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CHAPTER 6

Urban Mortgage Loan Experience of Life Insurance Companies, 1920-46

In many respects the most important question of the present investigation concerns the experience of life insurance companies with their investments in urban mortgage loans. What proportion of the loans composing their portfolios became delinquent under different economic conditions? What proportion was foreclosed? How did foreclosure rates differ among different types of loans? What was the experience, as measured by the amount gained or lost, on the operation and disposal of different types of property? Considering all relevant occurrences from the time cash was invested in a given mortgage until it was withdrawn, either through repayment or sale of the loan or disposal of the foreclosed property, what was the realized yield on loans of different characteristics, and how did this yield compare with the yield expected when the loans were made? What do the differences between expected and realized yields mean in terms of the amounts that must be taken from portfolio income in order to build up reserves adequate to absorb mortgage losses? And how do these reserve requirements differ among different broad types of loans? The several sections of this chapter treat the aforementioned questions in the order of their listing.

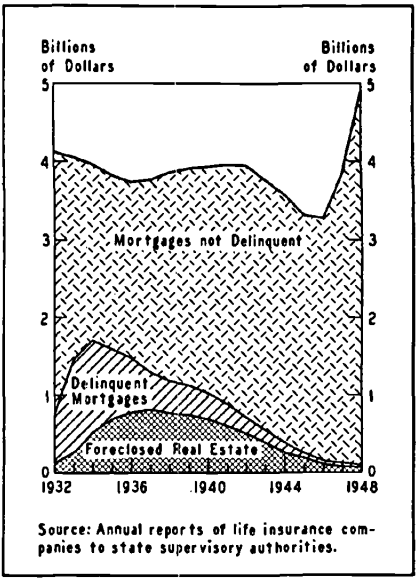
Mortgage Loan Delinquency and the Accumulation of Foreclosed Property

The rapid rise in 1933 in the amount of delinquent urban mortgage loan contracts is shown in Chart 10, in which data are given for ten leading life insurance companies.[1] Comparable data are not available

[1] Data are from the companies' annual reports to their state supervisory authorities. Delinquent mortgages are defined, in general, as those on which interest is overdue more than three months, on which the time for interest payment has been extended, or on which taxes, assessments or other liens are overdue (by more than two years from 1933 to 1941 and by more than one year from 1929 to 1932 and after 1941).

The ten companies accounted for 70 percent of all life company assets in 1930 and 1940, and 70 and 63 percent of the urban mortgage holdings of all companies in 1930 and 1940, respectively.

CHART 10 — URBAN MORTGAGE LOANS AND FORECLOSED REAL ESTATE HELD BY 10 LARGE LIFE INSURANCE COMPANIES, AT YEAR ENDS, 1932-48



Source: Annual reports of life insurance companies to state supervisory authorities.

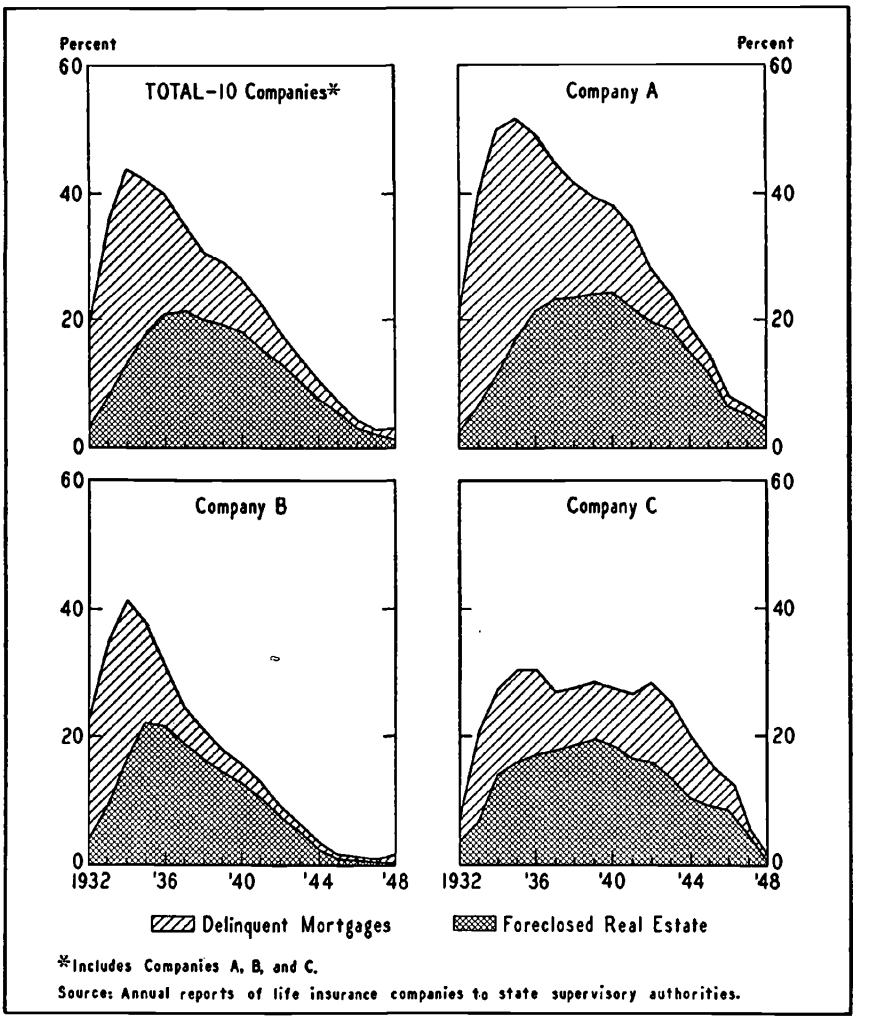
The amount of delinquent urban loans rose sharply through 1934. A large part of the decline in the two following years was due to the transfer of loans to the owned real estate account, which increased through 1937 and was not greatly reduced until the early war years.

for earlier years so that the low point of loan delinquency from which this rise began is not known. However, it is known that the proportion of foreclosed real estate to total loan and real estate investment for these companies rose from 0.3 percent at the end of 1929 to 3.4 percent at the close of 1932. This suggests that as few as 5 percent of the loans were delinquent in 1929. By the end of 1932 the proportion of delinquent loans to total loan and real estate investment for these ten companies had risen to 16 percent, and by the end of 1934 nearly one-third of their combined urban mortgage loan portfolios was delinquent (Chart 11).

These facts are important for two reasons: first, because a large majority of delinquent loans are eventually foreclosed and, second, because the cost of servicing a loan portfolio is considerably increased by loan delinquency. The net yield on the portfolio is reduced by an amount that depends on the extent of delinquency and on the costs incurred in servicing delinquent loans. This may be a charge on income as burdensome as that of accumulating reserves for losses, although the burden of the cost will vary, as the extent of delinquency changes.

Differences among companies in the rate of loan delinquency in the early thirties and in the rate of increase in owned real estate are shown in Chart 11. Naturally, there were individual differences but the three illustrative cases depict the main types of company expe-

CHART 11 — DELINQUENT URBAN MORTGAGE LOANS AND FORECLOSED URBAN REAL ESTATE IN PERCENT OF TOTAL URBAN MORTGAGE LOAN AND REAL ESTATE INVESTMENT FOR 10 LARGE LIFE INSURANCE COMPANIES, AT YEAR ENDS, 1932-48



In the early thirties most companies experienced a sharp rise in the proportion of their real estate investment held as delinquent mortgages and foreclosed properties. Companies differed, however, as to the timing of real estate sales, depending mainly on company policy and on the type of property held.

rience. There was no great difference among companies in the early thirties as to the rate of increase in the proportion of delinquent loans or owned real estate to total loan and real estate investment. However, Company C, which dealt much more heavily in income-producing properties than either A or B, continued after 1936 to hold about the same proportion of delinquent loans and owned real estate to total investment, whereas the composition of other companies' portfolios altered quite rapidly. Whether this was an advantage will be discussed below, where differences in the profit or loss on the disposal of properties sold in different years and held for different periods of time will be compared.

