

AN ANALYSIS OF THE YIELD OF THE INVESTMENTS
OF A SELECTED GROUP OF LEGAL RESERVE
LIFE INSURANCE COMPANIES
1929-1936

A THESIS
SUBMITTED TO THE FACULTY OF ATLANTA UNIVERSITY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF ARTS

BY
WINFRED OCTAVUS BRYSON, JR.

DEPARTMENT OF ECONOMICS

ATLANTA, GEORGIA

JUNE 1937

UMI Number: EP17353

UMI[®]

UMI Microform EP17353

Copyright 2007 by ProQuest Information and Learning Company.

All rights reserved. This microform edition is protected against
unauthorized copying under Title 17, United States Code.

ProQuest Information and Learning Company
300 North Zeeb Road
P.O. Box 1346
Ann Arbor, MI 48106-1346

TABLE OF CONTENTS

CHAPTER	PAGE
I INTRODUCTION.....	1
The Purpose of This Study.....	1
Description of Data and the Method Used.....	1
Definition of Terms.....	2
II REAL ESTATE AND MORTGAGE LOANS.....	4
Real Estate.....	4
Mortgage Loans.....	9
III STOCKS AND BONDS.....	14
Marketability.....	14
Ten Fictitious Tests of Stock and Bond Yield.....	15
Analysis of Yield on Stocks.....	16
Analysis of Yield on Bonds.....	19
Trend of Bond Yield.....	20
IV OTHER INVESTMENTS.....	23
Policy Loans.....	23
Cash.....	25
Collateral Loans.....	25
SUMMARY.....	28
APPENDIX.....	32
A. List of the Companies Included in this Study.....	32
B. Tables and Graphs of the Yield on investments by Groups of Companies.....	34
BIBLIOGRAPHY.....	51

LIST OF TABLES

iii

TABLE	PAGE
I Rate of Yield on the Real Estate of Thirty-Six Legal Reserve Life Insurance Companies From 1929 to 1936.....	8
II Rate of Yield of the Mortgage Loans of Thirty-Six Legal Reserve Life Insurance Companies From 1929 to 1936.....	13
III Rate of Yield on the Stocks of Thirty-One Legal Reserve Life Insurance Companies From 1929 to 1936.....	18
IV Rate of Yield on the Bonds of Thirty-Six Legal Reserve Life Insurance Companies From 1929 to 1936.....	22
V Rate of Yield on the Collateral Loans of Twenty-Six Legal Reserve Life Insurance Companies From 1929 to 1936.....	27
VI Rate of Yield on Assets of Thirty-Six Legal Reserve Life Insurance Companies From 1929 to 1936.....	35
VII Rate of Yield of Assets of Five New York City Legal Reserve Life Insurance Companies From 1929 to 1936.....	37
VIII Rate of Yield on the Assets of Five New England Legal Reserve Life Insurance Companies From 1929 to 1936.....	39
IX Rate of Yield on the Assets of Five Texas Legal Reserve Life Insurance Companies From 1929 to 1936.....	41
X Rate of Yield on the Assets of Five Pacific Coast Legal Reserve Life Insurance Companies From 1929 to 1936.....	43
XI Rate of Yield on the Assets of Six Negro Legal Reserve Life Insurance Companies From 1929 to 1936.....	45
XII Rate of Yield on the Assets of Five Northwestern Legal Reserve Life Insurance Companies From 1929 to 1936.....	47
XIII Rate of Yield on the Assets of Five Southeastern Legal Reserve Life Insurance Companies From 1929 to 1936.....	49

LIST OF FIGURES

iv

FIGURE		PAGE
1	Rate of Yield on Assets of Thirty-Six Legal Reserve Life Insurance Companies From 1929 to 1936.....	36
2	Rate of Yield of Assets of Five New York City Legal Reserve Life Insurance Companies From 1929 to 1936.....	38
3	Rate of Yield on the Assets of New England Legal Reserve Life Insurance Companies From 1929 to 1936.....	40
4	Rate of Yield on the Assets of Five Texas Legal Reserve Life Insurance Companies From 1929 to 1936.....	42
5	Rate of Yield on the Assets of Five Pacific Coast Legal Reserve Life Insurance Companies From 1929 to 1933..	44
6	Rate of Yield on the Assets of Six Negro Legal Reserve Life Insurance Companies From 1929 to 1936.....	46
7	Rate of Yield on the Assets of Five Northwestern Legal Reserve Life Insurance Companies From 1929 to 1936.....	48
8	Rate of Yield on the Assets of Five Southeastern Legal Reserve Life Insurance Companies From 1929 to 1936.....	50

CHAPTER I

INTRODUCTION

Purpose of This Study.— One of the most perplexing problems that faces the conservative investor of the present day is the proper distribution of the various types of investments in his portfolio. Since the insurance companies constitute one of the largest groups of investors in the United States, it would seem well to make an analysis of the yield on the investments of a selected group of legal reserve life insurance companies. The investments of the thirty-six companies considered in this study exceeded ten billion dollars in 1929. The life insurance companies are such important investors that the security syndicates usually allow them one quarter of a point off on their purchases of securities.¹ Since the life insurance companies are such large investors and employ skilled investment managers, it seems that the experience of this group of companies during the seven years from 1929 to 1936 should be illuminating to one who desires to study the investment market. A study of this nature reveals what types of securities yield the investors the highest, the lowest, the most consistent, and the most sporadic return.

Description of the Data and the Methods Used in This Study.— Best's Life Insurance Reports contain the reports of over five hundred life insurance companies and over three hundred of these are legal

¹Arthur Galston, Security Syndicate Operations, New York, 1928, p. 48.

reserve units. The data used in preparing this study were obtained from the reports of thirty-six companies with admitted assets varying from one half million dollars to over four billion dollars and located geographically from Massachusetts to California and from Washington to Florida. Only legal reserve life insurance companies were used in this study because they are under closer supervision and their reports are most accurate. Both mutual and stock companies have been included. Since this study deals with over ten billion dollars worth of assets of representative insurance companies, the writer feels that the results of this sample would show only a slight and insignificant deviation from the results of all legal reserve life insurance companies. As statistics is applicable to mass data only, one may find many companies whose experience with securities would not be similar to the averages displayed in tabular form and depicted graphically herein. However, the returns should be somewhat similar if a wide enough sample is taken of investments of the same classes.

Definition of Terms.— The meaning of the word yield, as used in this study, is

The actual return received on money lent at interest in distinction from the nominal interest rate appearing in the contract. The yield on bonds or stocks purchased above or below par will thus be different from the nominal interest or dividend rate which is calculated on the basis of the par value.¹

Legal reserve life insurance companies are those insurance companies that are required by the state laws to render each year unto the state officials having supervision of insurance, complete and detailed sworn statements showing all financial transactions during the previous year and giving sufficient information regarding their business to enable an expert in insurance matters to determine with some degree of certainty, the companies' financial responsibility and the extent of their business activities.²

This does not include fraternal societies and assessment associations.

¹John Emmett Kirshman, Principles of Investment, New York, 1925, p. 892.

²Alfred M. Best, Insurance Reports, New York, 1931, p. iv.

The following quotation is an explanation of the method used by Best in computing the yield on assets.

The tables embodied in our reports upon individual companies, showing their approximate earnings on their various investments (specific investments such as real estate, bonds and stocks are entered at the par value for which the company takes credit), is made on the following basis:

Starting with the income actually received, we take into account the increase or decrease of earned but uncollected interest, dividends or rents. In the case of real estate we deduct from the gross income earned, calculated on the above basis, taxes, repairs and other expenses on real estate, thus ascertaining the net income. The mean amount invested in each class of securities or in real estate at the beginning and at the end of the year under review; and dividing this sum by two. The net amount earned is then compared with the mean amount invested. This method, while it necessarily cannot be accurate in all cases, is a fairly reliable guide to the rate per cent. realized; the same method is followed in every case, unless otherwise specifically stated.¹

Best's Life Insurance Reports are individual reports of insurance companies. The group averages which are presented in this study in tabular form and depicted graphically are weighted averages of the individual reports according to Best. The yields were weighted according to the size of the investments in each type of security.

¹Best's Life Insurance Reports, New York, 1931, pp. xvi-xvii.

CHAPTER II

REAL ESTATE AND MORTGAGE LOANS

Real Estate

Due to the fact that real estate and mortgage loans are inextricably bound together as investments for life insurance companies, I have treated them in one chapter. Legal reserve life insurance companies are not permitted to buy real estate as an investment.¹ They may purchase their home office building.² All other real estate is acquired through foreclosure on mortgages. One glance at any one of the graphs showing the yield on assets will reveal the fact that real estate has the distinction of returning the lowest yield throughout the seven year period covered by this study. According to a report made by the president of the Northwestern National Life Insurance Company at the annual convention of the Association of Life Insurance Presidents, real estate constituted only 7.7 per cent of the assets of forty-nine insurance companies whose total assets were ninety per cent of the total assets of all life insurance companies.³ The mean yield on real estate for the period studied was only 1.11 per cent which was not high enough to maintain the policies in force. The majority of the life insurance companies allow interest of three to three and one-half per cent on policy reserves.⁴

¹Alfred M. Best, op. cit., 1936, Introduction, p. xiii.

²Regal and Loman, Insurance Principles and Practices, New York, 1936, p. 165.

³Alfred M. Best, op. cit., 1936, p. xiii.

⁴Ibid.

