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Volume Title: Commercial Bank Activities in Urban Mortgage Financing

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Volume Publisher: NBER

Volume ISBN: 0-870-14143-0

Volume URL: http://www.nber.org/books/behr52-1

Publication Date: 1952

Chapter Title: Urban Mortgage Lending Operations, Costs, and Returns of Commercial Banks, 1946

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Chapter URL: http://www.nber.org/chapters/c1740

Chapter pages in book: (p. 73 - 84)

CHAPTER 5

Urban Mortgage Lending Operations, Costs, and Returns of Commercial Banks, 1946

Despite its importance, there has been little information available concerning the actual net return earned by commercial banks on their portfolios of urban mortgage loans, after costs of loan acquisition and servicing. This critical gap in financial knowledge can be attributed mainly to the fact that most studies of mortgage lending costs have been prepared by institutions for internal use and are rarely comparable, one with another. In the absence of industry-wide cost analyses it was necessary, therefore, to plan a special cost survey, the results of which are summarized in this chapter.

Before reviewing the findings of the survey it will be useful to describe briefly the usual pattern of operations followed by commercial banks in their mortgage lending. A knowledge of the principal steps involved in the acquisition and servicing of mortgage loans is necessary in order to appreciate the problems of cost measurement in this field and to interpret cost data correctly. The main problems of accounting that are involved in measuring costs will also be discussed before summarizing the cost data.

Mortgage Lending Operations

In banks where the volume of mortgage lending is small, all operations are ordinarily performed by a single officer, but a considerable degree of specialization is possible where the volume of lending is large. In either case the activities connected with mortgage lending are roughly standardized. First of all, there are those operations related to the origination and selection of loans, all of which may be grouped under the general heading of loan production. Second,

there are the operations of closing and servicing loans. Third, real estate management operations, consisting of rental, maintenance, and sales must be performed where properties have been foreclosed. The first of these operations—the production of loans—includes all that contributes to the eventual placing of a mortgage loan in a bank's portfolio of earning assets.[1] Potential borrowers must be attracted to the bank, or to its branches or agents, applications must be received, and the character and quality of the potential loans determined. Decisions with respect to the acceptability of individual applications may be made by an individual officer or by two or more officers jointly, depending on the amount and type of the loan involved, but in all cases loan decisions must be finally made, or ratified, by the mortgage loan committee of the bank.

There is no fine line of demarcation between the production and servicing operations of a commercial bank mortgage loan department, and the latter cannot be said to follow any fixed plan. The entire operation can be described best for present purposes by reference to a bank with a sizable portfolio. Naturally, this description will not hold for banks with smaller portfolios, but it will serve to illustrate the whole range of activities ordinarily involved.[2]

The initial step involves the preparation of a loan application. A mortgage officer helps the prospective borrower prepare this form, and in the process gains at least a general impression of the applicant and the property being offered as security. The form calls for information on the prospective mortgagor's occupation, his resources, liabilities, income, and family composition, and on many other items pertinent to the determination of his creditworthiness and of the acceptability of the security. Following the completion of the application, the facts given are checked for accuracy by the bank's credit department.

At this stage it will be evident whether the application should be considered further or rejected. If it is decided to carry the application further, an appraisal of the property is obtained. This may be made by an outside appraiser, generally working without knowledge

[1] See Eugene M. Mortlock, "Originating New Mortgage Loans," *Banking* (December 1947) p. 68.

[2] *The Human Side of Mortgage Loan Servicing*, a publication of the Savings and Mortgage Division of the American Bankers Association, deals in considerable detail with the problem of servicing commercial bank mortgages.

of the amount of the loan that has been requested, or by an officer, or committee of officers, of the bank.[3]

If the appraisal is satisfactory, the applicant receives a statement as to the amount of the loan, the rate of interest, the required terms of repayment, and other conditions, such as insurance requirements, that may be part of the loan proposal. If the applicant accepts the bank's offer he is asked to furnish an abstract, which is forwarded to the legal division of the bank for examination, and a survey of the property is ordered. If the abstract is satisfactory the customer is notified of the closing date and the closing requirements and, upon the completion of these, the proceeds of the loan are disbursed.