Foreclosure Rates

The rapid increase in loan delinquency, which began in the early thirties, soon transformed large segments of the urban mortgage holdings of life insurance companies into owned real estate. But not all types of loans were foreclosed with the same relative frequency, and it is pertinent to inquire which groups of loans had the best, and which the worst, records in this respect. To give quantitative expression to these differences in loan experience, the sample of urban mortgage loans was classified according to relevant characteristics of the loan contracts and of the properties securing them and ratios of the number and original amount of foreclosed loans to the total number and amount of loans, referred to as foreclosure rates, were calculated for the several classifications.[2]

The outstanding factor affecting foreclosure rates appears to have been the year of loan origination, with foreclosure rates highest on loans made in years of high real estate prices and construction activity and lowest on loans made under the opposite conditions. This rate difference arises because, in an economy characterized by economic fluctuations, loans made in a period of expansion, particularly when marked by high real estate prices, are adversely affected in the following period of contraction when the mortgagor's income and the value of the underlying security decline. Loans made in the trough of a depression, on the other hand, are more likely to be repaid according to contract in the following period of rising income and property values.

[2] See Chapter 4, pp. 49-57, for a description of the loan sample.

This conclusion is adequately supported by the experience on loans made before 1932. Foreclosure rates on both one- to four-family dwellings and on income-producing properties rose from less than 5 percent of the number of loans made in the early twenties to 25 percent of the loans made during the real estate expansion of the late twenties (Table 22). Loans made after 1931 have had relatively low foreclosure rates, because most of them were made in years that were followed by higher levels of real estate activity and consumer income. Those made in more recent years had not, by 1946, been outstanding long enough to provide a real test of the borrower's ability to repay according to contract.

Another important aspect of mortgage loan experience is the relation of loan amortization provisions to foreclosure rates. When measured as a percentage of the number of loans made, foreclosures were considerably heavier on nonamortized loans made before 1935 than on those providing for full or partial amortization by maturity (Table 23). This differential experience is particularly evident on loans made in the period 1920-24, suggesting that amortization provisions are of most importance on loans made sufficiently long before a period of mortgage distress to permit repayments to reduce the principal substantially. Fully amortized loans continued to have a more favorable experience than nonamortized loans in the 1925-29 period, but the foreclosure rate on fully amortized loans in this period was about as high as the foreclosure rate on nonamortized loans in the previous period.

The effect of amortization of loans on one- to four-family properties was about the same in 1930-34 as in 1925-29. Evidence on foreclosure experience of income-producing properties for 1930-34 is, however, not conclusive since the sample contains only two fully amortized loans and fourteen nonamortized loans from which to derive foreclosure rates. In the periods subsequent to 1930-34 differences in foreclosure experience by type of amortization provision are of dubious meaning since the loans have not been outstanding long enough for the final history of most of them to be known.

Loans secured by single family homes and by nonresidential, income-producing properties have had a notably better record of repayment than loans secured by other property types for the 1920-46 period (Table 24). Since this differential experience may be attrib-

TABLE 22 – FORECLOSURE RATES ON A SAMPLE OF URBAN MORTGAGE LOANS MADE BY 24 LEADING LIFE INSURANCE COMPANIES, CLASSIFIED BY TYPE OF PROPERTY AND YEAR MADE, 1920-46 [a]

(dollar figures in thousands)

YEAR MADE	1-4 FAMILY DWELLINGS				ALL OTHER PROPERTY			
	Loans Made		*Foreclosure Rate* [b]		*Loans Made*		*Foreclosure Rate* [b]	
	No.	Orig. Amt.	No.	Amt.	No.	Orig. Amt.	No.	Amt.
1920	73	$382	2.7%	6.2%	13	$742	15.4%	6.1%
1921	119	451	1.7	4.9	16	705	6.3	1.4
1922	170	656	2.4	3.2	22	1,256	9.1	9.2
1923	209	1,001	5.7	7.9	29	1,257	3.4	.6
1924	280	1,291	8.9	12.0	38	1,642	13.2	15.3
1920-24	*851*	*3,781*	*5.3*	*8.0*	*118*	*5,602*	*9.3*	*7.6*
1925	359	1,832	13.4	15.0	42	2,624	16.7	10.3
1926	479	2,510	18.0	19.6	50	3,779	18.0	46.9
1927	414	2,445	22.2	21.8	44	3,761	36.4	45.6
1928	411	2,165	24.1	28.5	47	3,851	36.2	32.4
1929	398	2,117	26.4	29.6	56	2,745	26.8	29.6
1925-29	*2,061*	*11,069*	*20.9*	*23.0*	*239*	*16,760*	*26.8*	*34.7*
1930	348	1,884	20.4	22.0	27	1,208	18.5	16.1
1931	301	1,792	19.3	23.9	16	683	12.5	3.5
1932	103	512	9.7	16.7	7	696		
1933	24	105	.0	.0	1	17	9.1	2.1
1934	33	154	6.1	5.2	3	85		
1930-34	*809*	*4,447*	*17.4*	*21.1*	*54*	*2,689*	*14.8*	*8.8*
1935	88	468	3.4	3.4	19	1,965	.0	.0
1936	202	1,080	2.0	2.5	23	1,694	.0	.0
1937	252	1,432	1.6	1.8	25	2,484	.0	.0
1938	298	1,730	2.0	1.7	33	1,449	3.0	2.8
1939	337	1,815	1.2	1.9	39	1,376	.0	.0
1935-39	*1,177*	*6,525*	*1.8*	*2.0*	*139*	*8,968*	*.7*	*.4*
1940	447	2,246	.4	.4	38	3,238	5.3	.7
1941	647	3,338	.2	.1	51	2,210	.0	.0
1942	670	3,228	.4	.3	31	1,548	.0	.0
1943	508	2,342	.4	.4	22	1,704	.0	.0
1944	325	1,651	.0	.0	26	2,061	.0	.0
1945	254	1,349	.0	.0	27	1,715	.0	.0
1946 [c]	392	2,338	.0	.0	29	3,258	.0	.0
1940-46 [c]	*3,243*	*16,492*	*.2*	*.2*	*224*	*15,734*	*.9*	*.1*
1920-46 [c]	8,157	$42,388	7.9%	9.3%	774	$49,753	11.1%	13.1%

[a] Based on a 1 percent sample of all loans made after January 1, 1920. Excludes sixteen loans on one- to four-family dwellings for which period made was not available.

[b] Foreclosure rates equal the number and original amount of loans made in a given year and eventually foreclosed as a percent of the number and original amount of all loans made in that year.

[c] Includes seventy-three loans made in 1947.

