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CHAPTER 4

Urban Mortgage Loan Experience of Commercial Banks, 1920-47

THE question that may now be considered is whether differences in the conditions under which commercial banks make urban mortgage loans, and in the characteristics of these loans, are related to loan experience. There are several different measures of loan experience: the number of times contracts have been modified; the proportion of the different types of loans that have been foreclosed; the gain or loss on foreclosed properties; and the yield actually realized on these loans as compared to the yield promised when they were made. Unfortunately, data hitherto available are inadequate for the measurement of loan experience by any one of these methods. A few loan experience studies have been made by individual banks but because they cover different periods and stress different loan characteristics these fail to provide experience data that can be evaluated on a uniform basis. In order to overcome this deficiency in available information the sampled commercial banks described in Chapter 3 were requested to furnish data on samples of loans made since 1920. These materials provide the basis for this chapter's discussion of commercial bank mortgage loan experience.

The response to the request for loan histories was less favorable than anticipated, especially from banks with relatively small loan portfolios, but the sample results are at least suggestive of loan experience generally. The data underestimate the severity of foreclosure experience because the sample banks were necessarily drawn from surviving institutions. In any event, the sample data are the most adequate currently available on commercial bank mortgage loan experience.

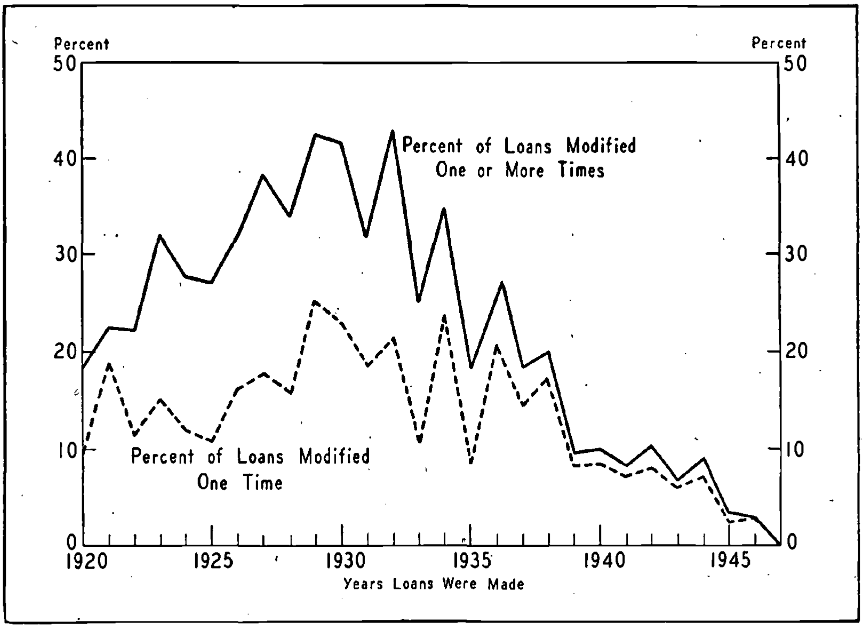
Modifications of Contract Terms

The record of loan experience of responding banks suggests that modifications of loan contract terms are by no means infrequent.

They may occur either to adapt the loan contract terms to some change in the mortgagor's ability to repay the debt, or to make the contract terms—where credit conditions have been eased—conform to those current in the market, and they may take various forms. The most frequent types of modifications are: (1) the advance of additional funds to the mortgagor, (2) the reduction of unpaid principal by compromise, (3) the extension of a loan's maturity or its renewal for an added term, (4) a change, generally a reduction, in the interest rate, and (5) a change in the loan's general type, such as would result from the placing of an unamortized loan on an amortized basis. The chances that an individual loan will be modified in one or more of these ways will increase with the length of time the loan is on the books, but it would appear that these chances are also affected by the year in which the loan was made. Sample data have not been analyzed to show differences in the types of modifications, but, in order to reveal the flexibility of loan terms, tabulations have been made of the number and original amount of loans made in different years that were modified one or more times.

As shown in Chart 3, the percentage of sample loans made in a given year that were modified one or more times varied considerably over the period 1920–47 It was about 40 percent for loans made at the end of the twenties as against 20 percent for those made at the beginning. The rate continued high for loans made through 1932, and then fell off. The higher modification rate on loans made in the late twenties than on those made in the early twenties was due in part, of course, to the fact that by the time reductions in individual incomes had placed mortgage loans under stress a relatively large percentage of the loans made in the early period had been paid off. Also, the earlier loans that were still outstanding must have been, on the average, better seasoned by that time than those that were made in the last half of the twenties. This differential modification experience parallels the foreclosure experience which will be reviewed later in this chapter. It should also be observed that the low level of interest rates current in the thirties as compared with that prevailing during the twenties doubtless stimulated a good many of the loan modifications, primarily for those loans in good standing, and accounts in part for the substantially higher frequency of modifications on loans made in the twenties. Of course, this difference is also affected by the fact that the longer a loan is outstanding the greater is its chance, other things equal, of being modified.