Regular payments of interest and repayments of capital are received on home mortgage loans on a monthly or quarterly basis, whichever has been prescribed in the loan agreement. Statements are ordinarily sent to borrowers at these intervals and a second notice is sent out if the loan should become past due; if payment still lags a thorough follow-up is started. The regular servicing routine of most banks provides for an annual check of taxes, including city, state, and county; the maintenance of adequate insurance protection is assured by including premiums in the periodic payments.

In cases of persistent delinquency, foreclosure proceedings may

[3] Under the leadership of the Federal Housing Administration, lenders have in recent years greatly expanded their use of mortgage risk-rating systems. On such systems see the *Underwriting Manual*, Federal Housing Administration (revised January 1947, paragraphs 201–41) and the *Home Mortgage Loan Manual* (1943) of the American Bankers Association. For example, the National Housing Act [June 27, 1934, c. 847, 48 Stat. 1250, Title II, sec. 205 (a)] requires that mortgages insured under Section 203 be grouped according to their risk characteristics. In practice this has been effected by giving a mortgage application a numerical rating indicative of the degree of risk in the proposed loans. As stated in the FHA *Underwriting Manual* (revised January 1947, paragraph 204) this requires an analysis of three groups of risk elements, as follows:

"(a) *Mortgage credit elements,* that is, those which lead to a conclusion as to the borrower's past, present, and probable future willingness and ability to meet his obligations, of whatever nature.

"(b) *Real estate elements,* that is, those which relate to the property and its location and which lead to conclusions as to the value of the property at the time of the mortgage transaction and as to the probability that it will at all times during the life of the mortgage be marketable in a reasonable time at a price sufficient to discharge the outstanding obligation of the borrower to the mortgagee.

"(c) *Loan elements,* that is, the amount, repayment plan, and term of the mortgage loan."

While these systems still fall short in the sense of providing an infallible formula for selecting and grading mortgage risks, they do provide a useful basis for the formulation of lending decisions, especially where large numbers of loans on small homes are involved.

be instituted to protect the bank's interest. Where property is acquired the bank may find extensive repairs necessary before either rental or sale is possible. In any event, in this phase of its real estate investment operations the bank must perform, or have performed through its agents, all the functions of real estate management. Since the laws under which commercial banks operate, and the attitudes of bank supervisory agencies vary widely as regards the holding of real estate, there may be significant differences in the length of time which banks will hold individual pieces of property but, in general, the bank's objective is to dispose of property at the first favorable opportunity.

Accounting Problems in Measuring Lending Costs and Returns

Schedules on which selected individual banks were requested to report the costs of their lending operations for the year 1946 were prepared and circulated in early 1947.[4] The objective of the survey was to obtain data comparable among banks on the yield earned in 1946 on portfolios of urban mortgage loans; but since this can be accomplished by several different accounting procedures, each of which gives a different cost figure, it was necessary to select a standard accounting basis. On grounds of practicability, it was determined to measure costs on a cash or current rather than on an accrual basis. The difference between the results given by this and by the accrual method, an understanding of which is important to the proper interpretation of the survey, may be summarized briefly.

In recent years the mortgages acquired by commercial banks and other lending agencies have frequently been purchased on a premium basis, or the correspondent or agent originating the loan has received, at the time of loan origination, an acquisition fee or commission for his services. In the cash accounting procedure the income of a given year is charged with the full amount of the premiums and other acquisition costs actually disbursed in that year; under the accrual accounting method these charges are spread over the expected lives of the newly acquired mortgages. On the accrual basis only a portion of the cost of acquisition is charged against the income

[4] In drawing up the cost schedules, the National Bureau had the help of a special committee of the National Association of Bank Auditors and Comptrollers. Schedules for reporting costs, and the relevant instructions, are reproduced in Appendix C.