During the seven year period the amount invested in real estate increased 444 per cent while the total income from real estate increased 5 per cent and the rate of yield decreased 58 per cent. The exceedingly low yield on real estate may be traced to quite a few possible causes. A brief discussion of the principal causes follows. One of the possible causes is the failure of the insurance company to charge itself high enough rent on its home office property. The chances of this possible cause playing an important role in the downward trend of real estate yield are minimized due to the fact that while some insurance companies might undercharge themselves, others would overcharge themselves and in a large number of the companies included in this study the home office property constitutes such a small part of the entire real estate owned that it makes very little difference, so far as the general averages are concerned, what the rent charged the company is.¹ It appears, that the tendency is for insurance companies to lean in the direction of charging themselves too much rent because they desire to show as high a yield as possible on real estate while the yield is so low. A second possible cause of the low yield on real estate is the high maintenance charge levied upon the properties by some companies. It is exceedingly difficult if not absolutely impossible for an outside party to distinguish between some revenue and capital charges.² The auditors of the insurance companies know that the state inspectors can not inspect each job that is labeled repair work to see whether it was an addition to the property or really a repair job.

¹ Alfred M. Best, op. cit., 1936, Introduction, p. xv.

² Revenue charges are repairs that are carried to the expense account while capital charges are improvements and are carried to an asset account.

However additions to the property should not be subtracted from the rent income as they are really capital charges. If a company follows the practice of including capital charges among the revenue charges the net yield is thereby understated. The temptation is present, whether the insurance companies yields to it or not, to improve property through the repair account in order to sell it at a subsequent date with as little loss upon the book value as possible or even at as large an apparent profit as possible. Another and probably the most important of the possible causes of the low yield on real estate is the fact that mortgages were often taken upon property for more than the value of the property at the time of foreclosure. The results will be explained in this section of the chapter on real estate while the reasons why this unfortunate situation existed will be discussed in the other section of this chapter which is on mortgages. During the years 1931 to 1934, often referred to as the depression period, a large number of mortgages were foreclosed and no one was willing to pay as much as the first mortgage for the property. The owners were not making enough to pay the interest and, or principal of the mortgage and no other parties thought that the property was worth the mortgage. Therefore one may see that a white elephant was forced on the insurance companies in the form of foreclosed property. There was no way for such real estate to become a paying proposition.

The fact that real estate constituted such a small part of the total investments of the insurance companies made its extremely low yield bearable. Despite the fact that the average yield on real estate has declined every year since 1930, the case for real estate is not hopeless. The yield for 1932 was the lowest recorded for all groups

except the New York and Negro groups. All other groups have shown a higher yield since 1932. The Southeastern group decreased its real estate holding in both 1934 and 1935. The Northwestern group decreased its real estate holdings in 1935. This is in agreement with the general trend as the president of Northwestern National in his address to the Association of Life Insurance Presidents, already referred to in this chapter, said that many companies had sold or had contracts to sell part of their real estate. Others hope that inflation will make real estate redeem itself as they feel that real estate will not lose any of its value on account of inflation.¹ However land tax may make inroads suggested the president of Northwestern National. Still other companies feel that this period of general recovery, from 1933 to 1936, will be followed by a period of prosperity and real estate value and yield will finally follow the upward trend in business. This hope is, of course, speculative. If the two largest insurance companies in the United States succeed in halting their downward trend of real estate yield, better days appear ahead for real estate because of increasing rent rates. It is highly important that a higher yield be received on real estate or the property disposed of because a very small yield over a long period of time is equivalent to a loss of part of the principal.

¹Alfred M. Best, op.cit., 1936, Introduction, p. xvi.

TABLE I

Rate of Yield on the Real Estate of Thirty-Six Legal Reserve Life
Insurance Companies From 1929 to 1936

Groups	1929	1930	1931	1932	1933	1934	1935
New York City	3.19	3.41	2.88	1.21	.86	.36	.16
New England	2.71	3.16	1.07	.66	.75	1.00	.73
Texas	3.95	3.79	3.55	1.82	2.48	1.96	2.23
Pacific Coast	4.58	4.78	3.56	2.93	2.25	2.91	2.46
Negro	.69	2.00	1.44	1.24	1.11	2.77	1.22
Northwestern	1.29	1.37	.35	----	1.36	1.50	1.37
Southeastern	3.08	3.32	2.57	1.03	1.09	1.21	1.63
All	2.62	3.26	2.14	1.01	.96	.77	.51

Mortgage Loans

Mr. O.J. Arnold, president of the Northwestern National Life Insurance Company, found that mortgages constituted 27.5 per cent of the investments of the forty-nine companies that he included in his talk.

Since the end of 1927 there has been a large decrease in the percentage of total assets invested in mortgages, namely, from 43.1 per cent to 27.5 per cent. It is an interesting fact that the relative decrease in mortgage holdings began two years before the depression. Of the total, at the present time farm mortgages represent 5.8 per cent of the assets, and other mortgages 21.7 per cent.¹

The companies included in this study not only showed a decrease in the percentage of mortgages to total investments but also a 22 per cent decrease in the amount of money invested in mortgages. However the amount of money invested in mortgages increased until 1932.

In the preceding section of this chapter on real estate one of the possible causes for the low yield on real estate cited was that mortgages had been foreclosed upon property that was not worth as much as the face value of the first mortgages. There is no standard limit of safety for mortgages. Many companies will lend about 60 per cent of the fair value of the property.² Estimates of the fair value of property are often inaccurate. The very nature of real estate makes a highly developed market like the various stock, bond, and grain markets impractical. A highly developed market which eliminates a large amount of guess work can only be found for commodities that can be classified in groups so that one member of a given group will not be preferred to any other member of the group. That is, the investor who buys a share of Coca Cola common stock does not care what the serial

¹ Alfred M. Best, op. cit., 1936, Introduction, p. xiii.

² Walter E. Lagerquist, Investment Analysis, New York, 1929, p. 493.

number on the share is. In the case of the shares of Coca Cola common stock there is the higgling and bargaining of a large group of buyers and sellers so that on April 23, 1937 twenty-two shares of this stock were sold and the stock was high at 161 and low at $160\frac{1}{2}$.¹ No such market for real estate can be found. It is the opinion of the local Negro Chamber of Commerce that the usual method of evaluating real estate, if used for business purposes, is about ten times earnings. If the real estate is used for a home, the cost of construction less depreciation forms the basis for valuation. One may see that under estimating depreciation or over estimating cost would make the mortgage larger in proportion to the property than the company intended to have it. Consequently at the time of sale the property might be worth much less than the mortgage. From August 1924 to June 1926 the index numbers on all farm products, compiled by the U.S. Bureau of Labor Statistics, varied from 100.4 to 113.8.² From January 1933 to May 1933 the index numbers on all farm products varied from 40.9 to 44.5.³ This represents a decline in the money value of farm products of between 66 and 69 per cent. The value of a farm used for agricultural purposes can be no greater than its capitalized income. Therefore hindsight shows us that mortgages of over about 35 per cent of the appraised value of farm land between August 1924 and June 1926 were in a bad position in 1933.

The low rate of yield on the overcapitalized real estate was not the only weak point about these mortgages. The rate of yield on

¹New York Times, (April 24, 1937), p. 24 C

²Monthly Labor Review, Vol. 25, (October, 1927), p. 907.

³Ibid., Vol. 37, (July, 1933), p. 234.

mortgages declined each year through out the period covered with the exception of 1935.¹ While overvaluation of property and serious reductions in the value of produce caused the low yield on real estate, the lenient policy of the insurance companies toward the mortgages reduced the yield on mortgages. The rates of yield on the mortgages shown in the table at the end of this chapter are not the rates that are on the faces of the mortgages. The rate of yield shown in the table is the cash actually received which is in most cases lower than the nominal rate on the face of the mortgages.² The insurance companies had two reasons to be lenient on the mortgages. One reason was that many of the companies were mutual companies and were owned by the policy holders and the policy holders were often the mortgagors. Even in the case of the stock companies in their effort to keep the goodwill of the policy holders, the insurance companies had to be lenient. The other reason was that some of the property was not worth as much as the mortgage and it was better to let the people who had it struggle with it than for the insurance company to take it.

The highest average yield on mortgages of all companies was 5.44 per cent in 1929. The lowest average yield on this asset for the thirty-six companies was 4.13 per cent in 1935. The spread, the difference between the highest and the lowest rate of yield, was 1.31 per cent which was only a little larger than the spread on bonds. The mean yield on mortgages was 4.91 per cent which was higher than stocks, bonds, or real estate. The lowest yield on mortgages for any group was 3.81 per cent for the New England Companies in 1935. Thus the lowest

¹Alfred M. Best, op. cit., 1936, Introduction, p. xix.

²See Table II

yield on mortgages for any group was high enough to maintain the reserve.¹ The highest yield for a group was 8.15 per cent for the Negro group in 1929.

Insurance companies are decreasing their mortgage holdings because the mortgage is not as desirable an asset as it appears to be. Despite the fact that its yield of 4.91 per cent is higher than the yield on stock or bonds, one must remember that real estate, the lowest yielding asset among the investments, owes its position to mortgages. Since the insurance companies can not buy real estate and it is merely accounting practice that determines the amount of the mortgage deficiency that will be charged to real estate and the amount that will be charged to mortgages, it would seem well to combine the two investments and see what the real yield due to mortgages was to the insurance companies. The total investments in mortgages during this period were seven times the investments in real estate. Since the mean yield on mortgages was 4.91 per cent and the mean yield on real estate was 1.11 per cent, the mean yield due to mortgages was 4.31 per cent which was lower than the mean yield on stocks and bonds. It would seem therefore that the mortgage is not as desirable an investment as it appears to be.

¹ Alfred M. Best, op. cit., 1936, Introduction, p. xxiii.