CHART 3 — NUMBER OF LOANS EVENTUALLY MODIFIED AS A PERCENTAGE OF NUMBER OF LOANS MADE FOR A SAMPLE OF URBAN MORTGAGE LOANS FROM 116 COMMERCIAL BANKS, 1920–47



Many of the mortgage loans made by responding commercial banks during the twenties were modified in one or more respects prior to their extinguishment. Loans made in 1927–32 were modified with greatest frequency.

Further data on differential modification experience for loans made in different periods are provided in Table 16, which shows that sample loans secured by two- to four-family dwellings and income-producing properties generally tended to be modified more frequently than those secured by single family homes. Only 15 percent of all loan contracts made from 1920 to 1947 on single family properties were modified, compared with 26 percent of the contracts secured by other property types. Also, the sample data suggest that urban mortgage loans made by banks with small portfolios of such loans were modified less frequently than loans made by banks with

TABLE 16 — NUMBER AND ORIGINAL AMOUNT OF LOANS EVENTUALLY MODIFIED AS A PERCENTAGE OF NUMBER AND ORIGINAL AMOUNT OF LOANS MADE FOR A SAMPLE OF URBAN MORTGAGE LOANS OF 116 COMMERCIAL BANKS, CLASSIFIED BY NUMBER OF TIMES MODIFIED, PERIOD MADE, TYPE OF PROPERTY AND SIZE OF URBAN MORTGAGE LOAN PORTFOLIO, 1920–47

LOAN CHARACTERISTICS	NUMBER OF TIMES MODIFIED									
	1		2		*3*		*4 to 8*		*Total*	
	No.	Amt.	No.	Amt.	No.	Amt.	No.	Amt.	No.	Amt.
PERIOD MADE										
1920-24	13.0%	44.1%	6.9%	4.8%	4.4%	2.4%	1.5%	1.7%	25.8%	53.0%
1925-29	16.5	17.1	12.5	16.1	3.7	5.4	1.4	2.5	34.1	41.1
1930-34	20.1	18.8	10.1	20.2	3.8	28.4	2.1	1.8	36.1	69.2
1935-39	13.2	12.4	2.8	19.2	.9	.7	.2	.1	17.1	32.4
1940-44	7.3	11.0	1.2	.8	.1	.4	.2	.2	8.8	12.4
1945-47	2.1	1.9	.2	.1	. .	. .	.1	[a]	2.4	2.0
TYPE OF PROPERTY										
1-family [b]	9.4	8.5	3.9	5.1	1.4	2.5	.6	.8	15.3	16.9
2- to 4-family [b]	15.0	14.2	7.9	7.3	3.7	4.3	.5	.7	27.1	26.5
All other	15.2	20.2	7.6	11.4	2.1	5.6	1.2	.9	26.1	38.1
PORTFOLIO SIZE [c]										
Large	12.4	22.3	6.3	5.1	1.8	1.9	.8	1.1	21.3	30.4
Medium	12.7	7.4	4.6	15.8	2.6	9.0	1.0	.6	20.9	32.8
Small	7.2	9.4	2.6	3.5	1.2	1.3	.4	.9	11.4	15.1
Total	*10.9%*	*14.7%*	*4.9%*	*8.4%*	*1.8%*	*4.2%*	*.7%*	*.9%*	*18.3%*	*28.2%*

[a] Less than .05 percent. [b] With no business use. [c] For the definition of portfolio size, see Table 6, footnote c.

large and medium-sized portfolios (Table 16). In part, this doubtless indicates that banks with small mortgage portfolios invested a larger proportion of their funds in loans on single family properties.

An analysis of sample data on the relation between various characteristics of loan contract terms and the number of times bank-held mortgage loans have been modified shows that fully amortized loans with long original maturities have been modified less frequently than nonamortized, short-maturity loans (Table 17). This fact can probably be attributed in large part to the frequent extensions of short-term mortgage contracts, a fairly common type of modification.[1] Finally, for sample loans made from 1920 to 1934, modifications appear to have been more frequent on those with relatively low interest rates and low loan-to-value ratios. Again, this relatively high frequency of modifications is probably due to other characteristics, such as original loan term, that tend to be associated with relatively low interest rates and low loan-to-value ratios.

Foreclosure Experience

As a preface to this analysis of foreclosure experience on urban mortgage loans made by commercial banks, it will be useful to note that when the sample survey was taken 31.4 percent of the number of reported loans that had been made since 1920 were still outstanding, 54.8 percent had been paid off, small percentages had been either transferred to the Home Owners' Loan Corporation or sold or assigned to other individuals or institutions, and 3.2 percent had been either foreclosed or terminated by voluntary surrender of deed (Table 18).[2]

1 The analysis of contract terms has been restricted to sample loans made from 1920 to 1934 in order to avoid any influence on the percentages of loans placed after 1934, when economic conditions had changed.

