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Volume Author/Editor: Leo Grebler, David M. Blank, and Louis Winnick

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# PART B

## USES AND SOURCES OF CAPITAL FUNDS

# CHAPTER XI

## THE GROWTH OF THE RESIDENTIAL MORTGAGE DEBT

INVESTMENT in residential real estate, like most forms of investment, has been financed by a combination of internal and external funds. However, the capital funds which enter the residential sector differ substantially in character from the funds which finance other capital sectors. In the first place, the bulk of housing investment represents the purchase of a consumer durable, with the closest approximation to internal funds represented by downpayments and external funds for the most part supplied by borrowing on mortgages. Decisions as to the type of funds or, more likely, as to the relative proportions of both types of funds that are to be used, are not based on the same determinants as are business decisions. In the acquisition of new residential real estate, the choice is largely determined by the liquid assets of home purchasers or other holdings convertible to liquid assets and by the maximum amount obtainable from mortgage lenders. The relative costs of different types of funds compared with anticipated net yields, which are important in business financing, are of less importance in the choice between internal and external financing for purchase of new housing facilities. Income tax considerations, which enter significantly into business decisions on the type of funds used, have only recently begun to influence the proportion of borrowed funds in the financing of additions to residential capital.

More important, the internal funds used for the acquisition of new residential real estate are almost entirely derived from the personal savings of individuals or groups of investors and almost never, even in the case of large properties, from depreciation reserves accumulated in the operation of existing property. While all residential structures are depreciable assets and while depreciation is an important tax consideration for the owners of income property, from an investment point of view depreciation funds are not intentionally accumulated by the owners of residential real estate with the object of providing for the replacement of worn-out or obsolete assets. Consequently, there is virtually no direct connection between the use of such depreciation reserves as may be established by owners of residential real estate and the financing of new residential facilities. Demolished or deteriorated structures are replaced, in the main, not by current owners but by other investors.

Any analysis of internal sources of capital funds in housing invest-

ment would require an analysis of the use of personal savings and personal holdings of liquid assets, a subject outside the scope of this study. The sources of external funds, on the other hand, are limited chiefly to the mortgage market. Unlike customary practice in many other industries, external funds for residential real estate are obtained only in the rarest instances through public stock issues and only somewhat less rarely through nonmortgage borrowing.[1] A historical study of sources of funds for the acquisition of new residential construction must therefore concern itself with the size and distribution of the residential mortgage debt, the gross flow of mortgage funds, and the change in these measures of external financing over time. This analysis necessarily pertains to both existing and new residential real estate. Available data provide no segregation of lending activity or of net change in debt in terms of new and existing construction. In Chapter XII an effort is made to relate net changes in indebtedness to expenditures for new residential construction and to supplement the standard data on debt and lending activity by estimates of the flow of mortgage loans and equity funds into new construction.

### *Factors Influencing Changes in the Residential Mortgage Debt*

In general terms, changes over time in the total nonfarm residential mortgage debt are the net resultants of a host of gross additions to, and gross reductions from, the debt. Broadly, the mortgage debt increases because of (1) new residential construction, (2) increases in the rate of turnover of existing dwellings, since new owners tend to raise the amount of outstanding debt, (3) rising prices for both new and existing property, and (4) loosening of credit terms as evidenced in loan-to-value ratios. Debt increases may also be influenced, on the demand side, by long-run modifications in social attitudes toward mortgage indebtedness and, on the supply side, by the relative attractiveness of mortgage loans as investment outlets. The operation of all these factors is reflected in long-term increases in the proportion of mortgaged homes and in larger amounts of debt relative to the value of mortgaged homes.

The mortgage debt is reduced by (1) repayment—i.e. the substitution of internal for external funds—the volume of which appears to be related to levels of personal income as well as to contractual mortgage

[1] Little is known about the extent of personal nonmortgage borrowing for the purchase of a home. The purchase price less the mortgage indebtedness is customarily considered equity, with the understanding, however, that equity does not always involve actual cash flows. The proportion of downpayment that represents personal borrowing has always been low in comparison with the proportion of nonmortgage funds that represents personal savings derived from liquid assets and the sale of other assets, including currently owned homes.

terms, and (2) the cancellation of indebtedness because of foreclosures and voluntary surrenders of title in lieu of foreclosure, which results primarily from general declines in business activity.

