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Volume Author/Editor: Raymond J. Saulnier

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# Urban Mortgage Lending Costs and Returns of Life Insurance Companies, 1945 - 47

**I**NFORMATION about the level of mortgage lending costs and returns and about their relation to various measures of lending activity is essential to an analysis of many mortgage financing problems. This is particularly true of problems that involve the probable implications of public and private policies relating to interest rates. Accordingly, a special study was made, as part of this survey of urban mortgage financing by-life insurance companies, of the costs incurred in extending credit on the security of urban properties and of the net income earned by these lenders on their urban mortgage investments. Naturally, the results of a study of this kind are directly applicable only to insurance companies, but they also throw much light on the operations of other lenders, although modifications in the findings must be made to fit the special circumstances under which other agencies extend credit.

The main objectives of the analysis have been to ascertain the level of operating costs, to determine how these costs are divided among the several principal functional divisions of the lending process (loan acquisition, loan servicing, and general administration), and to determine how the level of operating costs varies with the amount of a company's mortgage investment, the average size of its individual loan balances, and the volume of its lending activity. The findings of this study relating to operations during 1945, 1946, and 1947 are presented in this chapter, but the task of accumulating and analyzing cost data is so filled with technicalities affecting the final measures of costs and returns that the concepts and methods used in the analysis must be reviewed before the findings can be discussed.<sup>1</sup>

<sup>1</sup> A more complete description of concepts and methods may be found in R. J. Saulnier, *Costs and Returns on Farm Mortgage Lending by Life Insurance Companies, 1945-1947* (National Bureau of Economic Research, Financial Research Program, 1949). The studies of urban and farm mortgage lending costs were made by exactly comparable methods.

## METHODS OF MEASURING COSTS

In brief, the following is the method of measuring lending costs and returns employed in this study: (a) a company's gross urban mortgage income in a given year is expressed as a percentage of the amount of its average loan balance over that same year; (b) the amount of the company's operating costs is expressed similarly; and (c) the difference between the two, also expressed as a percentage of average loan balance, gives a measure of the net income earned on the mortgage loan portfolio during the year in question. Certain features of this procedure must be clarified before the results can be interpreted correctly.

First, the measure of yield which this method gives is a *present portfolio yield*. This contrasts sharply, but not irreconcilably, with a measure of *expected yield*, i.e., the yield expected over the future on one or a group of mortgages acquired at a given time on given conditions of income and cost. Much of the detailed knowledge acquired by studying present portfolio yield can be used in estimating expected yield, though the measures are quite different.

Second, in measuring present portfolio yield this study has treated both income and costs on the basis of cash, rather than accrual, accounting. In other words, in measuring the costs of acquiring loans in a given year, the cash, or current, accounting method includes all originating costs actually disbursed in that year; under the accrual method, on the other hand, originating costs are spread over the expected life of each loan. Thus, if a loan is expected to remain outstanding without reduction for five years, one-fifth of the loan's acquisition cost is charged against the yearly income. The income earned from mortgage loan investments is also charged each year, under the accrual method, with a share of the still-not-completely amortized acquisition costs of loans made in previous years.

Comparable problems are involved in the treatment of loan income. Under the cash method of cost accounting, the income of a given period is that income actually received during the period, notwithstanding that some of it might actually have been earned earlier or that another part of it might be a prepayment of income not to be earned until later. On the other hand, under the accrual method, the income of a given period is that income actually earned during the

period, whether received during that time or earlier or to be received in the future.

There can be no doubt of the conceptual superiority of the accrual over the cash method of accounting, but the merits of the two approaches are reversed when tested for practicability. The accrual method presents very difficult problems in measuring costs and income for an investigation of the present type. While the accrual method requires that acquisition costs be spread over the expected life of a mortgage loan, whether they are met in the form of a "commission" paid to a correspondent, a "premium" paid in purchasing a loan, or expenses incurred in connection with the operation of home or branch offices, as a practical matter acquisition costs often cannot be separated from servicing costs. Even if acquisition costs could be isolated, the selection of an amortization schedule would be largely arbitrary, since the actual length of the period over which loan balances are outstanding is not necessarily constant from year to year, nor is it the same for different types of loans at a given point in time. Finally, the accrual approach would require companies to search their records for a number of years in order to take account of the income earned, and the expenses incurred, on loans made in earlier periods but still outstanding. So formidable is this difficulty that this investigation of necessity uses the cash method.

The primary disadvantage of the cash method is that the yield it gives fluctuates around the yield given by the accrual method, in accordance with the volume of new lending. The yield given by the cash method is lower in years of high lending activity and higher in years of low lending activity than the yield given by the accrual method, because the heavy volume of acquisition costs incurred in a year of active lending are charged wholly to that year. As long as the volume of lending activity fluctuates, therefore, fluctuations in lending costs, expressed as a percentage of loan investment, are inevitable. The significance of these facts is that the yields given by the cash accounting approach for 1945-47, when new lending was increasing rapidly, are lower than would be given by the accrual method.

#### DEFINITIONS OF TERMS

Certain terms used in the analysis of costs and returns require definition. The first is *loan investment*, or the "investment base," to which

is related, in percentage terms, each of the elements of cost and income. A monthly or quarterly average of the amount of loans outstanding would have been desirable, but practical considerations necessitated a simple average of outstandings at the beginning and end of the year. Real estate sales contracts as well as loan balances are included in the investment base, but this is inconsequential since, for most companies, sales contracts are minor compared with the mortgage loan account. Although costs probably vary from one type of loan to another, it was impossible to obtain a reliable breakdown of costs among the different types of loans. The amount of loan investment, so defined, is also used as the independent variable in testing the relation between the level of lending costs and the scale of lending operations. In certain connections the *volume of loans made* is used as the independent variable, and in these cases loan volume refers exclusively to new loans and increases in outstanding balances.