2 This is a substantially better over-all foreclosure experience than that of the insurance companies studied for the same period under a broadly similar loan sampling method. The insurance companies foreclosed 8.2 percent of the number and 11.4 percent of the amount of the mortgage loans which they made on urban properties from 1920 to 1946. Even if the loans on single family properties are the only ones considered, it is found that insurance company experience was less favorable than that reported for commercial banks. While the reason for this difference in experience is not clear it may merely reflect the fact that the commercial bank loan sample, as compared with the insurance company sample, is biased in favor of better experience since it necessarily excludes loans made by banks that failed during the period covered whereas there were no failures among the important insurance company mortgage lenders. See R. J. Saulnier, *Urban Mortgage Lending by Life Insurance Companies* (National Bureau of Economic Research, Financial Research Program, 1950) Chapter 6.

TABLE 17 — NUMBER AND ORIGINAL AMOUNT OF LOANS EVENTUALLY MODIFIED AS A PERCENTAGE OF NUMBER AND ORIGINAL AMOUNT OF LOANS MADE FOR A SAMPLE OF URBAN MORTGAGE LOANS OF 116 COMMERCIAL BANKS, CLASSIFIED BY NUMBER OF TIMES MODIFIED AND LOAN CONTRACT TERMS, 1920–34

CONTRACT TERMS	NUMBER OF TIMES MODIFIED									
	1		*2*		*3*		*4 to 8*		*Total*	
	No.	Amt.	No.	Amt.	No.	Amt.	No.	Amt.	No.	Amt.
TYPE OF LOAN										
Fully amortized	7.3%	10.6%	4.2%	4.5%	3.1%	5.8%	..	..	14.6%	20.9%
Partially amortized	15.1	17.8	14.2	23.1	2.8	4.7	.9%	1.6%	33.0	47.2
Nonamortized	20.2	33.9	8.9	9.1	5.3	14.2	2.7	2.8	37.1	60.0
CONTRACT INTEREST RATE [a]										
5.0 – 5.9%	17.8	51.4	9.9	9.9	5.0	25.0	3.0	2.0	35.7	88.3
6.0 – 6.9	16.3	19.0	11.3	11.5	4.0	5.3	1.4	2.1	33.0	37.9
7.0 – 7.9	15.2	15.7	5.1	5.8	3.5	6.2	1.9	3.6	25.7	31.3
8.0 and over	9.1	4.2	9.1	7.3	..	..	4.5	4.5	22.7	16.0
LOAN-TO-VALUE RATIO [b]										
Under 40%	17.1	10.5	8.0	32.5	3.1	5.6	2.7	3.1	30.9	51.7
40 – 59	17.1	34.3	11.2	10.9	4.1	5.4	.8	1.3	33.2	51.9
60 – 79	11.8	13.7	9.3	11.9	4.2	5.8	2.4	4.8	27.7	36.2
80 and over	10.7	15.4	7.1	8.4	..	..	7.1	8.6	24.9	32.4
CONTRACT LENGTH										
0 – 4 years	18.5	18.6	12.6	12.2	4.5	14.5	1.8	2.1	37.4	47.4
5 – 9	10.7	18.1	5.6	15.2	3.1	6.3	1.2	4.2	20.6	43.8
10 – 14	12.1	56.9	3.0	16.8	1.8	.3	..	..	16.9	74.0
15 – 19	..	..	..	..	..	..	..	..	..	..
20 and over	6.3	5.8	6.2	3.9	3.1	18.3	..	..	15.6	28.0
Total	*16.1%*	*25.9%*	*10.3%*	*13.6%*	*3.9%*	*9.9%*	*1.5%*	*2.1%*	*31.8%*	*51.5%*

[a] Excludes two loans with interest rates of less than 5 percent.

[b] For a definition of loan-to-value ratio, see Table 10, footnote c.

TABLE 18 — Over-All Experience on a Sample of Urban Mortgage Loans Made by 116 Commercial Banks, 1920–47
(dollar figures in thousands)

Loan Status	Number of Loans		Original Amount	
	Number	Percent	Amount	Percent
Outstanding, June 1947	2,002	31.4%	$18,502	40.5%
Paid off	3,492	54.8	21,222	46.4
Transferred to HOLC	143	2.3	645	1.4
Sold or assigned	531	8.3	3,606	7.9
Foreclosed [a]	202	3.2	1,740	3.8
Total	*6,370*	*100.0%*	*$45,715*	*100.0%*

[a] Includes a few loans terminated by voluntary surrender of deed.

Differences are readily apparent in the relative frequency of foreclosure on loans of different characteristics. Perhaps the most striking and regular relationship between the characteristics of commercial bank mortgage loans and their subsequent experience is that revealed by a study of foreclosure rates on sample loans made in different years (Table 19). These data reveal very clearly the tendency for a higher percentage of the mortgage loans made during periods of relatively high construction activity, high real estate values, and high levels of business and personal income to go to foreclosure than for loans made under less favorable economic conditions. Thus, the sample loans made in the period 1920–24 had a better than average foreclosure experience, as did those made in the periods 1935–39 and 1940–47, though in the latter case the loans had been outstanding for too short a time to test their quality. On the other hand, the mortgage loans made in the period 1925–29, particularly those made in 1928 and 1929 and to a somewhat lesser degree those made in 1930–34, had a substantially worse than average experience. Of the sample loans closed in the years 1925–29, 11.1 percent of the number and 14.7 percent of the original amount were eventually foreclosed, while of the loans made in 1928, 12.9 percent of the number and 18.5 percent of the amount were foreclosed. With respect to the number of loans, this foreclosure experience conforms closely to that of life insurance companies.