Thus new construction is only one of many elements affecting the level and change of the residential mortgage debt. The relationship between changes in the mortgage debt and the flow of funds into new construction appears even more indirect when the questions of land and the transfer of residential mortgage funds to other uses are considered. Real estate mortgages are based, with few exceptions, on the security of both land and improvements. While the separation of land value from structure value is a necessary step in the measurement of capital formation, no satisfactory analytic procedure exists for the separation as far as mortgage debt is concerned. The mortgage debt, therefore, inescapably reflects changes in the use and value of residential land. Available data also show that a substantial fraction of the proceeds of mortgage loans are channeled into ordinary consumption or into business investment.[2]

### *Relation of Debt Changes to Cash Flows*

Changes in the outstanding mortgage debt cannot be considered to measure even the net flow of funds between mortgagees and mortgagors if a flow of funds is interpreted to mean a debit or credit to the cash accounts of the parties to the transaction. There are many transactions which affect the size of mortgage debt without any accompanying change in the cash account.[3] Foreclosures and voluntary surrenders of title to mortgagees are the most important examples of noncash transactions which reduce the outstanding mortgage debt. During severely depressed phases in the real estate market, foreclosures may actually exceed repayments as a factor reducing the mortgage debt. Thus during the years 1932-1936 mortgage portfolios of Massachusetts savings banks were reduced nearly $300 million by foreclosures and only $173 million by repayments.[4] Write-downs and the transfer of unpaid interest to outstanding debt, although of unknown magnitude, are other examples of noncash transactions.

[2] Over 40 per cent of first mortgages on owner-occupied properties taken out at some time after the property was acquired were originated for reasons other than real estate investment. *Census of Housing 1950*, Bureau of the Census, Vol. IV, *Residential Financing*, Part 1, p. 50.

[3] Some of the equity investment in new construction does not involve a cash flow but is rather the direct contribution of labor or services on the part of an individual building his own house or a sponsor of an apartment project.

[4] John Lintner, *Mutual Savings Banks in the Savings and Mortgage Markets*, Harvard University Press, 1948, pp. 228-229. The data refer to nonresidential as well as residential mortgages. During the year 1933 mortgage reductions through foreclosures were more than three times as large as reductions through repayment.

Of the noncash transactions which increase the mortgage debt, the purchase money mortgage is undoubtedly of greatest importance. A purchase money mortgage is a lien taken back by the seller from the buyer of a parcel of real estate. Unfortunately, few data are available on this type of financing. A large but unknown share of purchase money mortgage transactions result from the resale by mortgagees of foreclosed property. Nearly all purchase money mortgages in institutional portfolios arise in this manner. Such foreclosures and purchase money mortgages are thus noncash mortgage debt changes which largely offset each other over a period of years.[5] For long-run analysis, only those purchase money mortgages held by noninstitutional investors, and not originating in a prior foreclosure, can be considered noncash increments to the mortgage debt.[6] There are virtually no data on the purchase money mortgage holdings of noninstitutional investors, or on the proportions which arise from transactions involving new construction compared with existing dwellings, or on the average period of holding of such mortgages. It is believed that the bulk of purchase money mortgages arising from the purchase of *new* homes are relatively small second, rather than relatively large first, mortgages. Conceptually, purchase money mortgages have importance insofar as they are "cash economizing"; the use of these instruments facilitates the transfer of real estate by reducing the downpayment requirements of the purchaser and by eliminating the frictions involved in third-party financing.

Because debt change does not necessarily result in a cash flow and because of the complexity of factors influencing net changes in debt, these changes must be interpreted with caution.

