Volume Title: Studies in the National Balance Sheet of the United States, Vol. 1

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Volume Publisher: Princeton University Press

Volume ISBN: 0-691-04179-2

Volume URL: http://www.nber.org/books/gold63-1

Publication Date: 1963

Chapter Title: Introduction and Summary of Part III Housing in the National Balance Sheet

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Chapter URL: http://www.nber.org/chapters/c3932

Chapter pages in book: (p. 245 - 251)

PART THREE

Housing in the National Balance Sheet

CHAPTER 9

Introduction and Summary

PART THREE of this volume presents a close-up of one type of asset—housing—and one related type of debt—residential mortgages. Using the detailed national and sectoral balance sheets of Volume II, we examine the importance of housing and mortgages in the assets and liabilities of the country as a whole and of various sectors. The picture of the housing sector is then magnified in order to study its very disparate components separately.

One feature peculiar to this part of the national balance sheet is that a large majority of the capital is owned by the household sector for its own use. We separate this owner-occupied housing from rental housing in the tabulations that follow. Within rental housing it seems desirable to distinguish between multifamily structures and units in one- to four-family structures. The latter are often adjuncts of the household sector, as in the case of rental units in owner-occupied two- to four-family houses or of houses temporarily in the rental market until they can be sold. It seems desirable, also, to isolate public housing, which is owned by the government sector and financed by the sale of government bonds rather than mortgages.

Housing was selected as an asset worthy of separate examination partly because of its size. For a century and a half, if we can trust some fragments of evidence for the early 1800's,[1] residential housing has accounted for at least a quarter of the reproducible tangible wealth of the United States and for more than 40 per cent of the value of structures (Chart 23). It has been a larger part of the national wealth than almost any other item displayed in national balance sheet and wealth statements, greater in the nineteenth century than nonresidential farm assets and larger in the twentieth than all business structures combined. Within the nonfarm household sector, the value of housing has usually exceeded that of all other durable tangible assets combined.

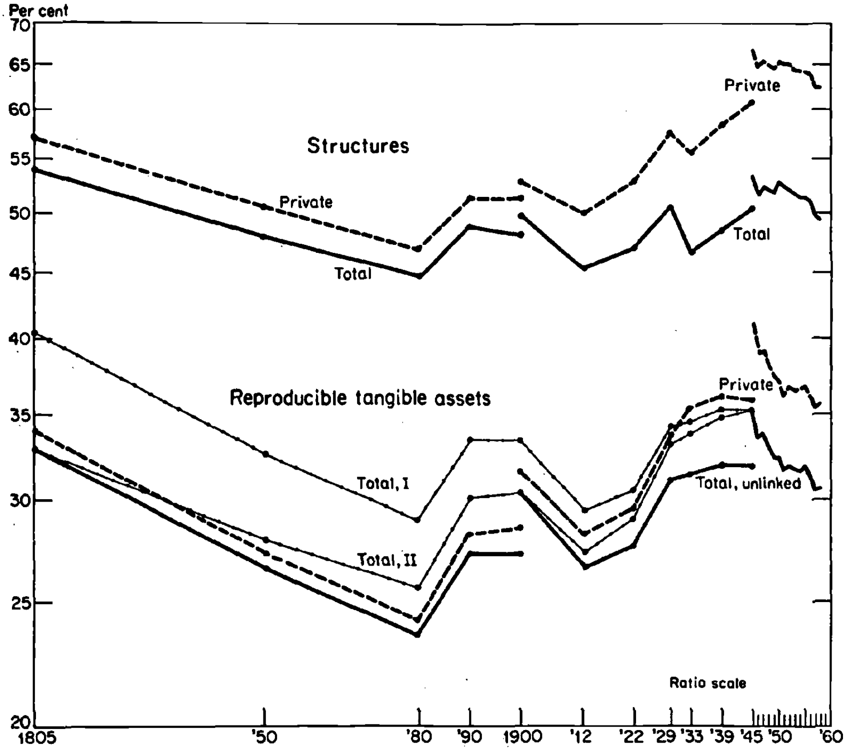
In other countries the importance of housing in national wealth varies widely, but it is always one of the major items. Among thirteen countries for which data were available for the 1950's (Table 64), housing was almost 23 per cent or more of reproducible tangible assets in every case except Japan.[2]

[1] Raymond W. Goldsmith, "The Growth of Reproducible Wealth of the United States of America from 1805 to 1950," *Income and Wealth of the United States,* Income and Wealth Series II, Cambridge, Eng., 1952, p. 306.