of the year in which the loan was originated, regardless of the fact that the full cost may actually have been disbursed in that year. The amount of acquisition costs incurred in a given year depends, of course, on the volume of new loans made rather than on the size of the bank's portfolio of mortgage loans; consequently, when costs are calculated on a cash accounting basis they will be higher during a period of credit expansion than when measured on an accrual basis, and lower during a period of credit contraction.[5]

The accrual accounting procedure is, without question, superior on all logical grounds, giving a less erratic measure of net portfolio returns, but it could not be used in the present analysis because of the impossibility of obtaining reports on this basis. It must be borne in mind, therefore, that the net returns on mortgage loan investment given in the present study, which refer to a period of rapidly rising loan activity, are lower than they would be if an accrual accounting procedure had been followed.

Finally, it is important to note the difference between the measure of yield presented in this study, which may be termed a *net current yield,* and the *net expected yield,* which is frequently referred to in discussions of mortgage investment problems. The principal difference is that the former is based wholly on present investment conditions, relating current income and costs to current loan investment, while the latter attempts, by estimating future conditions, to answer the question: What yield can be expected over the future on a given mortgage loan investment, acquired in the present under specified conditions of income and cost? [6]

[5] However, the rate of turnover of mortgage loan portfolios has been so rapid recently that even an amortization of originating costs might not significantly alter current net income ratios. In 1940, loans of reporting banks were being repaid at a rate that would have retired their entire portfolios in about five years; in 1946 portfolios would have been wholly retired, on the average, in two and three-quarter years. For nearly 75 percent of the banks reporting in 1946, the turnover rate was three and one-half years or less.

[6] A more complete account of the problems involved in the measurement of mortgage lending costs and returns, and also of the conceptual problems encountered in the analysis of cost data, will be found in R. J. Saulnier's *Costs and Returns on Farm Mortgage Lending by Life Insurance Companies, 1945–1947* (National Bureau of Economic Research, Financial Research Program, 1949) pp. 5–14. The methods followed in the analysis of commercial bank costs and returns are the same, in principle at least, as those employed in the study of insurance company experience, although the reporting procedures have necessarily been adjusted to conform to the different bases upon which the records of the two types of institutions are kept.

DEFINITIONS

The cost and income ratios used in this analysis of mortgage lending returns have been obtained by relating the loan income and costs of individual banks to the average loan investment of each, which is an average of the balances outstanding at the beginning and at the end of the year. Outstandings include loan balances on straight mortgages and purchase money mortgages, net of reserves, and unpaid balances on real estate sales contracts.[7] Gross income, which was reported on a cash basis, includes all receipts of income, including interest and income from such other sources as renewal fees and commissions, etc., but excludes income which might be received by a bank acting in the capacity of agent for the mortgagor and which subsequently would be paid out again, such as registration or recovery fees, stamp taxes, title fees, etc.

Also, banks were instructed to report investment income before (1) the amortization of commissions or premiums paid when the loan was acquired, (2) any participation in interest on the part of outside agents as compensation for the servicing of loan balances, and (3) any charges against income for specific income reserves. Where such offsets against gross income had been made by reporting banks, an adjustment of gross income was attempted, though this was not feasible in all cases and necessitated the rejection of some reports.

Responding banks were requested to report the costs incurred in 1946 in the operation of their mortgage loan departments in two general classes: direct and indirect costs. Direct costs were defined as those traceable to the activities of the mortgage loan department without arbitrary allocation, such as salaries of departmental personnel, legal fees and court costs, recording fees, dues and subscriptions, postage, telephone and telegraph, freight and express, supplies, rent or occupancy charge, furniture and fixture repairs, advertising, insurance and personal bonds, travel, car expense, machine service, and employees' retirement. Indirect expenses, on the other hand, were defined as those that had to be attributed to the activities of the mortgage loan department on the basis of some scheme of allocation,