### *The Residential Mortgage Debt, 1890-1952*[7]

From 1890 to 1952 the residential mortgage debt (excluding real estate bonds) increased about thirty times, rising from $2.3 to 69.1

[5] The experience of Massachusetts savings banks indicates that purchase money mortgages made during the period 1932-1945 offset more than 75 per cent of the mortgage reductions through foreclosures. *Ibid.*, pp. 227-228.

[6] Even this statement requires qualification. A purchase money mortgage sold by the mortgagee to a second party results in a cash flow, although with an indeterminate lag after the original real estate transfer.

[7] An annual series on the residential mortgage debt extending over more than sixty years, pieced together from statistical sources described in Appendix L, is presented in Table L-1. The quality of the mortgage data for the period before 1925 leaves much to be desired. There is a distinct impression, based upon evidence discussed in Appendix L, that the debt estimates for the beginning of the period, though lower than those of other investigators, are still too high and that, as a consequence, the growth in the debt between 1896 and 1924 is understated. While a good case for reduction of the early debt figures could be made, the extent of the required reduction would depend upon arbitrary assumptions. Furthermore,

billion. Furthermore, the growth in the mortgage debt has been almost continuous, with brief interruptions only during the early thirties and during World War II; the continuity of growth for much of the early period, however, may be largely a spurious product of the series' derivation.[8]

The residential mortgage debt has shown net gains in every decade except 1930-1940 (Table 40). The debt rose at an increasing rate during

TABLE 40
Growth in Nonfarm Residential Mortgage Debt, by Decades, 1890-1950
(*dollars in millions*)

| END OF YEAR | MORTGAGE DEBT | | PER CENT CHANGE OVER PRECEDING DECADE | |
|---|---|---|---|---|
| | *Excluding Bonds* | *Including Bonds* | *Excluding Bonds* | *Including Bonds* |
| 1890[a] | $ 2,292 | $ 2,292 | .. | .. |
| 1900 | 2,917 | 2,917 | 27.3% | 27.3% |
| 1910 | 4,426 | 4,466 | 51.7 | 53.1 |
| 1920 | 9,120 | 9,354 | 106.1 | 109.4 |
| 1930 | 27,649 | 30,176 | 203.2 | 222.6 |
| 1940 | 23,810 | 24,930 | −13.9 | −17.4 |
| 1950 | 54,362 | 54,882 | 128.3 | 120.1 |

[a] June 1.
Source: Tables L-1 and L-3.

the first four decades, declined absolutely during the depression decade, and resumed a rapid rate of growth during the forties. The average annual gain from 1920 to 1930 of 20.3 per cent net of real estate bonds,

any sizable lowering of the initial residential mortgage debt figures would make quite implausible the movement of the nonresidential mortgage debt derived as a residual. The truth of the matter is that mortgage debt estimates for the first three decades are badly in need of the thorough revision that only a new and major research effort could yield.

Though the mortgage series since 1925 are much superior, the results of the 1950 mortgage census indicate a possible overstatement both in the Home Loan Bank Board estimates of debt on one- to four-family houses and in the total residential debt estimates made in this study. On August 1, 1950, the HLBB estimated the one- to four-family debt at $41.5 billion and the Census Bureau estimated it at $37.1 billion. Differences in coverage and definition account for part but not all of the $4.4 billion discrepancy. For the same date Census estimated the debt on multi-family properties at $7.4 billion. The multi-family debt estimate for August 1, used in this study (taken at seven-twelfths of the difference between the December 31, 1949, and the December 31, 1950, totals), is about $8.9 billion. For a discussion of the nature of these differences see *Census of Housing 1950*, Vol. IV, *Residential Financing*, Part 1, pp. XXX-XXXIII.

