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CHAPTER 4

Financing Home Ownership

DATA on the extent to which credit is used in financing home ownership suggest that in the majority of cases a portion of the funds is borrowed, that this majority is increasing, and that the proportion of the total price borrowed is also increasing. The general impression obtained from observation of the market is that, although these proportions may vary from time to time, only a small minority of purchasers pay cash in full.

STATUS OF INDEBTEDNESS

In 1931, the Committee on Finance of the President's Conference on Home Building and Home Ownership canvassed a number of builders and real estate brokers on the West Coast on the subject of financing practices. At that time, builders indicated that 13 percent of their sales were made for all cash, and real estate brokers, 9 percent.[1] A later study, covering 1946 and 1947, stated that 16 percent of all home purchasers paid cash in full.[2] This impression is supported by census data on the status of indebtedness on owner-occupied homes (Table 8). In 1890, 27.7 percent of all owner-occupied homes were reported as mortgaged and, as of 1940, 45.3 percent.[3] The percentage has risen at each census date in every census region except two—the West North Central region which declined from 31.9 in 1890 to 27.1 in 1900, and the South Atlantic region which dropped from 23.2 in 1900 to 22.9 in 1910. The highest percentages have consistently been reported from the New England and Middle Atlantic states and, with one minor exception, the lowest percentages were in the East South Central and West South Central regions.

[1] John M. Gries and James Ford, editors, *Home Finance and Taxation,* President's Conference on Home Building and Home Ownership (1932) p. 55.

[2] Board of Governors of the Federal Reserve System, *Federal Reserve Bulletin,* Vol. 34, No. 6 (June 1948) p. 641.

[3] Data for 1940 relate to owner-occupied nonfarm dwelling units in one- to four-family structures without business use reporting on mortgage status.

TABLE 8 — PERCENTAGE OF OWNER-OCCUPIED NONFARM HOMES MORTGAGED, BY CENSUS REGION, AT CENSUS DATES, 1890-1940 [a]

Census Region [b]	*1890* [c]	*1900* [c]	*1910* [c]	*1920* [c]	*1940* [d]
New England	36.5%	42.6%	44.2%	51.7%	57.6%
Middle Atlantic	36.2	42.3	44.9	51.3	52.0
East North Central	29.3	33.5	34.0	41.6	47.3
West North Central	31.9	27.1	27.7	32.4	38.0
South Atlantic	12.2	23.2	22.9	29.3	39.1
East South Central	5.3	17.1	20.0	22.7	33.5
West South Central	4.3	13.7	19.3	26.0	33.5
Mountain	11.6	13.4	19.9	29.5	35.0
Pacific	23.0	23.2	33.3	38.9	48.8
All regions	27.7%	31.7%	33.1%	39.7%	45.3%

[a] Bureau of the Census, *Mortgages on Homes in the United States, 1920,* Monograph No. 2 (1923) Table 6, p. 41; and 16th Census: 1940, *Housing,* Vol. 4, Part 1, Table 14, p. 63.

[b] For the list of states included in each census region, see Table 2, footnote b.

[c] Includes homes of unknown tenure and encumbrance.

[d] Based on owner-occupied one- to four-family dwelling units reporting mortgage status.

There is also a marked decrease in the differences between the various regions.

PERCENTAGE OF DEBT TO VALUE

The degree of indebtedness as a percentage of the owners' estimates of value has also been rising during the last half century (Table 9). In 1890, it was reported as 39.8 percent for the United States as a whole, in 1920, as 42.6 percent, and in 1940, as 52.4 percent. These percentages have risen consistently in each of the geographical areas of the country (except one), though at different rates, with the result that regional differentials have tended to diminish. However, there are a number of states (all in the South Atlantic and South Central regions, except for Wyoming and Rhode Island) in which the average declined between 1890 and 1920. In 1940, indebtedness represented the smallest proportion of value (42.8 percent) in Vermont, and the highest (55.6 percent) in New York.

MAGNITUDE OF MORTGAGE DEBT

The aggregate of mortgage indebtedness has multiplied as the total number of owner-occupied homes, the percentage of owned homes mortgaged, and the proportions of indebtedness to value have risen.

TABLE 9 — PERCENTAGE OF DEBT TO VALUE OF OWNER-OCCUPIED NONFARM HOMES MORTGAGED, BY CENSUS REGION, AT CENSUS DATES, 1890, 1920, AND 1940 [a]

Census Region [b]	*1890* [c]	*1920* [c]	*1940* [d]
New England	43.7%	43.9%	51.4%
Middle Atlantic	42.8	44.8	54.5
East North Central	36.0	41.0	51.3
West North Central	35.6	40.4	51.0
South Atlantic	40.1	41.1	51.3
East South Central	37.0	42.0	51.8
West South Central	41.3	39.2	54.2
Mountain	34.2	41.8	50.2
Pacific	32.8	41.4	51.8
All regions	39.8%	42.6%	52.4%

[a] Bureau of the Census, *Mortgages on Homes in the United States, 1920,* Monograph No. 2 (1923) Table 7, p. 45; and 16th Census: 1940, *Housing,* Vol. 4, Part 1, Table 15, p. 64.

[b] For the list of states included in each census region, see Table 2, footnote b.

[c] Includes homes of unknown tenure and encumbrance.

[d] Data cover only one-family properties reporting both value of property and indebtedness (including first and junior mortgages).

This aggregate was estimated by the Bureau of the Census in 1890 [4] at $1,046,953,603, in 1920 [5] at $6,000,415,965, and in 1940 [6] at $10,999,880,400. Based on the Real Property Inventory, Wickens estimated mortgage debt on owner-occupied dwellings to have been $13,218,660,000 on January 1, 1934.[7]

Estimates of outstanding mortgage indebtedness are given in Table 10, but these fail to give debt separately for owner-occupied homes. It is probable, however, that the volume of indebtedness on owner-occupied homes has fluctuated in the same manner as indebtedness on all one- to four-family nonfarm homes. If this is the case, indebtedness on owner-occupied homes reached a peak in 1930, declined until 1933, rose slowly from 1936 through 1941, declined

[4] Bureau of the Census, *Mortgages on Homes in the United States, 1920,* Monograph No. 2 (1923) Table 7, p. 45.

[5] *Idem.*

[6] Bureau of the Census, 16th Census: 1940, *Housing,* Vol. 4, Part 1, Table 7, p. 4. This figure is low, since it includes only one- to four-family properties. In addition, "the census data (1940) for total mortgage debt represent the debt on properties reporting debt and value, without adjustment for properties for which debt and value are not reported, or for owner-occupied units for which mortgage status was not reported." According to the census, 4,474,361 one- to four-family owner-occupied properties reported both debt and value out of a total 4,804,778 mortgaged properties, representing 45.3 percent of owner-occupied dwelling units reporting mortgage status.

[7] David L. Wickens, *Residential Real Estate* (National Bureau of Economic Research, 1941) Table D-4, p. 205.

TABLE 10 — ESTIMATED VOLUME OF MORTGAGE LOANS OUTSTANDING ON 1- TO 4-FAMILY NONFARM HOMES, BY TYPE OF LENDER, 1925-49 [a]

(in millions)

End of Year	*Savings & Loan Assocs.*	*Life Insurance Cos.*	*Mutual Savings Banks*	*Commercial Banks*	*HOLC*	*Individuals & Others* [b]	*Total*
1925	$4,204	$837	$1,547	$1,154	..	$5,000	$12,742
1926	4,810	1,062	1,713	1,563	..	5,500	14,648
1927	5,488	1,254	1,922	1,714	..	6,000	16,378
1928	6,060	1,445	2,139	1,895	..	6,600	18,139
1929	6,507	1,626	2,286	1,962	..	7,100	19,481
1930	6,402	1,732	2,341	1,940	..	7,200	19,615
1931	5,890	1,775	2,436	1,812	..	7,100	19,013
1932	5,148	1,724	2,446	1,654	..	6,900	17,872
1933	4,437	1,599	2,354	1,521	$132	6,700	16,743
1934	3,710	1,379	2,190	1,200	2,379	6,100	16,958
1935	3,293	1,281	2,089	1,281	2,897	6,000	16,841
1936	3,237	1,245	2,082	1,363	2,763	6,000	16,690
1937	3,420	1,246	2,111	1,472	2,398	6,180	16,827
1938	3,555	1,320	2,119	1,580	2,169	6,330	17,073
1939	3,758	1,490	2,128	1,754	2,038	6,440	17,608
1940	4,084	1,758	2,162	1,930	1,956	6,510	18,400
1941	4,552	1,976	2,189	2,316	1,777	6,590	19,400
1942	4,556	2,255	2,128	2,363	1,567	6,350	19,219
1943	4,584	2,410	2,033	2,316	1,338	6,100	18,781
1944	4,799	2,458	1,937	2,293	1,091	6,200	18,778
1945	5,376	2,258	1,894	2,428	852	6,400	19,208
1946	7,140	2,570	2,033	3,690	636	7,500	23,569
1947	8,856	3,459	2,237	4,982	486	8,550	28,570
1948	10,305	4,925	2,742	5,700	369	9,410	33,451
1949 [c]	11,600	5,900	3,190	6,100	231	10,160	37,181

[a] Federal Savings and Loan Insurance Corporation, Operating Analysis Division, *Estimated Home Mortgage Debt and Lending Activity, 1949* (May 3, 1950).