*Gross income*, as used in this study, includes interest income received during a given year from mortgage loans, income from real estate sales contracts, and prepayment premiums; the two last named, however, are minor components of the whole. As far as possible, the object has been to make gross income reflect amounts actually paid by the mortgagors, and to this end income is reported before deduction from interest income of any fees that may be paid to correspondents or other outside agents. As a measure of gross portfolio return the gross income received in a period is expressed as a percentage of that period's loan investment. As such, it reflects contract interest rates on a whole congeries of loans made at different times in the past.

The first of the main categories of costs used in this study is *fees paid to correspondents and other outside agents*. In return for these fees the correspondent may perform two services—originate loans and service loan balances. If these two services were paid for individually, separate analyses of loan acquisition and loan servicing costs could be made. However, such is not the case. Sometimes loan servicing is partly remunerated by a relatively high acquisition fee, and in other cases loan acquisition is remunerated in part by a relatively high servicing fee.<sup>2</sup> The only practical basis for reporting costs

<sup>2</sup> As a result the ratios of payments made at time of loan origination and fees paid on a continuing basis to the volume of loans made and of loan balances serviced, respectively, vary among companies and do not necessarily correspond to the rates that would be quoted for the separate services of loan origination and loan servicing.

was to ask respondents to distinguish between those fees paid *at the time of loan origination* (including premiums paid) and those paid on a *continuing basis*.

The next category of expenses, *branch office city loan acquisition and servicing costs*, consists of all those yearly expenditures properly attributable to city lending activities. The allocation of costs is not difficult since the branch office activities are, in most cases, departmentalized. However, an effort was made in the analysis of 1945 costs to distinguish, within this total of branch office costs, those attributable to (1) loan acquisition, (2) loan servicing, and (3) the management of owned real estate. The breakdown between acquisition and servicing costs was dropped in the 1946 and 1947 schedules because most companies had difficulty in making this classification; real estate management costs were also excluded in these two years.

The final main category of lending costs consists of the *expenses of operating the home office city mortgage loan department and general administrative expenses*. Both types of expenses were reported on a cash accounting basis which referred exclusively to payments actually disbursed during the year. All direct costs of the home office city loan department, including salaries, space costs, heat, light, maintenance, travel, office supplies, etc., were included. Adjustments were requested if employees of the company were not engaged exclusively in city mortgage lending, and a prorating of costs was requested if the mortgage department received service from the legal department or some other division of the company. Under general administrative expenses, companies were asked to include only the expenses of the finance, or investment, committee of the directors. Since these committees ordinarily have authority over additional fields of investment, companies were requested to allocate to the city mortgage department an amount determined by applying to the committee's total expenses the percentage of the city mortgage loan investment at year end to the total investment for which the committee was responsible.

#### COVERAGE OF THE COST SURVEYS

Schedules for reporting lending costs incurred during 1945 were mailed to all 369 legal reserve life insurance companies in the United States in June 1946; similar schedules requesting cost data for 1946

and 1947 were sent out in the following two years to all life companies except those that had previously reported no activity in urban mortgage lending.<sup>3</sup> Cooperation was entirely voluntary, and non-response was heavy, particularly among small companies. But since larger companies do most of the mortgage lending, and because their response ratio was relatively high, the returns cover a sizable segment of total insurance company urban mortgage lending in each year. Of the seventy-one companies responding to the 1945 schedule, general use was made of twenty-three reports and detailed use of forty-eight. Fifty of the eighty-nine companies responding in 1946, and forty-four of the sixty-five companies responding in 1947 submitted nearly complete returns, while the reports of the remaining companies were, in each case, only partially complete and therefore less useful.<sup>4</sup>

Fifty-six of the companies responding in 1945 also returned schedules in 1946, and forty of these continued to report in the 1947 survey. These companies varied considerably, however, in the degree to which the schedules were completed from one year to the next. The differences from year to year in the number of reporting companies were most pronounced among companies with assets under \$100 million. Of the forty companies in the United States that had assets over \$100 million, twenty-eight reported in the 1945 survey. This group was increased in 1946 by one company with assets between \$100 and \$500 million, and in 1947 by one company with assets of over \$1 billion.

The relative importance of the reporting companies among all life insurance companies holding urban mortgages is shown in Table 18. The companies reporting on the 1945, 1946, and 1947 surveys held roughly 65 percent of the admitted assets of all companies and about the same percentage of their urban mortgage holdings. As will be noted, the coverage of companies with admitted assets of \$100 million and over was much better than the coverage of smaller companies.

<sup>3</sup> Copies of the schedules on which companies reported cost data for 1945 and 1946, and the 1946 instructions to cooperating companies, are reproduced in Appendix C. The 1947 schedule is not reproduced since it is identical with the one for 1946.

<sup>4</sup> Companies that submitted schedules so incomplete as to be of little value in the analysis and those that reported portfolios composed of a few small loans have not been included in the above-mentioned count.

TABLE 18 — RELATIVE IMPORTANCE OF REPORTING COMPANIES AMONG ALL LEGAL RESERVE LIFE INSURANCE COMPANIES HAVING AN URBAN MORTGAGE LOAN PORTFOLIO, 1945-47 <sup>a</sup>

Total Admitted Assets (in millions)	Number of Reporting Companies	Relative Importance of Reporting Companies Among All Companies		
		Number of Companies	Total Admitted Assets	Urban Mortgage Holdings <sup>b</sup>
		<u>1945</u>		
Less than \$1.0	2	5%	6%	5%
1.0 - 99.9	41	18	23	24
100.0 - 499.9	14	61	66	73
500.0 - 999.9	4	80	82	81
1,000 and over	10	83	65	65
Total	71	24%	63%	62%
		<u>1946</u>		
Less than \$1.0	3	7%	9%	10%
1.0 - 99.9	57	23	43	43
100.0 - 499.9	15	65	70	79
500.0 - 999.9	4	80	82	82
1,000 and over	10	83	65	65
Total	89	27%	65%	66%
		<u>1947</u>		
Less than \$1.0	0	0%	0%	0%
1.0 - 99.9	35	13	24	20
100.0 - 499.9	15	58	65	75
500.0 - 999.9	4	80	83	81
1,000 and over	11	92	77	79
Total	65	18%	71%	67%

<sup>a</sup> From *The Spectator Insurance Year Book* (1946, 1947, and 1948) and *Best's Life Insurance Reports, 1946*.