[8] For the period before 1925, as described in Appendix L, the annual movements in the debt are partially the result of linear interpolation between bench-mark dates and hence are useless for cyclical analysis.

and 22.3 per cent inclusive of real estate bonds, remains a historical peak barely approached in the 1940-1952 period. An increase in the aggregate debt of this size, taken together with the extremely steep increase in the per household mortgage debt (Table 41) and the ratio of debt to residential wealth (Chart 16), offers indirect evidence of a fundamental revision in home owners' and probably lenders' attitudes concerning mortgage indebtedness during the twenties. While the proportion of mortgaged owner-occupied dwellings had been rising since 1890,[9] a marked acceleration in this trend probably occurred

TABLE 41

Per Capita and Per Household Nonfarm Residential Mortgage Debt, by Decade, 1890-1950

(*dollars*)

| END OF YEAR | PER CAPITA | | PER HOUSEHOLD | |
|---|---|---|---|---|
| | *Excluding Bonds* | *Including Bonds* | *Excluding Bonds* | *Including Bonds* |
| 1890[a] | 68.4 | 68.4 | 289.3 | 289.3 |
| 1900 | 65.1 | 65.1 | 283.9 | 283.9 |
| 1910 | 73.9 | 74.6 | 313.2 | 316.0 |
| 1920 | 123.1 | 126.2 | 518.2 | 531.5 |
| 1930 | 298.5 | 325.8 | 1,186.7 | 1,295.1 |
| 1940 | 234.7 | 245.7 | 854.2 | 894.4 |
| 1950 | 425.9 | 429.9 | 1,465.7 | 1,479.7 |

[a] June 1.

Source: Tables 23, L-1, and L-3.

from 1920 to 1930 (although no data on this ratio exist for 1930). The reluctance of home owners to incur mortgage debt, a characteristic of earlier decades, was undoubtedly reduced in keeping with the change in general attitudes toward all forms of consumer debt.

The failure of the 1940-1952 percentage gain to reach the proportions of 1920-1930, a surprising result in view of the postwar residential building boom and of the great liberality in mortgage credit terms, is explainable by the war-induced construction controls during the first half of the decade. Practically the entire increase in the residential mortgage debt occurred during the period 1945-1952, with a rise in the debt of 180 per cent (excluding bonds). In fact, the increase from 1945 to 1950 is higher than that for any other five-year period during the past six decades.[10] The 1920-1925 rise was 89 per cent (over 96 per cent including bonds), and the 1925-1930 rise was 60 per cent

[9] Table 44 below.

[10] Over 80 per cent of all first mortgages in existence on August 1, 1950, were made or assumed after the beginning of 1946. *Census of Housing 1950*, Vol. IV, *Residential Financing*, Part 1, Table 2, p. 6.

(64 per cent including bonds). In absolute terms, the 1945-1950 increase in the mortgage debt of $30 billion is substantially greater than the rise during the entire period from 1890 to 1945 and even greater than the rise between 1890 and the peak of 1930.

The residential mortgage debt for the period as a whole has grown at a more rapid rate than either nonfarm population or nonfarm households. The debt per nonfarm capita increased from $68 in 1890 to $426 in 1950; per nonfarm household, the respective figures are $289 and $1,466 exclusive of real estate bonds (Table 41).

The rising trend in per capita and per household debt cannot, however, be interpreted as a secularly increasing "burden of indebtedness." The burden of the mortgage debt can be measured only in connection with other variables such as amortization schedules and interest rates, which are discussed in Chapter XV, and with levels of income. When measured against the growth in personal or disposable income since 1900 (Table 42) the trend of residential mortgage debt was downward

TABLE 42
Ratio of Nonfarm Residential Mortgage Debt to Personal and Disposable Income, Various Years, 1900-1952
(*per cent*)

| END OF YEAR | RATIO TO PERSONAL INCOME | | RATIO TO DISPOSABLE INCOME | |
|---|---|---|---|---|
| | *Excluding Bonds* | *Including Bonds* | *Excluding Bonds* | *Including Bonds* |
| 1900 | 19.4 | 19.4 | 19.7 | 19.7 |
| 1910 | 15.8 | 16.0 | 16.0 | 16.1 |
| 1920 | 11.9 | 12.3 | 12.3 | 12.6 |
| 1930 | 36.3 | 39.6 | 37.5 | 41.0 |
| 1940 | 30.4 | 31.8 | 31.4 | 32.9 |
| 1945 | 14.3 | 15.0 | 16.3 | 17.1 |
| 1950 | 24.0 | 24.2 | 26.4 | 26.7 |
| 1952 | 25.6 | 25.8 | 29.4 | 29.6 |