[b] Includes fiduciaries, trust departments of commercial banks, real estate and bond companies, title and mortgage companies, philanthropic and educational institutions, fraternal organizations, construction companies, RFC Mortgage Company, and the like.

[c] Preliminary data.

through 1944, and then increased sharply. By 1949, the volume of loans outstanding was about 90 percent greater than in the previous peak year of 1930.

SOURCES OF MORTGAGE FUNDS

According to Federal Home Loan Bank Board estimates, savings and loan associations (known in various sections of the country as savings and loan associations, building and loan associations, loan and build-

ing associations, cooperative banks, and homestead associations) have provided more mortgage funds for one- to four-family home financing than any other single type of institution (Table 11). From 1925 through 1949 the total amount of loans extended has been estimated at $110.0 billion, of which savings and loan associations made an estimated $39.4 billion, or 35.9 percent. The second largest source was "individuals and others," including foundations, endowments, and the like, but consisting mainly of individuals, from whom total loans of $29.5 billion, or 26.8 percent of the total, were received. Commercial and mutual savings banks were the next largest source, extending an estimated $27.7 billion, or 25.2 percent of the total, during this period. Life insurance companies provided $9.6 billion, or 8.7 percent of the total.

In the main, then, the funds borrowed to finance home ownership come from institutions handling the relatively small savings of a large number of individuals, while the equity funds are supplied mainly from the purchaser's own resources. There are limitations, however, upon the amount which can be borrowed—set by the value of the property mortgaged, the borrower's expected ability to repay, the lender's need for security against credit loss, and statutory limitations—and these limitations affect the market for homes.

Requirements for Down Payment (Loan-Value Ratio)

Ordinarily a borrower cannot obtain a loan which represents the full amount of the purchase price in any kind of transaction; the purchase of a home is no exception. A down payment is required as a manifestation of the good faith and serious intentions of the borrower and to provide a margin of safety, that is, of value of collateral over debt, for the lender.

The importance of this arrangement to an understanding of the market for homes in fee lies in the fact that, in general terms, credit multiplies the purchasing power of the down payment by a factor which is the reciprocal of the ratio of down payment to the total purchase price. If credit were extended in the full amount of the purchase price, purchasing power would be limited only by the amount which the prospective homeowner could borrow; where no credit is available, purchasing power is limited by the prospective

TABLE 11 — ESTIMATED VOLUME OF MORTGAGE LOANS MADE ON 1- TO 4-FAMILY NONFARM HOMES, BY TYPE OF LENDER, 1925-49 [a]

(in millions)

Year	*Savings & Loan Assocs.*	*Life Insurance Cos.*	*Mutual Savings Banks*	*Commercial Banks*	*HOLC*	*Individuals & Others* [b]	*Total*
1925	$1,620	$400	$450	$554	..	$1,120	$4,144
1926	1,824	465	475	720	..	1,280	4,764
1927	1,895	500	517	542	..	1,360	4,814
1928	1,932	525	544	592	..	1,250	4,843
1929	1,791	525	468	503	..	1,120	4,407
1930	1,262	400	352	414	..	720	3,148
1931	892	169	353	276	..	450	2,140
1932	543	54	254	203	..	300	1,354
1933	414	10	104	181	$132	200	1,041
1934	451	16	95	135	2,263	150	3,110
1935	564	77	118	393	583	443	2,178
1936	755	140	202	402	128	605	2,232
1937	897	232	196	422	27	723	2,497
1938	798	242	177	432	81	669	2,399
1939	986	274	157	537	151	740	2,845
1940	1,200	324	204	615	143	801	3,287
1941	1,379	371	243	869	63	1,028	3,953
1942	1,051	374	179	603	40	954	3,201
1943	1,184	272	160	544	54	1,038	3,252
1944	1,454	300	189	579	31	1,304	3,857
1945	1,913	209	267	777	4	1,551	4,721
1946	3,584	492	556	2,136	2	2,700	9,470
1947	3,811	906	658	2,436	2	2,844	10,657
1948	3,607	1,132	980	2,113	2	3,000	10,834
1949 [c]	3,636	1,200	990	1,880	2	3,112	10,820
Total	$39,443	$9,609	$8,888	$18,858	$3,708	$29,462	$109,968
% of Total	35.9%	8.7%	8.1%	17.1%	3.4%	26.8%	100.0%

[a] Federal Savings and Loan Insurance Corporation, Operating Analysis Division, *Estimated Home Mortgage Debt and Lending Activity, 1949* (May 3, 1950).

[b] For list of institutions included in this classification, see Table 10, footnote b.

[c] Preliminary data.

owner's own resources. If the down payment represents one-half of the purchase price and the other half can be borrowed, the purchasing power of the down payment is multiplied by two; if one-third, by three, etc.

In financing homes, the ratio of the mortgage amount to the purchase price is less frequently used as a criterion by which the mort-

gage amount is determined than the ratio of the mortgage amount to the appraised value of the home, referred to as the "loan-value ratio." Most lenders, however, attempt to limit their appraisals to the purchase price, or less, and their loan to a certain percentage of that appraisal. The effect of increasing the loan-value ratio—especially as it approaches 100 percent—upon the purchasing power of the down payment is not generally appreciated. Increasing the loan-value ratio from 50 to 75 percent, or from 60 to 80 percent, doubles the purchasing power of the down payment, as do increases from 80 to 90 percent or from 90 to 95 percent. Thus, increasing the loan-value ratio from 60 to 95 percent enlarges the purchasing power of the down payment eightfold. Successive increases in the loan-value ratio multiply the purchasing power of the down payment so greatly, in fact, that when the ratio goes beyond 80 or 90 percent the down payment requirement loses much of its effectiveness as a limitation upon the price which the purchaser can offer.

Limitations Imposed by Mortgage Terms

When the down payment is no longer a limitation on the amount of the loan, the amount which the borrower can reasonably be expected to repay determines its size. The prospective homeowner's ability to repay mortgage debt ordinarily depends upon his future income; and while it is impossible to predict this with certainty, some assumptions as to its amount and stability must be made. Most families find it possible to provide for a minimum outlay on housing notwithstanding income instability, and it is this minimum that must be calculated as necessary to meet debt service and the other outlays occasioned by ownership.

The rule of thumb is that expenditures for housing should not exceed 25 percent of income, but this rule is too general. The Federal Housing Administration estimates of "prospective monthly housing expenses" on existing single-family, owner-occupied homes and "prospective borrowers' income" in connection with mortgages insured in the years 1943 to 1947 inclusive produced ratios that varied according to the size of the borrower's annual income, decreasing from an average of over one-third for borrowers with annual in-

comes of less than $1,500 to about one-tenth for those with incomes of $10,000 and over (Table 12). Of course, there is considerable variation among individuals in each income group, depending on anticipated expenses, spending habits, and the certainty or uncertainty of income. Both borrower and lender run the risk of overestimating future income, or underestimating housing expenses. Debt service is usually the largest single item in housing expense and is therefore deserving of special study. Estimates of the ratio of debt service to income, as made by the FHA, are given in Table 13. In general, the ratio falls as income rises, declining from over 20 percent for borrowers with incomes under $1,500 to 14 percent for those with incomes of from $4,000 to $5,000 and to 8 percent for those with annual incomes of $10,000 and over.

Factors Determining Debt Service

The greatest opportunity for improvement in the design of the mortgage contract lies in adapting debt servicing requirements to the income expectations of the borrower. In view of the likelihood of income fluctuations, there would seem to be a higher probability of default where debt service is fixed than where it is flexible, yet the requirements continue to be relatively fixed. Efforts to introduce flexible schedules of debt service generally take the form of waivers of payments or moratoria during periods of borrower income contraction, and many mortgage contracts permit the borrower to anticipate required payments when his income enables him to do so. Satisfactory flexibility in both directions, however, has not been provided.