The relationship of other factors to mortgage loan investment experience may be seen best if the analysis is restricted to sample loans made prior to 1930, in order to include loans of roughly the

TABLE 19 — FORECLOSURE RATES FOR A SAMPLE OF URBAN MORTGAGE LOANS MADE BY 116 COMMERCIAL BANKS, CLASSIFIED BY YEAR MADE, 1920–47

(dollar figures in thousands)

Year Made	*Loans Made*		*Loans Foreclosed*		*Foreclosure Rate*[a]	
	Number	Amount	Number	Amount	Number	Amount
1920	103	$429	2	$6	1.9%	1.4%
1921	85	304	3	7	3.5	2.3
1922	158	594	3	10	1.9	1.7
1923	207	984	4	24	1.9	2.4
1924	247	3,366	9	55	3.6	1.6
1920-24	*800*	*5,677*	*21*	*102*	*2.6*	*1.8*
1925	283	2,000	29	270	10.2	13.5
1926	242	1,739	25	232	10.3	13.3
1927	266	1,389	27	160	10.2	11.5
1928	263	2,004	34	370	12.9	18.5
1929	203	1,193	25	193	12.3	16.2
1925-29	*1,257*	*8,325*	*140*	*1,225*	*11.1*	*14.7*
1930	162	971	11	84	6.8	8.7
1931	151	1,548	10	65	6.6	4.2
1932	61	1,192	4	17	6.6	1.4
1933	48	285	1	3	2.1	1.1
1934	55	397	..	..	.0	.0
1930-34	*477*	*4,393*	*26*	*169*	*5.5*	*3.8*
1935	142	1,505	2	24	1.4	1.6
1936	175	999	5	72	2.9	7.2
1937	229	1,106	5	51	2.2	4.6
1938	239	1,269	1	95	.4	7.5
1939	351	1,681	1	1	.3	.1
1935-39	*1,136*	*6,560*	*14*	*243*	*1.2*	*3.7*
1940	371	2,170	..	..	.0	.0
1941	345	1,719	..	..	.0	.0
1942	293	1,321	1	1	.3	.1
1943	243	1,082	..	..	.0	.0
1944	266	2,199	..	..	.0	.0
1945	313	4,623	..	..	.0	.0
1946	701	6,460	..	..	.0	.0
1947	160	1,123	..	..	.0	.0
1940-47	*2,692*	*20,697*	*1*	*1*	b	b
Total	*6,370*[c]	*$45,715*[c]	*202*	*$1,740*	*3.2%*	*3.8%*

[a] Foreclosure rate equals the number and original amount of loans made in a given year and eventually foreclosed as a percentage of the number and original amount of all loans made in that year. [b] Less than .05 percent.

[c] Includes eight loans with a value of $63,300 for which data on year made were not available.

same characteristics and to exclude those made under the changed economic conditions of the thirties, and if the experience records on loans secured by one- to four-family properties and all other types of properties are considered separately. The available data on this segment of sample loans have been arranged in Table 20, which shows that the foreclosure rate on loans made on one- to four-family dwellings from 1920 through 1929 was about 7 percent, as compared with 12 percent on all other properties, while in terms of dollar amounts it was 9 and 11 percent, respectively.

Considering first the loans made on one- to four-family dwellings, it is apparent that the rate of foreclosure did not differ very greatly on loans having different characteristics. Certain differences, however, can be noted: (1) loans placed in the South (though meagerly represented in the sample) seem to have had a higher rate of foreclosure, while the experience on those in western states was somewhat better than average; (2) the foreclosure rate on fully amortized loans appears to have been slightly lower than that on partially and nonamortized loans; and (3) sample loans with high loan-to-value ratios generally showed somewhat higher than average foreclosure rates. In the analysis of sample returns, length of loan contract and contract interest rate seem to bear no consistent relation to the rate of foreclosure; in any event, most loans were made with fairly standard characteristics in these respects. It should be borne in mind, of course, that the above comparisons are based on only a small number of foreclosures, though the fact that the indicated experience conforms with what would be expected on the basis of general knowledge of mortgage lending tends to give greater weight to the results.

Considering next the loans secured by all other properties, there seems to be no close correspondence between their foreclosure rates and those of loans made on one- to four-family dwellings, except as it shows up regionally. The experience of banks with both types of mortgage loans was relatively much better in the West than in either the North or South. In the case of contract length, foreclosure rates for loans maturing in five to nine years were unusually high, in sharp contrast to those on loans carrying the same maturity in the one- to four-family category. Relatively high foreclosure rates seem also to be correlated with an interest rate of from 6.0 to 6.9 percent; and in terms of amount, foreclosures were largest on the partially amortized loans.