<sup>b</sup> Percentages for 1945 are based on urban mortgage holdings excluding real estate sales contracts; for 1946 and 1947 the basic data for all insurance companies exclude real estate sales contracts. Data for the National Bureau of Economic Research sample of insurance companies include real estate sales contracts. This discrepancy cannot be remedied but it is believed that it does not affect the results by more than two or three percentage points.



FINDINGS <sup>5</sup>

## GROSS INCOME FROM URBAN MORTGAGE LOANS

Chart 5 shows that the gross income ratios of individual companies for 1945 concentrated somewhere between 4.25 and 4.75 percent of their loan investment; the corresponding ranges for 1946 and 1947 were somewhat lower—4.05 to 4.55 percent in 1946 and 3.85 to 4.35 percent in 1947. The decline from 1945 to 1947 in gross income ratios was particularly apparent among the companies with very large portfolios.<sup>6</sup>

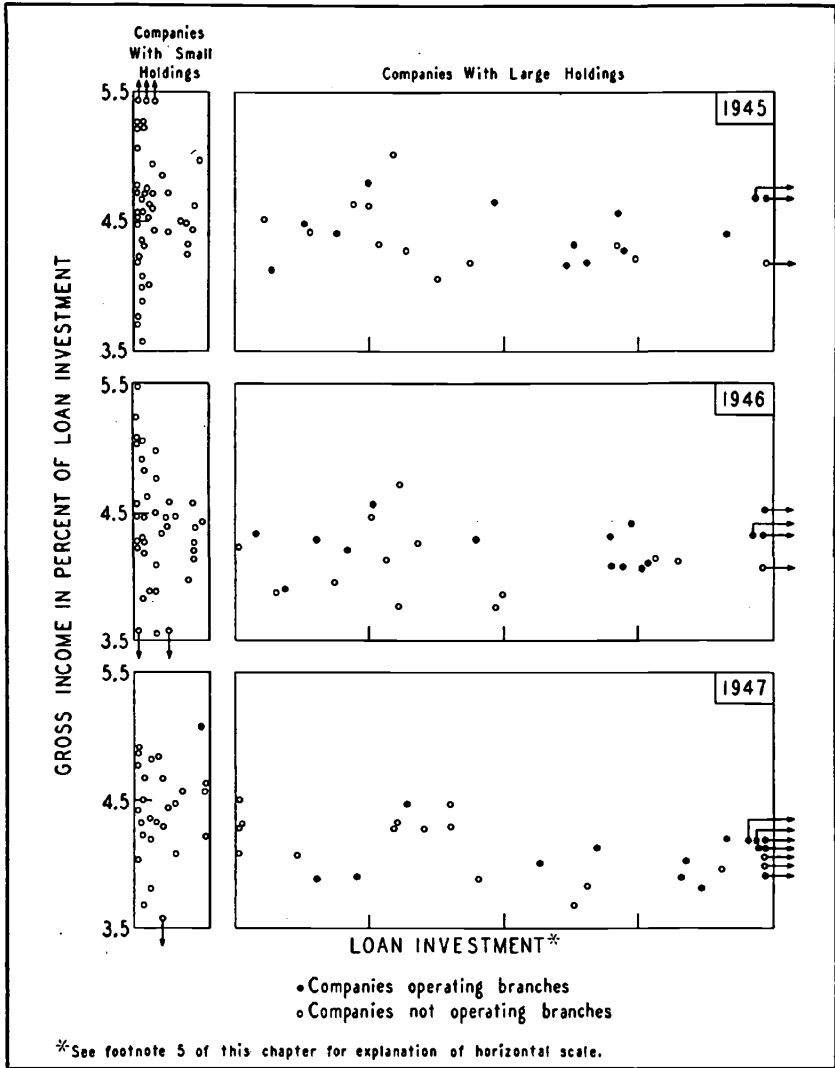
A few general comments should be made on the distribution and level of these gross income ratios. First, the range of income variation is greatest among companies with small portfolios of urban mortgage loans.<sup>7</sup> To some extent this probably reflects less accurate and less standardized reporting of income by the small companies, but this may not account for the entire difference. A genuine difference no doubt does exist between the two groups of companies in the rates at which they extend credit. With few exceptions, small companies lend in more localized markets than do large companies and this alone suggests that they are more likely than large companies to make loans at relatively high or relatively low interest rates. Large portfolio

<sup>5</sup> An unorthodox but necessary procedure has been followed in this chapter in charting individual company data. Individual companies reported on the assurance that their cost data would be presented so that company identification would be impossible. Therefore, in this chapter notations of scale on the horizontal axis of all the charts showing loan investment, etc., were omitted because the observation referring to an individual company could in many cases be determined by reference to the amount of its loan portfolio, which is publicly available. However, to aid in interpreting Charts 5, 6, and 7, each chart is divided into two panels, representing small and large companies, and the base is marked off in equal ranges of portfolio size. This device enables the reader to judge with reasonable accuracy the relative positions of the individual observations, but the broken scale and omission of notations make it impossible to determine absolute portfolio amounts. On Charts 8 and 9, the horizontal axis is divided into equal ranges representing volume of new loans acquired through correspondents and loan balances serviced by correspondents, respectively.