In practice, the most widely used plans of debt service payments are: (1) the level payment plan, (2) the plan for fixed payment on principal plus payment of interest, and (3) the payment of interest plus little or no payment on principal during the term of the mortgage. Each of these plans has merit in particular cases. The most commonly used is the first, which requires payments at periodic intervals (ordinarily each month) of amounts sufficient to repay the principal by maturity and interest on the amount outstanding. Since this is the plan usually thought of in discussions of changes in mortgage terms, it is used as the basis of the following analysis of the effects of such changes.

TABLE 12 — AVERAGE PROSPECTIVE MONTHLY HOUSING EXPENSE AS A PERCENTAGE OF BORROWERS' AVERAGE MONTHLY INCOME FOR FHA-INSURED MORTGAGES ON EXISTING SINGLE-FAMILY, OWNER-OCCUPIED HOMES, BY BORROWER'S ANNUAL INCOME, 1943-47 [a]

Borrower's Annual Income [b]	*1943*	*1944*	*1945* [c]	*1946*	*1947*
Under $1,500	39.3%	52.6%	33.4%	[d]	40.9%
1,500 – 1,999	29.5	30.9	29.6	31.9%	30.3
2,000 – 2,499	26.0	25.8	26.2	26.5	27.4
2,500 – 2,999	24.6	24.5	24.3	24.6	26.0
3,000 – 3,499	22.5	22.8	21.7	22.4	23.7
3,500 – 3,999	20.6	21.0	19.9	20.4	21.4
4,000 – 4,999	19.3	19.0	18.4	18.4	19.3
5,000 – 6,999	17.2	17.2	16.4	16.5	17.0
7,000 – 9,999	15.3	15.4	14.8	14.0	14.4
10,000 and over	11.0	10.7	10.1	10.7	10.5
All groups	20.8%	20.9%	19.2%	20.3%	20.4%

[a] Federal Housing Administration, *Annual Reports,* December 31, 1943, 1944, 1945, 1946, and 1947, pp. 34, 23, 24, 47, and 41, respectively.

Monthly housing expense includes total monthly mortgage payment for first year of mortgage; estimated monthly cost of maintenance; regular operating expense items such as water, gas, fuel, and the like; expense for other home where borrower is occupying another house or apartment as owner or tenant; and monthly payment on secondary loan if mortgagor is a veteran of World War II who is financing home-purchase with aid of an additional loan guaranteed by the Veterans' Administration. For list of items included in total monthly mortgage payment, see Table 13, footnote a.

[b] Based on the FHA estimate of the earning capacity of the mortgagor that is likely to prevail during approximately the first third of the mortgage term.

[c] Based on median monthly housing expense.

[d] Data not significant.

INFLUENCE OF AMOUNT OF DEBT, INTEREST RATE, AND TERM OF MORTGAGE ON DEBT SERVICE

On a level payment plan, debt service depends on: (1) the amount of the original debt, (2) the interest rate, and (3) the term of the mortgage. Other things equal, the burden of debt service increases or decreases *proportionately* with the amount of the original debt, and this is the only item with which debt service does vary proportionately. The relationship between debt service, the term of the mortgage, and the interest rate is more complicated. As the term of the mortgage, and thus the number of required payments, increases, the amount of each payment decreases; but since the interest cost of

TABLE 13 — AVERAGE MONTHLY MORTGAGE DEBT SERVICE AS A PERCENTAGE OF BORROWERS' AVERAGE MONTHLY INCOME FOR FHA-INSURED MORTGAGES ON EXISTING SINGLE-FAMILY, OWNER-OCCUPIED HOMES, BY BORROWER'S ANNUAL INCOME, 1943-47[a]

Borrower's Annual Income[b]	*1943*	*1944*	*1945*	*1946*	*1947*
Under $1,500	31.3%	35.7%	21.6%	[c]	26.4%
1,500 – 1,999	19.5	20.1	19.2	19.6%	19.9
2,000 – 2,499	17.6	17.4	17.6	17.9	18.3
2,500 – 2,999	17.1	16.7	16.6	16.7	17.7
3,000 – 3,499	15.8	15.7	15.3	15.9	16.5
3,500 – 3,999	14.6	14.7	14.3	14.5	15.2
4,000 – 4,999	13.8	13.7	13.5	13.0	14.0
5,000 – 6,999	12.5	12.6	12.8	12.1	12.5
7,000 – 9,999	11.0	11.5	11.3	10.5	10.9
10,000 and over	8.0	7.7	7.8	8.1	7.9
All groups	14.6%	14.5%	14.5%	14.3%	14.5%

[a] Federal Housing Administration, *Annual Reports,* December 31, 1943, 1944, 1945, 1946, and 1947, pp. 34, 23, 24, 47, and 41, respectively.

Monthly mortgage debt service, or monthly mortgage payment, includes monthly payment for the first year of mortgage to principal, interest, FHA insurance premium, hazard insurance, taxes, and special assessments, and ground rent and miscellaneous items, if any.

[b] For definition of borrower's income, see Table 12, footnote b.

[c] Data not significant.

the loan increases with its term, the decrease in the required repayment is less than proportionate to the increase in the length of the loan contract. Consequently, the effect of additional extensions of term in moderating the debt service burden diminishes as the proportion of amortization to total debt service decreases.

On a short-term mortgage, this proportion is large. Even on a ten-year 5 percent mortgage, for example, the payment to amortization of principal constitutes 60.7 percent of the initial payment; on a fifteen-year mortgage, 47.3 percent of the initial payment is required for amortization, but this falls to 13.5 percent on a forty-year loan.[8] At a 5 percent interest rate, extensions of term are appreciably effective in reducing debt service up to a term of some twenty-five years; but they are much less effective as the term is extended beyond this point, because they operate on a diminishing proportion of the total initial payment. As the interest rate falls, however, the period

[8] For a discussion of the effect of extension of term on consumers' instalment loans, see Gottfried Haberler, *Consumer Instalment Credit and Economic Fluctuations* (National Bureau of Economic Research, Financial Research Program, 1942) pp. 98 ff.

over which extensions of term appreciably reduce debt service is lengthened.

Similarly, reductions in interest rate reduce, and increases increase the debt service, but such changes in debt service are not in proportion to the changes in interest rate, inasmuch as that portion of total debt service which amortizes principal remains unchanged. Since the portion of the total debt service which constitutes interest increases as the mortgage term is lengthened, however, reductions in interest rate have an increasing effect in reducing debt service as the term of the loan increases.

The combined effect of increases in term and reductions in interest rate on the burden of debt service is indicated in Table 14. Thus,

TABLE 14 — MONTHLY LEVEL PAYMENTS REQUIRED TO AMORTIZE $1,000 OVER VARIOUS TERMS AND AT VARIOUS INTEREST RATES [a]

Interest Rate	*Term (in years)*						
	10	15	20	25	30	35	40
6.0%	$11.10	$8.44	$7.16	$6.44	$6.00	$5.70	$5.50
5.5	10.85	8.17	6.88	6.14	5.68	5.37	5.16
5.0	10.61	7.91	6.60	5.85	5.37	5.05	4.82
4.5	10.36	7.65	6.33	5.56	5.07	4.73	4.50
4.0	10.12	7.40	6.06	5.28	4.77	4.43	4.18
3.5	9.89	7.15	5.80	5.01	4.49	4.13	3.87

[a] *Monthly Payment Direct Reduction Loan Amortization Schedules* (Financial Publishing Company, Fifth Edition, 1943).

when the term is extended from ten to forty years and the interest rate is reduced from 6 to 3.5 percent, the monthly debt service is reduced from $11.10 per thousand to $3.87 per thousand, or 65.1 percent. If only the term is extended, the reduction is from $11.10 to $5.50 per thousand, or 50.5 percent, while if only the interest rate is changed the debt service is merely reduced from $11.10 to $9.89 per thousand, or 10.9 percent. On a loan of forty-year term, however, a similar interest rate reduction cuts debt service from $5.50 to $3.87 per thousand, or by 29.6 percent.