Source: Residential mortgage debt from Tables L-1 and L-3. Income data from the Dept. of Commerce, and, for the earlier decades, from Raymond W. Goldsmith *et al.*, *A Study of Saving in the United States*, Princeton University Press, 1955, Vol. III, Table N-3.

until the twenties, when a significant rise in the debt level occurred. This abrupt change was followed by a renewed decline over the following two decades. Between 1900 and 1920 the ratio of residential mortgage debt to disposable income dropped from 19.7 to 12.3 per cent; by the end of 1930 the ratio stood at nearly 38 per cent excluding residential real estate bonds and at about 41 per cent including these bonds, a manifestation of the critical significance of the 1920-1930 decade in the historical growth of mortgage indebtedness. In 1952 the

ratio stood at about 29 per cent, substantially below the 1930 and even below the 1940 level.

*Growth in Nonfarm Mortgage Debt Relative to Other Types of Debt*

Nonfarm mortgage debt, residential and nonresidential, has accounted for an increasing share of total private long-term debt during the past half century. The gain in the relative importance of nonfarm mortgage debt has been almost entirely due to the residential component; the relative growth of nonresidential mortgage debt has been substantially equal to that of the total private long-term debt. Between 1900 and 1952 the share of total nonfarm mortgage debt in total private long-term debt increased from 26 to 55 per cent (Table 43), while the

TABLE 43
Ratios of Total Nonfarm, Nonfarm Residential, and Nonfarm Nonresidential Mortgage Debt to Total Net Private Long-Term Debt, Various Years, 1900-1952
(*per cent*)

| *End of Year* | *Total Nonfarm Mortgage Debt* | *Total Nonfarm Residential Mortgage Debt* | *Total Nonfarm Nonresidential Mortgage Debt* |
|---|---|---|---|
| 1900 | 26.1 | 16.1 | 10.0 |
| 1916 | 22.2 | 14.8 | 7.4 |
| 1925 | 34.9 | 24.3 | 10.6 |
| 1929 | 41.9 | 30.6 | 11.2 |
| 1934 | 38.0 | 29.3 | 8.6 |
| 1939 | 38.0 | 29.9 | 8.2 |
| 1950 | 53.1 | 43.3 | 9.8 |
| 1952 | 55.1 | 45.5 | 9.6 |

Source: Table L-5. The mortgage debt data are exclusive of real estate bonds.

share of the residential mortgage debt rose from about 16 to 46 per cent. The ratio of the residential mortgage debt to the total nonfarm mortgage debt increased from about 60 per cent in 1890 to over 80 per cent in 1952, regardless of whether real estate bonds are included or excluded.[11]

By the end of the period the residential mortgage debt had emerged as the most important component of net private long-term debt. At the close of 1952 the residential mortgage debt surpassed the net long-term corporate debt, $69 billion (excluding real estate bonds) compared with $62 billion.[12] The historical significance of this relative shift is

[11] Table L-1, column 3, and Table L-3, column 3.

[12] The Department of Commerce estimate for outstanding corporate long-term debt in 1950 is $69.9 billion. This total includes, however, some $7.9 billion of

seen more clearly when it is realized that in 1916, according to a rough comparison of the two forms of debt, corporate debt was about three times as great as the residential mortgage debt and in 1929, after the boom of the twenties, half again as large. An explanation of these changes in the private debt structure would involve an analysis of changes in corporate financial policy beyond the scope of this study; nevertheless, the fact remains that nonfarm mortgages, particularly residential mortgages, have become a primary debt investment medium in the capital market. When measured against the total long-term debt including public, the share of the mortgage debt is, of course, greatly reduced by the growth in the federal debt; the residential mortgage debt has, however, historically been larger than state and local debt.[13] In 1916 the residential mortgage debt was about 50 per cent larger than the net state and local debt, and by 1952 it was nearly three times as large.[14]

### *The Ratio of Mortgage Debt to Residential Wealth*

The residential wealth series given in Appendix D and the residential mortgage debt series can be used for the derivation of an aggregate debt-to-value ratio, that is, the ratio of mortgage debt to total residential wealth. This aggregate debt-to-value ratio lies substantially below the debt-to-value ratio of mortgaged residential real estate because the value of unmortgaged real estate is included in the wealth total. The movements of the ratio reflect changes in the equity position of the owners of residential real estate, resulting from changes in the incidence of indebtedness and in real estate prices.