TABLE 23 — FORECLOSURE RATES ON A SAMPLE OF URBAN MORTGAGE LOANS MADE BY 24 LEADING LIFE INSURANCE COMPANIES, CLASSIFIED BY TYPE OF PROPERTY, PERIOD MADE, AND TYPE OF LOAN, 1920-46 [a]

(dollar figures in thousands)

PERIOD MADE AND TYPE OF LOAN	1-4 FAMILY DWELLINGS				ALL OTHER PROPERTY			
	Loans Made		*Foreclosure Rate* [b]		*Loans Made*		*Foreclosure Rate* [b]	
	No.	Orig. Amt.	No.	Amt.	No.	Orig. Amt.	No.	Amt.
1920-24								
Fully amortized	234	$807	1.3%	2.8%	2	$33	8.7%	8.3%
Partially amortized	478	2,222	5.0	7.5	90	4,198		
Nonamortized	138	745	13.0	15.0	24	1,350	12.5	5.7
1925-29								
Fully amortized	390	1,587	11.8	12.2	15	1,043	13.3	6.9
Partially amortized	1,212	6,808	22.3	24.6	158	10,737	30.4	38.3
Nonamortized	457	2,667	24.9	25.6	66	4,980	21.2	32.7
1930-34								
Fully amortized	270	1,176	15.9	17.8	2	22	18.0	14.8
Partially amortized	407	2,347	16.0	19.0	37	1,433		
Nonamortized	131	894	24.4	28.1	14	1,229	7.1	1.6
1935-39								
Fully amortized	529	3,080	.9	1.6	31	819	.0	.0
Partially amortized	244	1,371	5.3	4.8	95	6,609	.0	.0
Nonamortized	20	141	.0	.0	7	218	[d]	[d]
Insured [c]	383	1,927	.8	.9	5	1,072	[d]	[d]
1940-46								
Fully amortized	1,028	6,103	.3	.2	112	6,049	.9	.2
Partially amortized	95	572	.0	.0	93	8,144	1.1	.1
Nonamortized	12	141	.0	.0	6	395	[d]	[d]
Insured [c]	2,100	9,639	.2	.2	9	1,108	[d]	[d]

[a] Based on a 1 percent sample of all loans made after January 1, 1920. Excludes thirty-seven loans for which loan type or period made was not known.

[b] Foreclosure rates equal the number and original amount of loans made in a given year and eventually foreclosed as a percent of the number and original amount of all loans made in that year.

[c] Insured loans include loans insured by the Federal Housing Administration in 1935-39 and 1940-46 as well as loans insured by the Veterans' Administration in 1940-46.

[d] Ratios not given because the sample includes less than ten loans in each of these groups.

utable to the fact that a higher proportion of the loans secured by single family dwellings and nonresidential, income-producing properties than of those secured by other property types were made after 1932, and, therefore, benefited from the relatively favorable eco-

TABLE 24 — FORECLOSURE RATES ON A SAMPLE OF URBAN MORTGAGE LOANS MADE BY 24 LEADING LIFE INSURANCE COMPANIES, CLASSIFIED BY TYPE OF PROPERTY, 1920-29 AND 1920-46 [a]

(dollar figures in thousands)

Type of Property	1920-29				1920-46			
	Loans Made		*Foreclosure Rate* [b]		*Loans Made*		*Foreclosure Rate* [b]	
	No.	Orig. Amt.	No.	Amt.	No.	Orig. Amt.	No.	Amt.
1-4 Family Dwellings	2,912	$14,849	16.3%	19.2%	8,157	$42,388	7.9%	9.3%
1 family [c]	2,569	11,811	14.6	17.3	7,551	37,347	7.0	7.8
2-4 family [c]	310	2,396	29.0	29.2	555	4,133	19.5	21.7
1-4 family with business use	33	642	27.3	16.9	51	908	21.6	15.9
All Other Property	357	22,362	21.0	27.9	774	49,753	11.1	13.1
Apartments	193	10,595	25.4	37.4	410	25,351	13.4	16.4
Other income property including stores	164	11,767	15.9	19.4	364	24,402	8.5	9.7
Total	3,269	$37,211	16.8%	24.4%	8,931	$92,141	8.2%	11.4%

[a] Based on a 1 percent sample of all loans made after January 1, 1920.

[b] Foreclosure rates equal the number and original amount of loans made in a given year and eventually foreclosed as a percent of the number and original amount of all loans made in that year.

[c] With no business use.

nomic circumstances that followed that date, analyses have also been made of those loans made from 1920 through 1929. For this period, also, the same two property types were superior.

It may be asked whether foreclosure experience is affected by the location of the mortgaged property. In general the effect seems most evident on loans secured by one- to four-family dwellings. For loans made in the period 1920-29 on properties of this type, those located in the largest metropolitan districts and in the largest cities had higher foreclosure rates than those located in small metropolitan, or non-metropolitan districts, or those in smaller cities (Table 25). A similar tendency is shown when the data are classified according to census region. Loans secured by one- to four-family properties located in the more highly industrialized regions—New England, the Middle Atlantic states, and the East North Central states—had a higher proportion of foreclosures than loans secured by properties located in the South Atlantic and South Central states, and even

TABLE 25 — FORECLOSURE RATES ON A SAMPLE OF URBAN MORTGAGE LOANS MADE BY 24 LEADING LIFE INSURANCE COMPANIES, CLASSIFIED BY TYPE OF PROPERTY AND GEOGRAPHIC LOCATION, 1920-29 [a]

(dollar figures in thousands)

GEOGRAPHIC LOCATION	1-4 FAMILY DWELLINGS				ALL OTHER PROPERTY			
	Loans Made		*Foreclosure Rate* [b]		*Loans Made*		*Foreclosure Rate* [b]	
	No.	Orig. Amt.	No.	Amt.	No.	Orig. Amt.	No.	Amt.
CENSUS REGION [c]								
New England	52	$307	28.8%	28.1%	5	$312	29.6%	38.2%
Middle Atlantic	554	3,549	27.3	27.2	76	8,991		
East No. Central	646	3,525	21.7	24.1	86	5,876	22.1	13.2
West No. Central	377	1,670	5.8	8.3	63	2,274	15.9	14.0
So. Atlantic	364	1,845	10.1	12.6	38	1,589	7.9	27.9
East So. Central	251	1,100	17.9	19.8	16	328	12.5	11.5
West So. Central	123	540	11.4	15.6	23	959	21.7	32.7
Mountain	71	256	7.0	8.1	10	289	.0	.0
Pacific	473	2,045	9.5	11.7	39	1,735	28.2	45.4
SIZE OF CITY [d]								
1,000,000 and over	541	3,182	24.4	24.2	87	8,843	20.7	32.3
500,000 – 999,999	145	1,045	14.5	15.1	35	2,596	25.7	37.5
250,000 – 499,999	725	3,506	14.8	18.2	111	5,054	18.0	15.3
100,000 – 249,999	512	2,311	12.5	15.8	56	2,493	21.4	29.1
25,000 – 99,999	550	2,578	14.0	17.4	42	2,578	21.4	27.6
10,000 – 24,999	246	1,174	14.2	17.7	21	642	24.0	24.6
Under 10,000	186	996	19.4	22.9	4	148		
SIZE OF DISTRICT [d]								
Metropolitan	*2,580*	*13,420*	*16.9*	*19.6*	*329*	*21,465*	*21.0*	*28.1*
1,000,000 and over	1,004	5,946	22.1	24.0	146	12,974	25.3	31.9
250,000 – 999,999	957	4,849	15.0	17.8	137	6,576	19.0	19.0
100,000 – 249,999	497	2,142	10.9	12.6	42	1,523	13.0	33.2
50,000 – 99,999	122	482	12.3	13.8	4	392		
Non-Metropolitan	*332*	*1,430*	*12.0*	*15.4*	*28*	*897*	*21.4*	*23.3*
Total	2,912	$14,849	16.3%	19.2%	357	$22,362	21.0%	27.9%

[a] Based on a 1 percent sample of all loans made after January 1, 1920. Excludes a few loans for which property location was unknown.

[b] Foreclosure rates equal the number and original amount of loans made in a given year and eventually foreclosed as a percent of the number and original amount of all loans made in that year.

[c] For a listing of states included in each of the census regions, see footnote 3 of Chapter 4.

[d] Loans are classified according to the 1940 population of the cities in which the properties securing them are located.

higher foreclosure rates than loans secured by properties in areas to the north and west. On loans secured by other property types, there seems to be little or no relation between foreclosure rates and geographic location. However, this lack of definite relation may result partly from the smallness of the sample under consideration.