The percentage reduction in the monthly level payment effected by successive reductions of one-half of one percent per annum in interest rate, from 6 to 3.5 percent, is given in Table 15 for mortgages amortized by monthly level payments in terms of ten, fifteen, twenty, twenty-five, thirty, thirty-five, and forty years. In Table 16 the percentage reduction in debt service effected by successive increases of

TABLE 15 — PERCENTAGE REDUCTION IN MONTHLY LEVEL PAYMENT REQUIRED TO AMORTIZE A MORTGAGE, EFFECTED BY SUCCESSIVE REDUCTIONS IN INTEREST RATE AT VARIOUS TERMS [a]

Reduction in Interest Rate	*Term (in years)*						
	10	15	20	25	30	35	40
6.0 – 5.5%	2.3%	3.2%	3.9%	4.7%	5.3%	5.8%	6.2%
5.5 – 5.0	2.2	3.2	4.1	4.7	5.5	6.0	6.6
5.0 – 4.5	2.4	3.3	4.1	5.0	5.6	6.3	6.6
4.5 – 4.0	2.3	3.3	4.3	5.0	5.9	6.3	7.1
4.0 – 3.5	2.3	3.4	4.3	5.1	5.9	6.8	7.4

[a] Derived from Table 14.

TABLE 16 — PERCENTAGE REDUCTION IN MONTHLY LEVEL PAYMENT REQUIRED TO AMORTIZE A MORTGAGE, EFFECTED BY SUCCESSIVE INCREASES IN TERM AT VARIOUS INTEREST RATES [a]

Interest Rate	*Extension of Term (in years)*					
	10–15	15–20	20–25	25–30	30–35	35–40
6.0%	24.0%	15.2%	10.1%	6.8%	5.0%	3.5%
5.5	24.7	15.8	10.8	7.5	5.5	3.9
5.0	25.4	16.6	11.4	8.2	6.0	4.6
4.5	26.2	17.3	12.2	8.8	6.7	4.9
4.0	26.9	18.1	12.9	9.7	7.1	5.6
3.5	27.7	18.9	13.6	10.4	8.0	6.3

[a] Derived from Table 14.

TABLE 17 — PERCENTAGE REDUCTION IN MONTHLY LEVEL PAYMENT REQUIRED TO AMORTIZE A MORTGAGE, EFFECTED BY COMBINED SUCCESSIVE INCREASES IN TERM AND REDUCTIONS IN INTEREST RATE [a]

Reduction in Interest Rate	*Extension of Term (in years)*					
	10–15	15–20	20–25	25–30	30–35	35–40
6.0 – 5.5%	26.4%	18.5%	14.2%	11.8%	10.5%	9.5%
5.5 – 5.0	27.1	19.2	15.0	12.6	11.1	10.2
5.0 – 4.5	27.9	20.0	15.8	13.3	11.9	10.9
4.5 – 4.0	28.6	20.8	16.6	14.2	12.6	11.6
4.0 – 3.5	29.3	21.6	17.3	15.0	13.4	12.6

[a] Derived from Table 14.

five years in the term of the loan is shown at various interest rates from 6 to 3.5 percent, and in Table 17 the combined effect of extensions of term by five-year increments and reductions in interest rate by successive amounts of one-half of one percent is shown.

Effect of Term and Interest Rate on Amount of Debt Serviceable by Constant Monthly Payments

Thus far we have been considering the effect on debt service of changes in the term and interest rate, assuming that the amount of the debt remains constant. We may now consider the effect of changes in the term and interest rate on the amount of debt, assuming that the debt service remains constant. The purpose of estimating the borrower's future income and the proportion of that income which can be used for debt service is to determine the amount of debt service which the borrower can reasonably assume. If this sum is taken as the constant, the effect of changing the term and interest rate is to vary the amount of debt which can be serviced.

In Table 18, the amount of debt which can be serviced by a $25 monthly level payment is given for various terms, from ten to forty years, and at various interest rates, from 6 to 3.5 percent. It will be seen that the debt serviceable with a $25 monthly payment is nearly three times as great when the terms call for amortization in forty years and interest rate is 3.5 percent as when it must be amortized in ten years and interest is 6 percent. Calculations are given in the three following tables which show the percentage increase in the amount of debt which can be serviced for $25 monthly when the interest rate is reduced by one-half of one percentage point (Table 19), when the contract term is increased by five-year intervals (Table 20), and when both types of changes take place concurrently (Table 21).

TABLE 18 — Amount Amortized by Monthly Level Payments of $25 in Various Numbers of Years at Various Interest Rates [a]

Interest Rate	*Term (in years)*						
	10	15	20	25	30	35	40
6.0%	$2,251.84	$2,962.59	$3,489.52	$3,880.17	$4,169.79	$4,384.51	$4,543.69
5.5	2,303.59	3,059.66	3,634.32	4,071.08	4,403.04	4,655.35	4,847.12
5.0	2,357.03	3,161.38	3,788.13	4,276.50	4,657.04	4,953.56	5,184.61
4.5	2,412.23	3,268.00	3,951.64	4,497.76	4,934.03	5,282.55	5,560.96
4.0	2,469.25	3,379.80	4,125.55	4,736.31	5,236.53	5,646.21	5,981.74
3.5	2,528.17	3,497.08	4,310.64	4,993.77	5,567.37	6,049.01	6,453.43

[a] *Monthly Payment Direct Reduction Loan Amortization Schedules* (Financial Publishing Company, Fifth Edition, 1943).

TABLE 19 — PERCENTAGE INCREASE IN AMOUNT WHICH CAN BE AMORTIZED BY A GIVEN MONTHLY LEVEL PAYMENT, EFFECTED BY SUCCESSIVE REDUCTIONS IN INTEREST RATE AT VARIOUS TERMS [a]

Reduction in Interest Rate	*Term (in years)*						
	10	15	20	25	30	35	40
6.0 – 5.5%	2.3%	3.3%	4.1%	4.9%	5.6%	6.2%	6.7%
5.5 – 5.0	2.3	3.3	4.2	5.0	5.8	6.4	7.0
5.0 – 4.5	2.3	3.4	4.3	5.2	5.9	6.6	7.3
4.5 – 4.0	2.4	3.4	4.4	5.3	6.1	6.9	7.6
4.0 – 3.5	2.4	3.5	4.5	5.4	6.3	7.1	7.9

[a] Derived from Table 18.

TABLE 20 — PERCENTAGE INCREASE IN AMOUNT WHICH CAN BE AMORTIZED BY A GIVEN MONTHLY LEVEL PAYMENT, EFFECTED BY SUCCESSIVE INCREASES IN TERM AT VARIOUS INTEREST RATES [a]

Interest Rate	*Extension of Term (in years)*					
	10–15	15–20	20–25	25–30	30–35	35–40
6.0%	31.6%	17.8%	11.2%	7.5%	5.1%	3.6%
5.5	32.8	18.8	12.0	8.2	5.7	4.1
5.0	34.1	19.8	12.9	8.9	6.4	4.7
4.5	35.5	20.9	13.8	9.7	7.1	5.3
4.0	36.9	22.1	14.8	10.6	7.8	5.9
3.5	38.3	23.3	15.8	11.5	8.7	6.7

[a] Derived from Table 18.

TABLE 21 — PERCENTAGE INCREASE IN AMOUNT WHICH CAN BE AMORTIZED BY A GIVEN MONTHLY LEVEL PAYMENT, EFFECTED BY COMBINED SUCCESSIVE INCREASES IN TERM AND REDUCTIONS IN INTEREST RATE [a]

Reduction in Interest Rate	*Extension of Term (in years)*					
	10–15	15–20	20–25	25–30	30–35	35–40
6.0 – 5.5%	35.9%	22.7%	16.7%	13.5%	11.6%	10.6%
5.5 – 5.0	37.2	23.8	17.7	14.4	12.5	11.4
5.0 – 4.5	38.6	25.0	18.7	15.4	13.4	12.3
4.5 – 4.0	40.1	26.2	19.9	16.4	14.4	13.2
4.0 – 3.5	41.6	27.5	21.0	17.5	15.5	14.3

[a] Derived from Table 18.

Effect of Term and Interest Rate on Total Debt Service

Another important relationship affected by changes in the term of a level payment mortgage contract is that between total payments and payments on account of interest. Whatever the term of the mortgage and whatever the interest rate, total future payments have a present worth (at the specified rate of interest) equal to the original amount of the debt. Variations in term are designed to make it easier for the borrower to meet his obligation and consequently to increase the probability that he will do so. Interest is a cost which he must pay for this convenience; it is a cost that continues at a constant rate on unpaid balances. The more quickly he repays and the lower the interest rate, the smaller this cost. At a 6 percent rate, interest payments on a monthly level payment mortgage with a ten-year term constitute only 25 percent of total payments; with a term of fifteen years, 34 percent; twenty years, 42 percent; twenty-five years, 48 percent; and forty years, 62 percent. These relationships also vary with a change in the interest rate, as indicated in Table 22. At a 3.5 percent rate, the same pattern is evident but at a lower level; on a mortgage with a term of ten years, interest charges constitute 16 percent of total payments; for a twenty-five-year term, 33 percent; and for a forty-year term, 46 percent.