The aggregate debt-to-value ratio at each of the three peaks in residential construction has shown an unmistakable upward trend, rising from 11.5 per cent in 1909 to 22.4 per cent in 1926 and to 23.5 per cent in 1950 (Chart 18 and Table L-6). The increased indebtedness of residential real estate can also be inferred from census data on owner-occupied homes, which reveal a sharp rise in the proportion of mort-

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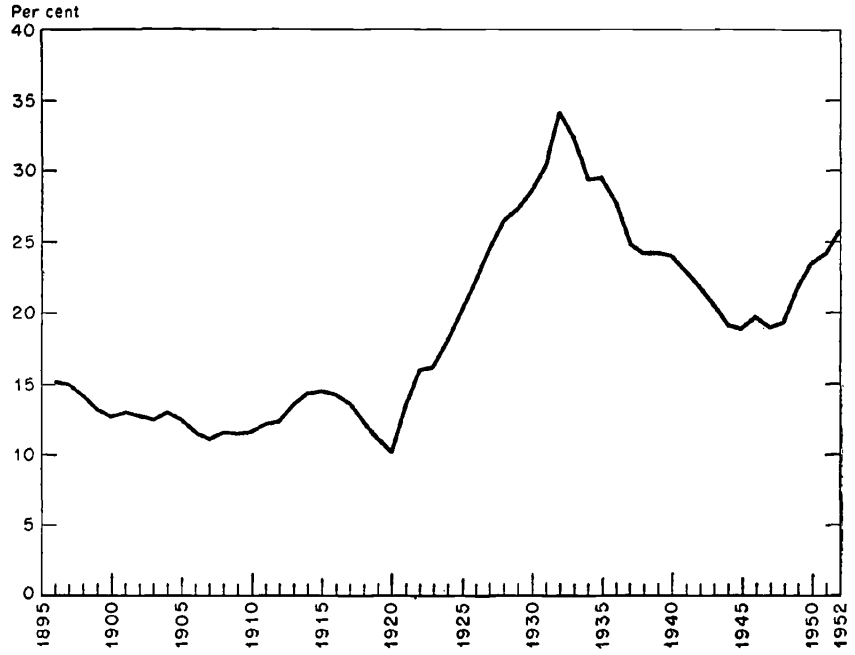
mortgage debt owned by corporate borrowers. See *Survey of Current Business*, Dept. of Commerce, September 1953, pp. 17-19. Since mortgage indebtedness is measured in this study without regard to the debtor's form of business organization, the Commerce corporate total has been accordingly reduced.

[13] Part of the relative gain can be explained by changes in residential construction financing practices. There has been a tendency to shift the financing of street utilities in new subdivisions from the municipality to the private builder. That is, certain construction costs are financed by residential mortgage debt rather than by local bonds. On the other hand, the construction of publicly financed housing increases the municipal debt rather than the residential mortgage debt.

[14] *Survey of Current Business*, September 1946, p. 13, and September 1953, p. 16.

CHART 18

Ratio of Nonfarm Residential Mortgage Debt to Nonfarm Residential Wealth, 1896-1952




Source: Table L-6.

gaged houses and a small rise in the average debt-to-value ratio since 1890.

The annual aggregate debt-to-value series does not, however, show the same pattern of persistent growth as is suggested by the census data for owner-occupied houses. Apparently, the most striking rise in the debt ratio took place after 1920, continuing until 1932, when a peak ratio of 34 per cent[15] was reached. Between 1932 and the end of World War II the ratio declined to 18.8 per cent. The postwar real estate boom was accompanied by a rise in the ratio, which by the end of 1952 stood at 25.7 per cent.