[7] Reserves include "reserves for losses on mortgage loans," "valuation reserves," "valuation allowances," "unallocated charge-offs," "unallocated reserves," "specific reserves," "reserves for losses on real estate," and other similar accounts set up in anticipation of losses when the amounts are not actually charged off or credited to the asset account and do not actually alter the book value of assets.

such as general bank administration costs, directors' fees, the costs of the general service departments of the bank and of such departments as bookkeeping, receiving, auditing, paying, proving, trust, research, etc. If the banks found it difficult to report indirect costs as instructed, it was suggested that they divide their mortgage loan department expenses between direct and indirect costs according to their usual practices, and indicate the items included under each heading and the basis of allocation of indirect costs.

Next, the banks were asked to report how much was paid out in 1946 in commissions and premiums for the acquisition of loans, the amount of the loans acquired on the basis of such payments, the amount of fees and other payments made to outside agents on a continuing basis for the servicing of loan balances, and the amount of the balances so serviced.

As indicated above, gross income, total costs, and the several components of cost are expressed, for each reporting bank, as percentages of its average loan investment. Calculations were also made of the ratio of acquisition costs to the amount of the loans acquired during the year on which acquisition fees were paid, and of the amount of servicing fees paid to the average of the amount of the loan balances outstanding, at the beginning and end of the year, which were being serviced on a fee basis by correspondents or other outside agents. Finally, the ratio of total costs to average loan investment was deducted from the gross income ratio of the respective banks, similarly expressed, to give a measure of current net return on mortgage loan investments.

Findings of the Mortgage Lending Cost Survey

Taking those schedules that reported income before any deduction for participation in interest by correspondents or other outside agents and before any charge against current income for the amortization of commissions or premiums paid in connection with the acquisition of loans, it was found that a majority of the banks reported gross incomes of from 4.26 to 4.75 percent on their mortgage loan portfolios in 1946 (Table 27).[8] A few banks reported gross income

[8] These figures may be overstated because of the deduction of valuation reserves from the loan balances. However, because of the recent origin of most of the mortgages these reserves are probably not large.

ratios of less than 4.00 percent but, with the exception of two, these did not fall below 3.75 percent. These very low gross income ratios probably reflect the fact that, contrary to instructions, a deduction from gross income was made for all or part of the heavy volume of loan acquistion costs incurred in the reporting year.

TABLE 27 — REPORTING COMMERCIAL BANKS CLASSIFIED BY RATIO OF GROSS INCOME TO URBAN MORTGAGE INVESTMENT, 1946

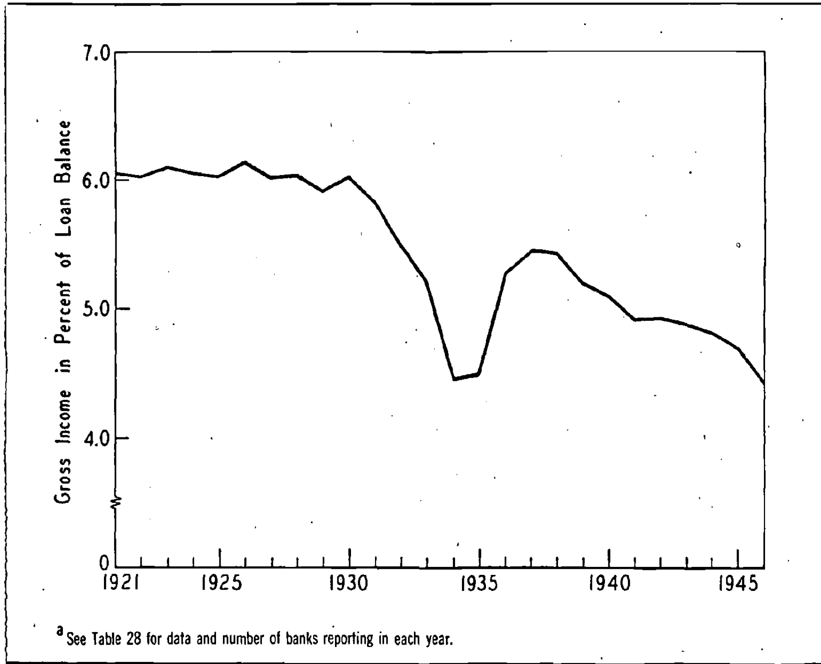
Gross Income Ratio	*Banks Reporting Gross Income*	
	Before Deduction of Participation Fees	After Deduction of Participation Fees[a]
4.76 – 5.00%	0	1
4.51 – 4.75	7	3
4.26 – 4.50	4	4
4.01 – 4.25	1	3
3.76 – 4.00	1	2
3.75 and under	2	0
Total	*15*	*13*
Average[b]	4.51%	4.29%