TABLE 20 — FORECLOSURE RATES FOR A SAMPLE OF URBAN MORTGAGE LOANS MADE BY 116 COMMERCIAL BANKS, CLASSIFIED BY TYPE OF PROPERTY, PROPERTY LOCATION, AND LOAN CONTRACT TERMS, 1920–29 [a]

(dollar figures in thousands)

LOAN CHARACTERISTICS	1- TO 4-FAMILY DWELLINGS				ALL OTHER PROPERTY			
	Loans Made		*Foreclosure Rate* [b]		*Loans Made*		*Foreclosure Rate* [b]	
	No.	Amt.	No.	Amt.	No.	Amt.	No.	Amt.
GEOGRAPHIC REGION [c]								
North	1,270	$5,810	8.0%	8.9%	161	$4,875	15.5%	12.0%
South	122	630	13.9	16.7	14	343	14.3	5.8
West	419	1,402	3.1	4.0	69	897	5.8	5.1
TYPE OF LOAN								
Fully amortized	286	922	6.6	6.0	22	312	13.6	8.6
Partially amortized	712	3,149	7.6	8.4	104	1,535	12.5	20.7
Nonamortized	798	3,675	7.4	9.7	119	4,307	10.9	7.1
CONTRACT LENGTH								
0 – 4 years	1,232	5,030	7.8	10.8	179	2,644	8.9	10.0
5 – 9	424	2,192	4.7	3.9	48	993	20.8	36.3
10 – 14	127	481	11.8	9.4	12	2,411	16.7	.9
15 – 19	8	45	3.6	2.5	..	..	..	..
20 and over	20	95			7	112	14.3	5.4
CONTRACT INTEREST RATE								
4.0 – 4.9%	..	..	..	..	3	127	7.1	3.6
5.0 – 5.9	61	578	6.6	1.8	11	2,382		
6.0 – 6.9	1,452	6,405	8.1	9.7	183	3,254	12.6	15.8
7.0 – 7.9	284	833	3.5	5.5	43	370	10.2	11.7
8.0 and over	14	26	7.1	3.1	6	27		
LOAN-TO-VALUE RATIO [d]								
Under 40%	292	781	2.7	3.6	66	1,107	9.1	6.6
40 – 59	1,192	5,500	7.7	8.1	141	4,390	14.2	11.9
60 – 79	245	1,241	11.9	14.7	26	521	10.7	10.2
80 and over	8	39			2	24		
Total	*1,811*	*$7,842*	*7.3%*	*8.6%*	*246*	*$6,160*	*11.8%*	*10.6%*

[a] Excludes loans for which data on type of loan, property location, or loan-to-value ratio were not available.

[b] Represents the number and original amount of loans made during 1920–29 which were eventually foreclosed as a percentage of the number and original amount of all loans made during 1920–29.

[c] For the states included in each region, see Table 6, footnote b.

[d] For a definition of loan-to-value ratio, see Table 10, footnote c.

THE DISPOSAL OF FORECLOSED PROPERTIES

Real estate investment experience may also be analyzed by studying the experience of banks with those foreclosed properties reported on individually in the sample of loans referred to earlier. This sample of 6,370 loans produced 202 foreclosures and the properties had, in all cases, been disposed of by the time the sample was drawn. For individual cases the following information was given: (1) the amount originally loaned on the property; (2) the amount of the bank's investment in the property at the time of foreclosure (defined as the unpaid balance of the loan at foreclosure plus any amounts paid out in taxes, insurance, etc., any unpaid interest not already capitalized into the unpaid balance, and any foreclosure costs); (3) the proceeds of any deficiency judgments; (4) the net income (or deficit) on the operation of the property while it was held as real estate (i.e., rent and other income less taxes, insurance, costs of repairs, improvements and management, and any commissions paid on the property sale); and (5) the ultimate sales price. From these data the gain or loss on the whole transaction can be derived: from the sum of the sales price of the property, the proceeds of any deficiency judgments, and the net income (or less the net deficit) on property operation is subtracted the amount of the bank's investment in the property at the time of foreclosure.

Each of the disposed-of properties is classified in Table 21 accord-

TABLE 21 — Number of Foreclosed Properties and Gain or Loss, Classified by Percentage of Gain or Loss, 1920–47 [a]

Gain or Loss as Percentage of Bank's Investment at Foreclosure	*Number of Foreclosures*	*Gain or Loss* Total	*Gain or Loss* Average
Gain	*35*	*$18,705*	*$534*
40.0% and over	5	3,105	621
39.9 – 30.0	3	3,046	1,015
29.9 – 20.0	4	3,793	948
19.9 – 10.0	7	5,636	805
9.9 – 0.0	16	3,125	195
Loss	*167*	*542,236*	*3,247*
0.1 – 9.9%	40	17,725	443
10.0 – 19.9	30	31,586	1,053
20.0 – 29.9	30	82,337	2,745
30.0 – 39.9	35	120,590	3,445
40.0 – 49.9	14	85,851	6,132
50.0 – 59.9	6	44,976	7,496
60.0 – 69.9	6	129,272	21,545
70.0 or more	6	29,899	4,983
Total	*202*	*$–523,531*	*$–2,592*

[a] Includes only one loan made after 1939.