TABLE II

Rate of Yield on the Mortgage Loans of Thirty-Six Legal Reserve
Life Insurance Companies From 1929 to 1936

Groups	1929	1930	1931	1932	1933	1934	1935
New York City	5.42	5.44	5.39	5.26	4.00	4.30	4.06
New England	5.47	5.29	5.31	5.09	3.89	4.48	3.81
Texas	7.24	7.86	6.56	6.65	5.55	5.83	5.54
Pacific Coast	6.26	6.05	5.90	5.81	5.29	5.40	4.39
Negro	8.15	6.42	5.46	6.09	5.69	4.10	6.15
Northwestern	5.13	5.03	5.06	4.83	4.23	4.94	4.62
Southeastern	6.15	5.74	6.17	5.30	5.16	5.77	5.00
All	5.44	5.42	5.37	5.26	4.07	4.46	4.13

CHAPTER III

Stocks and Bonds

The investment discussed in chapter two were of a rather stagnant nature. That is, there was not a highly developed market for them. The extremely low yield on the real estate shows that most of it could not be disposed of at book value. The mortgage market is also very stagnant.¹ Life insurance companies are not called upon to liquidate all of their investments in the regular course of business. It is for that reason that investments in mortgages are considered good for this class of companies. However, insurance companies have desired greater liquidity in recent years and there has been a flight from mortgages to stocks and bonds. Mortgages constituted nearly sixty per cent of the total assets in 1860, and after some fluctuation, had decreased to 42 per cent in 1926² and declined every year since 1926 until they were only 27.5 per cent in 1935. Bonds and stocks constituted only 10 per cent of the total assets in 1860, but they had increased, after quite a bit of fluctuation, to 40 per cent of the assets by 1926³ and to 42.1 per cent by 1935.⁴ Stocks and bonds are constantly being traded upon the various exchanges. The spread on high grade bonds is usually very small and they can be sold so fast that they are almost as liquid as cash. It is necessary

¹Walter Edwards Lagerquist, op. cit., p. 34.

²Riegel and Loman, op. cit., p. 166.

³Ibid.

⁴Alfred M. Best, op. cit., 1936, Introduction, p.xi.

to keep some of these highly liquid securities on hand.¹

Stocks

Shares of stock represent ownership in corporations.

Some preferred and guaranteed stocks are permissible investments in New York now. However, for many years state laws in New York and some other states prohibited investments in any kind of stock. Even now, New York and some other states prohibit investments by life insurance companies in any type of common stock and some types of preferred and guaranteed stocks.² Due to the fact that stock, especially common, is considered speculative, it constitutes only a very small portion of the total investments of life insurance companies.³ The idea that common stocks do not make good investments is not well founded. It is true, that common stocks are subject to violent fluctuations over short periods of time, but over a long period of time good common stocks show a higher rate of yield than bonds. Ten tests were made by Edgar Laurence Smith of the relative yield on stocks and bonds. The tests covered a fifty-six year period, 1866 to 1922. The individual tests varied from seventeen to twenty-two years each. Each of the ten fictitious investors was supplied \$10,000.00 to invest in common stocks and a like amount to invest in bonds. An arbitrary method of selecting the stocks was decided upon before the selection was made. This prevented knowledge of subsequent events from coloring the choice. The result was that only one investor received a larger return from bonds than from stocks.⁴

¹John Moody, Profitable Investing, New York, 1925, p.185.

²Alfred M. Best, op. cit., 1936, Introduction, p.xvi.

³Ibid.

⁴Edgar Laurence Smith, Common Stocks as Long Term Investments, New York, 1930, pp. 18-20.

The experience of the companies included in this study with stocks has been favorable. The mean rate of yield on stocks for the seven year period was 4.70 per cent. This was .21 per cent lower than the yield on mortgage loans but it was .39 per cent higher than the yield due to mortgages. It was .26 per cent higher than the mean yield on bonds. The spread of the yield on stocks for all companies was from 4.17 in 1929 to 5.29 in 1934 which is 1.12.¹ The highest rate of yield on stocks for any group of companies was 7.13 per cent in 1931 for the Northwestern companies. The lowest rate of yield for any group of companies was .64 per cent for the Negro Companies. The Negro companies and the Southwestern companies did not have high enough rates of yield on stocks to maintain their reserves. The other groups of companies received high enough rates of yield on their stocks to maintain their reserves. The Southeastern group was the only group that did not experience a reduction in the rate of yield on stocks in 1935. The rate of yield on this type of investment for all companies decreased .80 per cent during 1935.²

The statistical data at the beginning of this chapter show that stocks have been growing in importance and relative size as investments through a long period of years. Insurance companies do not have to remain quite as liquid as commercial banks.³ This means that "gilt-edge" securities, the investment heights, need not necessarily constitute a very large portion of the investments of insurance companies.

¹Table III

²Ibid.

³John Moody, op. cit., p.185.

"The investor, if he is to maintain his relative wealth, must increase his buying power as the standard of living rises. If he succeeds only in keeping his original number of dollars in tact, it is inevitable that he will fall behind."¹

According to the data presented in this section of chapter II it appears that stocks are profitable investments for a portion of the assets of insurance companies despite the fact some state laws oppose them.

¹Scudder, Stevens and Clark, Investment Counsel, New York, 1931, p. 8.

TABLE III

Rate of Yield on the Stocks of Thirty One Legal Reserve Life Insurance
Companies From 1929 to 1936

Groups	1929	1930	1931	1932	1933	1934	1935
New York City	4.84	5.00	5.20	4.96	4.30	5.41	4.52
New England	2.89	4.24	4.73	4.05	4.05	5.03	4.63
Pacific Coast	6.67	4.73	5.30	4.80	4.22	4.70	2.96
Negro	.64	3.32	1.76	1.11	2.71	4.28	3.03
Northwestern	3.84	5.53	7.13	5.50	4.90	4.40	3.30
Southeastern	2.71	3.43	3.61	2.38	1.59	1.80	2.56
All	4.17	4.80	5.08	4.74	4.20	5.29	4.49

Bonds

The mean yield on bonds for the seven year period was 4.44 per cent. This was .47 per cent lower than the mean yield on mortgages and .26 per cent lower than the mean yield on stocks. However the mean yield on bonds was .13 per cent higher than the yield due to mortgages and 3.33 per cent higher than the mean yield on real estate. The spread of bond yield was .96 per cent.¹ The highest rate of yield received by any group of companies was 7.63 per cent in 1930 by the Negro companies. The lowest rate of yield was 3.06 per cent to the Texas Companies. The lowest rate of yield on bonds for all companies was 3.86 per cent in 1935. The lowest rate of yield was high enough to maintain the reserves of most companies. The spread of the rate of yield to the Negro companies was 3.19 per cent which was the widest spread for bond yield.² The rate of bond yield for all companies has declined each year since 1930.³ The rate of yield for the New York companies declined each year after 1930.⁴ The rate of yield for the bonds of the New England and Northwestern Companies declined each year included in the study.⁵ The other companies followed the same general trend although they did not receive diminishing returns each successive year.⁶

¹Table IV.

²Ibid.

³Figure 1, Appendix B.

⁴Figure 2, Appendix B.

⁵Figures 3 and 7, Appendix B.

⁶Figures 4, 5, 6, and 8, Appendix B.

The downward trend of yield on high grade bonds did not stop with the end of this study. The Chesapeake & Ohio Ry. Craig Valley Branch 1st 5's '40 AAA were being sold for $110\frac{1}{4}$ February 6, 1937 so as to yield the investor 2.31 per cent.¹ This sales price was a little out of line, higher than it should have been, but it was the prevailing price. The American Tobacco Co. Debenture 48's '51 AAA were being bid for at 112 during the week of March 8, 1937. However no bonds were offered for sale even at this price. If the bonds had been sold, the yield to the investors would have been 2.98 per cent.² This price was not out of line.

"Yields are computed on last sale price to maturity for listed bonds, and on current ask price (or the bid if there is no ask) for all unlisted bonds. Yields are not given for "convertibles" or bonds "with warrents" where these factors cause the issues to sell above the call price; nor are yields given for "entire issue called"; nor for bonds quoted without a bid."³

Thus one may see from these two examples of "tilt-edge" bonds, the former a railroad issue and the latter an industrial, that the yield, as the period covered by this study indicated, on the highest grade bonds (AAA) was falling so low that insurance companies could not buy them and maintain their reserves.

Bonds constituted about 40 per cent of the assets of insurance companies in 1935.⁴ Safety of principal and interest and marketability are the two foremost considerations of good securities.⁵ All bonds are not safer than any stocks but high grade bonds are considered safer than most

¹The Fitch Bond Record, (March 9, 1937) New York, Section 1, p. 52.

²Ibid., p. 12.

³Ibid., p. 3.

⁴Alfred M. Best, op. cit., 1936, Introduction, p. xi.

⁵David F. Jordan, Investments, New York, 1929, pp. 44-45.

stocks.

"When one is investing other people's money security of principal is far more important than increase in income yield".¹

One thing that keeps bond interest low is the call privilege.

Corporations call their bonds (that is if they are callable) when they have a rate of interest on their face that is much higher than current market rates indicate that the corporation should pay.² Bonds bearing a lower rate of interest are subsequently issued. One can not tell from the tables how far the rate of yield on bonds will be depressed.

¹ John Moody, op. cit., p. 187.

² Edgar Laurence Smith, op. cit., pp. 86-87.

TABLE IV

Rate of Yield on the Bonds of Thirty-Six Legal Reserve Life Insurance
Companies From 1929 to 1936

Assets	1929	1930	1931	1932	1933	1934	1935
New York City	4.76	4.78	4.70	4.66	4.43	4.16	3.84
New England	4.89	4.85	4.77	4.68	4.37	4.22	3.90
Texas	6.01	5.47	4.83	5.09	3.06	3.40	3.74
Pacific Coast	5.64	5.68	5.37	5.15	4.71	4.55	4.22
Negro	3.54	7.63	5.17	4.98	4.07	4.61	4.57
Northwestern	4.98	4.89	4.80	4.65	4.44	4.06	3.81
Southeastern	5.73	5.53	6.41	4.88	4.43	4.29	4.40
All	4.82	4.82	4.73	4.67	4.38	4.18	3.86

CHAPTER IV

Other Investments

Policy loans, cash, and collateral loans constitute the other investments. The first two assets named are not real investments so far as the insurance company is concerned.