<sup>6</sup> The 1946 and 1947 schedules do not separate the several types of income, i.e., interest income on loans, real estate sales contract income, and prepayment premiums. This breakdown of income was requested in 1945 and showed that, except in a very few cases, income from real estate sales contracts and prepayment premiums could be included with interest income on loans without greatly affecting gross income ratios. In 1945, income from prepayment premiums amounted, in forty-eight out of sixty-one cases, either to zero or less than 1.0 percent of total income; real estate sales contract income was likewise less than 1.0 percent of total income in 73 percent of the cases for which it could be computed separately.

<sup>7</sup> The majority of companies with small mortgage portfolios are also small as measured by total assets, but the correlation is by no means perfect.

CHART 5 — GROSS INCOME IN PERCENT OF LOAN INVESTMENT RELATED TO AMOUNT OF LOAN INVESTMENT, 1945-47



The variation in gross income ratios was much greater among small than among large urban mortgage portfolios. Companies with small portfolios tended to have the highest average gross return.

companies, by virtue of the size and national scope of their operations, are more likely to follow a standardized lending pattern and, since all such companies operate in the same or broadly overlapping markets, their gross income ratios are almost certain to fall within a fairly narrow range. Also, the wide variation of gross income ratios for small companies may be partially accounted for by the fact that a single loan, if large enough, and if made at either a high or a low rate, can have a disproportionate influence on the average rate for a small portfolio; in a large company such a loan would be outweighed by the very large number and amount of loans made at standard rates.

Second, referring to the level of gross income rates, it will be noted in Chart 5 that while some small portfolio companies reported a lower gross income ratio than most of the large portfolio companies, the majority of the former reported ratios that were equal to, or higher than, those reported by the latter. The fact that the highest gross income ratios are found among the smaller companies is doubtless attributable to the less competitive market in which they operate, and to their relatively large investment in the smaller loans secured by residential properties.

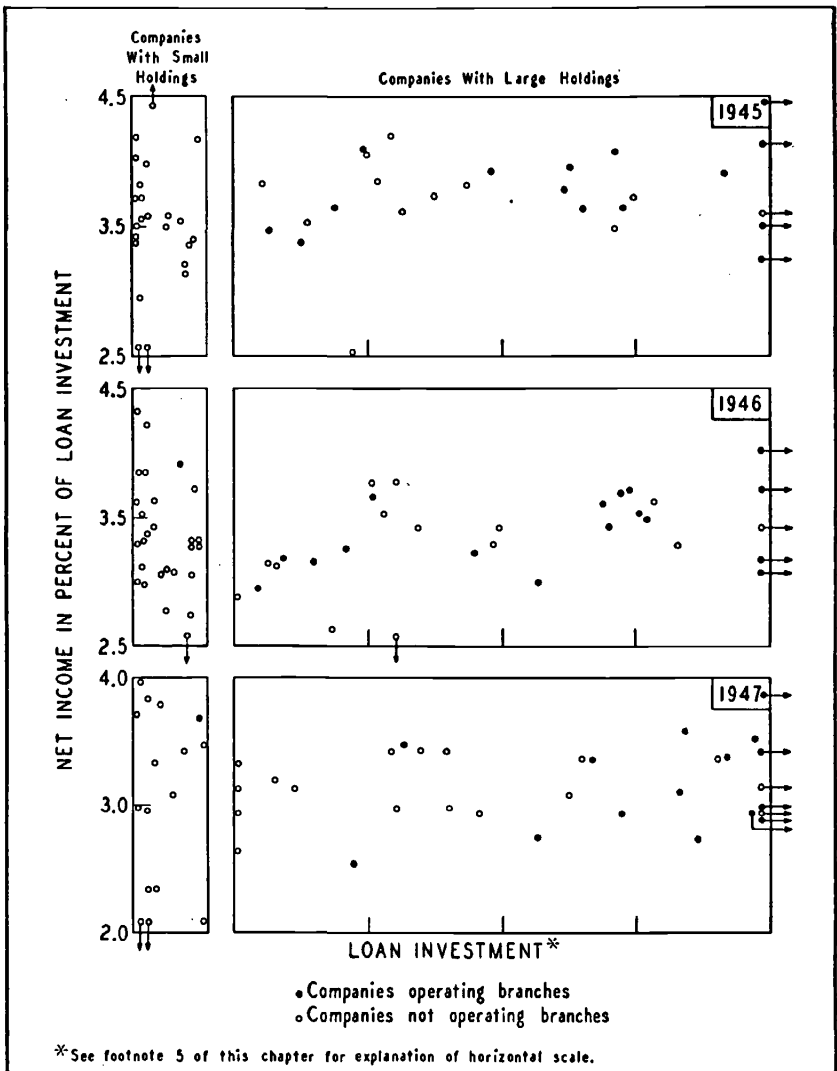
In the three panels of Chart 5, and in the following charts of this chapter, the ratios of income and cost for individual companies are indicated by a dot (.) if the company operates branch offices and by a circle (o) if the company can be properly designated as "non-branch."<sup>8</sup> No systematic difference would be expected between the two types of lending organizations with respect to gross income on loan portfolios, and the data bear this out. The distinction will be useful, however, in analyzing net income and cost differentials.

#### NET INCOME

During 1947 most of the individual reporting companies earned between 2.90 and 3.50 percent on their urban mortgage loan investment, a net income considerably lower than that earned in the two preceding years when the bulk of the reporting companies had net yields, after operating expenses, between 3.05 and 3.65 percent in 1946 and between 3.40 and 4.00 percent in 1945 (Chart 6). The net

<sup>8</sup> All companies reporting any branch office expenses were classified as "branch" companies. Data on the proportion of business transacted by branches are not available for 1946 and 1947, but in 1945 only two out of sixteen companies had extensive branch office systems. The other fourteen companies had from one to ten branches each, and much of their loan origination and servicing was done through correspondents and other outside agents. Many of these agents, however, work through branch offices.