Finally, foreclosure experience on loans made between 1920 and 1929 appears to have been affected by certain characteristics of the loan contracts. The amount of the original loan and the relation of this amount to the appraised value of the property are significantly related to foreclosure experience (Table 26). In general, whether secured by one- to four-family dwellings or other types of property, loans of small original amount and those with low ratios of loan amount to property value had the lowest foreclosure rates. The interest rate carried by the loan and the maturity of the contract seemed to have no effect on foreclosure experience.

Gain or Loss on Foreclosed Properties

Another aspect of mortgage loan experience concerns the extent of the gains or losses involved in the acquisition, operation, and disposal of foreclosed properties. As in the analysis of foreclosure rates, comparisons of this measure of investment experience may be made for different types of loans and for different classes of properties. There are several measures of gain or loss experience, but in this analysis only two have been utilized, namely, the ratio of the amount of the gain or loss to the amount of the original loan balance and to the amount of the lender's investment at the time of foreclosure.[3] The amount of gain or loss was calculated as the difference between the lender's investment in the loan at the time of foreclosure and the sum of (1) the proceeds of deficiency judgments, if any, (2) the net income from operation of the property, and (3) the net proceeds of the property sale. The lender's investment was defined as the sum of (1) the unpaid balance at foreclosure, (2) the amounts paid out by the mortgagee in taxes, insurance, etc., prior to foreclosure, provided these amounts had not been capitalized into the loan balance, (3) the interest delinquent at time of transfer to real estate, and (4) the foreclosure costs.

Considering all foreclosed properties without regard to the period

[3] Data for the analysis of gain or loss are from Schedule K of the mortgage loan experience card, a facsimile of which is given in Appendix A.

TABLE 26 — FORECLOSURE RATES ON A SAMPLE OF URBAN MORTGAGE LOANS MADE BY 24 LEADING LIFE INSURANCE COMPANIES, CLASSIFIED BY TYPE OF PROPERTY AND LOAN CONTRACT TERMS, 1920-29 [a]

(dollar figures in thousands)

CONTRACT TERMS	1-4 FAMILY DWELLINGS				ALL OTHER PROPERTY			
	Loans Made		*Foreclosure Rate* [b]		*Loans Made*		*Foreclosure Rate* [b]	
	No.	Orig. Amt.	No.	Amt.	No.	Orig. Amt.	No.	Amt.
CONTRACT INTEREST RATE								
5.0% [c]	4	$26	13.0%	12.4%	16	$3,855	18.8%	24.0%
5.1 – 5.9	574	3,672			153	10,638	19.6	25.1
6.0	2,154	10,400	17.4	21.6	168	7,120	23.8	36.9
6.1 – 6.9	99	412	15.2	18.4	9	481	10.0	33.4
7.0 and over	77	323	13.0	21.0	11	268		
CONTRACT LENGTH								
0 – 4 years	580	3,247	20.9	21.6	46	3,415	17.4	25.6
5 – 9	1,486	7,767	16.9	20.4	220	11,776	20.0	32.0
10 – 14	754	3,316	10.6	13.5	76	5,625	27.6	27.3
15 – 19 [d]	89	504	25.8	22.6	12	1,520	16.7	4.7
ORIGINAL LOAN AMOUNT								
Less than $5,000	1,825	5,877	12.2	13.3	11	38	9.1	11.9
5,000 – 9,999	863	5,624	23.2	24.3	44	318	15.9	17.0
10,000 – 19,999	201	2,420	24.4	25.4	64	921	12.5	13.1
20,000 – 49,999	17	408	23.5	20.8	125	3,706	26.4	28.3
50,000 – 99,999	4	270	.0	.0	51	3,489	21.6	20.9
100,000 and over	2	250			62	13,890	24.2	30.8
LOAN-TO-VALUE RATIO [e]								
0 – 39%	242	1,170	9.5	17.1	71	4,013	7.0	2.3
40 – 79 [f]	2,258	12,241	18.6	20.6	286	18,349	24.5	33.5

[a] Based on a 1 percent sample of all loans made after January 1, 1920. In most cases, excludes a few loans for which necessary data were not available.

[b] Foreclosure rates equal the number and original amount of loans made in a given year and eventually foreclosed as a percent of the number and original amount of all loans made in that year.

[c] Includes one loan on an income-producing property that was made at 4 percent.

[d] Includes six loans on one- to four-family dwellings and three loans on income-producing properties that were made with contract lengths of twenty years and over.

[e] Excludes 412 loans made on one- to four-family dwellings for which loan-to-value ratio was unknown.

[f] Includes three loans on one- to four-family dwellings and four loans on income-producing properties which had loan-to-value ratios of 80 percent and over.

in which the original loans were made, the period during which the properties were acquired or sold, or the characteristics of the loans or properties involved, losses averaged slightly over 10 percent of the original amount loaned and of the lender's investment at foreclos-

ure.[4] Some differences are apparent, however, in the experience with disposal of one- to four-family dwellings resulting from loans made, and properties sold, in different periods. Table 27 shows that the losses sustained on properties acquired from mortgage loans made on one- to four-family dwellings in the 1925-29 period were twice as high, proportionately, as the losses sustained on properties acquired from foreclosure of loans made in 1920-24, but somewhat lower than the losses experienced on properties acquired under loans made in 1930-34.

Table 27 also shows that losses on loans made in 1925-34 on one- to four-family dwellings were heaviest on those property transactions in which the disposal of the property occurred in the period 1940-46 and least on those property transactions completed in the period 1930-34. This heavier loss in the 1940-46 period probably reflects the fact that the most attractive dwellings found a ready market in 1930-34; those not sold until 1940-46 were probably the least readily marketable. While it is obvious that a property disposable in 1930-34 or in 1935-39 at a profit or at a small loss could be sold more favorably in the period 1940-47, this does not mean that the companies that disposed of foreclosed real estate relatively late had a better record than those that sold properties in the early or middle thirties. The companies whose owned real estate account continued high in the forties appear to have been holding properties that were disposed of at relatively large losses even under more favorable market conditions. This discussion of losses by period of loan origination has necessarily been confined to loans on one- to four-family dwellings, since experience on all other properties is available for only eighty-four loans, and sixty-two of these were originated in 1925-29.

Again, referring solely to a single characteristic of the transaction under consideration, it may be asked how losses have compared on

[4] For properties acquired from mortgage loans made in the 1920-46 period, the lender's investment at time of foreclosure was about 8 percent greater than the original amount of the loans that went to foreclosure (Appendix Table B8). This circumstance can be caused by the advance of additional funds subsequent to a loan's original making, by the addition to the loan balance of unpaid interest, taxes, and insurance, and by the capitalization of foreclosure costs. These conditions separately, or in concert, can offset payments on principal. On fully amortized loans made in 1920-24 and 1925-29 on one- to four-family dwellings, the lender's investment at foreclosure was less than the original amount, indicating that amortization payments on those loans had been large enough at least to offset foreclosure costs. On nonamortized loans made in 1920-24, the lender's investment was also less than the original amount loaned, but in the 1925-29 and 1930-34 periods, the lender's investment exceeded the original loan amount.