In a particular case, the decision as to the contract terms to be employed must represent a balance between the desire for a low monthly payment, effected through an extension of term, and the conflicting objective of minimizing total debt service.

Effect of Changes in Contract Terms on Mortgages as Security

Finally, we have to consider the effects of changes in mortgage terms upon the positions of the mortgagor and the mortgagee. As pointed out earlier, the advance of funds secured by the borrower's equity enables him to obtain any benefits which may flow from ownership, use, and occupancy; it also exposes him to losses which may arise from market declines. When these losses are great enough to destroy his equity and his incentive to repay, the mortgagee no longer has any protection. Funds invested by the borrower are open to this

TABLE 22 — TOTAL INTEREST PAYMENT AS A PERCENTAGE OF TOTAL PAYMENT ON MONTHLY LEVEL PAYMENT MORTGAGES OF VARIOUS TERMS AND INTEREST RATES [a]

Interest Rate	*Term (in years)*						
	10	15	20	25	30	35	40
6.0%	25%	34%	42%	48%	54%	58%	62%
5.5	23	32	39	46	51	56	60
5.0	21	30	37	43	48	53	57
4.5	20	27	34	40	45	50	54
4.0	18	25	31	37	42	46	50
3.5	16	22	28	33	38	42	46

[a] Derived from Table 14.

eventuality, and they must be lost before the lender's protection disappears.

When the funds which the owner invests initially are so small, and the rate at which his indebtedness is amortized is so low, that the borrower's total outlay over a given period of time is only equal to, or less than, the use-value of the home over the same period, the borrower's equity is more nominal than real. The position of both parties to the transaction becomes anomalous. The owner is in a position to benefit from a rising market but has nothing to lose from a falling one. The lender can participate directly in none of the benefits of a rising market and stands constantly exposed to the hazards of a falling one. The functions of equity and borrowed funds are no longer differentiated—in fact, in such a situation the lender retains only a shadow of the protection which he presumably receives from the pledged security.

In order to give the lender protection, the down payment and the subsequent schedule of amortization payments should meet two tests: (1) at the end of any part of the term of the mortgage, the borrower's total expenditure for occupancy should represent something more than the amount he would have paid in rent had he been a tenant instead of an owner; [9] and (2) there must be no time in the term of the mortgage when the unpaid balance of the debt is equal to or greater than the value of the home. That is to say, the rate at

[9] Theoretically, there could be circumstances in which payments less than rent would create a borrower's equity, but such an equity represents no outlay of cash. Lenders generally agree that a cash outlay creates at best an attitude of greater responsibility and determination in the borrower.

which the indebtedness is amortized must equal or exceed the rate at which the home declines in value.[10]

Effect of Liberalized Terms in a Buyer's Market

The effect on real estate prices of changes in the interest rate, loan-value ratio, and term-to-maturity of mortgage loans differs as changing conditions occur in the market for homes in fee. An extension of term and reduction in interest rate and increases in the loan-value ratio enable purchasers to acquire ownership without sacrificing as large a proportion of their liquid assets as would otherwise be the case. And, furthermore, they are not committed to a future debt service which is likely to be out of proportion to rents and possibly insupportable if income should decline. In other words, the prospective buyer's preference for liquidity and his hesitancy at making long-term commitments is in some measure overcome by liberalization of terms.

These changes, however, are not likely to have much influence on price in a buyer's market inasmuch as the bargaining power is then in the hands of the purchaser who, while he may bid a higher price by using liberal credit than he would if credit were more restricted, will thereby obtain a better home. An improvement in housing standards may be possible under these conditions without a significant increase in expenditures for housing.

Measures aimed at the liberalization of mortgage terms were taken during the middle and late thirties. In previous periods, the maximum term of mortgage loans rarely exceeded fifteen years, and the customary term for completely amortized mortgages seldom exceeded ten or twelve years. Among lending institutions, the maximum loan usually considered was for two-thirds of the purchase price or appraised value of the home. Some of the building and loan associations would occasionally extend a loan of 75 percent, but many lending institutions were limited, by law or custom, to 60.0 or 66.7 percent of the purchase price.

These maximum loan limitations, however, were not entirely successful in restricting the amount of credit extended to home pur-

[10] For a fuller discussion of the relationships between amortization and depreciation, see Ernest M. Fisher, "Amortization, Depreciation, and the Loan-Value Ratio," in the Appendix of *Home Mortgage Loan Manual* (American Bankers Association, 1943).

chasers during the twenties. In order to secure a larger proportion of the purchase price on credit, they resorted to the use of second mortgages and land contracts. The limitations on the term of the mortgage did not encourage its liquidation over a short period; it merely required frequent renewals and extensions, in most cases without curtails or reduction in the amount of the debt outstanding and with the necessity of meeting high and frequent refinancing charges. Such reductions in debt were ordinarily applied to the junior liens or land contracts outstanding, and the amount of the first mortgage indebtedness remained constant from year to year and in many cases from decade to decade.

In 1933, the Home Owners' Loan Corporation was authorized to refinance the indebtedness of homeowners in distress, extending credit to the owner in an amount not exceeding 80 percent of the appraised value of the home and accepting a mortgage amortized by level monthly payments over a period not exceeding fifteen years. A uniform interest rate of 5 percent was authorized.[11] Indebtedness on about 1,017,000 homes was refinanced.

Through the enactment of the National Housing Act,[12] the FHA was established and authorized to insure mortgages on homes in an amount not exceeding 80 percent (later, increased, in some instances, to 90 and 95 percent [13]), provided the mortgages contained provisions requiring their complete amortization by equal monthly payments in a period not exceeding twenty years (subsequently, in some cases, twenty-five and thirty years [14]).

The influence of these two organizations on mortgage terms was not limited to their own transactions, though these were numerous and represented a considerable proportion of all transactions during the decade of the thirties.[15] The longer terms, lower interest rates, and payment plans they offered became so widely accepted that they

11 June 13, 1933, c. 64, 48 Stat. 128.

12 June 27, 1934, c. 847, 48 Stat. 1246.

13 February 3, 1938, c. 13, 52 Stat. 8.

14 *Ibid.*

15 Applications were filed with the HOLC for the refinancing of 1,886,491 home mortgages in the total amount of $6,173,355,652. Of this number, the HOLC closed 1,017,948 loans for an amount of $3,093,450,641 up to June 30, 1938 (Federal Home Loan Bank Board, *Sixth Annual Report,* June 30, 1938, p. 69).

Up to December 31, 1940, the FHA had accepted for insurance 711,177 mortgages on one- to four-family homes in an amount of $3,047,419,016 (Federal Housing Administration, *Seventh Annual Report,* December 31, 1940, p. 7).

became the prevailing practice. In the buyer's market which continued almost universally during the thirties, these terms were a major factor in stimulating the purchase of homes and in reviving the moribund home construction industry.

Further, the obligations incurred by borrowers under both of these programs became progressively easier to discharge as incomes increased after the middle of the decade. In the buyer's market then prevailing, these programs probably had little if any effect on the prices paid for individual homes purchased until well toward the end of the decade. Their liberal terms induced many prospective purchasers to buy when they would not have considered doing so if they had had only enough for a small down payment or had been obliged to commit themselves to a debt service schedule that was significantly greater than their rent charges.

It is also important to note that in many cases during the 1930's borrowers using the FHA program made larger down payments than the minimum required and utilized shorter terms than the maximum available. It is in the transition from a buyer's to a seller's market that maximum terms become so commonly used that they tend to be considered the minimum. Thus, we must inquire into the effects of changes in financing terms in a seller's market.

Effect of Financing Terms in a Seller's Market

As the turn from a buyer's to a seller's market occurs, increased confidence and a higher level of income frequently stimulate the desire for better housing, even at the cost of longer-term commitments. As rents rise, long-term commitments seem less formidable; and as incomes increase, it appears less hazardous to incur debt. In fact, it may appear wise to contract a maximum amount of debt which can be paid with dollars of decreasing purchasing power or at least with dollars representing a declining proportion of income. Accordingly, buyers employ, in an increasing degree, the maximum credit terms available.