[a] Includes banks reporting gross income net of participation fees for servicing loans and/or net of amortization of loan acquisition costs.
[b] Weighted by the amount of each bank's average loan balance.

It should be remarked, also, that tests failed to reveal any consistent relation between gross income ratios and the amount of the mortgage loan portfolio, though it is clear that the range of variation among gross income ratios was somewhat larger for the banks with small portfolios of mortgages, that is, those with holdings of around $10 million, than for the three reporting banks with portfolios ranging from $70 million to nearly $120 million. Each of these three reported a gross income ratio for 1946 of about 4.6 percent.

Naturally, the rates of gross income on 1946 portfolios, as indicated in Table 27, do not necessarily reflect the rates at which mortgages were being placed on the books at that time. In general, these rates would be lower than the then current portfolio returns and are better shown by the data for interest rates on loans made in 1947, which were shown in Chapter 3. It may be of interest, however, to introduce some additional data to show the trend of interest rates on commercial bank mortgage investments as indicated by gross portfolio income.

CHART 4 — RATIO OF GROSS INCOME TO URBAN MORTGAGE LOAN INVESTMENT FOR REPORTING COMMERCIAL BANKS, 1921–46 [a]



[a] See Table 28 for data and number of banks reporting in each year.

Reflecting the general decline in interest rates, gross income ratios of reporting commercial banks fell from just over 6 percent in the early twenties to around 4½ percent in the mid-forties. Interest delinquencies were the cause of a sharp drop in gross income rates from 1931 to 1935.

Chart 4 and Table 28 present gross income data for a small and changing number of banks for the years 1921–46. The rate of gross income for these banks fell from 6.05 percent of their average mortgage loan investment in 1921 to just under 4.45 percent in 1946, a decline of about 25 percent. This general downward trend reflects the decline in contract interest rates revealed in Chart 2. The sharp reduction of gross investment income from 1931 until 1935, on the other hand, reflects the wave of delinquency (on interest as well as on principal, in many cases) that spread through mortgage portfolios at that time and in some cases the effects of mortgage moratoria. The revival of interest payments and the consequent rise of gross rates of

return in 1935, 1936, and 1937 are also evident. This was followed, in 1938 and later years, by a renewed decline in gross mortgage income, reflecting mainly the declining rates of interest on mortgage loans being put on the books of lending institutions.

TABLE 28 – RATIO OF GROSS INCOME TO URBAN MORTGAGE LOAN INVESTMENT FOR REPORTING COMMERCIAL BANKS, 1921–46 [a]

Year	*Gross Income Ratio*	*Number of Banks*
1921	6.05%	1
1922	6.03	2
1923	6.09	2
1924	6.06	2
1925	6.02	3
1926	6.14	3
1927	6.02	4
1928	6.04	5
1929	5.92	6
1930	6.03	8
1931	5.83	8
1932	5.49	8
1933	5.23	10
1934	4.46	10
1935	4.49	10
1936	5.27	11
1937	5.45	12
1938	5.38	12
1939	5.18	12
1940	5.09	12
1941	4.92	12
1942	4.93	12
1943	4.87	12
1944	4.81	12
1945	4.69	12
1946	4.43	12

[a] Averages are weighted by loan balances.