Policy Loans

The policy loan is covered by reserves which are carried among the liabilities.¹ In the earlier years of life insurance business, the policy loan was a privilege that was extended to some policyholders. Later it became a privilege that was extended to all policyholders. The last step in the evolution of the policy loan up to the present time has been to make the policy loan compulsory in the contract.² That is, competition has forced the insurance companies to make provisions in their contracts which state that one may borrow a sum that roughly approximates the surrender value of the policy.³ Policy loans were approximately 16.5 per cent of the total assets of insurance companies in 1935.⁴

The lowest rate of yield on policy loans for all companies was 5.75 per cent which was the mean rate of yield in 1929. The mean rate of yield for all companies during 1934 and 1935 was 6 per cent which was the highest recorded for this asset.⁵ The spread of the rate

¹ Alfred M. Best, op. cit., 1936, Introduction, p. xvii.

² Riegel and Loman, op. cit., p. 160

³ Ibid.

⁴ Alfred M. Best, op. cit., 1936, p. xvii.

⁵ Table VI and Figure 1.

of yield on all companies was only .25 per cent which was the narrowest spread recorded for any type of investment.¹ The highest rate of yield realized on policy loans by any group of companies was 6.88 per cent by the Negro companies in 1930.² The lowest rate of yield realized on policy loans was 5.65 per cent in 1929 by the New York companies.³ Policy loans usually carry 6 per cent interest.⁴ Some of the tables and graphs showing the yield on the assets of various groups of companies show a rate of yield higher than 6 per cent. At first, it might seem impossible for insurance companies to receive more than 6 per cent on policy loans but one must remember that the interest is usually deducted in advance⁵ and payments are made on the principal throughout the year. It was largely in that manner that a yield exceeding 6 per cent was realized by certain groups.

The policy loan is a well secured "investment" with a high yield. In fact, it has such a high yield that it often enables companies to maintain their reserves that would not be able to otherwise.⁶ Some of the disadvantages are that its high rate of interest often causes policyholders to drop their policies, and those who drop them are usually the best risks,⁷ and it often forces the insurance companies to sell investments at the most inopportune times.⁸ Bad risks do not

¹Ibid.

²Table XI and Figure 6.

³Table VII and Figure 2.

⁴Riegel and Loman, op. cit., p. 160.

⁵Ibid.

⁶Ibid.

⁷Ibid., p. 163.

⁸Ibid., p. 162.

usually drop their policies because it would be too difficult if not impossible for them to get any more insurance

Cash

Cash amounted to 2.8 per cent of the assets of the forty-nine companies covered by Mr. O.J. Arnold. However, cash, while it is an asset, is not usually an investment. Cash in the bank would not return a high enough yield to maintain the reserves. The majority of the companies do not need to keep much cash on hand because even when in an insolvent state they are usually able to meet their claims with premiums that are collected and interest on investments.¹ No tables or graphs on the yield on cash are presented in this study because the majority of the companies did not have their cash invested or if invested, it had no yield.

Collateral Loans

Collateral loans are the last type of investment included in this study. In forty-nine companies, collateral loans constituted only one twentieth of one per cent of the total assets.² The collateral loans are frowned upon by many insurance companies because they are usually secured by types of assets that would not be accepted as investments.³ Collateral loans had a high enough yield in their worst year which was 1934 to maintain their reserves. The lowest rate of yield was 3.7 per cent. The highest rate 6.95 per cent in 1929. This rate of yield of 6.95 per cent was the highest rate of yield on any asset for all companies. The spread was 3.25 per cent

¹ Alfred M. Best, op. cit., 1936, Introduction, p. xviii.

² Ibid., p. xvi.

³ Ibid.

which was the widest spread recorded for any investment. The spread for the Texas companies was 7.99 per cent which was the widest spread for any asset in any group. The Texas companies had the highest rate of yield on collateral loans, which was 9.71 per cent in 1935 and the lowest rate of yield on this type of investment which was 1.72 in 1934.¹

¹Table IX and Figure 4.

TABLE V

Rate of Yield on the Collateral Loans of Twenty-Six Legal Reserve
Life Insurance Companies From 1929 to 1936

Groups	1929	1930	1931	1932	1933	1934	1935
New England	5.53	5.00	4.26	5.38	5.33	5.00	5.00
Texas	7.77	6.90	8.01	6.67	6.23	1.72	9.71
Pacific Coast	6.84	6.40	6.50	5.40	5.03	4.54	3.85
Negro	5.67	5.96	7.46	5.50	5.17	3.32	5.57
Southeastern	6.30	5.90	5.62	6.80	5.83	4.66	5.47
All	6.95	6.43	6.86	5.87	5.45	3.70	5.54

Summary

Real estate was the first type of investment to be considered. Life insurance companies are not permitted to buy real estate as an investment.¹ However, they may purchase real estate for their home office building.² All other real estate is acquired through mortgage foreclosures. This asset constituted approximately 7.7 per cent of the total assets of insurance companies in 1935. The mean yield on real estate was 1.11 per cent which was the lowest yield on any type of investment and was not high enough to maintain the reserves. The rate of yield on real estate for the thirty-six companies declined each year after 1930. Some companies believe that the period of general business recovery will be followed by an increase in the yield on real estate. Other companies have contracted to sell their real estate.

The second type of investment considered was the mortgage loan. Mortgages constituted approximately 27.5 per cent of the total assets of insurance companies in 1935. The mean yield on mortgages was 4.91 per cent. The spread of the rate of yield on mortgage loans was 1.31 per cent. The lowest rate of yield on mortgages received by any group of companies was 3.81 per cent for the New England Companies in 1935 which was high enough to maintain the reserves. The mean yield due to mortgages, a weighted average of the rate of yield of real estate and rate of yield on mortgages, was 4.31 per cent. The rate of yield on mortgages was higher than the rate of yield on stocks, bonds, or real estate, but the rate of yield due to mortgages was lower than the rate of yield on stocks and bonds.

¹Riegel and Loman, op. cit., p. 165.

²Ibid.

Some states do not permit life insurance companies to invest in common stocks. Certain preferred stocks, due to the fact that they are considered less speculative, are permissible investments in nearly all states. The mean rate of yield on stocks for the seven year period was 4.7 per cent. The spread of the yield on stocks for all companies was 1.12 per cent. Stocks made rather profitable investments during the period studied.

Approximately 40 per cent of the investments of insurance companies were bonds. The mean rate of yield on bonds was 4.44 per cent. The spread of bond yield was .96 per cent. The rate of bond yield declined each year after 1930. Safety of principal and interest and marketability are both characteristics of the majority of the bonds held by insurance companies. However, during the last years covered by this study, the highest grade of bonds was not yielding enough to maintain the reserves.

Sixteen and one-half percent of all of the assets of insurance companies were policy loans. Policy loans are listed under the assets and a reserve covers them on the liabilities side of the balance sheet. The lowest rate of yield on policy loans was 5.75 per cent which was the rate of yield in 1929. The highest rate of yield on policy loans was 6 per cent which was the rate of yield during 1934 and 1935. The spread of the rate of yield for all companies was .25 per cent. The high rate of interest on policy loans often encourages the healthy policyholders to drop their old policies and take out new ones.

Cash is an asset but not an investment for insurance companies. Cash on hand and in banks was less than 3 per cent of the total assets. The interest paid by saving banks on saving accounts was not high enough to maintain the reserves of insurance companies.

The rate of yield on collateral loans was high in 1929 at 6.95 per cent and low in 1934 at 3.7 per cent. Only one twentieth of one per cent of all assets were collateral loans. The spread of the rate of yield on collateral loans was 3.25 per cent which was the widest spread recorded.

All of the investments of the insurance companies have been examined. Some investments have high yields, some have low yields, and others have yields that fluctuate violently. One must realize that there is no one best investment for life insurance companies. There is a degree of speculation in all securities and the highly speculative issues usually carry higher rates of yield and greater losses of principal. The insurance companies have realized that all of these types of investments have a place in their portfolios.

APPENDIX A

Legal Reserve Life Insurance Companies Included in This Study Listed
By Groups

New York City

Equitable Life Assurance Society of the United States

The Guardian Life Insurance Company of America

Metropolitan Life Insurance Company

The Mutual Life Insurance Company

New York Insurance Company

New England

Aetna Life Insurance Company, Hartford, Conn.

John Hancock Mutual Life Insurance Company, Boston, Mass.

Massachusetts Mutual Life Insurance Company, Springfield, Mass.

New England Mutual Life Insurance Company, Boston, Mass.

The Travelers Insurance Company, Hartford, Conn.

Texas

American National Insurance Company, Galveston

Amicable Life Insurance Company, Waco

Great Southern Life Insurance Company, Houston

Southland Life Insurance Company, Dallas

Southwestern Life Insurance Company, Dallas

Pacific Coast

Northern Life Insurance Company, Seattle, Wash.

Occidental Life Insurance Company of California, Los Angeles, Cal.

Pacific Mutual Life Insurance Company of California, Los Angeles, Cal.

Oregon Mutual Life Insurance Company, Portland, Ore.

West Coast Life Insurance Company, San Francisco, Cal.

Negro

Afro-American Life Insurance Company, Jacksonville, Fla.

Atlanta Life Insurance Company, Atlanta, Ga.

North Carolina Mutual Life Insurance Company, Durham, N.C.

Pilgrim Health and Life Insurance Company, Augusta, Ga.

Supreme Liberty Life Insurance Company, Chicago, Ill.

Universal Life Insurance Company, Memphis, Tenn.

Northwestern

Bankers Life Company, Des Moines, Ia.