Some evidence that this development occurs is found in the distribution of all mortgages insured by FHA through 1940, by loan-value ratios (Tables 23 and 24). These records indicate that as 1940 neared an increasing percentage of borrowers were utilizing the max-

TABLE 23 — PERCENTAGE DISTRIBUTION OF FHA-INSURED MORTGAGES ON NEW AND EXISTING 1- TO 4-FAMILY HOMES, BY LOAN-VALUE RATIO, 1935-40, 1945 AND 1947-48 [a]

Loan-Value Ratio	*1935*	*1936*	*1937*	*1938*	*1939*	*1940*	*1945* [b]	*1947* [b]	*1948* [b]
					New Homes				
86 – 90%	[c]	[c]	[c]	49.0%	59.6%	66.8%	..	39.3%	35.2%
81 – 85	[c]	[c]	[c]	13.7	13.7	13.2	..	12.0	15.0
76 – 80	51.6%	59.7%	67.4%	24.6	16.1	11.8	..	33.5	33.1
71 – 75	18.7	16.9	15.6	6.1	4.7	3.6	..	6.6	7.0
66 – 70	12.5	10.1	8.1	3.4	3.6	2.7	..	3.8	4.3
61 – 65	7.1	5.5	4.0	1.3	1.1	.8	..	1.8	1.9
56 – 60	4.7	3.9	2.4	1.0	.6	.5	..	1.3	1.3
51 – 55	2.2	1.7	1.1	.4	.2	.2	..	.6	.7
50 or less	3.2	2.2	1.4	.5	.4	.4	..	1.1	1.5
					Existing Homes				
86 – 90%	[c]	[c]	[c]	[c]	[c]	[c]	10.1%	14.9%	11.4%
81 – 85	[c]	[c]	[c]	[c]	[c]	[c]	2.3	4.7	4.5
76 – 80	40.3%	45.0%	54.9%	55.7%	58.4%	63.3%	68.8	54.0	55.2
71 – 75	16.9	16.5	17.9	17.4	16.8	16.2	8.6	8.6	9.2
66 – 70	12.8	13.0	11.2	11.1	10.7	8.6	4.9	8.5	9.9
61 – 65	9.3	7.8	5.9	6.3	5.5	4.7	2.2	3.5	3.5
56 – 60	7.1	6.5	4.3	4.3	3.9	3.2	1.3	2.5	2.5
51 – 55	4.4	3.7	2.1	2.0	2.0	1.7	.8	1.3	1.5
50 or less	9.2	7.5	3.7	3.2	2.7	2.3	1.0	2.0	2.3

[a] Federal Housing Administration, *Annual Reports,* December 31, 1940, 1945, 1947, and 1948, pp. 69; 23; 35 and 36; and 47, respectively.

[b] One-family homes under Section 203; data not available for Section 203 new home mortgages in 1945 because the bulk of new homes that year were financed under Section 603, the War Housing Program.

[c] Homes ineligible for mortgages of more than 80 percent of property valuation.

TABLE 24 — AVERAGE OR MEDIAN LOAN AS A PERCENTAGE OF AVERAGE VALUE OF MORTGAGED PROPERTY FOR FHA-INSURED MORTGAGES ON NEW AND EXISTING HOMES, 1935-48 [a]

Year	New Homes					Existing Homes		
	Single-Family		*1- to 4-Family*			*Single-Family*	*1- to 4-Family*	
	Sec. 203	Sec. 603	Sec. 203	Sec. 603	Sec. 203 (Median)	Sec. 203	Sec. 203	Sec. 203 (Median)
1935	..	..	73.0%	..	76.1%	..	69.0%	73.1%
1936	..	..	73.9	..	76.6	..	70.4	74.5
1937	76.0%	..	75.3	..	77.0	72.6%	73.7	76.4
1938	..	..	82.4	..	85.6	..	73.9	76.4
1939	83.9	..	83.7	..	86.6	74.6	74.4	76.6
1940	84.8	..	84.7	..	87.0	75.3	75.1	76.8
1941	85.8	88.7%	85.5	88.5%	..	75.9	76.2	..
1942	86.7	89.4	86.6	89.2	..	77.9	77.0	..
1943	..	89.8	..	..	..	78.2	..	..
1944	..	89.7	..	..	..	78.9	..	..
1945	..	89.3	..	..	..	79.1	..	..
1946	84.1	84.3	..	..	..	78.6	..	..
1947	81.2	84.5	..	..	..	77.3	..	..
1948	80.1	85.1	..	..	..	76.5	..	..

[a] Except as indicated in headings, data are based on arithmetic means and are from Federal Housing Administration, *Annual Reports*, December 31, 1940, 1942, 1943, 1945, and 1948, pp. 69; 26; 33; 18 and 35; 36 and 39, respectively. Dots indicate the absence of published material in all years, except the years 1935-40 in the columns referring to Section 603, which was established in March 1941.

imum terms available on insured mortgages. Similar distributions are not available for the years 1941 to 1946, but the average and median loan-value percentage for mortgages insured under the various authorized provisions of the National Housing Act indicate that both the average and median rose through 1945 and declined in 1946, 1947, and 1948 (Table 24). Likewise, the percentage of mortgages in the high loan-value ratio groups declined on new homes from 1947 to 1948 and on existing homes from 1945 to 1948. This decline may be explained partly by the increase in prices which came during this period. This increase in prices probably removed many homes from the benefits of the insurance of mortgages in excess of 80 percent. This record may also be influenced by the operations of the Veterans' Administration which insured or guaranteed high percentage mortgages during this period.

As the market swings in favor of the seller, there is a tendency for

more liberal credit terms to be absorbed in price advances rather than to result in improved standards of housing. As prospective purchasers become less hesitant in making commitments, and as they see more and more of the homes offered for sale disappearing from the market, they become more concerned with obtaining the kind of home they want than with the price they have to pay. Mortgage credit terms begin to be translated into the amount which they enable an individual to borrow at a constant debt service. In a buyer's market, the borrower emphasizes total price and total debt, but as conditions shift he is rather likely to emphasize the amount of debt service he can reasonably carry and translate that into the amount he can borrow under the maximum credit terms, and thence into price. When such a prospective purchaser encounters a seller who is a close bargainer, he pays a higher price than would be necessary under less liberal credit terms.

As prices rise, and it becomes difficult, in spite of the liberalization of mortgage terms, for purchasers to make the required down payments and to carry the necessary monthly payments, a demand ordinarily develops for further lengthening of term and reduction of down payment. Such changes assume, however, that the debt service would be reduced. For it to be so prices would have to remain unchanged. In a buyer's market, they probably would, but apparently not in a seller's. In the latter it is more likely that the liberalization of mortgage terms will increase both price and the amount of the debt, with debt service remaining approximately unchanged.

Another aspect of the extension of term in a seller's market is important. A seller's market is always buoyed up by optimism with respect to the future. Such a market develops when incomes and rents are rising and there is a widespread eagerness to improve standards of living. Impatience with the improvements that current incomes will buy prompts borrowing and the more remote the date of payment of the obligation incurred, the less the importance attached to it. As the term of a mortgage is increased, the additional payments required lose significance, especially in a period of rising income and optimistic outlook. To most borrowers, a given monthly payment to be made for twenty-five years appears but little if any more onerous than one requiring payments for twenty years. Financial vision is in

many cases so myopic that obligations long deferred are often seen in but vague and shadowy outline. Thus, the liberalization of terms easily becomes capitalized in higher prices.

FHA data on the ratios of property value and of mortgage principal to borrowers' income, covering mortgages insured during the years 1938-41 on new and existing owner-occupied homes, are pertinent to this subject. Beginning in 1938, FHA could insure new home mortgages, with a maximum term of twenty-five years, up to 90 percent of a $6,000 valuation plus 80 percent of the valuation above $6,000, provided the total valuation did not exceed $10,000.[16] Terms on existing homes were somewhat less liberal—the maximum term was twenty years and the maximum loan-value ratio, 80 percent. It will be seen in Tables 25 and 27 that in the years 1938-41, FHA-insured borrowers in each income class paid higher prices for new homes than for existing dwellings in the price ranges in which more liberal mortgage terms were available. An exception is found in 1940 for borrowers with incomes of less than $1,000. In the $10,000 or more income class, purchasers of new homes paid *less* than those who purchased existing houses. In 1940 and 1941, this was true also for purchasers with incomes of $5,000 to $9,999. It is for individuals in this group who purchased homes averaging more than $8,000 in value that the differential in mortgage credit terms was reduced.