ing to the extent of the gain or loss sustained, with gains and losses expressed as percentages of the bank's investment in the property at foreclosure. Of the 202 properties, 35 were sold at a gain and 167 at a loss. The over-all loss for all 202 properties averaged $2,592; those that were sold at a profit averaged a gain of $534 and those sold at a deficit averaged a loss of $3,247. Most of the properties—165 of the 202 cases—were disposed of on a basis that varied from a gain of under 10 percent to a loss of less than 50 percent (Table 21). For all foreclosed properties in the sample, the average loss was 30.1 percent of the original amount of the funds loaned on the property and 26.7 percent of the amount of the bank's investment at the time of foreclosure (Table 22).[3]

The question of whether the period in which the property was sold affected loss experience is answered indirectly in Table 22. Experience is shown in this table according to the period in which the loan was made and the period in which the property was sold. The principal conclusion to be drawn is that for the period covered properties held for the longest time, regardless of when the loans on the foreclosed properties were made, showed the greatest eventual loss. This is traceable to the fact that commercial banks found properties costly to operate and to the apparent tendency for investors to sell first the properties that could be sold most favorably. The improvement of the real estate market during the years following 1934 was not enough to make the less attractive properties salable without loss.

Finally, the sample results also show, as will be observed in Table 23, that the least unsatisfactory experience in property disposal was on one- to four-family dwellings and on those sales resulting from loans made on a fully amortized basis. In general, contract lengths, contract interest rates, and loan-to-value ratios do not seem to bear a consistent relationship to the rate of gain or loss; however, it is possible that some relationships would become apparent if the sample were larger.

[3] This small difference in the two measures of loss reflects the fact that most properties were foreclosed soon enough after the loans were made to make little difference between their original amount and the amount of the bank's investment at foreclosure. Also, some loan balances were increased by the capitalization of delinquent interest and other charges that had to be absorbed by the lender, such as taxes and insurance.

TABLE 22 – LIQUIDATION EXPERIENCE ON FORECLOSED PROPERTIES FOR A SAMPLE OF URBAN MORTGAGE LOANS MADE BY 116 COMMERCIAL BANKS, CLASSIFIED BY PERIOD OF LOAN ORIGINATION AND PROPERTY DISPOSAL, 1920–47
(dollar figures in thousands)

Period of Loan Origination	*Period of Property Disposal*	*Loans Foreclosed and Sold*			*Loss as Percentage of*	
		No. of Loans	Orig. Loan Amt.	Investment at Foreclosure	Orig. Loan Amt.	Investment at Foreclosure
		1- to 4-Family Dwellings				
1920–24	*1935–47*	*19*	*$96*	*$101*	*19.4%*	*18.5%*
	1935–39	11	48	56	19.2	16.3
	1940–47	8	48	45	19.5	20.8
1925–29	*1925–47*[a]	*113*	*580*	*672*	*24.0*	*20.7*
	1930–34	24	126	131	10.0	9.6
	1935–39	64	327	395	24.2	20.0
	1940–47	24	126	145	37.1	32.2
1930–34	*1930–47*[b]	*21*	*112*	*137*	*27.7*	*22.8*
	1935–39	15	58	70	17.1	14.1
	1940–47	4	38	49	57.4	45.2
1935–39	*1940–47*	*6*	*42*	*38*	*14.8*	*16.3*
	Total	*159*	*$830*	*$948*	*23.5%*	*20.6%*
		All Property				
1920–24	*1925–47*[a]	*21*	*$102*	*$109*	*18.6%*	*17.4%*
	1935–39	12	53	62	17.1	14.6
	1940–47	8	48	45	19.5	20.8
1925–29	*1925–47*[a]	*140*	*1,225*	*1,382*	*29.3*	*26.0*
	1930–34	25	131	162	9.7	7.8
	1935–39	79	653	721	26.5	24.0
	1940–47	35	440	498	39.2	34.6
1930–34	*1930–47*[c]	*26*	*170*	*256*	*25.6*	*17.0*
	1935–39	17	74	155	23.1	11.1
	1940–47	6	74	78	35.3	33.6
1935–39	*1940–47*[d]	*14*	*243*	*211*	*42.0*	*48.3*
	Total[e]	*202*	*$1,740*	*$1,958*	*30.1%*	*26.7%*

[a] Includes one property sold in 1925–29.
[b] Includes two properties sold in 1930–34.
[c] Includes three properties sold in 1930–34.
[d] Includes one property sold in 1935–39.
[e] Includes one loan made in 1940–47 for which the property was foreclosed and sold in the same period.

