. During 1928, the percentage of return on investment was two and one-half times greater for the renter than the landowner. If the psychic value accompanying the investment in farm land is not sufficient to make up this difference, it will be more profitable for the renter to continue to rent.

To secure the greatest returns on money invested the farmer should reinvest in his farm business until each phase reaches that size which will render the greatest profitable efficiency in operation. Beyond that point investments in securities may prove more desirable than those in land due to their more convenient size, the regularity of the income received, and the ease by which they may be converted into cash when surplus funds are needed unexpectedly. As cooperative stocks very seldom possess all of these qualities, they should be carefully examined before any capital is in-

vested in them. Unless they are to fill an actual need that is generally felt among the farmers, they should not be expected to be profitable.

Investment in land, although safe for the near future, requires the maintenance of a large amount of fixed capital at a low rate of interest. Other investments will probably be more profitable to the farmer, especially if he makes use of all available precautions against fake stocks.

CONCLUSIONS

The investment policy recommended for the next 10 to 15 years for the owner operator is to hold his land but to invest his surplus capital in dependable securities; and for the renter, if he can secure a stock share or similar lease from a good landlord to reinvest his earnings in his working capital, or in securities if his working capital is already sufficiently large. Difficulties arising between the landlord and renter and the psychic value accompanying land ownership may in some cases be sufficient to make the other course seem more desirable.

ACKNOWLEDGMENT

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Table VII.—Comparison of other counties of northeastern Kansas with Riley, the center of the study.

County	Number of farms	Total value of				Per cent reporting mortgage debt
		Land	Improvement	Implements and machinery	Livestock	
Riley	1,517	\$20,025,353	\$4,059,225	\$1,057,812	\$2,287,489	45.1
Wabaunsee	1,574	17,928,793	4,040,620	1,000,170	2,478,967	46.6
Pottawatomie	1,982	22,481,832	4,204,420	1,075,712	3,022,472	48.5
Shawnee	2,480	24,219,437	6,169,615	1,252,364	2,246,538	43.2
Geary	797	12,030,218	2,159,345	583,327	1,209,913	48.2
Marshall	2,691	34,398,154	7,253,346	1,983,665	3,233,259	46.7
Washington	2,816	29,366,975	6,208,610	1,763,564	3,242,616	48.5
Atchison	1,778	20,750,393	5,439,425	967,628	1,849,999	37.7
Jackson	2,393	22,732,335	5,407,281	1,179,550	2,866,823	51.8
Jefferson	2,244	21,171,203	5,391,875	1,007,350	2,827,389	50.6
Doniphan	1,514	19,053,581	4,044,230	708,030	1,721,313	48.2
Nemaha	2,411	28,161,570	6,621,575	1,742,581	3,666,127	55.5
Brown	2,502	40,774,915	9,263,001	2,125,083	3,075,835	50.8
Leavenworth	1,986	16,622,145	5,122,180	838,254	1,955,129	40.5
McPherson	2,411	36,419,195	5,811,575	2,191,444	2,822,519	46.8
Bourbon	2,278	13,560,717	3,685,756	618,036	2,172,487	35.9
Republic	2,459	29,522,337	5,552,835	1,733,210	3,001,553	39.3
Cloud	2,069	21,381,747	4,225,785	1,261,331	2,061,026	46.2
Clay	1,908	22,530,285	4,661,485	1,585,125	2,215,671	46.1
State average	165,879	1,833,379,211	364,572,408	111,288,030	195,100,130	46.5

Cont. on next page

Table VII, cont.

County	Ratio of mortgage debt to value (Per cent)	Average debt per acre	Total investment	Average value per farm of				Number of times placing in first five (b)
				Land	Improvements	Implements and machinery	Live-stock	
Riley (a)	38.5	\$26.50	\$18,083	\$13,201	\$2,676	\$697	\$1,509	-
Wabaunsee (a)	38.4	21.15	16,168	11,391	2,567	635	1,575	5
Pottawatomie (a)	43.3	24.54	15,532	11,343	2,121	543	1,525	2
Shawnee	36.5	40.67	13,665	9,766	2,488	505	906	1
Geary (a)	37.7	23.16	20,053	15,094	2,709	732	1,518	4
Marshall (a)	38.4	31.18	17,417	12,783	2,695	737	1,202	6
Washington (a)	38.3	26.98	14,411	10,429	2,205	626	1,151	2
Atchison	41.1	48.29	16,314	11,671	3,059	544	1,040	1
Jackson	39.8	34.27	13,450	9,500	2,250	493	1,198	-
Jefferson	41.3	36.17	13,547	9,435	2,403	449	1,260	1
Doniphan	41.5	56.01	16,860	12,585	2,671	467	1,137	3
Nemaha (a)	48.7	46.14	16,670	11,680	2,746	723	1,521	5
Brown	33.5	55.94	22,077	16,297	3,702	849	1,229	-
Leavenworth	45.4	40.39	12,355	8,370	2,579	422	984	-
McPherson	38.4	31.18	19,595	15,105	2,410	909	1,171	2
Bourbon	38.7	20.72	8,796	5,953	1,618	271	954	-
Republic	38.4	32.64	16,190	12,006	2,258	705	1,221	3
Cloud	39.6	25.05	13,981	10,334	2,042	609	996	2
Clay (a)	40.6	29.52	16,243	11,808	2,443	831	1,161	4
State average	39.0	21.93	15,098	11,053	2,198	671	1,176	-

(a) Counties selected.

(b) Number of times which each county occurred among the five counties most similar to Riley.