TABLE 27 — GAIN OR LOSS ON DISPOSAL OF FORECLOSED PROPERTIES ON A SAMPLE OF URBAN MORTGAGE LOANS MADE BY 24 LEADING LIFE INSURANCE COMPANIES, CLASSIFIED BY TYPE OF PROPERTY AND PERIOD OF LOAN ORIGINATION AND OF PROPERTY DISPOSAL, 1920-46 [a]

Period of Loan Origination	*Period of Property Disposal*	*Gain or Loss on 1-4 Family Dwellings*		*Gain or Loss on All Other Property*	
		As % of Original Loan Amount	As % of Lender's Investment	As % of Original Loan Amount	As % of Lender's Investment
1920-24	1930-34	−11.6%	−11.3%	..	..
	1935-39	−4.8	−6.3	−22.5%	−15.9%
	1940-46	−2.1	−2.0		
	1930-46	*−4.2*	*−4.7*	*−22.5*	*−15.9*
1925-29	1925-29	[b]	[b]	..	..
	1930-34	−3.8	−3.7	15.8	16.1
	1935-39	−7.0	−6.6		
	1940-46	−11.9	−10.9	−23.6	−22.1
	1925-46	*−9.2*	*−8.6*	*−14.0*	*−13.2*
1930-34	1930-34	1.9	1.8	..	..
	1935-39	−10.7	−9.4	12.7	10.6
	1940-46	−15.0	−13.4		
	1930-46 [c]	*−12.0*	*−10.6*	*12.7*	*10.6*
1935-39	*1935-46*	*−8.3* [d]	*−8.1* [d]	[b]	[b]
1940-46	*1940-46*	*−5.5*	*−5.4*	[b]	[b]
	Total	−9.4%	−8.8%	−13.4%	−12.4%

[a] Based on a 1 percent sample of all loans made after January 1, 1920. Excludes eighteen foreclosed loans still on the books. For number of foreclosed loans, original loan amount and amount of lender's investment, see Appendix Table B8.

[b] Percent of gain or loss not shown since the sample consists of two loans or less.

[c] Includes one loan for which period of property disposal was not available.

[d] Includes two properties sold in 1935-39; the other seventeen were sold in 1940-46.

different types of properties. Table 28 shows that single family dwellings and apartments (i.e., residential structures accommodating five or more families) had a loss experience about equal to the average for all types combined, that one- to four-family dwellings with some business use and income-producing properties other than apartments had a somewhat higher-than-average loss rate, and, finally, that the two- to four-family dwelling group had the most favorable loss record

TABLE 28 — GAIN OR LOSS ON DISPOSAL OF FORECLOSED PROPERTIES ON A SAMPLE OF URBAN MORTGAGE LOANS MADE BY 24 LEADING LIFE INSURANCE COMPANIES, CLASSIFIED BY TYPE OF PROPERTY, 1920-46 [a]

(dollar figures in thousands)

Type of Property	*Loans Foreclosed and Sold*			*Gain or Loss*	
	No.	Original Loan Amount	Lender's Investment at Foreclosure	As % of Original Loan Amount	As % of Lender's Investment
1-4 Family Dwellings	629	$3,835	$4,108	−9.4%	−8.8%
1 family [b]	514	2,831	3,051	−11.3	−10.5
2-4 family [b]	104	859	910	−2.2	−2.1
1-4 family with business use	11	145	147	−16.1	−15.8
All Other Property	84	6,490	7,034	−13.4	−12.4
Apartments	53	4,111	4,515	−11.5	−10.5
Other income property including stores	31	2,379	2,519	−16.7	−15.8
Total	713	$10,325	$11,142	−11.9%	−11.1%

[a] Based on a 1 percent sample of all loans made after January 1, 1920. Excludes eighteen foreclosed loans still on the books.

[b] With no business use.

of all types. This last result is surprising in view of the fact that the two- to four-family structures for the 1920-46 period had a higher foreclosure rate in terms of amount than any other broad property type. It suggests that the conditions under which such properties can be operated and sold subsequent to foreclosure cannot be inferred from their foreclosure experience.

Partially to eliminate the influence of economic conditions, prevailing when the loans were made, on the losses sustained when foreclosed properties were disposed of, all loans made before 1930 were set apart for special study. Also, loans were classified into two broad groups according to the type of property involved — one- to four-family structures and all others combined.

Data are presented in Table 29 so as to permit examination of the relation of geographic location of property to loss experience.

TABLE 29 — GAIN OR LOSS ON DISPOSAL OF FORECLOSED PROPERTIES ON A SAMPLE OF URBAN MORTGAGE LOANS MADE BY 24 LEADING LIFE INSURANCE COMPANIES, CLASSIFIED BY TYPE OF PROPERTY AND GEOGRAPHIC LOCATION, 1920-29 [a]

(dollar figures in thousands)

GEOGRAPHIC LOCATION	1-4 FAMILY DWELLINGS			ALL OTHER PROPERTY		
	Loans Foreclosed and Sold		*Gain or Loss as % of Original Loan Amt.*	*Loans Foreclosed and Sold*		*Gain or Loss as % of Original Loan Amt.*
	No.	Original Loan Amount		No.	Original Loan Amount	
CENSUS REGION [b]						
New England	15	$86	−13.3%			
Middle Atlantic	148	936	−16.3	24	$3,560	−25.4%
East North Central	135	812	3.7	18	743	−21.2
West North Central	21	125	−15.9	9	298	13.2
South Atlantic	37	233	−18.6			
East South Central	43	208	−8.2	10	793	17.8
West South Central	14	85	−13.7			
Mountain						
Pacific	50	261	−3.3	11	789	−2.4
SIZE OF CITY [c]						
1,000,000 and over	127	730	1.9	17	2,826	−25.0
500,000 – 999,999	21	157	−7.8	8	954	−4.8
250,000 – 499,999	105	620	−4.9	20	772	5.2
100,000 – 249,999	63	360	−18.0	12	726	−24.3
25,000 – 99,999	75	428	−18.8	9	711	2.0
10,000 – 24,999	34	201	−20.6	6	194	−13.8
Under 10,000	36	229	−6.7	..	..	..
SIZE OF DISTRICT [c]						
Metropolitan	*424*	*2,538*	*−7.8*	*67*	*5,983*	*−15.1*
1,000,000 and over	215	1,378	−5.9	35	4,091	−22.1
250,000 – 999,999	141	828	−5.8	26	1,252	−.5
100,000 – 249,999	54	270	−19.8			
50,000 – 99,999	14	62	−28.7	6	640	1.1
Non-Metropolitan	*40*	*220*	*−17.9*	*6*	*209*	*1.6*
Total	464	$2,758	−8.7%	73	$6,192	−14.6%

[a] Based on a 1 percent sample of all loans made after January 1, 1920. Excludes thirteen foreclosed loans still on the books and a few loans for which geographic location was not known.

[b] For a listing of states included in each of the census regions, see footnote 3 of Chapter 4.

[c] Loans are classified according to the 1940 population of the cities in which the properties securing them are located.

Referring first to one- to four-family properties, no systematic relation can be found between loss experience and the section of the country in which the property is located, but it does appear that there was an appreciably better experience on properties located in the largest metropolitan districts, possibly owing to the more highly organized real estate market in these centers. The experience with properties other than those of the one- to four-family type has been somewhat different. In these cases structures in the large metropolitan areas and the highly industrialized regions seem to have had the least favorable record, probably influenced by heavy losses on a few large structures.

The contract terms of the loans which resulted in property acquisitions would not be expected to influence the eventual selling prices of these properties or the net result of their operation while in the owned real estate account. But these terms would be expected to influence gain or loss in so far as they might affect the amount of the loan still outstanding at the time of foreclosure. Data bearing on this question are presented in Table 30. In general it might be assumed that loans made on relatively liberal terms would have the highest loss ratios relative to original loan amounts, on the theory that the amount of the loan outstanding at the time of foreclosure would be larger, other things equal, for these loans than for loans made on less liberal contract terms. However, there is no systematic relation between property loss experience and the interest rate or the contract length for loans on one- to four-family properties. Amortized loans made in 1920-24 had a better loss experience than nonamortized loans made in this same period, but the differential is not apparent on loans made in 1925-29. It appears that the losses have been highest on the largest loans made on one- to four-family properties and on those originally made with the lowest loan-to-value ratios. The high losses on loans with loan-to-value ratios of less than 40 percent appear to be due to the fact that many such loans were made on high-priced single family dwellings ranging in appraised value from $20,000 to $40,000. While held as foreclosed real estate, these properties frequently failed to provide sufficient income to meet taxes, insurance, and other expenses, and frequently the properties were sold for less than the original loan investment.