Central Life Assur. Soc., of the United States, Des Moines, Ia.

Equitable Life Insurance Company of Iowa, Des Moines, Ia.

Northwestern Mutual Life Insurance Company, Milwaukee, Wis.

Northwestern National Life Insurance Company, Minneapolis, Minn.

Southern

Pan-American Life Insurance Company, New Orleans, La.

Pilot Life Insurance Company, Greensboro, N.E.

Provident Life and Acc. Insurance Company, Chattanooga, Tenn.

Shenandoah Life Insurance Company, Roanoke, Va.

Volunteer State Life Insurance Company, Chattanooga, Tenn.

APPENDIX B

The following tables and graphs show the rates of yield on the various types of investments by groups of companies. Each group consists of the companies listed under its name in Appendix A.

TABLE VI

Rate of Yield on Assets of Thirty-Six Legal Reserve Life
Insurance Companies from 1929 to 1936

Assets	1929	1930	1931	1932	1933	1934	1935
Real Estate	2.62	3.26	2.14	1.01	.96	.77	.51
Mortgage Loans	5.44	5.42	5.37	5.26	4.07	4.46	4.13
Collateral Loans	6.95	6.43	6.86	5.87	5.45	3.70	5.54
Policy Loans	5.75	5.80	5.94	5.77	5.91	6.00	6.00
Bonds	4.82	4.82	4.73	4.67	4.38	4.18	3.86
Stocks	4.17	4.80	5.08	4.74	4.20	5.29	4.49

Rate of Yield on Assets of Thirty-Six Legal Reserve Life Insurance Companies From 1929 to 1936

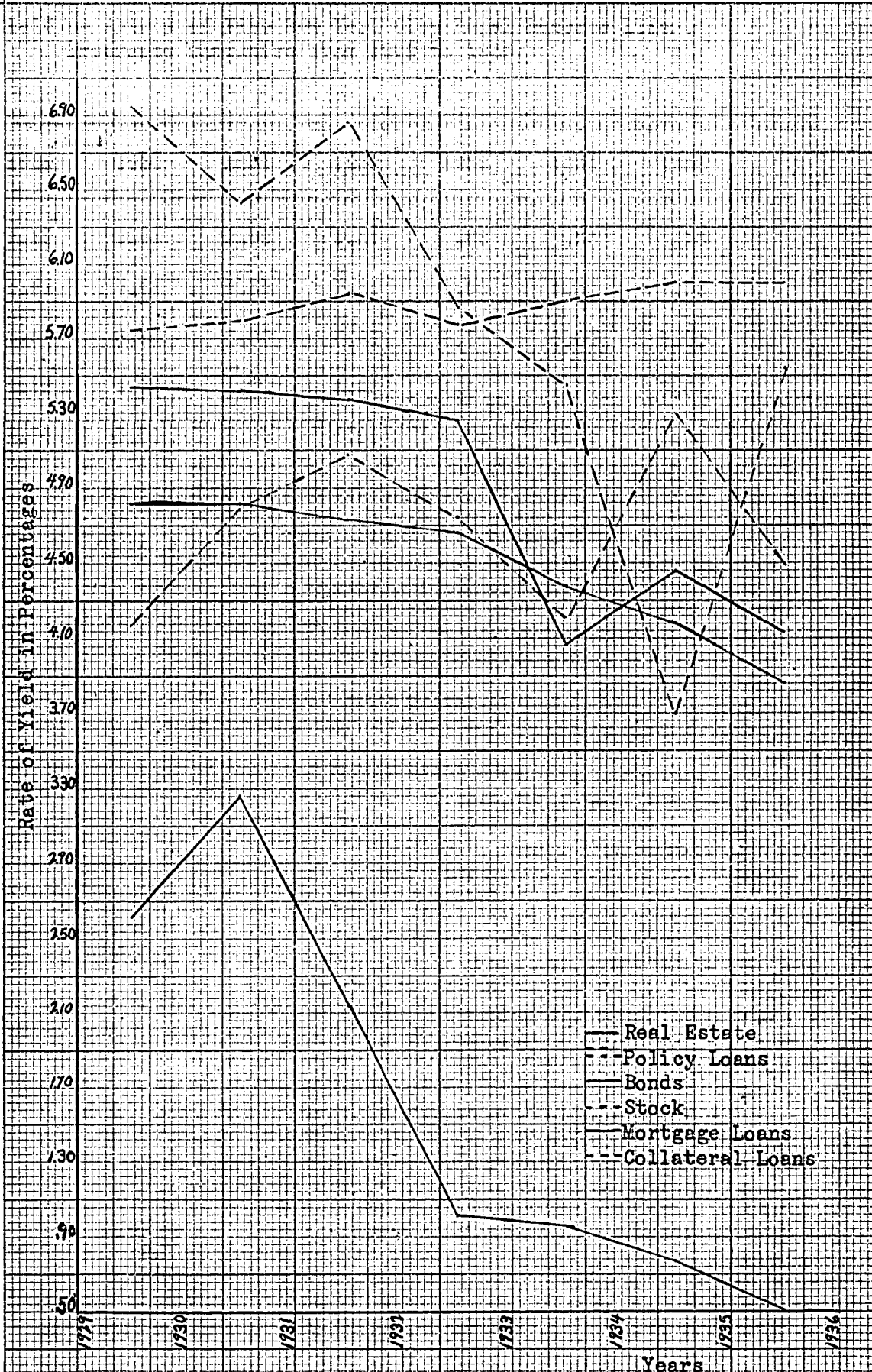


Figure 1.

TABLE VII

Rate of Yield on Assets of Five New York City Legal Reserve Life
Insurance Companies From 1929 to 1936

Assets	1929	1930	1931	1932	1933	1934	1935
Real Estate	3.19	3.41	2.88	1.21	.86	.36	.16
Mortgage Loans	5.42	5.44	5.39	5.26	4.00	4.30	4.06
Policy Loans	5.65	5.80	5.93	5.69	5.76	6.00	6.00
Bonds	4.76	4.78	4.70	4.66	4.43	4.16	3.84
Stocks	4.84	5.00	5.20	4.96	4.30	5.41	4.52

Rate of Yield of Assets of Five New York City Legal Reserve Life Insurance Companies From 1929 to 1936

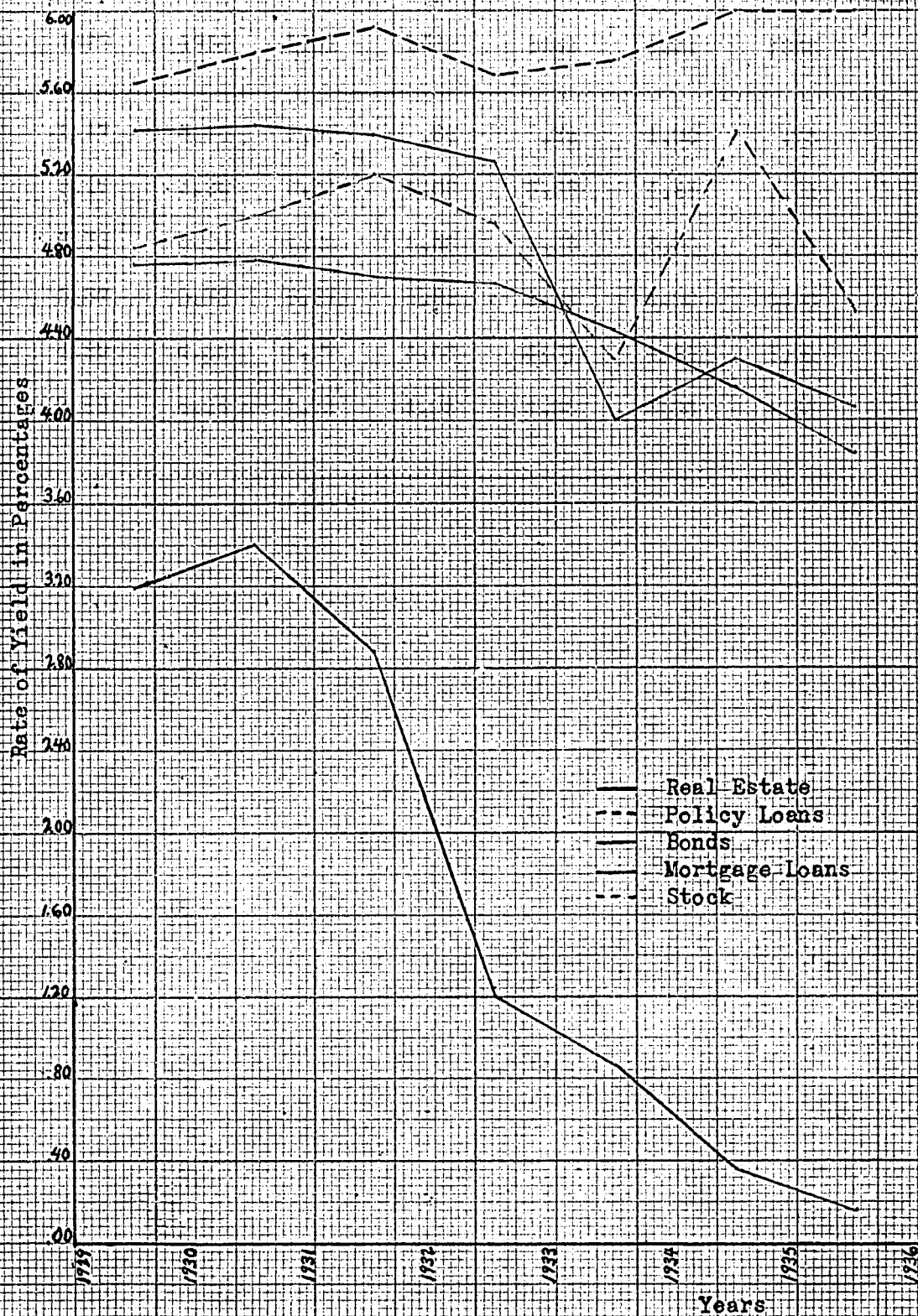


Figure 2.