[2] France, South Africa, Argentina, and Colombia are omitted from Table 64 because the figures for dwellings exclude all or most rural housing.

CHART 23

Share of Residential Structures in Total and Private Structures and in Reproducible Tangible Assets, 1805-1958



Source: 1805-1900: Raymond Goldsmith, "The Growth of Reproducible Wealth of the United States of America from 1805 to 1950" in *Income and Wealth of the United States*, Income and Wealth Series II, Cambridge, Eng., 1952, p. 306. The share of residences in farm structures is assumed to be the same as in 1900 in the later segment.

1900-45: Goldsmith, *A Study of Saving in the United States*, Princeton, 1956, Vol. III, pp. 42-55.

1945-58: Vol. II, Table I.

The housing sector can be defined in many different ways. The narrowest concept might be limited to one-family and multifamily housekeeping structures. This could be widened to include the land on which the structures stand or enlarged further to take in trailers used as dwellings and nonhousekeeping residential structures such as hotels, motels, and dormitories. A still broader concept of housing might encompass equipment directly connected with the structures, such as heating, air-conditioning, laundry equipment (much of which is in-

TABLE 64

RESIDENTIAL STRUCTURES AS A PERCENTAGE OF REPRODUCIBLE TANGIBLE WEALTH, THIRTEEN COUNTRIES

Belgium	43	Canada	23
Luxembourg	27	U.S.A.	35
Netherlands	25	Australia	23
W. Germany	29	Japan	17
U.K.	34	India	26
Norway	25	Mexico	31
Yugoslavia	25		

SOURCE: Th. D. Van der Weide, "Statistics of National Wealth for Eighteen Countries," *The Measurement of National Wealth,* Income and Wealth Series VIII, London, 1959.

separable from the house and may be included in the price), and possibly even furniture and other housefurnishings.

For some purposes a much more comprehensive sector might be constructed, covering all those tangible assets that are prerequisites to the use of the structures themselves. These might include, for example, streets, sewers, gas and water mains, and electricity and telephone lines. The outer limit of these increasingly broad concepts of the housing sector would involve summing the parts of the assets of all other sectors whose output enters into housing or its use. Their assets would be allocated to housing in proportion to their sales by using the information that would be contained in an interindustry relations (input-output) table in which residential housing was one of the industries delimited.

A similar range of possibilities arises with the definition of intangible assets attributable to the housing sector. Under the narrowest definition only mortgage debt on residential housekeeping structures would be included. This could be expanded to include debt on land and nonhousekeeping structures. Other debt incurred specifically for the purpose of financing the purchase of houses or household equipment could also be added, particularly such items as bonds issued by public housing authorities. A still broader definition might add debt incurred by governments and businesses for streets and public utility installations.

In general, we have used the narrower concepts for both tangible and intangible assets. We have included only structures in some cases, structures plus land in others, only housekeeping units at times, and all residential units at others. For the broader concepts of the housing sector, we have confined ourselves to a few scattered remarks about the possible size of the additional items.

Housing is unique among the major service elements of the national product in that it is produced mainly within the household sector. In every year since 1929 more than half of nonfarm home rental value has been accounted for by imputed rent on owner-occupied homes, and the proportion in recent years has been over two-thirds.[3] Even rental housing services are supplied mainly by the household sector, that is, by persons not primarily engaged in renting real estate as a business.[4] On the whole, it seems likely that the share of housing services provided by business has declined since World War II.

The fact that housing services are provided mainly by the household sector is reflected in the composition of housing assets.[5] An overwhelming proportion of America's housing stock—90 per cent of the value in 1960—is made up of privately owned one- to four-family structures. More than three-quarters of the total value is in houses that are owner-occupied or for sale. Even rental housing was concentrated, to the extent of 69 per cent, in private one- to four-family structures. About half the value of rental housing was provided by one-family houses and two- to four-family houses with no owner-occupant. Of the remainder, private multifamily structures accounted for half and owner-occupiers of two- to four-family houses most of the rest. About 7 per cent of rental housing was owned by all governmental units in the United States.