The record is conflicting for properties outside of the one- to four-family class, but those acquired as the outcome of loans made

TABLE 30 — GAIN OR LOSS ON DISPOSAL OF FORECLOSED PROPERTIES ON A SAMPLE OF URBAN MORTGAGE LOANS MADE BY 24 LEADING LIFE INSURANCE COMPANIES, CLASSIFIED BY TYPE OF PROPERTY AND LOAN CONTRACT TERMS, 1920-29 [a]

(dollar figures in thousands)

CONTRACT TERMS	1-4 FAMILY DWELLINGS			ALL OTHER PROPERTY		
	Loans Foreclosed and Sold		*Gain or Loss as % of Original Loan Amt.*	*Loans Foreclosed and Sold*		*Gain or Loss as % of Original Loan Amt.*
	No.	Original Loan Amount		No.	Original Loan Amount	
TYPE OF LOAN						
Fully amortized	47	$208	−11.2%	56	$4,486	−17.4%
Partially amortized	286	1,762	−6.4			
Nonamortized	131	788	−13.3	17	1,706	−7.1
CONTRACT INTEREST RATE						
5.0 – 5.9%	75	457	−2.9	31	3,543	−14.8
6.0	364	2,157	−9.9	42	2,649	−14.3
6.1 – 6.9	15	76	−13.8			
7.0 and over	10	68	−2.7			
CONTRACT LENGTH						
0 – 4 years	120	696	−10.7	8	876	−12.7
5 – 9	243	1,509	−7.2	42	3,712	−19.7
10 – 14	78	439	−9.9	23	1,604	−3.7
15 – 19 [b]	23	114	−11.2			
ORIGINAL LOAN AMOUNT						
Less than $5,000	221	779	−6.7	8	59	−28.4
5,000 – 9,999	192	1,310	−5.5			
10,000 – 19,999	51	669	−17.3	8	120	−31.0
20,000 – 49,999				31	998	−10.7
50,000 – 99,999	..	..	..	11	730	−11.9
100,000 and over	..	..	..	15	4,285	−15.3
LOAN-TO-VALUE RATIO [c]						
0 – 39%	22	184	−41.5	73	6,192	−14.6
40 – 79	413	2,452	−6.3			

[a] Based on a 1 percent sample of all loans made after January 1, 1920. Excludes thirteen foreclosed loans still on the books.

[b] Includes one loan made on one- to four-family dwellings for contract length of twenty years or over.

[c] Excludes twenty-nine loans made on one- to four-family dwellings for which loan-to-value ratio was unknown.

on relatively short terms and in relatively small amounts appear to have had a somewhat worse-than-average loss record at the final sale.

Expected Yields, Realized Yields, and Loss Rates

A comparison of the gross yields that were expected on specified groups of loans with the yields that were actually realized will conclude this description of mortgage loan experience. Realized yields will differ from expected yields to the extent that the original contract rates on some of the loans were modified (generally by reduction) and that some loans were foreclosed and gave rise to an eventual profit or loss. The difference between the two yields, which is negative for all larger loan groups, is called the "loss rate" and is as close an approximation as could be made of the rate at which reserves should have been accumulated if the full amount of losses were to be absorbed. The principal value of this analysis is the light it throws on the question of what constitutes an adequate provision for loss reserves. Beyond this, however, realized yields serve to identify those types or groups of loans on which gross returns (after losses) have been highest.

Expected yields for each of the different groups of mortgage loans were computed by taking averages of the original contract interest rates of all loans in each group, weighted by their original amounts. Some loans have the same interest rate at extinguishment as at origination; in such cases the expected and realized yields are equivalent. Realized yields deviate from expected yields on two classes of loans, namely, paid-out loans on which rates were modified and 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.[5] 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 the original contract rate of interest times the average amount of the outstanding loan balance (an average of the original amount of the loan and the unpaid principal at the time the loan is

5 This method of yield calculation understates the actual realized yield but not by a very considerable amount, since only about 13 percent of all extinguished loans were in the group of those not foreclosed but modified as to rate before final repayment.

transferred to real estate) times the number of years the loan was outstanding plus (or minus) the amount of the gain (or loss) sustained on the operation and sale of the real estate acquired through foreclosure. This total income was then related to an estimate of the amount of the lender's investment in the joint loan and real estate transaction, defined as the average amount of the outstanding loan balance times the number of years the loan was outstanding plus the amount of the lender's investment in the property at foreclosure (e.g., unpaid principal plus capitalized costs) times the number of years the real estate was held before disposal.[6]

One other aspect of the analysis of yields must be clarified before reviewing the factual findings. In yield analysis, as in the study of foreclosure rates, much depends on the economic conditions prevailing when loans were originated and when the properties acquired as a result of foreclosure were finally disposed of. Consequently, yields are studied for loans grouped according to the period in which they were made and the period in which they were extinguished, the periods employed being the same as those used in the reconstruction of mortgage lending history.

In the tables that follow data are presented on expected yields, realized yields, and loss rates for mortgages grouped according to the different characteristics of their contracts and of the properties that secure them and also by the periods in which the mortgages were originated and extinguished. The expected yield figures merely reflect contract interest rates and since these were treated in Chapter 4, although in somewhat different form, the following discussion is restricted to salient conclusions with regard to realized yields and loss rates.

First, if we take all loans made and extinguished in the period 1920-46, without regard to when they were made or extinguished within that period and without regard to property type, the over-all loss rate is 0.75 percent. Loans secured by single family dwellings, and by income-producing properties other than apartments and

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

$$\text{Realized Yield} = \frac{H_5\left(\frac{H_2 + K_4}{2}\right)(J_5 - H_1) \pm K_{10}}{\left(\frac{H_2 + K_4}{2}\right)(J_5 - H_1) + K_9\,(K_1 - J_5)}$$

stores, had the lowest loss rates, 0.51 and 0.17 percent, respectively (Table 31). Loss rates on two- to four-family structures with no business use, apartments, and stores were considerably higher than the average for all property types combined (over 1.00 percent).

TABLE 31 — EXPECTED YIELDS, REALIZED YIELDS, AND LOSS RATES ON A SAMPLE OF URBAN MORTGAGE LOANS MADE BY 24 LEADING LIFE INSURANCE COMPANIES, CLASSIFIED BY TYPE OF PROPERTY, 1920-46 [a]

Type of Property	*Expected Yield*	*Realized Yield*	*Loss Rate*
1-4 Family Dwellings	5.59%	5.01%	.58%
1 family [b]	5.56	5.05	.51
2-4 family [b]	5.77	4.73	1.04
1-4 family with business use	5.74	4.89	.85
All Other Property	5.31	4.41	.90
Apartments	5.43	4.16	1.27
Stores	5.32	4.30	1.02
Other income property	5.10	4.93	.17
Total	5.44%	4.69%	.75%

[a] Based on a 1 percent sample of all loans made after January 1, 1920; excludes loans and properties still on the books in 1946. See Appendix Table B9 for full data.
[b] With no business use.

In general, the realized yields on one- to four-family dwellings were higher than on income-producing properties. However, the more favorable return on the one- to four-family dwellings is partially offset by the fact that the costs per $100 of investment are greater for administering small loans on dwellings than for servicing and acquiring large loans on income-producing properties. Contract rates of interest were quite uniform throughout the whole group of loans on one- to four-family dwellings, but owing to their low loss rate loans secured by single family dwellings had the highest realized yield (5.05 percent); among the other loans those secured by income-producing properties other than apartments and stores had the next highest realized yield (4.93 percent). The experience on income-producing properties other than apartments and stores is especially notable since the relatively low costs of acquiring and servicing these loans and their relatively favorable loss experience suggest a higher

final yield than on loans secured by any other of the broad property types studied.