Table VIII.

KANSAS STATE AGRICULTURAL COLLEGE
 DEPARTMENT OF AGRICULTURAL ECONOMICS
 Manhattan, Kansas

Township _____

I. Land	<u>Cultivated</u>	<u>Pasture</u>	<u>Owned</u>	<u>Rented</u>		<u>Rate of</u>
				<u>From Others</u>	<u>To Others</u>	
Acres	_____	_____	_____	_____	_____	_____
Value per acre	_____	_____	_____	_____	_____	_____
*Total value	_____	_____	_____	_____	_____	_____

II. Improvements	<u>Size</u>	<u>Condition</u>	<u>Date Built</u>	<u>Est. Value</u>
House	_____	_____	_____	_____
Barn	_____	_____	_____	_____
Silo	_____	_____	_____	_____
Granaries	_____	_____	_____	_____
_____	_____	_____	_____	_____

III. Farm Enterprises. - Major enterprise _____

A. Average size of livestock business since 1926:

<u>Kind</u>	<u>Bought</u>	<u>Sold</u>	<u>Usual No. owned</u>	<u>Have you increased or decreased size of business since War?</u>
Beef Cattle	_____	_____	_____	_____
Dairy "	_____	_____	_____	_____
Hogs	_____	_____	_____	_____
Sheep	_____	_____	_____	_____
Chickens	_____	_____	_____	_____

B. Crops in 1928:

<u>Kind</u>	<u>Acres planted</u>	<u>Yield per acre</u>	<u>Method of disposal</u>	<u>*Total yield</u>
Wheat	_____	_____	_____	_____
Corn	_____	_____	_____	_____
Oats	_____	_____	_____	_____
_____	_____	_____	_____	_____

IV. Farm Investments made during 1926, 1927, 1928:

<u>Kind</u>	<u>Value</u>	<u>Date</u>	<u>Remarks</u>
Land	_____	_____	_____
Improvements	_____	_____	_____
Tractor	_____	_____	_____
Auto	_____	_____	_____
Radio	_____	_____	_____
Higher education	_____	_____	_____
Miscellaneous (water system, lighting system)	_____	_____	_____
_____	_____	_____	_____

V. Insurance carried at present time:

<u>Kind</u>	<u>Amount</u>	<u>Date taken out</u>	<u>Remarks</u>
Life	_____	_____	_____
Property	_____	_____	_____
Crop	_____	_____	_____

VI. Mortgages owned, notes, stocks, and bonds:

<u>Kind</u>	<u>Face value</u>	<u>Present value</u>	<u>Security</u>	<u>Date purchased or secured</u>	<u>Date of maturity</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

VII. A. Notes and mortgages owed to others:

<u>Kind (Time)</u>	<u>Interest</u>	<u>Amount</u>	<u>Security</u>	<u>Source</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

B. Do you have any special plan for repayment? _____

C. Do you use Federal Land Bank? _____ Why? _____

D. Do farmers need better credit facilities? _____

If so, what? _____

VIII. Reserve:

A. What is your average cash reserve in the bank? \$ _____

B. What is your source of securing extra short-time funds for unexpected expenses? _____

C. Do you use store credit to any great extent? _____

IX. Vacations taken during farm life:

<u>Date</u>	<u>No. taking vacation</u>	<u>Place</u>	<u>Cost</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Table IX.—Number and value of livestock in
Riley county, Kansas. (a)

Year	Number	Value
1912	74,432	2,786,000
1913	71,737	2,924,000
1914	58,937	2,651,000
1915	66,345	2,956,000
1916	75,887	3,398,000
1917	69,026	3,555,000
1918	66,149	3,429,000
1919	63,500	3,221,000
1920	57,350	2,487,000
1921	59,749	1,698,000
1922	64,929	1,660,000
1923	78,723	1,741,000
1924	74,214	1,972,000
1925	67,964	2,213,000
1926	63,830	2,181,000

(a) Biennial Reports of the Kansas State Board of Agriculture.

Table X.—Farmers' investments in stocks, bonds, etc. (a) Riley county, Kansas.

	1915-1919	1920-1925	1926-1928
Total amount purchased	\$29,150	\$3,260	\$18,300
Present value	16,400	3,260	17,800
Loss	12,750	-	500
Per cent of loss	43%	-	2.7%

Table XI.—Comparison of the risk of cooperative and non-cooperative investments, 1915-1919. (a)

	Cooperative	Non-cooperative
Original cost of stocks purchased	\$3,750	\$25,400
Present value	<u>2,400</u>	<u>14,000</u>
Loss	\$1,350	\$11,400
Per cent of loss	36%	44.8%

(a) Data from Survey.

Table XII.—Importance of life insurance on Riley county farms as shown by the survey.

	Before 1900	1900 to 1909	1910 to 1914	1915 to 1919	1920 to 1925	1926 to 1928
100 Farmers interviewed						
Number of farmers carrying life insurance (a)	2	18	27	37	58	61
Number taking out life insurance	2	16	10	11	27	10
Total amount of life insurance carried on the 100 farms at end of period	\$6,000	\$35,500	\$45,000	\$74,500	\$155,500	\$181,000
Total amount of life insurance taken out during each period	6,000	29,500	18,500	20,500	81,000	22,500
Total average yearly investment		2,950	3,700	4,100	13,500	7,500
Average size of policy on farms carrying life insurance	3,000	1,971	1,667	2,014	2,681	2,967

(a) In this case number and percentage will be the same because exactly 100 reports were used.