In the postwar period (through 1960), the stock of nonfarm residential real estate, including land, grew by $342 billion to $508 billion. Most of this increase consisted of valuation changes: $148 billion in capital gains on housekeeping structures and another $46 billion in changes in land values which must have been mainly capital gains but probably included some net purchase of land from other sectors.

The data on capital gains and net investment point up the stagnation of the multifamily housing sector since World War II. Net investment in one- to four-family structures from 1946 through 1960 added roughly 94 per cent to the total value in existence in 1945, while it enlarged the stock of private multifamily structures by less than 10 per cent. Furthermore, over 50 per cent of the net increase in the value of one- to four-family houses, as contrasted with only 10 per cent for multifamily structures, was accounted for by net investment. What little net investment did take place in private multifamily structures was concentrated in the three years 1948-50 and, to a lesser extent, in 1959-60; new construction in other years was barely adequate to offset the depreciation on the aging stock of these buildings. Relative to the initial postwar stock of each type, construction of public multifamily

[3] *National Income,* 1954 Edition, Supplement to the *Survey of Current Business,* Washington, 1954, pp. 206-207; *U.S. Income and Output,* Supplement to the *Survey of Current Business,* Washington, 1958, p. 150, and *Survey of Current Business,* July 1962, p. 14.

[4] *National Income,* 1954 Ed., pp. 86-90.

[5] Table 69.

housing was much larger than private, and the public share in postwar multifamily construction, roughly one-third, was much greater than its share in the housing stock. Because it is not offset by depreciation on a large initial stock, the public share in net investment in multifamily structures may have reached as high as two-thirds. Nonprofit housing cooperatives, of negligible importance before the war and as a part of the housing stock even now, have accounted for roughly 6 per cent of multifamily construction since the war. Since this sector has no stock of old buildings to depreciate, it may account for close to a third of net investment in multifamily property.

Residential mortgages play a much smaller role among liabilities and intangible assets than housing among tangibles. This follows from the nature of mortgages. Residential mortgages are limited to a fraction of the value of housing while total intangible assets in the United States have been greater than tangibles since the 1920's. The identification of mortgages with specific properties renders impossible the type of pyramiding that takes place with other intangible assets; it must be very rare to find mortgages on a single property adding up to more than 100 per cent of the market value. Furthermore, most residential properties are not mortgaged at all.

Nonfarm residential mortgages constituted a larger fraction of total liabilities (9 per cent) and of intangible assets (over 6 per cent) in the national balance sheet in 1958 than in any previous year. But there have been large swings in these ratios and there was no clear upward trend before the 1950's. Relative to total private debt, corporate bonds, and the total assets of all financial institutions, however, these mortgages had been rising in importance.

The debt ratio for housing—that is, the ratio of mortgage debt outstanding to the total value of housing assets—reached its peak level (over 30 per cent) at the end of our period (the level was also quite high in 1933). Debt ratios have usually risen in building booms, such as in the 1920's and 1940's, and they also rose during the one sharp price decline observable in our data, that of 1929-33. High construction levels raise the debt ratio by increasing the proportion of new housing, usually heavily encumbered; a price decline raises it by reducing the current value of housing, leaving liabilities unchanged.

The postwar rise in the housing debt ratio (which more than doubled from the low levels reached during World War II) occurred in the face of very large increases in house prices. The house price increases alone would have been sufficient, even in the absence of amortization and other mortgage repayments, to lower the debt ratio on the housing in existence in 1945 from 14 to 7 or 8 per cent. The growth in debt that took place was not all accounted for by new houses; it is clear that in the first few years after the war, and probably later as well, the effect on owners' equity of increases in house prices was partly offset by increases in mortgage debt on old houses.