CHART 6 — NET INCOME IN PERCENT OF LOAN INVESTMENT RELATED TO AMOUNT OF LOAN INVESTMENT, 1945-47



Net income increased slightly as the size of the average loan investment increased. Net income ratios were somewhat lower in 1947 than in 1945, ranging between 2.90 and 3.50 percent for most companies in 1947 and 3.40 and 4.00 percent in 1945.

income ratios take account only of the costs of acquiring and servicing loans; no provision is made for the "cost of money" to the life insurance companies or for the potential losses inherent in all mortgage loan portfolios. Adjustments must be made for both of these factors if a completely "net" return is to be estimated.

The income ratios of reporting companies with very large portfolios fall within a wider range, that is, tend to be scattered more widely than their gross income ratios. In general, the gross income ratios for the companies with very large portfolios varied in all three years within about one-half percentage point; their net income ratios varied within about 0.95 percentage point in 1945 and 1946 and about 1.15 percentage points in 1947.

The fact that differences in gross income ratios for individual companies are not accompanied by proportionate differences in their total cost ratios explains the wider variations in net income ratios. This condition may be due to any one or more of several circumstances of which the following appear to be the most likely: a greater margin of error in estimating total costs than in reporting gross income; varying rates of new loan activity relative to loan investment among the reporting companies; a tendency for some companies to make loans of lower quality than others; and, finally, a tendency for the competitive character of the markets served to vary from one company to another. It would require considerably more data than are available in the present schedules to test the influence of these factors, or to discover others that might be of importance.<sup>9</sup>

There is some tendency, although it is not marked, for net income to be higher for companies having large amounts of urban mortgages than for those with relatively small portfolios.<sup>10</sup> It will be evident from Chart 6 that there are exceptions to this generalization, but it fits the facts more closely than any other. Finally, no systematic dif-

<sup>9</sup> The data do permit a testing of the hypothesis that net income differentials are due to inverse differences in loan turnover rates. While the length of the loan turnover period tends to fall as total cost ratios rise, the relation is not high, especially among the companies with the highest total cost ratios.

<sup>10</sup> The relation of net operating income to the average size of the individual loan balances that compose the various company portfolios was also studied. The facts are not altogether clear because the loan balances of most companies are about the same average size, but it appears that while the companies with large average individual loan balances did not have higher net income ratios than other companies, none had net income ratios as low as some of the companies with relatively small average individual loan balances.

ference is apparent between the net income ratios of companies operating branches and the operating results of the nonbranch companies. The evidence suggests that variations among companies with respect to the net yield on their urban mortgage portfolios are to be sought in differences in the types of loans made, or in the skill with which company operations are administered, rather than in the general plan of operations.

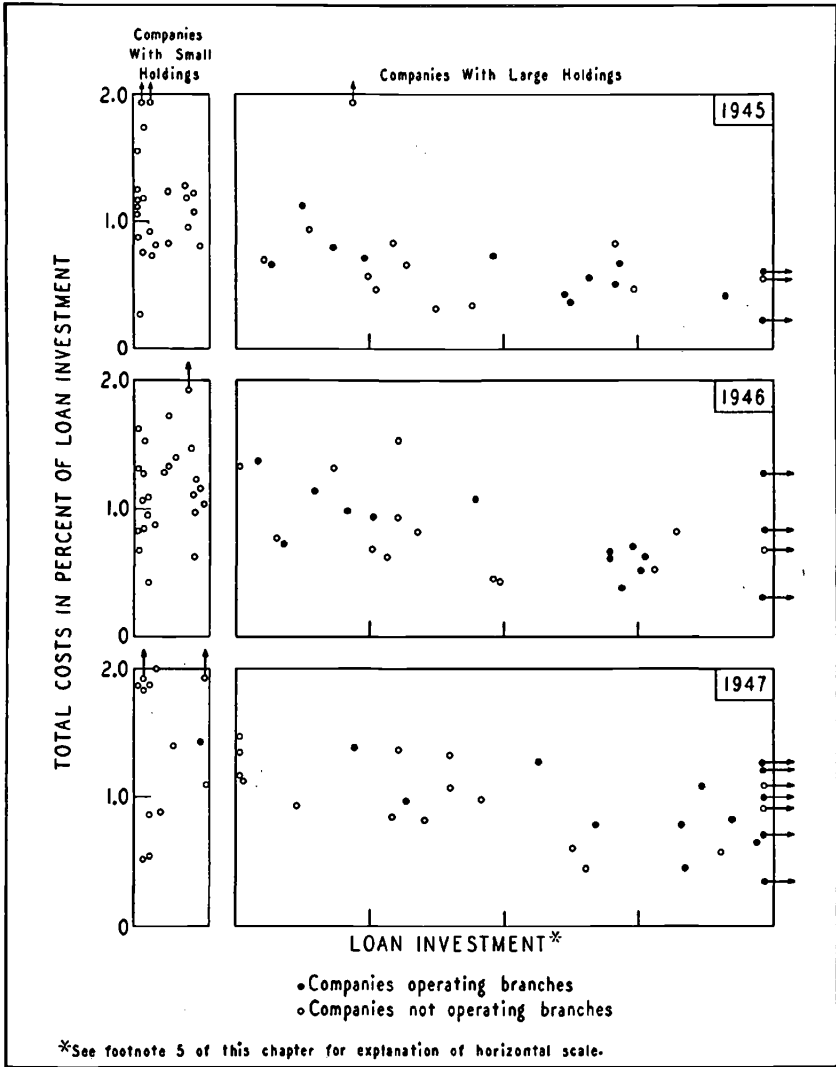
#### TOTAL COSTS

Data on total costs were reported by forty-eight companies in 1945, by fifty-two in 1946 and by forty-four in 1947; twenty-eight reported in all three years. Chart 7, which relates total costs to loan investment, shows, first, that the cost ratios of companies with small portfolios vary over a wider range than do those of companies having larger amounts of urban mortgage investments.