Second, loss experience has varied considerably on mortgages made and extinguished under different economic conditions. Except for loans made after 1934, loss rates on both broad property types were highest on the loans terminated in the years 1940-46 and next highest on those terminated in 1935-39 (Table 32). This is be-

TABLE 32 — EXPECTED YIELDS, REALIZED YIELDS, AND LOSS RATES ON A SAMPLE OF URBAN MORTGAGE LOANS MADE BY 24 LEADING LIFE INSURANCE COMPANIES, CLASSIFIED BY TYPE OF PROPERTY AND PERIOD OF ORIGINATION AND EXTINGUISHMENT, 1920-46 [a]

Period Made	*Period Exting.*	*1-4 Family Dwellings*			*All Other Property*		
		Exp. Yield	Real. Yield	Loss Rate	Exp. Yield	Real. Yield	Loss Rate
1920-24	1920-24	6.19%	6.19%	.00%	5.70%	5.70%	.00%
	1925-29	5.96	5.94	.02			
	1930-34	5.99	5.92	.07	5.93	5.93	.00
	1935-39	5.99	5.35	.64	5.71	5.75	+.04
	1940-46	5.91	4.96	.95	6.03	3.87	2.16
	1920-46	*5.99*	*5.81*	*.18*	*5.89*	*5.58*	*.31*
1925-29	1925-29	5.88	5.89	+.01	5.22	5.22	.00
	1930-34	5.88	5.76	.12	5.33	5.33	.00
	1935-39	5.91	5.01	.90	5.44	5.41	.03
	1940-46	5.89	4.02	1.87	5.64	2.53	3.11
	1925-46	*5.89*	*5.03*	*.86*	*5.51*	*3.81*	*1.70*
1930-34	1930-34	5.95	5.88	.07			
	1935-39	6.03	4.91	1.12	5.85	5.65	.20
	1940-46	5.95	4.28	1.67	5.34	4.75	.59
	1930-46	*5.98*	*4.79*	*1.19*	*5.51*	*5.06*	*.45*
1935-39	1935-39	5.30	4.85	.45	5.08	5.02	.06
	1940-46	5.20	4.98	.22	4.74	4.63	.11
	1935-46	*5.21*	*4.97*	*.24*	*4.78*	*4.67*	*.11*
1940-46	*1940-46*	*4.60*	*4.57*	*.03*	*4.33*	*4.31*	*.02*
	Total [b]	5.59%	5.01%	.58%	5.31%	4.41%	.90%

[a] Based on a 1 percent sample of all loans made after January 1, 1920; excludes loans and properties still on the books in 1946. See Appendix Table B10 for full data.

[b] Includes fourteen loans made on one- to four-family dwellings and two loans made on income-producing properties for which period made was not available.

cause a high proportion of the loans extinguished during these two periods were terminated through the sale of foreclosed properties. On the other hand, losses on loans made and extinguished between 1920 and 1934 were negligible, and losses on loans made and extinguished between 1935 and 1946 were relatively low.

Table 32 also shows that for loans made in the period 1920-24, regardless of when extinguished, the loss rate was only 0.18 percent on loans made on one- to four-family dwellings and 0.31 percent on other properties, whereas loss rates of 0.86 and 1.70 percent, respectively, were sustained on loans made in 1925-29. This contrast may be attributed to the fact that the 1920-24 loans were originated long enough before the severe decline in business activity to have had ample opportunity for repayment; those made in 1925-29 were caught in a wave of mortgage distress before substantial repayment could be effected. The outstanding fact shown by Table 32, however, is that loss rates on mortgage investments have been highly variable in different economic periods, and that any extension into the future of losses characteristic of a given period may greatly underestimate or overestimate long-term experience.

It is interesting to note also that the contract interest rate on loans made in 1925-29 was somewhat lower than on loans made in the preceding period (1920-24). This tendency for interest rates to decline in the years 1925-29 and for loan portfolios to expand rapidly reflects the optimism characteristic of both parties to the mortgage contract at precisely the time when increased caution was warranted.

Third, nonamortized loans and loans made on a basis of partial repayment before maturity had a considerably less favorable loss rate than loans made on a fully amortized basis (Table 33). This superiority of the amortized over the nonamortized loan is not so marked for the loans made in the period 1925-29 as for those made in earlier years; amortized loans made in 1930-34 showed no advantage over nonamortized loans. As already mentioned in treating foreclosure rates by loan type, these results suggest that the amortization feature of loan contracts is less effective in limiting losses on loans made at or near the peak of a mortgage cycle than on those made some years before general mortgage distress becomes widespread. Loans insured by the Federal Housing Administration have not been made for a sufficient period of time to draw conclusions concerning their relative merit in times of economic distress, but since their

TABLE 33 — EXPECTED YIELDS, REALIZED YIELDS, AND LOSS RATES ON A SAMPLE OF URBAN MORTGAGE LOANS MADE BY 24 LEADING LIFE INSURANCE COMPANIES, CLASSIFIED BY TYPE OF PROPERTY, PERIOD MADE, AND TYPE OF LOAN, 1920-46 [a]

Period Made and Type of Loan	*1-4 Family Dwellings*			*All Other Property*		
	Exp. Yield	Real. Yield	Loss Rate	Exp. Yield	Real. Yield	Loss Rate
1920-24						
Fully amortized	6.04%	6.01%	.03%	5.92%	5.64%	.28%
Partially amortized	5.97	5.81	.16			
Nonamortized	5.96	5.55	.41	5.79	5.40	.39
1925-29						
Fully amortized	6.01	5.44	.57	5.80	5.78	.02
Partially amortized	5.88	5.05	.83	5.59	3.54	2.05
Nonamortized	5.86	4.68	1.18	5.30	4.20	1.10
1930-34						
Fully amortized	5.97	4.89	1.08	5.80	5.06	.74
Partially amortized	6.02	5.08	.94			
Nonamortized	5.87	4.07	1.80	5.19	5.06	.13
1935-39						
Fully amortized	5.25	5.15	.10	4.80	4.73	.07
Partially amortized	5.38	4.76	.62	4.76	4.67	.09
Nonamortized	5.37	4.86	.51	4.85	5.33	+.48
FHA	4.97	4.86	.11	[b]	[b]	[b]
1940-46						
Fully amortized	4.69	4.62	.07	4.33	4.34	+.01
Partially amortized	4.74	4.73	.01	4.33	4.18	.15
Nonamortized	5.01	5.01	.00	[b]	[b]	[b]
FHA	4.52	4.50	.02	[b]	[b]	[b]
1920-46						
Fully amortized	5.51	5.15	.36	4.58	4.56	.02
Partially amortized	5.86	5.17	.69	5.49	4.29	1.20
Nonamortized	5.84	4.76	1.08	5.37	4.61	.76
FHA	4.64	4.60	.04	[b]	[b]	[b]

[a] Based on a 1 percent sample of all loans made after January 1, 1920; excludes loans and properties still on the books in 1946. See Appendix Table B11 for full data.

[b] Yields and loss rates not shown since sample includes less than five loans.

terms are like those of conventional, fully amortized loans, it is not surprising that they had a loss rate similar to that for loans made on one- to four-family dwellings in 1935-39 and extinguished by 1946.