Home-owners gained from inflation in a number of ways. Even those without mortgages gained nominally from increases in house prices, and they may have enjoyed real gains as well, because there is some evidence that house prices increased more than the general price level. Owners of mortgaged homes stood to gain in real terms from the reduction in the real value of their mortgage indebtedness (see Part Two of this volume). Some owners of real estate converted their capital gains on old houses into cash or better housing either by increasing the mortgage indebtedness on the houses they owned or by using their increased equities to make down payments on more expensive homes. Both actions are ways of restoring the debt-asset ratio to the previous level or bringing the ratio to a level suggested by price expectations.

Among mortgaged properties, debt ratios are highest on rental housing and lowest on owner-occupied properties of two to four units. But taking all properties together, mortgaged and nonmortgaged, the ratios are highest on owner-occupied one-family homes. The explanation is that almost 50 per cent (by value) of owner-occupied one-family homes are mortgaged, compared with 35 per cent of rental properties. The high debt ratios on mortgaged rental properties are entirely accounted for by properties of fifty units or more; the ratios for smaller properties are quite similar to those of owner-occupied houses.

The fact that a high proportion of one- to four-unit rental housing is unencumbered is confirmed by data on numbers of units, which indicate that the proportion mortgaged may be half as great, or even less, for rental properties as for owner-occupied properties. One reason for this is that rented units, and particularly mortgage-free rented units, are considerably older than those occupied by owners.

There were considerable fluctuations in the postwar period around these long-term trends in housing and its financing. After the upsurge of construction in 1946 and 1947, nonfarm residential construction and net asset acquisitions by nonfarm households moved very similarly; the ratio of the former to the latter fluctuated only between 23 and 27 per cent. Mortgage flows underwent much larger and different fluctuations, showing particularly sharp peaks in 1950, 1955, and 1959. Equity financing of new houses, on the other hand, moved in conformity with postwar business cycles, reaching peaks in 1948, 1953, 1957, and probably in 1960, and falling in each of the following contraction years. In the years after the troughs of 1949, 1954, and 1958, mortgage lending increased with a rush and then fell back, while equity financing continued to rise throughout the upswing.

Ratios of construction expenditures to income suggest that consumers were persuaded to purchase more new housing in relation to income in 1950, 1955, and 1959 than in any other postwar years. However, they also seemed to add to other assets as rapidly as to housing assets in all three years. The changing ratios of mortgage flows to construction expenditures suggest that part of the increase in mortgage flows from 1949 to 1950, 1953 to 1955, and 1957 to 1958 was absorbed in a rise in the borrowing ratios. In neither of the first two of those periods were consumers persuaded to invest substantially more of their own funds in housing.

Data on gross flows, despite their crudity, permit two conclusions regarding mortgage repayment rates—the ratio of repayments to outstanding debt. One is that the rate is much higher for conventional than for guaranteed mortgages, and, among the guaranteed, higher for FHA than for VA mortgages. The second is that the repayment rate has been falling throughout the postwar period for total mortgages, each type of mortgage, and the mortgage holdings of each sector.

Using sample data, it is possible to go beyond the aggregates of owner-occupied and rented and of mortgaged and nonmortgaged property to the individual family units in the different types of housing. From these, some information can be derived on the factors which determine the choice among the various types of housing status: renting, owning a mortgaged home, or owning a home debt-free.

The characteristic most closely related to housing status is wealth, measured by total assets or net worth. At almost every age and at almost every income level, renters were the poorest (in terms of assets) and owners of debt-free homes the richest of the three housing status groups. Wealth may be a proxy here for lifetime income. Or, it may be that housing status itself, chosen for other reasons, such as family size, influences a family's net worth.

Once wealth has been taken account of, age serves only to differentiate owners of nonmortgaged homes from the other two groups, who were considerably younger. Older families shifted toward debt-free homes ownership either as a virtually automatic consequence of mortgage amortization or in preparation for future declines in income.

If the age comparison is made without eliminating the influence of wealth as a variable, an age difference between renters and owners of mortgaged homes appears, with the renters being the younger of the two.

Within wealth classes, there were no significant income differences between renters and owners of mortgaged homes, just as there were no age differences. Owners of debt-free homes, however, had the lowest incomes, a fact that can be accounted for by the age distribution. Within age groups, owners of mortgage-free homes had the highest incomes of the three housing groups, and, in particular, had the highest proportion in the over $25,000 income class.