TABLE 23 — LIQUIDATION EXPERIENCE ON FORECLOSED PROPERTIES FOR A SAMPLE OF URBAN MORTGAGE LOANS MADE BY 116 COMMERCIAL BANKS, CLASSIFIED BY TYPE OF PROPERTY, PROPERTY LOCATION AND LOAN CONTRACT TERMS, 1920–47 [a]

(dollar figures in thousands)

Loan Characteristics	*1- to 4-Family Dwellings* No. of Loans	Orig. Loan Amt.	Loss as % of Orig. Loan Amt.	*All Other Property* No. of Loans	Orig. Loan Amt.	Loss as % of Orig. Loan Amt.
GEOGRAPHIC REGION [b]						
North	117	$585	26.9%	32	$787	37.6%
South	18	120	.9	4	56	17.7
West	24	125	28.9	7	67	34.2
TYPE OF LOAN						
Fully amortized	22	69	5.8	8	74	21.5
Partially amortized	67	330	18.1	20	513	42.0
Nonamortized	70	431	30.4	15	323	30.0
CONTRACT LENGTH [c]						
0 – 4 years	120	673	26.2	20	286	44.9
5 – 9	21	100	13.6	17	437	23.6
10 – 14	17	54	10.7	5	182	52.7
CONTRACT INTEREST RATE						
Under 5.0%	..	..	..	3	154	41.3
5.0 – 5.9	7	43	8.1	6	118	
6.0 – 6.9	130	692	24.0	28	584	33.6
7.0 and over	22	95	27.0	6	54	37.4
LOAN-TO-VALUE RATIO [d]						
Under 40%	10	31	43.9	6	73	72.1
40 – 59	107	516	21.4	27	586	25.5
60 – 79	31	223	21.1	6	77	50.5
80 and over	9	45	43.6	4	174	
Total	*159*	*$830*	*23.5%*	*43*	*$910*	*36.1%*

[a] Excludes a few loans for which data on loan-to-value ratio were not available; includes one loan made after 1939.

[b] For the states included in each region, see Table 6, footnote b.

[c] Excludes two loans with contract terms of twenty years and over.

[d] For a definition of loan-to-value ratio, see Table 10, footnote c.

EXPECTED AND REALIZED YIELDS, AND LOSS RATES

In conclusion, the expression of urban mortgage loan experience in terms of the expected and realized yields on individual loans of different types will be considered. By expected or promised yield is meant the original contract interest rate on the loans; averages of expected yields are computed for different groups of loans by weighting the original interest rates of all loans in the group by the original loan amounts. For loans paid off without interest rate modification the expected and realized yields are equivalent, but the two diverge where interest rates have been modified and also, of course, in the case of foreclosed loans.

On modified loans the rate obtaining at the time the loan was extinguished, weighted by the amount of the loan at time of origination, was taken as the realized rate. This procedure was adopted for reasons of economy, though in most cases it probably underestimates somewhat the true realized yield. A somewhat more complex procedure was required in computing realized yields on foreclosed loans. In this case, the gross income of the whole transaction was taken to be the sum of (1) the original contract rate of interest multiplied by the average amount of the outstanding loan balance (an average of the original loan amount and the unpaid principal at foreclosure) and by the number of years the loan was outstanding and (2) the amount of the gain (or loss) sustained on the operation and sale of the foreclosed real estate. This gross income was then expressed as a percentage of the amount of the lender's investment in the joint loan and real estate transaction. The latter was estimated as the average amount of the outstanding loan balance multiplied by the number of years the loan was outstanding plus the amount of the bank's investment in the property at foreclosure multiplied by the number of years the real estate was held before disposal.[4]

For the entire sample of loans originated and terminated in the period 1920–47 the expected and realized yields were 5.40 and 4.97 percent, respectively (Table 24). The difference between these two yields—0.43 percent—may be termed the per annum loss rate which when related to the average loan investment determines the amount of income that should have been set aside each year from the gross

[4] Using the notations of the mortgage loan experience card (Appendix A), the realized yield on foreclosed properties was computed as follows:

$$\textit{Realized Yield} = \frac{H_5\left(\frac{H_2+K_4}{2}\right)(J_5-H_1) \pm K_{16}}{\left(\frac{H_2+K_4}{2}\right)(J_5-H_1)+K_9\,(K_1-J_5)}$$

It should be noted that rates computed in this way are only first approximations to the compound interest rates usually used as norms in finance.

income of the entire portfolio in order to build up a reserve (disregarding interest accumulations on the investment of reserve funds) sufficient to have met the full amount of the losses sustained over the whole period. It will also be observed from Table 24 that in the sample results the loss rate on single family dwellings and stores was lower than that on other property types and, furthermore, that the realized yield was higher on single family homes and two- to four-family dwellings with no business use than on other property types.

TABLE 24 – EXPECTED YIELDS, REALIZED YIELDS, AND LOSS RATES FOR A SAMPLE OF URBAN MORTGAGE LOANS MADE BY 116 COMMERCIAL BANKS, CLASSIFIED BY PROPERTY TYPE, 1920–47 [a]

Type of Property	*Expected Yield*	*Realized Yield*	*Loss Rate*
1- to 4-Family Dwellings	*5.58%*	*5.27%*	*.31%*
1-family	5.53	5.25	.28
2- to 4-family	5.78	5.42	.36
1- to 4-family with business use	5.68	5.17	.51
All Other Property	*5.18*	*4.57*	*.61*
Apartments	5.43	4.00	1.43
Stores	4.63	4.48	.15
All other	5.31	4.77	.54
Total	*5.40%*	*4.97%*	*.43%*

[a] Includes a few loans not shown in Table 18 of this chapter. Some loans necessarily discarded in the earlier part of the study were usable for this part of the analysis and it was considered preferable to include these in order to make the sample as large as possible. For data on number and original amount of loans used in the yield analysis, see Appendix Table B6.