Since in nearly every group the price paid for new homes exceeded that for those already existing, it can be assumed that a greater amount was borrowed to purchase new homes. As indicated in Tables 26 and 27, this was true for every income group below $7,000 in 1940 and 1941, for all income groups in 1939, and for all income groups below $10,000 in 1938. This differential in the amount borrowed on the two types of houses reflects, in addition to the higher price paid for new homes, the more liberal loan-value ratio permitted on them.

Taking borrowers in the $2,000 to $2,499 income class as an example, the 1938 purchasers paid $656 more for new homes than for existing ones and borrowed $978 more (Table 27). If purchasers of new homes had paid the same average price as those who bought existing homes ($4,272) and borrowed the maximum permissible (90 percent), their loans would have averaged $3,844; the actual average

[16] February 3, 1938, c. 13, 52 Stat. 8.

TABLE 25 — AVERAGE PROPERTY VALUATION OF FHA-INSURED MORTGAGES ON NEW AND EXISTING SINGLE-FAMILY, OWNER-OCCUPIED HOMES, BY BORROWER'S ANNUAL INCOME, 1938-41 [a]

Borrower's Annual Income [b]	*1938*		*1939*		*1940*		*1941*	
	New	Existing	New	Existing	New	Existing	New	Existing
Under $1,000	$2,564	$2,377	$2,793	$2,493	$2,959	$3,032	$2,904	$2,531
1,000 – 1,499	3,376	2,923	3,481	2,951	3,504	3,139	3,518	3,134
1,500 – 1,999	4,177	3,611	4,262	3,585	4,263	3,701	4,247	3,765
2,000 – 2,499	4,928	4,272	4,957	4,239	4,931	4,333	4,976	4,463
2,500 – 2,999	5,484	4,849	5,421	4,750	5,416	4,894	5,507	5,072
3,000 – 3,499	5,978	5,325	5,859	5,268	5,907	5,399	5,989	5,538
3,500 – 3,999	6,490	5,935	6,382	5,921	6,403	6,153	6,506	6,208
4,000 – 4,999	7,212	6,671	6,982	6,529	7,047	6,734	7,122	7,105
5,000 – 6,999	8,332	8,081	8,086	8,002	8,017	8,151	8,327	8,465
7,000 – 9,999	10,466	10,120	9,856	9,851	9,476	10,144	8,890	10,398
10,000 and over	12,200	12,718	11,831	12,157	10,945	12,183	11,461	13,435
All groups	$5,610	$5,215	$5,378	$4,998	$5,261	$5,121	$5,153	$5,262

[a] Federal Housing Administration, *Annual Reports,* December 31, 1939, 1940, and 1941, pp. 68, 84, and 34, respectively, and special unpublished tabulations by the FHA for 1938. Property valuation includes value of house, all physical improvements, and land.

[b] Includes family income of owner-occupant purchasers only; excludes operative builders, absentee landlords, and others.

TABLE 26 — AVERAGE AMOUNT OF FHA-INSURED MORTGAGES ON NEW AND EXISTING SINGLE-FAMILY, OWNER-OCCUPIED HOMES, BY BORROWER'S ANNUAL INCOME, 1938-41 [a]

Borrower's Annual Income [b]	*1938*		*1939*		*1940*		*1941*	
	New	Existing	New	Existing	New	Existing	New	Existing
Under $1,000	$1,952	$1,410	$2,208	$1,586	$2,379	$2,089	$2,162	$1,817
1,000 – 1,499	2,681	2,025	2,872	2,090	2,951	2,265	2,990	2,311
1,500 – 1,999	3,439	2,611	3,605	2,624	3,648	2,762	3,657	2,827
2,000 – 2,499	4,107	3,129	4,213	3,158	4,231	3,259	4,292	3,376
2,500 – 2,999	4,561	3,582	4,594	3,565	4,628	3,688	4,731	3,879
3,000 – 3,499	4,953	3,967	4,951	3,962	5,037	4,129	5,112	4,239
3,500 – 3,999	5,354	4,428	5,350	4,488	5,430	4,653	5,535	4,740
4,000 – 4,999	5,877	5,004	5,803	4,974	5,894	5,159	6,018	5,469
5,000 – 6,999	6,693	6,058	6,605	6,055	6,604	6,242	6,816	6,532
7,000 – 9,999	8,123	7,615	7,838	7,498	7,619	7,715	7,790	7,820
10,000 and over	9,359	9,469	9,208	9,113	8,628	9,248	9,006	9,900
All groups	$4,613	$3,854	$4,524	$3,739	$4,473	$3,869	$4,412	$3,995

[a] Federal Housing Administration, *Annual Reports,* December 31, 1939, 1940, and 1941, pp. 68, 84, and 34, respectively, and special unpublished tabulations by the FHA for 1938.

[b] Includes family income of owner-occupant purchasers only; excludes operative builders, absentee landlords, and others.

TABLE 27 — EXCESS OF PROPERTY VALUATION AND OF AMOUNT OF MORTGAGE PRINCIPAL FOR FHA-INSURED MORTGAGES ON NEW OVER EXISTING SINGLE-FAMILY, OWNER-OCCUPIED HOMES, BY BORROWER'S ANNUAL INCOME, 1938-41

Borrower's Annual Income	*1938*	*1939*	*1940*	*1941*
		Excess of Property Valuation [a]		
Under $1,000	$187	$300	$—73	$373
1,000 – 1,499	453	530	365	384
1,500 – 1,999	566	677	562	482
2,000 – 2,499	656	718	598	513
2,500 – 2,999	635	671	522	435
3,000 – 3,499	653	591	508	451
3,500 – 3,999	555	461	250	298
4,000 – 4,999	541	453	313	17
5,000 – 6,999	251	84	—134	—138
7,000 – 9,999	346	5	—668	—1,508
10,000 and over	—518	—326	—1,238	—1,974
All groups	$395	$380	$140	$—109
		Excess of Mortgage Principal [b]		
Under $1,000	$542	$622	$290	$345
1,000 – 1,499	656	782	686	679
1,500 – 1,999	828	981	886	830
2,000 – 2,499	978	1,055	972	916
2,500 – 2,999	979	1,029	940	852
3,000 – 3,499	986	989	908	873
3,500 – 3,999	926	862	777	795
4,000 – 4,999	873	829	735	549
5,000 – 6,999	635	550	362	284
7,000 – 9,999	508	340	—96	—30
10,000 and over	—110	95	—620	—894
All groups	$759	$785	$604	$417

[a] Based on Table 25.
[b] Based on Table 26.

was $4,107. Even though many did not borrow the maximum permitted by the law, the result of paying a higher price for a new home was that they incurred debt obligations averaging $263 more than would have been the case had they bought an existing house at the average price and borrowed the maximum permissible amount on it. A similar situation prevailed in all the other years and in all income groups in which the more liberal maximum loan-value ratio was effective; the funds made available by these terms were partly utilized in paying a higher price.

TABLE 28 — RATIO OF AVERAGE PROPERTY VALUATION TO BORROWERS' AVERAGE ANNUAL INCOME FOR FHA-INSURED MORTGAGES ON NEW AND EXISTING SINGLE-FAMILY, OWNER-OCCUPIED HOMES, BY BORROWER'S ANNUAL INCOME, 1938-41 [a]

Borrower's Annual Income [b]	*1938*		*1939*		*1940*		*1941*	
	New	Existing	New	Existing	New	Existing	New	Existing
Under $1,000	2.86	2.71	3.13	2.86	3.38	3.54	3.29	3.12
1,000 - 1,499	2.63	2.27	2.67	2.30	2.68	2.44	2.69	2.40
1,500 - 1,999	2.39	2.08	2.43	2.06	2.44	2.13	2.44	2.16
2,000 - 2,499	2.21	1.92	2.22	1.91	2.22	1.95	2.23	2.00
2,500 - 2,999	2.04	1.81	2.01	1.77	2.01	1.82	2.05	1.89
3,000 - 3,499	1.91	1.70	1.86	1.68	1.88	1.72	1.91	1.77
3,500 - 3,999	1.77	1.62	1.74	1.61	1.74	1.67	1.77	1.69
4,000 - 4,999	1.65	1.52	1.60	1.49	1.61	1.53	1.62	1.61
5,000 - 6,999	1.48	1.42	1.44	1.41	1.42	1.43	1.48	1.48
7,000 - 9,999	1.32	1.27	1.24	1.24	1.19	1.26	1.12	1.30
10,000 and over	.89	.86	.80	.90	.77	.92	.82	.98
All groups	1.89	1.62	1.93	1.65	1.97	1.70	2.05	1.75

[a] Federal Housing Administration, *Annual Reports,* December 31, 1939, 1940, and 1941, pp. 68, 84, and 34, respectively, and special unpublished tabulations by the FHA for 1938.