In the period before World War I the movements of the aggregate ratio are puzzling. The aggregate debt-to-value ratio registered a decline between 1890 and the end of 1919 in the face of an increase in the percentage of owner-occupied houses mortgaged, which is re-

[15] The derivation of residential wealth estimates by the use of a construction cost index probably leads to a higher-than-market valuation in periods like the thirties. The aggregate equity ratio for 1932 would presumably be lower than 64 per cent if it were based on actual sales prices in market transactions, to the extent that a market existed in 1932.

vealed by census data. It seems likely that an exaggerated 1890 mortgage estimate has overstated the initial debt ratio and that valuation by means of a construction cost index understated the ratio for 1920.[16] The discussion in Appendix L of the 1890 mortgage estimate points to a demonstrable weakness in one of the estimating assumptions, capable of producing a significant overstatement in the aggregate debt of that year.[17]

Some timing relationships between the debt ratio and construction expenditures are of interest. The two minor upswings in construction expenditures, during 1900-1909 (for which period, however, the data underlying the debt ratio are far from trustworthy) and 1932-1941, were accompanied by declining debt ratios; the two major upswings following both wars were accompanied by rising debt ratios. Second, the debt ratio continued to rise for a considerable period after construction expenditures turned down. This phenomenon occurred in the years following 1909, 1926, and 1950, though not after 1941. The exception may be attributable to the intervention of the war. Both World Wars were associated with sharp declines in the debt ratio. War periods are exceptionally conducive to reductions in the debt ratio, being times of an unusual combination: rising incomes (which lead to debt repayments), rising real estate prices, and drastic curtailment of new construction.

The debt ratio by the end of 1952 barely surpassed the 1939 level in spite of a tripling in aggregate mortgage debt. An increase in the debt ratio was held in check by rising real estate prices and a heavy volume of repayments (Chapter XII), which was evidenced in both a decline in the incidence of indebtedness among owner occupants and a decline in the debt-to-value ratio of mortgaged houses between 1940 and 1950 (Table 44).[18]

[16] Construction costs rose precipitously in 1920, accounting for the sharp troughs in the ratio for that year (Chart 16). The 1920 mortgage census was based on market values, which were less volatile than construction costs in the years immediately following World War I (cf. Appendix C).

[17] The Census Bureau reported an aggregate debt-to-value ratio of 13.96 per cent in 1890 for all nonfarm real estate (*Eleventh Census of the United States*, Part III, "Real Estate Mortgages," p. 116), compared with the 15.3 per cent ratio for residential real estate derived in this study.

[18] The rise in real estate values is probably the primary explanation of the paradoxical decrease in the debt-to-value ratio of mortgaged houses during a decade when the loan-to-value ratio on new construction (Chapter XII) moved substantially upward. Owner-occupied mortgaged homes with a debt-to-value ratio of 42 per cent in 1950 were originally purchased with a debt-to-value ratio of 77 per cent (*Census of Housing 1950*, Vol. IV, *Residential Financing*, Part 1, Table 6, p. 51).

*Residential Construction Expenditures and Changes in Mortgage Debt*

In every decade except the thirties the gain in the residential mortgage debt increased relative to residential construction expenditures (Table 45).[19] In the 1890-1899 decade, for example, an aggregate outlay on housekeeping facilities of $6,452 million (current prices) was accompanied by a $543 million increment in the mortgage debt, the

TABLE 44

Percentage of Houses Mortgaged and Debt-to-Value Ratios, Owner-Occupied Nonfarm Homes, Census Dates, 1890-1950

| *Census Year* | *Mortgaged Houses as a Per Cent of Total Owner-Occupied Houses* | *Debt-to-Value Ratio of Mortgaged Houses* |
|---|---|---|
| June 1, 1890 | 27.7[a] | 39.8[b] |
| June 1, 1900 | 31.7[a] | .. |
| June 1, 1910 | 33.1[a] | .. |
| Jan. 1, 1920 | 39.7[a] | 42.6[b] |
| Apr. 1, 1940 | 45.3[a] | 52.3[c] |
| Apr. 1, 1950 | 43.6[d] | 42.0[e] |

[a] *Census of Housing 1940*, Bureau of the Census, Vol. IV, *Mortgages on Owner-Occupied Nonfarm Houses*, Part 1, Table III, p. 3.