Second, in all three years the level of total costs decreases as average loan investment increases. For example, total costs ranged in 1945 between 0.70 and 1.30 percent of loan investment for most companies with small- and medium-sized loan portfolios, and were considerably lower—between 0.30 and 0.70 percent of loan investment—for companies with larger holdings of urban mortgage loans. The same downward regression of costs with portfolio size is also apparent in 1946 and 1947, although the general level of costs is somewhat higher in each of these years. The lower costs reported for large portfolios cannot be attributed entirely to the economies of large-scale operations, however, since the large portfolios are known to consist, in greater proportion than the small portfolios, of large loans on income-producing properties. Operating costs per dollar of investment on these loans are relatively low and, as pointed out in Chapter 4, the interest rate at which they are made is also low. Moreover, the interest return is apparently not so low as to counterbalance the relatively low level of operating costs, with the result that, as noted on Chart 6, large portfolio companies have a somewhat higher average net return than those with small portfolios.

Finally, it will be evident from Table 19, which presents weighted averages of total cost and of the elements of this total for portfolios of different sizes, and from the three panels of Chart 7, that the level of total costs increased considerably between 1945 and 1947. In-

CHART 7 — TOTAL COSTS IN PERCENT OF LOAN INVESTMENT RELATED TO AMOUNT OF LOAN INVESTMENT, 1945-47



Total operating cost ratios declined as loan portfolios increased in size.

TABLE 19 — INCOME AND COSTS IN PERCENT OF URBAN LOAN INVESTMENT FOR 35 COMPANIES, CLASSIFIED BY SIZE OF LOAN INVESTMENT, 1945-47<sup>a</sup>

Income and Cost Items	Year	Companies Not Operating Branches and Having Portfolios of				Companies Operating Branches and Having Portfolios of			
		Under \$5 Million	\$5-\$20 Million	\$20-\$100 Million	\$100 Million and Over	\$20-\$100 Million	\$100 Million and Over	\$20-\$100 Million	\$100 Million and Over
Gross income	1947	b	4.88%	4.07%	3.99%	4.11%	4.12%	4.37	4.86
	1946	4.50%	4.34	4.08	4.10	4.37	4.36	4.66	4.54
	1945	4.61	4.49	4.42	4.20	4.66	4.54		
Total costs	1947	b	1.34	.88	.93	1.21	.96	1.03	.67
	1946	1.17	1.16	.88	.72	1.03	.67	.80	.50
	1945	1.50	1.11	.72	.59	.80	.50		
Originating fees paid	1947	b	.56	.33	.30	.41	.26	.25	.09
	1946	.38	.39	.25	.13	.25	.09	.14	.04
	1945	.61	.39	.12	.06	.14	.04	.26	.13
Servicing fees paid	1947	b	.40	.26	.26	.26	.13	.26	.13
	1946	.35	.39	.25	.25	.26	.13	.27	.13
	1945	.34	.41	.26	.25	.27	.13	.22	.38
Branch office expenses	1947	b	.00	.00	.00	.00	.00	.20	.28
	1946	.00	.00	.00	.00	.20	.28	.08	.18
	1945	.00	.00	.00	.00	.08	.18	.32	.19
Home office expenses	1947	b	.38	.29	.37	.32	.19	.32	.17
	1946	.44	.38	.30	.34	.32	.17	.31	.15
	1945	.55	.31	.34	.29	.31	.15	2.90	3.16
Net income	1947	b	3.04	3.19	3.06	2.90	3.16	3.34	3.69
	1946	3.33	3.18	3.28	3.38	3.34	3.69	3.86	4.04
	1945	3.12	3.38	3.70	3.61	3.86	4.04	3	8
Number of reporting cos.		7	6	3	3	8	3	3	8

<sup>a</sup> Averages of individual company ratios weighted by portfolio size. Ratios of individual companies are found in Appendix D; for example, the seven companies not operating branches and having portfolios under \$5 million in 1945 and 1946 are Companies A through G in Appendix Tables D1 and D3, respectively.

<sup>b</sup> Comparable 1947 data were not available for the companies reporting in 1945 and 1946.



creases in total operating costs were shown in 1946 and again in 1947 by most of the twenty-two companies with portfolios of \$20 million and over.<sup>11</sup> The percentage increases in this ratio for companies falling between the first and third quartiles ranged between 10 and 35 percent from 1945 to 1946 and between 10 and 25 percent from 1946 to 1947. Of the thirteen companies with portfolios under \$20 million, seven showed increases in operating costs from 1945 to 1946. Cost data were available for only six of the thirteen small portfolio companies in 1947, but five of these showed an increase in costs in that year.

#### *Elements of total cost*

Although the total cost ratios reported by individual insurance companies vary within a fairly narrow range, particularly for companies within a given portfolio-size class, this is not true of the ratios of different elements of total cost to loan investment. The reason is that companies alike in size and type of portfolio may differ widely in organization; some may depend heavily on a branch office system and others may utilize a group of correspondents. Consequently, ratios of branch office expenses and originating and servicing fees to loan investment may vary widely from one company to another. Home office expenditures, on the other hand, are incurred by all companies, regardless of how they acquire and service their loans, and are the one component of total costs that appears to fall within a reasonably narrow range. According to the 1946 cost survey, the expenses of operating the home office urban mortgage loan department plus the general administrative expenses attributable to the mortgage department ranged between 0.30 and 0.70 percent of loan investment for small portfolio companies, was approximately 0.30 percent for middle-sized portfolio companies, and fell below 0.30 percent of loan investment for almost all large portfolio companies. Although some companies showed an increase in home office expenses from 1945 to 1947, the distribution of these expenses by portfolio size was approximately the same in 1945 and 1947 as that reported in 1946.