[b] Includes family income of owner-occupant purchasers only; excludes operative builders, absentee landlords, and others.

The extension of the maximum term of mortgages on new homes from twenty to twenty-five years has had a similar effect. That is, with a longer term in which to repay, and a larger loan-value ratio permitted, borrowers on new homes paid a price which was higher in relation to their anticipated income than borrowers on existing homes without increasing the burden of debt service. It will be noted in Table 28 that in every year, and in all income groups under $5,000 (with a single exception in 1940), the average ratio of price paid (as reflected in FHA valuations) to borrowers' anticipated income was higher for new than for existing homes.

The differential in the average amount borrowed on new homes, as compared with amounts borrowed on existing homes (Table 27), was greater than the price differential discussed above, partly because of the higher loan-value ratio and more liberal repayment terms on new homes. As indicated in Table 29, the average ratios of amount borrowed to borrowers' income were higher for borrowers on new homes in every income group in 1938, in all but the highest in 1939, and in all but the two highest in 1940 and 1941. Furthermore, for

TABLE 29 — RATIO OF AVERAGE AMOUNT OF MORTGAGE TO BORROWERS' AVERAGE ANNUAL INCOME FOR FHA-INSURED MORTGAGES ON NEW AND EXISTING SINGLE-FAMILY, OWNER-OCCUPIED HOMES, BY BORROWER'S ANNUAL INCOME, 1938-41 [a]

Borrower's Annual Income [b]	*1938*		*1939*		*1940*		*1941*	
	New	Existing	New	Existing	New	Existing	New	Existing
Under $1,000	2.18	1.61	2.48	1.82	2.72	2.44	2.45	2.24
1,000 - 1,499	2.09	1.58	2.20	1.63	2.26	1.76	2.28	1.77
1,500 - 1,999	1.96	1.50	2.06	1.51	2.09	1.59	2.10	1.62
2,000 - 2,499	1.84	1.41	1.89	1.42	1.90	1.47	1.93	1.51
2,500 - 2,999	1.70	1.33	1.71	1.33	1.72	1.37	1.76	1.44
3,000 - 3,499	1.58	1.27	1.57	1.26	1.60	1.31	1.63	1.35
3,500 - 3,999	1.46	1.21	1.46	1.22	1.48	1.26	1.51	1.29
4,000 - 4,999	1.35	1.14	1.33	1.14	1.35	1.17	1.37	1.24
5,000 - 6,999	1.19	1.07	1.18	1.07	1.17	1.10	1.21	1.14
7,000 - 9,999	1.02	.95	.98	.94	.96	.96	.98	.98
10,000 and over	.69	.64	.62	.67	.61	.70	.64	.72
All groups	1.55	1.20	1.63	1.23	1.68	1.28	1.75	1.33

[a] Federal Housing Administration, *Annual Reports,* December 31, 1939, 1940, and 1941, pp. 68, 84, and 34, respectively, and special unpublished tabulations by the FHA for 1938.

[b] Includes family income of owner-occupant purchasers only; excludes operative builders, absentee landlords, and others.

loans on new rather than on existing homes, the ratio of debt service to borrowers' anticipated income was higher in each income class, except the two highest in 1938 and 1939, the lowest and three highest in 1940, and the lowest and two highest in 1941. This evidence of the tendency for liberality in credit terms to be reflected in heavier borrowing is given in Table 30.

Summarizing, the data indicate that from 1938 through 1941 borrowers in the same income groups paid higher prices when more liberal credit was available, borrowed larger amounts in proportion to their incomes, and incurred debt service burdens that absorbed more of their expected incomes. In a buyer's market, it seems that when there is an opportunity to select from a number of homes having about the same price and quality, more liberal credit probably raises housing standards; but in a seller's market, when choice is restricted and the seller virtually dictates sales terms, more liberal credit is likely to be absorbed in price with probably a reduction in housing standards.

Further evidence of the same tendency is found in home mort-

TABLE 30 — AVERAGE NET MORTGAGE PAYMENTS AS A PERCENTAGE OF BORROWERS' AVERAGE ANNUAL INCOME FOR FHA-INSURED MORTGAGES ON NEW AND EXISTING SINGLE-FAMILY, OWNER-OCCUPIED HOMES, BY BORROWER'S ANNUAL INCOME, 1938-41 [a]

Borrower's Annual Income [b]	*1938*		*1939*		*1940*		*1941*	
	New	Existing	New	Existing	New	Existing	New	Existing
Under $1,000	17.5%	16.4%	19.1%	18.7%	19.9%	21.7%	17.7%	19.4%
1,000 - 1,499	16.5	15.0	16.6	15.1	15.8	15.2	15.7	15.1
1,500 - 1,999	15.1	14.0	15.3	13.8	14.5	13.6	14.5	13.8
2,000 - 2,499	14.1	13.0	14.0	12.6	13.3	12.5	13.3	12.8
2,500 - 2,999	13.0	12.1	12.7	11.7	12.2	11.6	12.4	12.2
3,000 - 3,499	12.3	11.5	11.9	11.2	11.5	11.0	11.7	11.3
3,500 - 3,999	11.5	10.9	11.2	10.6	10.8	10.5	11.1	10.6
4,000 - 4,999	10.9	10.2	10.4	9.9	10.1	9.7	10.3	10.1
5,000 - 6,999	9.7	9.5	9.4	9.3	8.9	9.1	9.3	9.2
7,000 - 9,999	8.5	8.5	7.9	8.2	7.3	7.8	7.6	8.0
10,000 and over	5.8	5.8	5.2	5.9	4.9	5.7	5.0	6.4
All groups	12.2%	10.9%	12.3%	10.9%	12.0%	10.8%	12.4%	11.1%

[a] Federal Housing Administration, *Annual Reports*, December 31, 1939, 1940, and 1941, pp. 68, 84, and 34, respectively, and special unpublished tabulations by the FHA for 1938.

Net mortgage payments includes amortization of principal and interest, but excludes such items as local taxes, hazard insurance, and mortgage insurance premiums.

[b] Includes family income of owner-occupant purchasers only; excludes operative builders, absentee landlords, and others.

gages partly guaranteed or insured by the Veterans' Administration.[17] It will be recalled that the Servicemen's Readjustment Act, giving the VA this power, was amended in December 1945,[18] increasing the maximum amount which it was authorized to guarantee or insure, essentially in lieu of a down payment, from $2,000 to $4,000.

One effect of this liberalization was to increase the average amount of the partially guaranteed VA home mortgages from $4,561 in the last quarter of 1945 to $5,985 in 1946 (31 percent) and to $6,111 in the third quarter of 1947 (34 percent). Table 31 shows that this percentage increase was greater than that pertaining to all recorded mortgages, to all FHA home mortgages, and to all non-VA mortgages. The differential could be accounted for by a difference in the grade or quality of homes purchased, but there is no evidence to that effect.

17 Servicemen's Readjustment Act (June 22, 1944, c. 268, 58 Stat. 284).

18 December 28, 1945, c. 588, 59 Stat. 623.

TABLE 31 — AVERAGE AMOUNT OF ALL RECORDED MORTGAGES OF $20,000 OR LESS, FHA-INSURED MORTGAGES, VA-GUARANTEED MORTGAGES, AND NON-VA MORTGAGES, FOURTH QUARTER, 1945 AND 1946, AND THIRD QUARTER, 1947 [a]

Type	*Fourth Quarter*		*Third Quarter*	*Percentage Increase*	
	1945	1946	1947	1945-46	1945-47
All mortgages recorded	$3,564	$4,413	$4,530	23.8%	27.1%
All FHA home mortgages [b]	4,963	5,499	6,379	10.8	28.5
All VA home mortgages [c]	4,561	5,985	6,111	31.2	34.0
All non-VA mortgages [d]	3,514	3,875	4,118	10.3	17.2

[a] Special tabulations of the Federal Housing Administration, Division of Research and Statistics.

[b] Includes loans on new and existing homes insured under Sections 203 and 603.

[c] Includes loans for the purchase of new and existing homes and for repairs. Data for 1945 are estimates.

[d] Totals upon which averages are based are derived by subtracting VA loans closed from all mortgages recorded.