TABLE VIII

Rate of Yield on the Assets of Five New England Legal Reserve Life
Insurance Companies From 1929 to 1936

Assets	1929	1930	1931	1932	1933	1934	1935
Real Estate	2.17	3.16	1.07	.66	.76	1.00	.73
Mortgage Loans	5.47	5.29	5.31	5.09	3.89	4.48	3.81
Collateral Loans	5.53	5.00	4.26	5.38	5.33	5.00	5.00
Policy Loans	5.87	5.72	5.87	5.83	5.85	6.00	6.00
Bonds	4.89	4.85	4.77	4.68	4.37	4.22	3.90
Stocks	2.89	4.24	4.73	4.05	4.05	5.03	4.63

Rate of Yield on the Assets of Five New England Legal Reserve Life Insurance Companies From 1929 to 1936

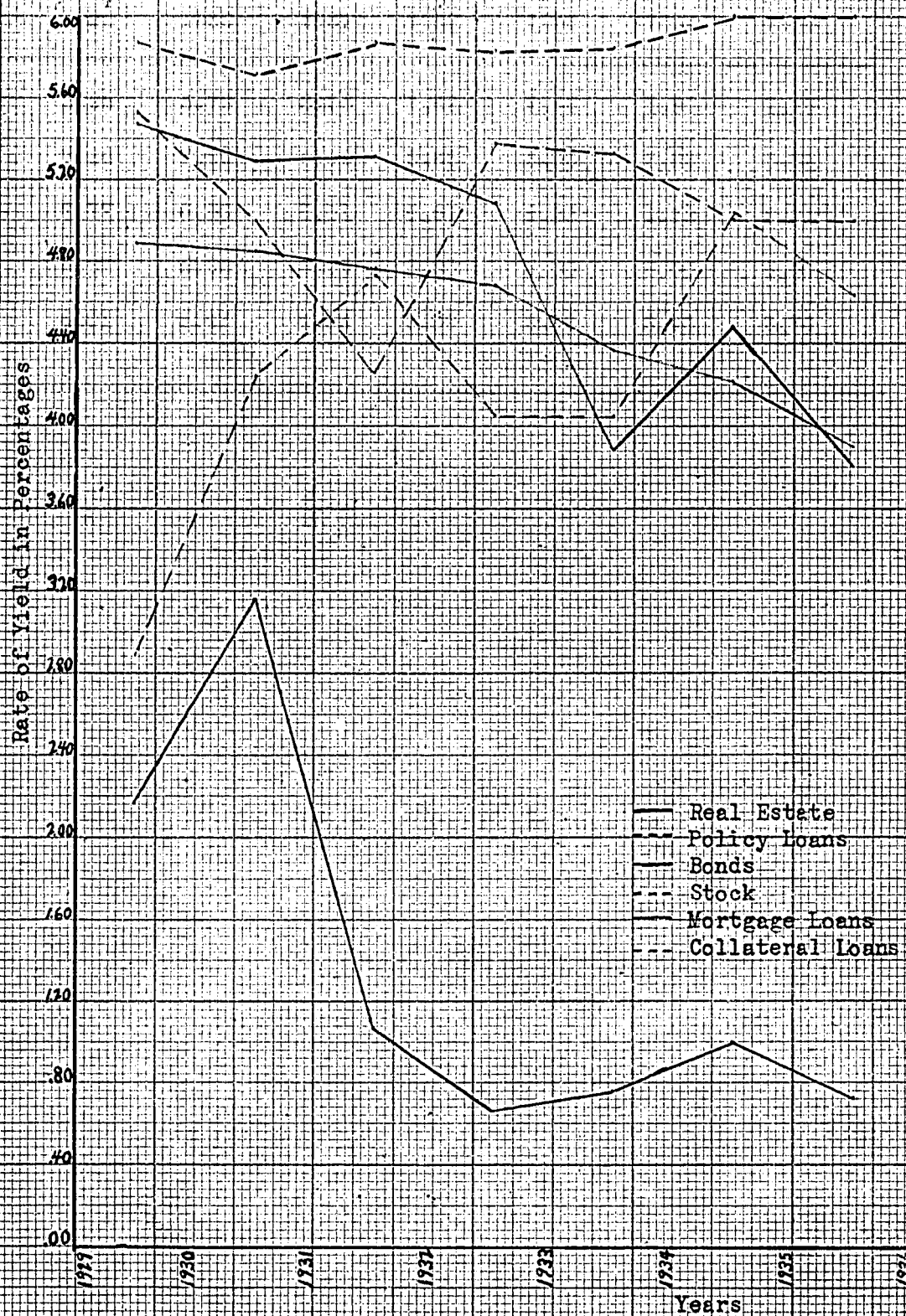


Figure 3.

TABLE IX

Rate of Yield on the Assets of Five Texas Legal Reserve Life
Insurance Companies From 1929 to 1936

Assets	1929	1930	1931	1932	1933	1934	1935
Real Estate	3.95	3.79	3.55	1.82	2.48	1.96	2.23
Mortgage Loans	7.24	7.86	6.56	6.65	5.55	5.83	5.54
Collateral Loans	7.77	6.90	8.01	6.67	6.23	1.72	9.71
Policy Loans	6.07	6.30	6.29	5.80	6.00	6.00	6.00
Bonds	6.01	5.47	4.83	5.09	3.06	3.40	3.74

Rate of Yield on the Assets of Five Texas Legal Reserve Life Insurance Companies From 1929 to 1936

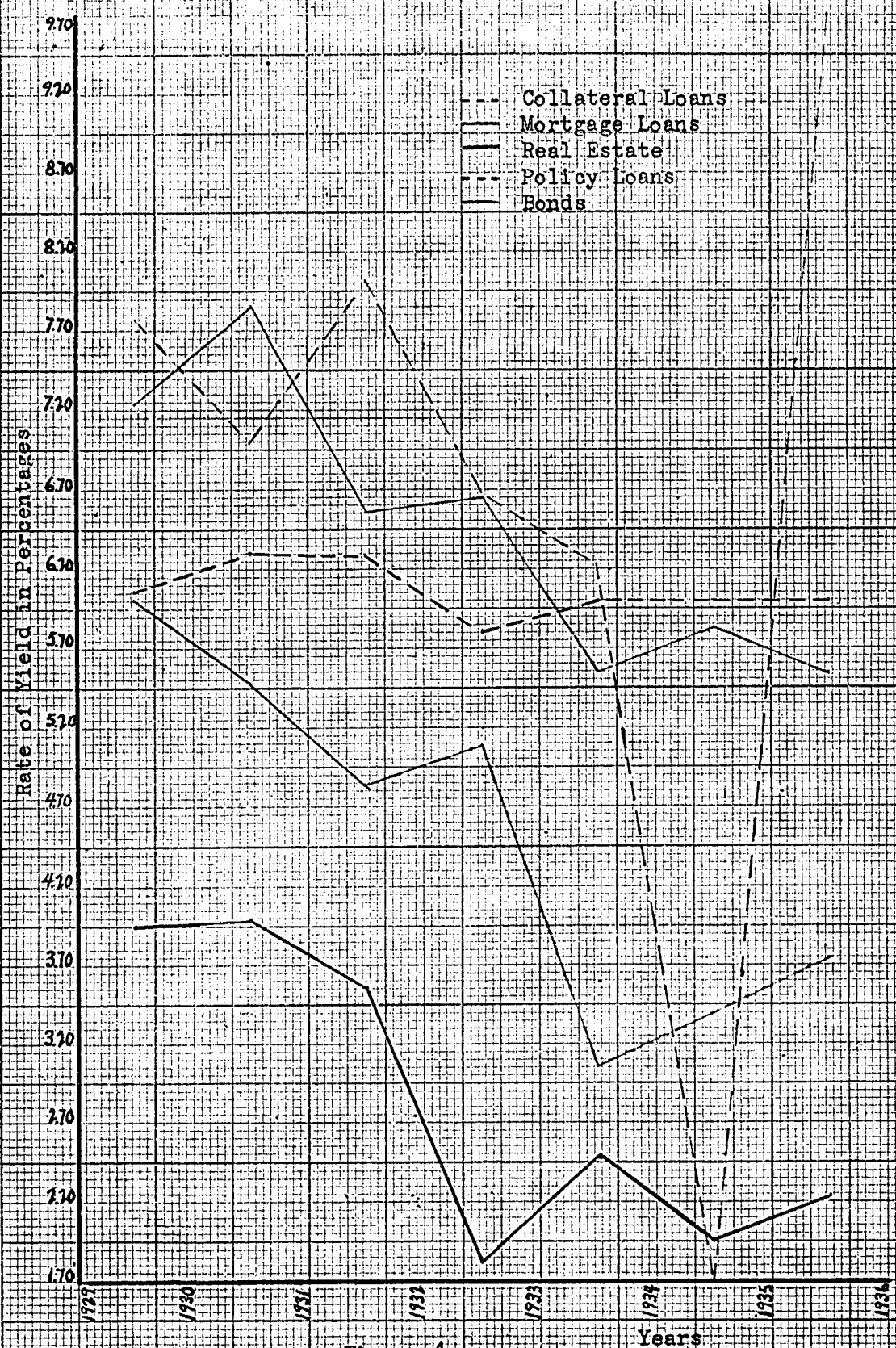


Figure 4.