It is difficult to generalize concerning the level of branch operat-

<sup>11</sup> One company reported a decline and two showed no change in operating costs in 1946 while only one company reported a decline in 1947. All the other companies showed increased operating costs relative to loan investment.

ing costs. As indicated above, companies handle different proportions of their business through branches, and even organize their branch systems on different bases. The six companies listed in Appendix Table D4 with portfolios between \$20 and \$100 million had combined branch office costs in 1946 equaling 0.17 percent of their combined loan investment and the nine companies with portfolios of \$100 million and over (all with more extensive branch operations) reported branch office expense ratios averaging 0.26 percent for the group. An inspection of this table will show, however, that four of the six companies with portfolios of from \$20 to \$100 million and five of the nine companies with portfolios of \$100 million and over had branch office cost ratios of less than 0.10 percent. Although branch office expenses in percent of average loan investment increased from 1945 to 1947, the ratios continued to be below 0.10 percent for many of the companies in 1947.

The best measure of the costs of originating loans through correspondents and other outside agents is the ratio of the amount of originating fees paid these agents in a given year to the amount of loans acquired through them during the year. Ratios computed on this basis are presented in Table 20 and are used also as the basis for Chart 8. As will be seen in Chart 8, most of the companies paid correspondents and other outside agents amounts that averaged between 0.75 and 1.50 percent on the volume of new business. The highest ratios were reported by companies acquiring the smallest volume of loans through correspondents; presumably these loans were of smaller average original size. The increase observed between 1945 and 1947 in the ratio of originating costs to average loan investment (Table 19) reflects primarily the fact that new loan volume increased considerably from 1945 to 1947.

Servicing fees paid to correspondents and other outside agents are best measured and compared by means of ratios of the amount of the fees paid to the amount of the loan balances so serviced (Table 20 and Chart 9). The majority of reporting companies paid their outside agents and correspondents between 0.30 and 0.60 percent on the amount of the serviced loan balances. Very little change appears to have occurred between 1945 and 1947 in the level of fees paid for loan servicing. Again, the widest variation in the level of servicing fees is found among companies with relatively small portfolios.

TABLE 20 — REPORTING COMPANIES CLASSIFIED BY ORIGINATING AND SERVICING FEES PAID TO CORRESPONDENTS, 1945-47

<i>Commission Rate</i>	<i>Number of Reporting Companies</i>		
	1945	1946	1947
<i>Originating Fees Paid in Percent of Loans Originated by Correspondents</i>			
Less than .25%	3	1	0
.25 - .49	3	5	1
.50 - .74	4	5	3
.75 - .99	7	13	5
1.00 - 1.24	7	14	15
1.25 - 1.49	6	15	5
1.50 - 1.74	3	4	6
1.75 - 1.99	4	8	1
2.00 and over	4	5	8
Total	41	70	44
<i>Servicing Fees Paid in Percent of Loans Serviced by Correspondents</i>			
Less than .20%	5	6	0
.20 - .29	1	3	5
.30 - .39	8	14	16
.40 - .49	9	15	15
.50 - .59	12	11	4
.60 - .69	6	4	1
.70 and over	2	3	1
Total	43	56	42

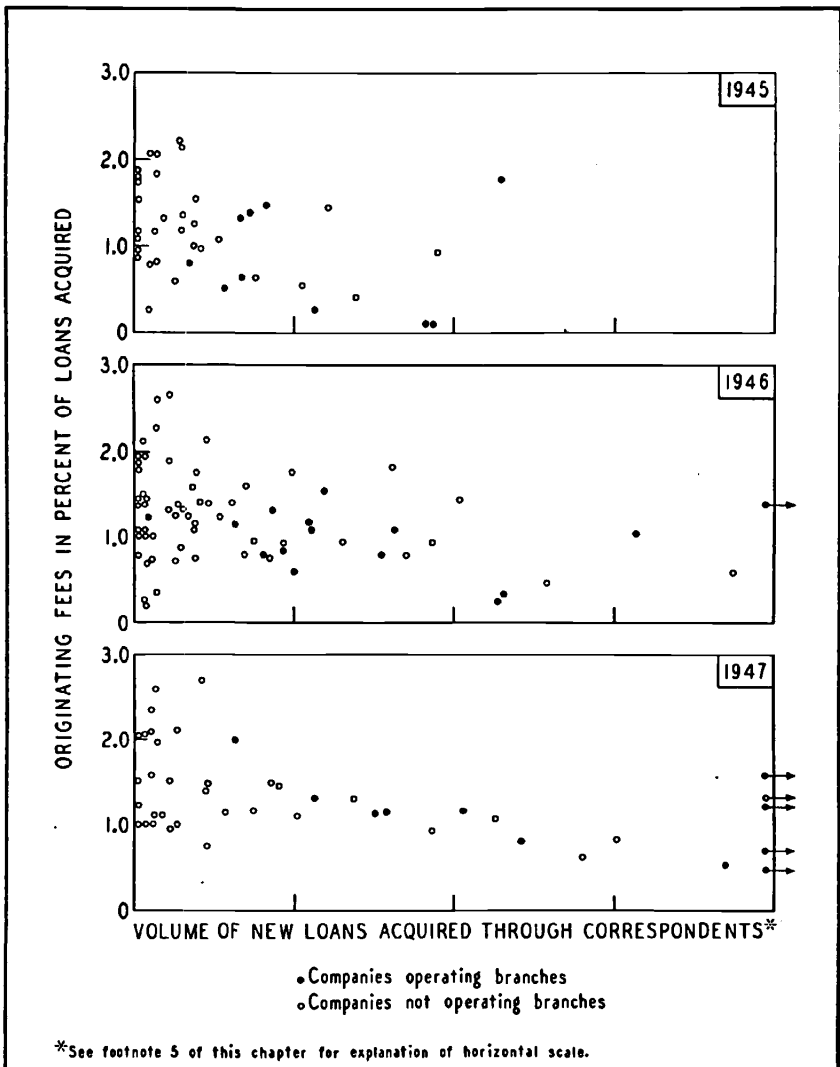
## TURNOVER OF LOAN BALANCES

Among the factors causing relatively high operating costs in recent years has been the high rate of loan turnover. Loan balances were being retired in 1946 (Table 21) at a rate that meant that the outstandings of about 80 percent of the reporting companies would be turned over completely in a period ranging from three to seven years. This, however, was a somewhat more rapid rate than prevailed in either 1945 or 1947.