In view of the wide differences among banks in the classification of direct and indirect costs, and in the division of loan acquisition and servicing costs between those paid to correspondents and other outside agents and those incurred directly in the bank's own department, only total costs have been analyzed. Returns from the thirteen

banks for which a calculation of total costs in percent of average loan investment can be made show that, for all but three of these institutions, total costs varied between 1.0 and 2.0 percent of the average loan portfolio, and for all reporting banks, the average total cost was 1.35 percent (Table 29).[9] Since costs were reported on a current basis, thus giving full effect within 1946 to the commissions, fees, and premiums paid in that year for loan originations, and since this was

TABLE 29 — GROSS INCOME, TOTAL LENDING COSTS, AND NET INCOME AS A PERCENTAGE OF URBAN MORTGAGE LOAN INVESTMENT, AND RELATED DATA, FOR REPORTING COMMERCIAL BANKS, 1946

Bank	*Average* Loan Investment[a]	*Average* Balance per Loan[b]	*1946 Investment Increase*	*Gross Income*	*Total Lending Costs*	*Net Income*
A	$73.0	$6.7[c]	26%	4.60%	1.10%	3.50%
B	30.1	5.0	113	4.11	1.74	2.37
C	28.2	29.6	15	4.42	1.40	3.02
D	28.4	15.9	30	4.31	.48	3.83
E	24.5	4.6	37	4.46	1.97	2.49
F	20.0	4.3	24	4.29	1.76	2.53
G	15.1	4.1	93	4.03	2.11	1.92
H	13.6	4.1	25	4.59	1.31	3.28
I	10.9	217.8	71	3.79	1.50	2.29
J	10.0	5.5	37	4.26	.62	3.64
K	8.3	3.9	44	3.95	1.54	2.41
L	5.9	11.8	18	4.39	1.28	3.11
M	3.3	4.7	1	4.54	1.65	2.89
Average	..	..	..	4.36%	1.35%	3.01%

[a] In millions of dollars.
[b] In thousands of dollars.
[c] Average size of loans made during 1946.

a year of rapidly rising loan volume, a relatively high total cost ratio would be expected. However, there was no consistent relationship in the 1946 data between the percentage increase of a reporting bank's portfolio in that year and the level of its total cost ratio. This ratio would, of course, be influenced also by the types of mortgage loans

[9] In view of the distinct concentration of reported costs between 1 and 2 percent there is a strong possibility that the two banks reporting costs below 1 percent were either reporting incorrectly or were characterized by some organizational feature very different from that of the other reporting banks.

acquired, but there was no means available for separating the effect of this factor from that of other factors affecting the level of total costs. Nevertheless, it seems reasonable to conclude from this evidence that the costs incurred by commercial banks in the operation of mortgage loan departments would be in the general neighborhood of 1.25 to 1.50 percent of the amount of their average loan investment in years of relatively high lending activity.

Because the differences among reporting banks with respect to the gross return on their holdings of urban mortgage loans were not associated with opposite differences in their total cost ratios, considerable variation is apparent among reporting banks as regards the ratio of net income after operating costs to average loan investment (Table 29). Nor is any regular relationship revealed between the rate of return after costs and the volume of loans held by a particular bank; the level of returns, regardless of bank portfolio size, seems to be about the same, namely, from 2.25 to 3.25 percent for reporting banks. The average net return for the banks that reported both gross income and total costs, when weighted by the size of the portfolios of the several reporting institutions, was almost exactly 3.00 percent.

The average net return of 3.00 percent on the mortgage loan investments of reporting banks may be unduly low, taking into account the heavy volume of loans made in 1946, but even if one were to assume a lower total cost ratio—say, 1.00 rather than 1.35 percent—this would give a net return of about 3.40 percent before any allowance for the risk factor. In accordance with the results of the loan experience analysis, as summarized in Chapter 4, a risk factor of 0.30 percent may be regarded as reasonable; on this basis a net return in the general vicinity of 3.00 percent after loss reserves is indicated for this type of bank investment.