[b] *Mortgages on Homes in the United States, 1920*, Bureau of the Census, p. 45.

[c] *Census of Housing 1940*, Vol. IV, *Mortgages on Owner-Occupied Nonfarm Houses*, Part 1, Table VII, p. 4.

[d] *Census of Housing 1950*, Preliminary Reports, Series HC-5, No. 1, p. 18.

[e] *Census of Housing 1950*, Vol. IV, *Residential Financing*, Part 1, Table 6, p. 50. This figure refers to the median debt-to-value ratio of owner-occupied houses, whereas the ratios for earlier years are based on the aggregate debt and the aggregate value of mortgaged houses. A slight understatement may, therefore, be involved (cf., however, *Survey of Current Business*, Dept. of Commerce, April 1953).

Note: The 1940 and 1950 data are limited to owner-occupied, one- to four-family houses without business use. The earlier data refer to all types of structures occupied by the owner. The debt-to-value ratio for 1950 is as of August 1.

ratio of the latter to the former being 8.4 per cent. In the 1920-1929 decade the ratio of mortgage debt increment to expenditures for housekeeping residential construction was nearly 60 per cent, while in the last full decade, 1940-1949, the corresponding ratio was 69 per cent. In the half decade 1946-1950 the increase in the mortgage debt reached a peak of 83 per cent of the outlay on housekeeping units, compared with 62 per cent in 1925-1929, 52 per cent in 1920-1924, and 74 per cent in 1948-1952. The inclusion of expenditures on additions and alterations does not significantly modify these results.

[19] The comparison of increases in the residential mortgage debt with residential construction expenditures is instructive but not exact. The debt is based on both structures and land and on new as well as existing construction, while construction expenditures relate to new structures only.

TABLE 45

Ratio of Increase in Residential Mortgage Debt to Residential Construction Expenditures, Selected Periods, 1890-1952

(*dollars in millions*)

| | *Total Housekeeping Expenditures* (1) | *Housekeeping plus Addition and Alteration Expenditures* (2) | *Change in Mortgage Debt* (3) | *Column 3 as Per Cent of Column 1* (4) | *Column 3 as Per Cent of Column 2* (5) |
|---|---|---|---|---|---|
| 1890-1899 | $ 6,452 | $ 7,229 | $ 543 | 8.4% | 7.5% |
| 1900-1909 | 8,579 | 9,544 | 1,333 | 15.5 | 14.0 |
| 1910-1919 | 10,195 | 11,300 | 3,830 | 37.6 | 33.9 |
| 1920-1929 | 35,962 | 38,392 | 21,442 | 59.6 | 55.9 |
| 1930-1939 | 11,330 | 13,740 | −5,500 | .. | .. |
| 1940-1949 | 32,547 | 37,257 | 22,516 | 69.2 | 60.4 |
| 1920-1924 | 14,357 | 15,322 | 7,516 | 52.4 | 49.1 |
| 1925-1929 | 21,605 | 23,070 | 13,296 | 61.5 | 57.6 |
| 1946-1950 | 35,752 | 38,987 | 29,499 | 82.5 | 75.7 |
| 1948-1952 | 46,001 | 50,630 | 33,860 | 73.6 | 66.9 |

| Column | Source |
|---|---|
| 1 | Table B-3. |
| 2 | Table B-6. |
| 3 | Table L-3. |

The rise in the ratio of mortgage debt increment to construction expenditures in part expresses the increasing tendency to finance the acquisition of new residential real estate facilities by external funds. But the upward drift of the ratio is also the result of changes in mortgage financing of the existing housing inventory. The increased use of mortgage funds for new construction is analyzed separately in the chapter which follows.