## EXPECTED YIELD

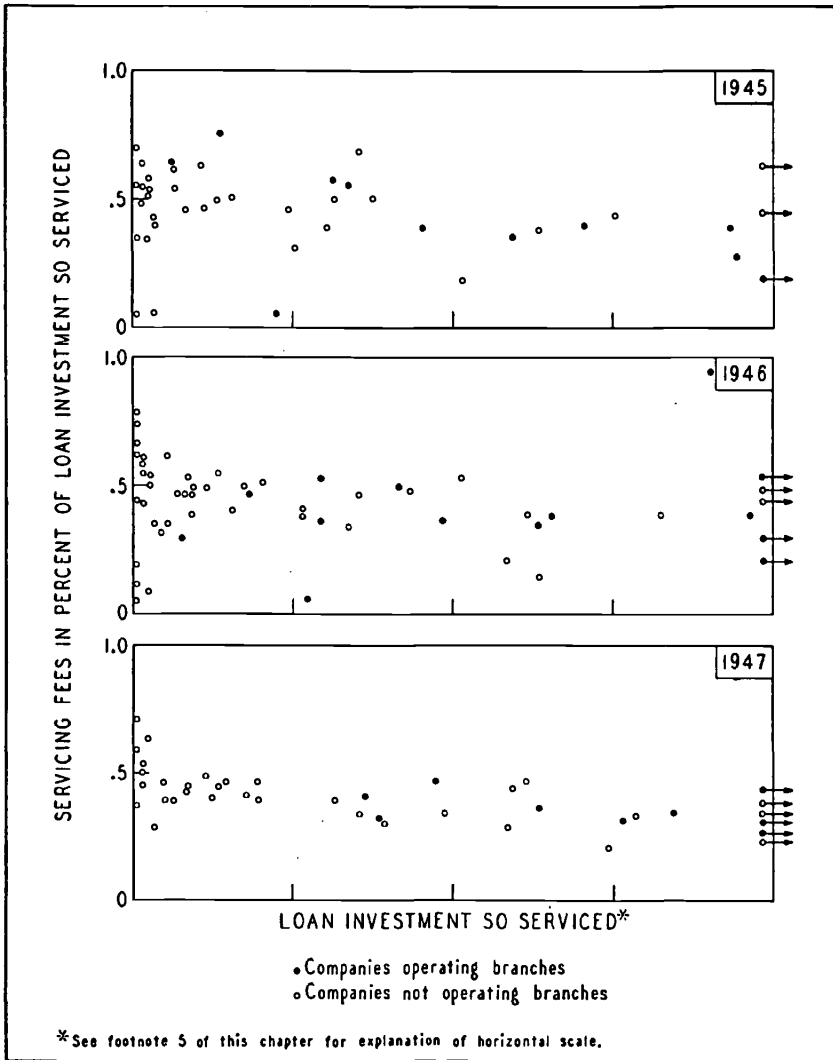
On the basis of the income and cost information presented above, the expected yield on urban mortgage loans may be calculated according to the method discussed in earlier sections of this chapter. Suppose

CHART 8 — ORIGINATING FEES PAID IN PERCENT OF LOANS ACQUIRED THROUGH FEE PAYMENTS RELATED TO THE VOLUME OF LOANS SO ACQUIRED, 1945-47



Most companies paid correspondents fees ranging between 0.75 and 1.50 percent of the volume of new loans so originated.

CHART 9—SERVICING FEES PAID IN PERCENT OF LOANS SERVICED RELATED TO THE VOLUME OF LOANS SO SERVICED, 1945-47



For most companies, servicing fees paid correspondents were between 0.30 and 0.60 percent of loan investment so serviced in the three years 1945-47.

TABLE 21 — REPORTING COMPANIES CLASSIFIED BY THE TURNOVER PERIODS OF THEIR URBAN MORTGAGE LOAN PORTFOLIOS, 1945-47 \*

<i>Turnover Periods (years)</i>	<i>Number of Reporting Companies</i>		
	1945	1946	1947
2 - 3	8	6	3
3 - 4	13	14	7
4 - 5	10	27	10
5 - 6	18	20	19
6 - 7	13	12	8
7 - 8	4	1	12
8 and over	9	9	6
Total	75	89	65

\* The turnover period is the number of years which, at a given time, would be required for loan balances to be fully retired if repayments were to continue at an unchanged rate. The period is calculated as the average loan balance divided by repayments. Repayments equal loans outstanding at the beginning of the year less loans outstanding at the end of the year plus new loans made (including additional amounts advanced on outstanding balances).

that unamortized loans are being acquired at rates averaging 4.00 percent, that finders' fees of 1.10 percent of the original amount of the loans, and servicing fees of 0.45 percent of the outstanding loan balances are being paid to the correspondents. Suppose further that 0.25 percent is an adequate charge against the loan balance to cover home office administrative expenses. Then, if, as suggested by our data on loan turnover periods, the loans may be expected to remain outstanding for five years, 0.22 percent must currently be charged against income to amortize the origination fee. This charge, added to the charges for servicing and home office expenses, will give an expected net yield of 3.08 percent.

The final question deals with the necessary allowance to cover the expected loss on mortgage loans. Even a loss reserve built up at the rate of one-fourth of 1 percent of the loan balance per annum would, in the example above, reduce the expected yield on urban mortgage portfolios well below 3.00 percent. The amount of this loss reserve, however, must be determined by an analysis of the complex conditions that influence loan defaults and investment losses. It is to this type of analysis that we turn in the next and final chapter.