TABLE X

Rate of Yield of the Assets of Five Pacific Coast Legal Reserve
Life Insurance Companies From 1929 to 1936

Assets	1929	1930	1931	1932	1933	1934	1935
Real Estate	4.58	4.78	3.56	2.93	2.25	2.91	2.46
Mortgage Loans	6.26	6.05	5.90	5.81	5.29	5.40	4.39
Collateral Loans	6.86	6.40	6.50	5.40	5.03	4.54	3.83
Policy Loans	6.39	6.24	6.27	6.02	6.00	6.00	6.00
Bonds	5.64	5.68	5.37	5.15	4.71	4.55	4.22
Stocks	6.67	4.73	5.30	4.80	4.22	4.70	2.96

Rates of Yield on the Assets of Five Pacific Coast Legal Reserve Life Insurance Companies From 1929 to 1936

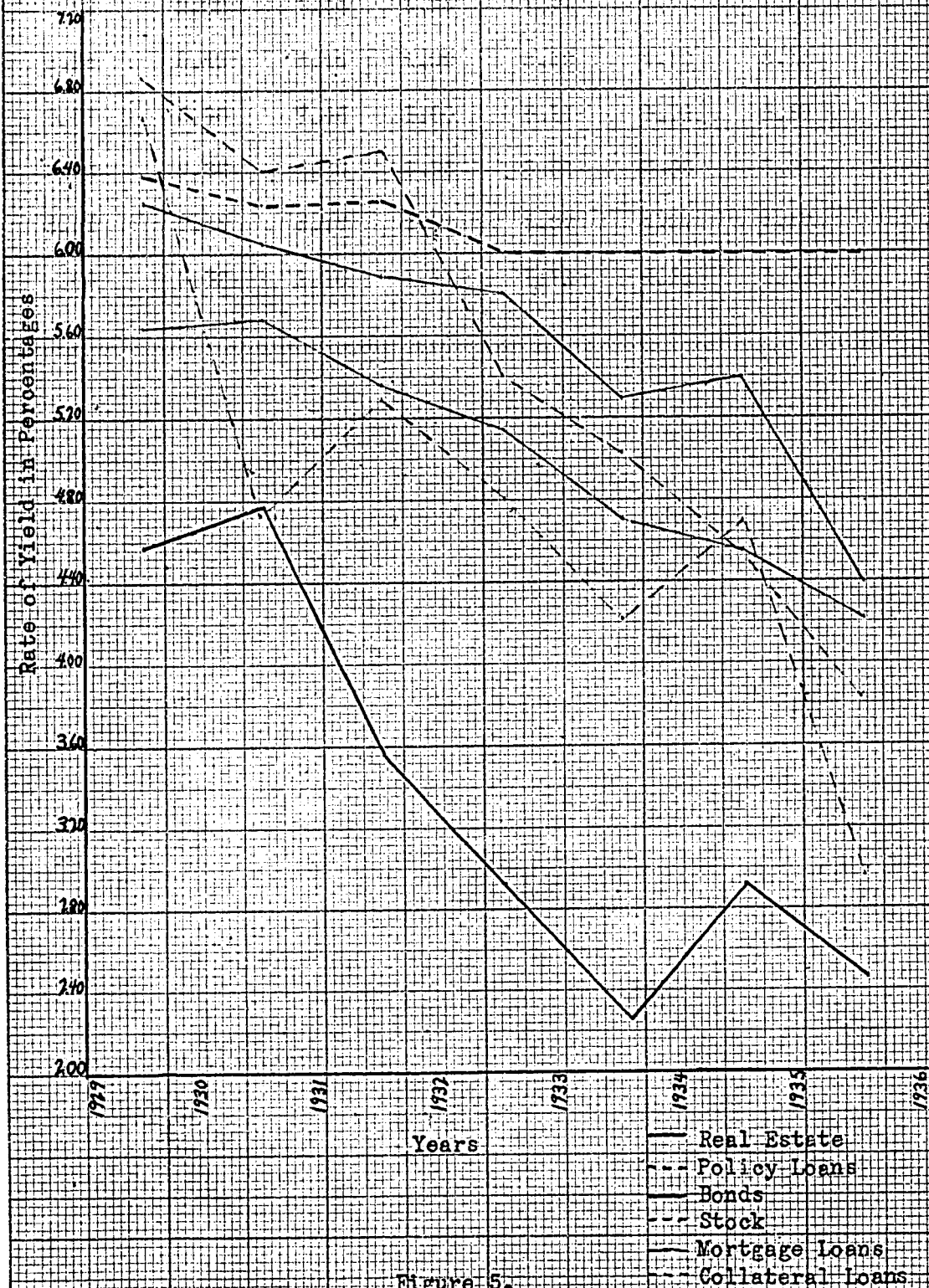


Figure 5.

TABLE XI

Rate of Yield on The Assets of Six Negro Legal Reserve Life Insurance
Companies From 1929 to 1936

Assets	1929	1930	1931	1932	1933	1934	1935
Real Estate	.69	2.00	1.44	1.24	1.11	2.77	1.22
Mortgage Loans	8.15	6.42	5.46	6.09	5.69	4.10	6.15
Collateral Loans	5.67	5.96	7.46	5.50	5.17	3.32	5.57
Policy Loans	5.73	6.88	6.30	5.93	5.91	6.00	6.00
Bonds	3.54	7.63	5.17	4.98	4.07	4.61	4.57
Stocks	.64	3.32	1.76	1.11	2.71	4.28	3.03

Rate of Yield on the Assets of Six Negro Legal Reserve Life Insurance Companies From 1929 to 1936

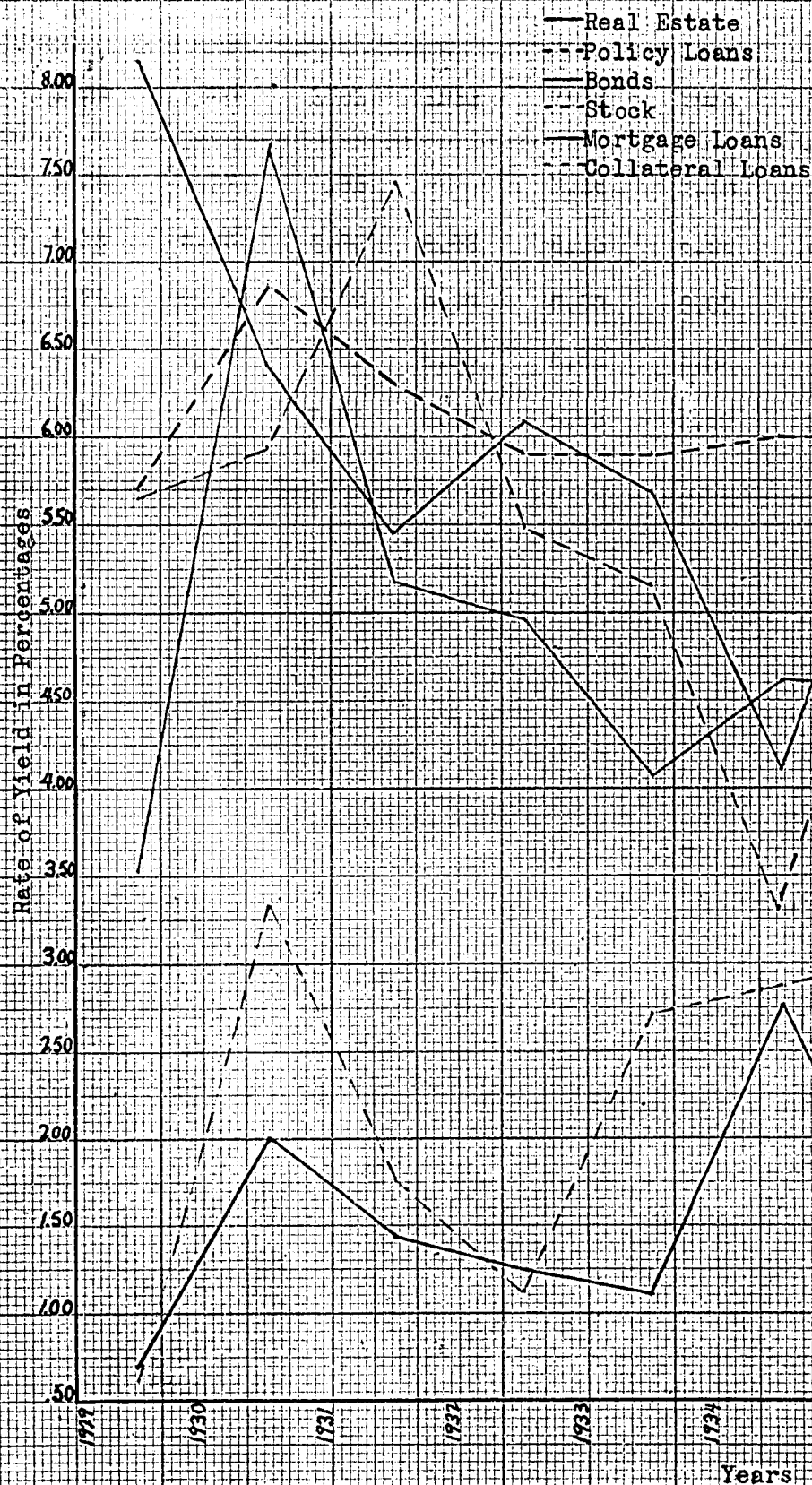


Figure 6.