The effect on the ultimate outcome of a mortgage loan of the economic conditions prevailing at the time the loan is originally made was commented on above in connection with the discussion of foreclosure rates. We can now see how economic conditions affected the realized yields on sample loans. As will be observed in Table 25, loans made in the period 1920–24 had both relatively low loss rates and the highest realized yields, whether we consider loans on one- to four-family structures or loans on all other types of property combined. Loss rates were most unfavorable on the loans made in the 1925–29 and 1930–34 periods, again on both broad property types. Despite high loss rates on loans made in the years 1925–34, however, the realized yields on loans made in these years, including loans secured by both property types, were higher than the expected yields for loans made after 1935, due to the greatly reduced level of interest rates.

TABLE 25 — EXPECTED YIELDS, REALIZED YIELDS, AND LOSS RATES FOR A SAMPLE OF URBAN MORTGAGE LOANS MADE BY 116 COMMERCIAL BANKS, CLASSIFIED BY TYPE OF PROPERTY AND PERIOD MADE, 1920–47 [a]

Period Made	*1- to 4-Family Dwellings*			*All Other Property*		
	Expected Yield	Realized Yield	Loss Rate	Expected Yield	Realized Yield	Loss Rate
1920–24	6.14%	5.99%	.15%	5.38%	5.35%	.03%
1925–29	6.04	5.37	.67	5.96	4.94	1.02
1930–34	6.13	5.53	.60	5.71	4.44	1.27
1935–39	5.21	5.10	.11	4.27	3.59	.68
1940–47	4.69	4.68	.01	4.26	4.23	.03
Total	*5.58%*	*5.27%*	*.31%*	*5.18%*	*4.57%*	*.61%*

[a] For data on number and original amount of loans used in the yield analysis, see Appendix Table B7.

In view of changed economic conditions after 1929 it has seemed appropriate, in considering other details of loan experience, to consider only those loans made in the years 1920–29. Thus, in Table 26 expected and realized yields and loss rates are given for sample loans made in the period 1920–29 on the two broad types of property. In general, low loss rates and high realized yields have gone together on loans secured by one- to four-family properties. The evidence of the sample suggests that the best records, with respect to both loss rate and realized yield, were produced by those loans made on a fully amortized basis, with long contract periods, low loan-to-value ratios, and relatively high interest rates. The record of experience for loans secured by properties other than the one- to four-family type is less regular and consistent, doubtless because of the smaller number of such loans on which the experience data were available.

TABLE 26 — EXPECTED YIELDS, REALIZED YIELDS, AND LOSS RATES FOR A SAMPLE OF URBAN MORTGAGE LOANS MADE BY 116 COMMERCIAL BANKS, CLASSIFIED BY TYPE OF PROPERTY, PROPERTY LOCATION AND LOAN CHARACTERISTICS, 1920–29 [a]

Loan Characteristics	*1- to 4-Family Dwellings*			*All Other Property*		
	Expected Yield	Realized Yield	Loss Rate	Expected Yield	Realized Yield	Loss Rate
GEOGRAPHIC REGION [b]						
North	5.98%	5.47%	.51%	5.49%	4.96%	.53%
South	5.98	5.26	.72	5.86	4.90	.96
West	6.51	6.23	.28	6.49	6.09	.40
SIZE OF PORTFOLIO [c]						
Large	6.15	5.74	.41	5.53	5.03	.50
Medium	5.93	4.73	1.20	5.94	5.51	.43
Small	6.02	5.79	.23	6.02	4.93	1.09
TYPE OF LOAN						
Fully amortized	6.25	6.12	.13	5.59	5.21	.38
Partially amortized	6.04	5.56	.48	6.14	4.59	1.55
Nonamortized	6.07	5.47	.60	5.53	5.32	.21
CONTRACT LENGTH						
0 – 4 years	6.14	5.57	.57	6.08	5.62	.46
5 – 9	5.94	5.55	.39	6.15	3.89	2.26
10 – 14	6.18	5.95	.23	5.14	5.09	.05
15 and over	6.10	5.98	.12			
CONTRACT INTEREST RATE						
5.0 – 5.9% [d]	5.17	4.69	.48	5.01	5.13	+.12
6.0 – 6.9	6.03	5.53	.50	6.06	5.03	1.03
7.0 and over	7.03	6.65	.38	7.07	5.98	1.09
LOAN-TO-VALUE RATIO [e]						
Under 40%	6.35	6.11	.24	6.04	5.11	.93
40 – 59	6.04	5.57	.47	5.51	5.10	.41
60 and over	6.01	5.26	.75	6.04	5.17	.87
Total	*6.08%*	*5.60%*	*.48%*	*5.67%*	*5.14%*	*.53%*

[a] For data on number and original amount of loans used in the yield analysis, see Appendix Table B8.

[b] For the states included in each region, see Table 6, footnote b.

[c] For the definition of portfolio size, see Table 6, footnote c.

[d] Includes one loan made on an income-producing property at 4.0–4.9 percent.

[e] For a definition of loan-to-value ratio, see Table 10, footnote c.