Fourth, such evidence as there is of differences in loss rates according to the geographical location of the mortgaged property is shown in Table 34, which presents yields and loss rates for two broad groups

TABLE 34 — EXPECTED YIELDS, REALIZED YIELDS, AND LOSS RATES ON A SAMPLE OF URBAN MORTGAGE LOANS MADE BY 24 LEADING LIFE INSURANCE COMPANIES, CLASSIFIED BY TYPE OF PROPERTY AND GEOGRAPHIC LOCATION, 1920-46 [a]

Geographic Location	*1-4 Family Dwellings*			*All Other Property*		
	Exp. Yield	Real. Yield	Loss Rate	Exp. Yield	Real. Yield	Loss Rate
CENSUS REGION [b]						
New England	5.31%	4.69%	.62%	5.35%	4.99%	.36%
Middle Atlantic	5.59	4.53	1.06	5.24	3.62	1.62
East North Central	5.57	5.08	.49	5.36	4.68	.68
West North Central	5.60	5.26	.34	5.65	5.29	.36
South Atlantic	5.56	5.07	.49	5.22	5.11	.11
East South Central	5.67	5.03	.64	5.44	4.40	1.04
West South Central	5.41	5.10	.31	5.17	5.07	.10
Mountain	5.76	5.50	.26	4.92	4.81	.11
Pacific	5.73	5.34	.39	5.48	4.55	.93
SIZE OF CITY [c]						
1,000,000 and over	5.68	4.99	.69	5.39	4.02	1.37
500,000 – 999,999	5.53	5.08	.45	5.00	4.38	.62
250,000 – 499,999	5.65	5.10	.55	5.47	5.10	.37
100,000 – 249,999	5.67	5.03	.64	5.23	4.35	.88
25,000 – 99,999	5.62	5.04	.58	5.29	4.51	.78
10,000 – 24,999	5.46	4.87	.59	5.58	4.55	1.03
Under 10,000	5.33	4.90	.43	5.47	5.10	.37
SIZE OF DISTRICT [c]						
Metropolitan	*5.60*	*5.01*	*.59*	*5.31*	*4.39*	*.92*
1,000,000 and over	5.59	4.95	.64	5.29	4.02	1.27
250,000 – 999,999	5.57	5.06	.51	5.44	5.09	.35
100,000 – 249,999	5.68	5.06	.62	5.13	4.49	.64
50,000 – 99,999	5.66	5.02	.64	5.20	6.00	+.80
Non-Metropolitan	*5.52*	*5.01*	*.51*	*5.30*	*4.62*	*.68*

[a] Based on a 1 percent sample of all loans made after January 1, 1920; excludes loans and properties still on the books in 1946. See Appendix Table B12 for full data.

[b] For a listing of states included in each of the census regions, see footnote 3 of Chapter 4.

[c] Loans are classified according to the 1940 population of the cities in which the properties securing them are located.

of properties. Loans on both one- to four-family properties and on other properties in the Middle Atlantic states and in cities with the largest population had the highest loss rates. The East South Central region also appeared to have a considerably higher-than-average loss rate on both broad types of property. In contrast, the West South Central and Mountain regions had low loss rates. Since the interest rates on loans made in the various sections of the country and in the different sized cities were fairly standard, particularly on one- to four-family dwellings, differences in realized yields depended primarily on differences in loss rates.

Finally, attention may be called to the relation between loss rates and realized yields and the salient terms of the mortgage loan contracts, namely, amount of loan, length of contract, and loan-to-value ratio. Table 35 suggests that on one- to four-family properties loss rates have been somewhat higher on the loans made in large amounts than on smaller loans similarly secured; there was no clear pattern of loss differentials on loans secured by other types of properties when classified according to loan size, possibly because this subgroup of the total loan sample consists of a comparatively small number of loans made on widely different types of income-producing properties.

TABLE 35 — EXPECTED YIELDS, REALIZED YIELDS, AND LOSS RATES ON A SAMPLE OF URBAN MORTGAGE LOANS MADE BY 24 LEADING LIFE INSURANCE COMPANIES, CLASSIFIED BY TYPE OF PROPERTY AND ORIGINAL LOAN AMOUNT, 1920-46 *

Original Loan Amount	*1-4 Family Dwellings*			*All Other Property*		
	Exp. Yield	Real. Yield	Loss Rate	Exp. Yield	Real. Yield	Loss Rate
Under $5,000	5.63%	5.26%	.37%	5.64%	4.59%	1.05%
5,000 – 9,999	5.56	4.94	.62	5.59	5.07	.52
10,000 – 19,999	5.59	4.67	.92	5.65	4.97	.68
20,000 – 49,999	5.70	4.02	1.68	5.56	4.64	.92
50,000 – 99,999	5.41	5.30	.11	5.49	4.86	.63
100,000 and over				5.17	4.17	1.00

* Based on a 1 percent sample of all loans made after January 1, 1920; excludes loans and properties still on the books in 1946. See Appendix Table B13 for full data.

The analysis of the effect of contract length and of loan-to-value ratio on loss rates is complicated by the fact that, with respect to both of these characteristics, loans made after 1934 differed markedly from those made previously. Differential loss experience is likely, there-

fore, to reflect mainly the different economic circumstances under which the loans were made. In order to avoid this complication only those loans made between 1920 and 1929 are included in Table 36. The loss rate on loans made on one- to four-family dwellings was greatest for loans with loan-to-value ratios under 40 percent and with contracts made either for less than five years or for fifteen years or more. On income-producing properties, loans made for a period of five to nine years and with a loan-to-value ratio of 40 percent and over had the worst loss rate experience.

TABLE 36 — EXPECTED YIELDS, REALIZED YIELDS, AND LOSS RATES ON A SAMPLE OF URBAN MORTGAGE LOANS MADE FROM 1920-29 AND EXTINGUISHED BY 1946 BY 24 LEADING LIFE INSURANCE COMPANIES, CLASSIFIED BY TYPE OF PROPERTY AND LOAN CONTRACT TERMS [a]

Contract Terms	*1-4 Family Dwellings*			*All Other Property*		
	Exp. Yield	Real. Yield	Loss Rate	Exp. Yield	Real. Yield	Loss Rate
LOAN-TO-VALUE RATIO						
0 – 39%	5.96%	5.09%	.87%	5.55%	5.24%	.31%
40 – 79 [b]	5.90	5.19	.71	5.63	4.07	1.56
CONTRACT LENGTH						
0 – 4 years	5.89	5.02	.87	5.30	4.76	.54
5 – 9	5.89	5.24	.65	5.75	3.95	1.80
10 – 14	5.99	5.48	.51	5.52	4.56	.96
15 – 19 [c]	5.97	4.74	1.23	5.72	5.16	.56
Total	5.92%	5.24%	.68%	5.61%	4.29%	1.32%

[a] Based on a 1 percent sample of all loans made after January 1, 1920; excludes loans and properties still on the books in 1946. See Appendix Table B14 for full data.

[b] Includes three loans on one- to four-family dwellings and four loans on income-producing properties which had loan-to-value ratios of 80 percent and over.

[c] Includes two loans on one- to four-family dwellings and one loan on an income-producing property which were made with contract lengths of twenty years and over.

LOSS RESERVES AND NET EXPECTED YIELDS

It is evident from these findings on losses sustained on different types of mortgage loan investments that some elaboration may be made of the analysis of expected net yield which appeared in the conclusion of Chapter 5. It was indicated there that an allowance for potential loss, as well as amounts necessary to cover the costs of loan acquisition and loan servicing, had to be deducted from gross expected yield in order

to obtain net expected yield. Only with a net yield figure in mind is it possible to compare the relative attractiveness of alternative investment opportunities.

It is clear from the above findings that loss rates have varied widely on different types of loans and that the risk factor of 0.25 percent used in the Chapter 5 example represents experience on a relatively high grade of mortgage risk. This was true even for a period such as 1920-46, in which the years of mortgage distress were preceded and followed by relatively long periods of negligible loss. It would have been necessary to accumulate loss reserves at a higher rate than 0.25 percent during 1920-46 for mortgages with less attractive yield experience. It is impossible, of course, to foretell what future experience will be, but the foregoing analysis indicates that the accumulation of loss reserves at or below a rate of 0.25 percent per annum on outstandings of conventional mortgages means that the lending agency is in fact assuming that experience over another cycle of mortgage foreclosure and property disposal will be more favorable by a considerable amount than experience over the last full cycle.