TABLE XII

Rate of Yield on the Assets of Five Northwestern Legal Reserve
Life Insurance Companies From 1929 to 1936

Assets	1929	1930	1931	1932	1933	1934	1935
Real Estate	1.29	1.37	.35	----	1.36	1.50	1.37
Mortgage Loans	5.13	5.03	5.06	4.83	4.23	4.94	4.62
Policy Loans	5.79	6.00	5.89	5.98	6.00	6.00	6.00
Bonds	4.98	4.89	4.80	4.65	4.44	4.06	3.81
Stocks	3.84	5.53	7.13	5.50	4.90	4.40	3.30

Rate of Yield on the Assets of Five Northwestern Legal Reserve Life Insurance Companies From 1929 to 1936

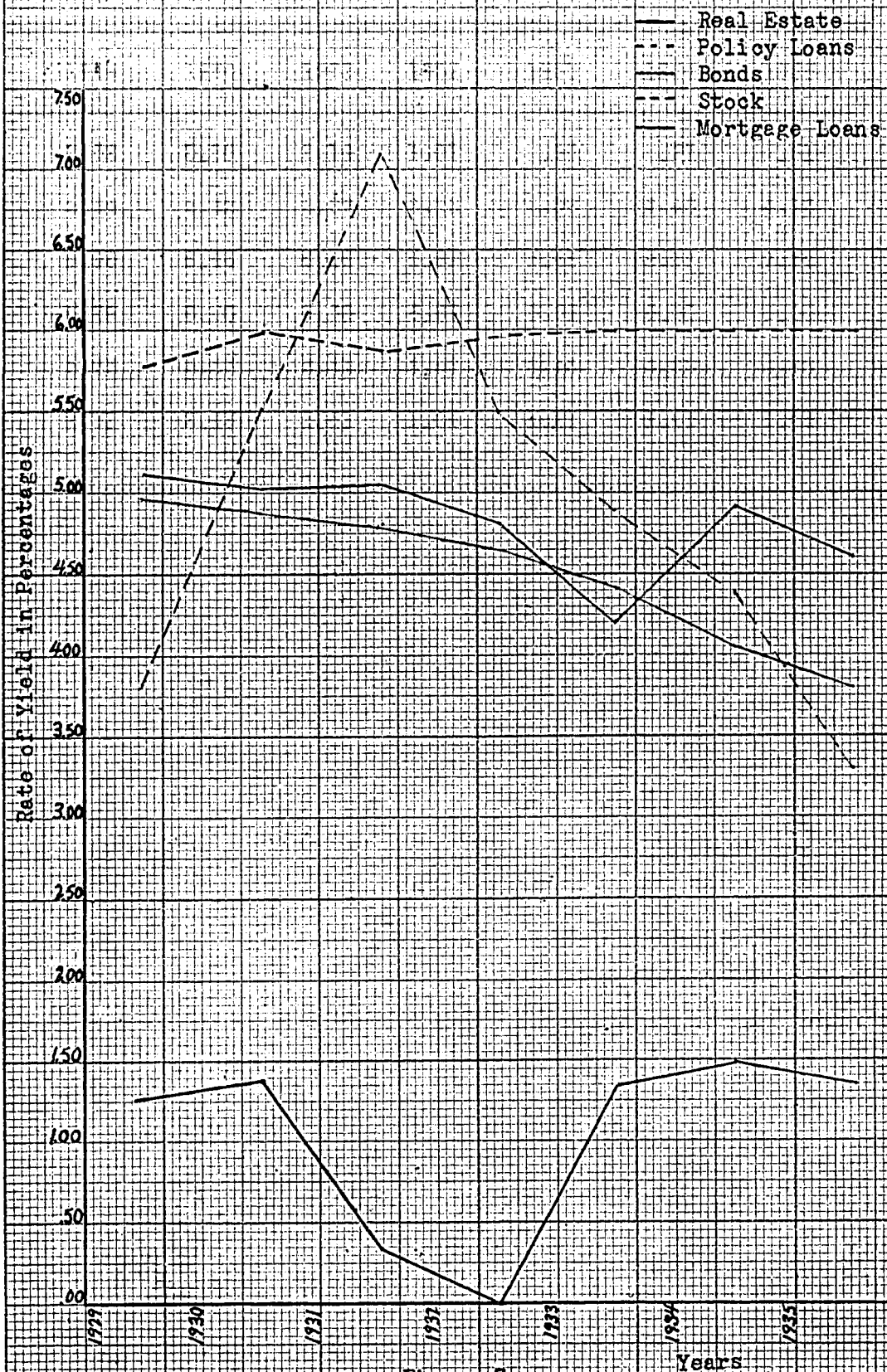


Figure 7.

TABLE XIII

Rate of Yield on the Assets of Five Southeastern Legal Reserve Life Insurance Companies From 1929 to 1936

Assets	1929	1930	1931	1932	1933	1934	1935
Real Estate	2.62	3.26	2.14	1.01	.96	.77	.51
Mortgage Loans	5.44	5.42	5.37	5.26	4.07	4.46	4.13
Collateral Loans	6.95	6.43	6.86	5.87	5.45	8.17	7.14
Policy Loans	6.29	6.30	6.30	5.87	5.55	6.00	6.00
Bonds	5.73	5.53	6.41	4.88	4.43	4.29	4.40
Stocks	2.71	3.43	3.61	1.04	1.17	1.45	1.43

Rate of Yield on the Assets of Five Southeastern Legal Reserve Life Insurance Companies From 1929 to 1936

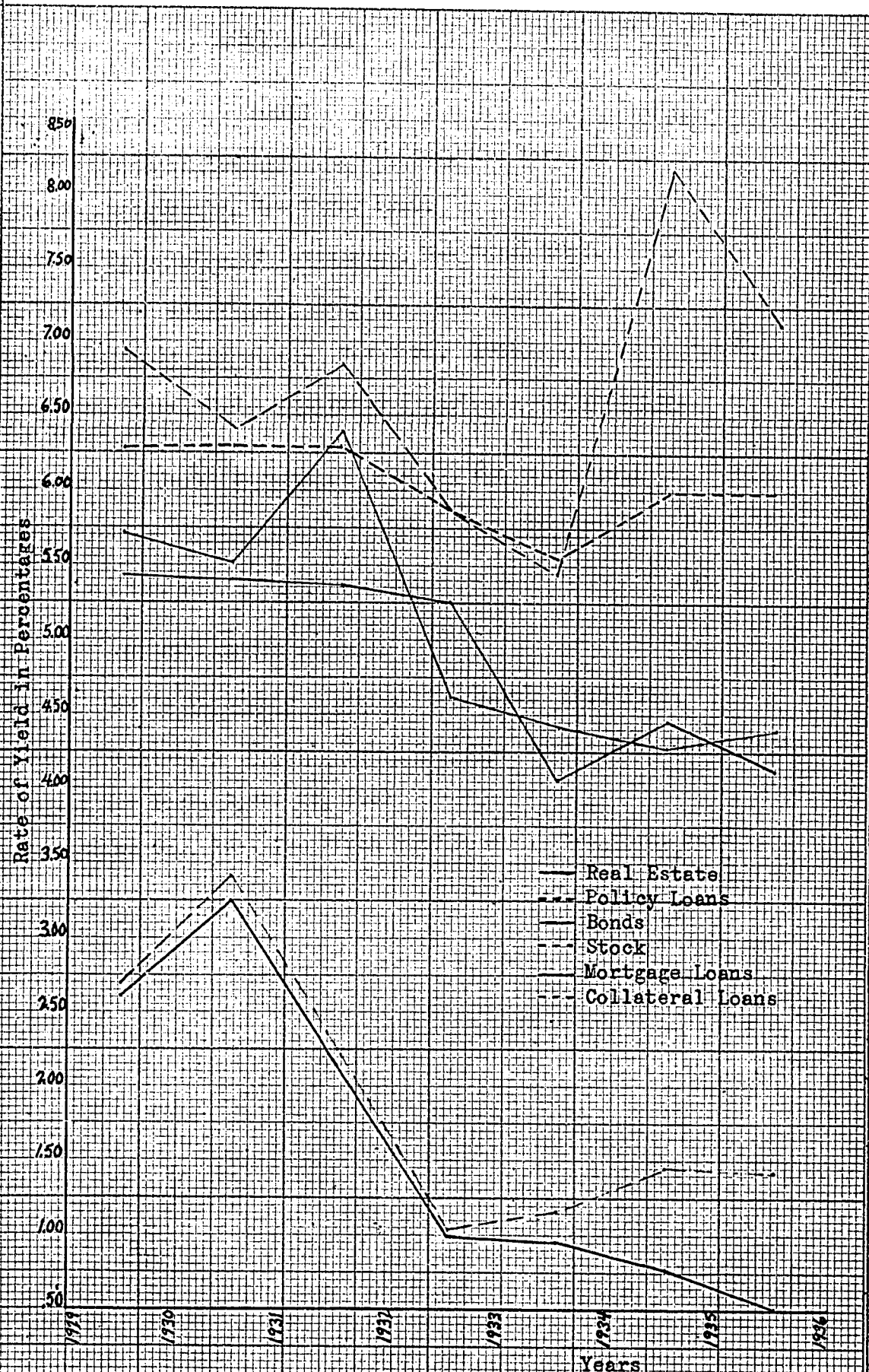


Figure 8.

BIBLIOGRAPHY

BOOKS

- Galston, Arthur. Security Syndicate Operations. New York, 1928.
- Jordan, David F. Investments. New York. 1929.
- Kirshman, John E. Principles of Investment. New York. 1925.
- Lagerquist, Walter B. Investment Analysis. New York. 1929
- Moody, John. Profitable Investing. New York. 1925.
- Riegel, Robert and Loman, H.J. Insurance Principles and Practice.
New York. 1936
- Scudder, Stevens and Clark. Investment Counsel. New York. 1931
- Smith, Edgar Laurence. Common Stocks as Long Term Investments. New York.
1930.

MISCELLANEOUS MATERIAL

- Best, Alfred M. Best's Insurance Reports. New York. 1930-1936.
- Bureau of Labor Statistics. Monthly Labor Review. Washington. Vols. 25,37.
- New York Times. New York. April 24, 1937
- The Fitch Publishing Co., Inc. The Fitch Bond Record. New York. Mar. 9, 1937.