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FEDERAL RESERVE BANK OF RICHMOND

MONTHLY REVIEW

Mobile and Modular Housing
Fifth District Investors and the
Bill Market
The Flow-of-Funds Accounts



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MOBILE AND MODULAR HOUSING

Since 1950 the construction of private one-family housing units has been declining, and in the last years of the decade of the 1960's, the rate of decline has risen sharply. In 1969 one-unit private housing starts decreased 9.9 per cent from the preceding year. The housing shortage has become more pronounced in recent years not only because of the decline in housing starts, but also because of a faster-than-expected growth in the number of new households demanding housing units. In 1967 and 1968, the number of new households increased by an average of 1.5 million per year. Requirements for new homes, resulting from a growing population, and a demand for replacement units and second homes of approximately a half million per year, have been estimated at some 2 million new housing units annually. Less than three-fourths of that number of homes were built in 1969.

The most important factors contributing to the national housing shortage are rising costs of construction and financing. Although the price of materials has increased an average of only 1 per cent per year over the past three years, land costs in metropolitan areas rose between 10 and 25 per cent last year. Current union contracts for construction workers have provided wage increases of 10 to 20 per cent per year in recent years, and the wages for unorganized workers have risen at a similar pace. Financing costs have also moved up sharply, with both down payment requirements and mortgage rates rising. Overall, the cost of home building has risen at a rate of approximately 10 per cent annually during the past few years.

In 1969 the average price for conventionally-built new homes was \$19,225, \$5,425 higher than the cost of a similar home in 1960. Based on rules of thumb commonly used by financial institutions, income statistics indicate that almost half of the families in the United States cannot afford to pay over \$15,000 for a home.

During the past decade mobile homes have evolved as a partial solution to the low-cost housing problem. Manufacturers' shipments of mobile homes quadrupled in the 1960's (see Chart I). One of the major reasons for the growth in sales of mobile

homes has been the low cost of construction for these units compared to construction costs for conventional homes. Labor, which accounts for as much as 50 per cent of on-site construction costs, represents as little as 10 per cent of the cost of a mobile home. Manufacturers of mobile homes employ semi-skilled workers at wage levels comparable to those of other industrial workers. Building contractors, however, must pay much higher wages for skilled craft laborers.

The changing composition of today's population has also been a factor pushing sales upward. For many years, the largest groups of mobile home dwellers have been young couples and retired couples. Historically these two groups have accounted for 70 per cent of mobile home sales. Rapidly increasing life expectancy and the post World War II population boom have made these two groups the fastest growing segments of our population.

Growing popular acceptance has enhanced the sale of mobile homes significantly. Although many factors have contributed to their popularity, two of the most important have been improved construction and durability and the development of modern, well-planned mobile home parks. Each of these factors has been instrumental in the decision of many urban communities to use mobile homes in redevelopment projects.

DEVELOPMENT OF THE MOBILE HOME MARKET

Mobile homes originally developed as an extension of the trailer industry. Although the construction of camping and travel trailers began in the 1930's, it was not until after World War II that the house trailer became popular. These were usually 8 feet wide and 25 to 28 feet long. Units 10 feet wide and 34 to 60 feet long were developed in the 1950's. In 1962, 12-foot wide units were introduced and these have become increasingly popular. Larger sizes, as well as improvements in the quality of furnishings, have made mobile homes more attractive to low-to-middle income families whose demand for housing is restricted to homes under \$20,000.

In spite of improved construction, better furnishings, and more living space, many people still associate mobile homes with the trailer camps that

mushroomed in the post World War II period. Evidence of the slowly changing image of mobile homes can be seen by examining current housing statistics. The Department of Commerce continues to exclude mobile homes from their housing statistics; instead mobile homes are classified with vehicles, even though 80 per cent initially placed on a landsite are never moved. Mobility is not an important reason for purchasing mobile homes. Statistics indicate that the average American family living in a conventionally-built home moves more frequently than the average mobile home dweller.

The importance of mobile homes to the housing market should not be underestimated. These homes accounted for 90 per cent of all housing selling for under \$15,000 in 1968. More than one-third of all single-unit homes started in 1969 were mobile homes. The median income of mobile home families was less than \$1,000 below the 1968 national average of \$8,632. One-fourth of the heads of mobile home families are skilled workers, and 15 per cent are professional workers. A recent Housing and Urban Development (HUD) survey of families living in new mobile homes showed that 50 per cent of the heads-of-households were under thirty-five years old. Since the peak earning years are still ahead for most of these families, this partially explains why the median income of mobile home families is less than the median U. S. family income. The large per-

centage of retired couples also contributes to a lower median income level for mobile home dwellers.

PROBLEMS FACING THE MOBILE HOME INDUSTRY

Although the low cost of mobile homes makes them attractive for purchase by several income groups in the United States, the mobile home industry faces major obstacles in its efforts to assume an important role in reducing the national housing shortage. Among the most significant problems are those concerned with park development, local zoning laws and tax structures, and availability of favorable financial terms for purchase of mobile homes and development of parks.

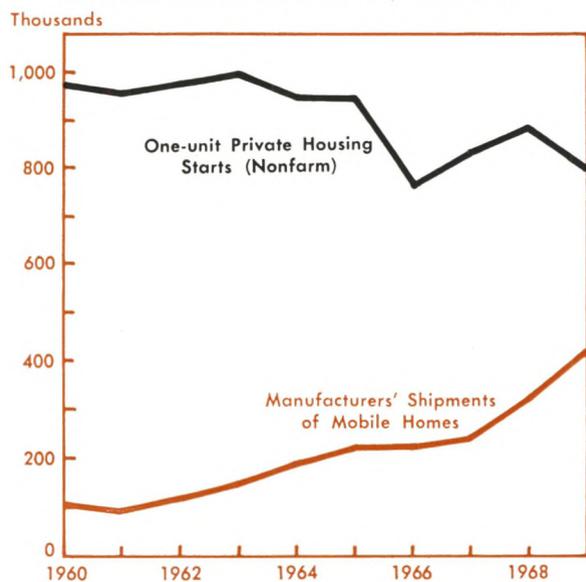
Park Development Universal C.I.T. Credit Corporation recently conducted a national survey of mobile home dealers to determine the major obstacles to future growth in the industry. Forty-three per cent of the dealers responding to the national survey cited shortage of parks as the main problem that should be solved to improve sales. Woodall Publishing Company, which publishes the Mobile Home Park Directory, claims that there is a sizeable shortage of park space. Their figures show an increase of 118,105 mobile home sites in 1969 compared to a gain of 77,444 in 1968. Although Woodall compiles statistics on less than 55 per cent of the sites, the Company contends that the remaining sites are filled. Specific figures on the shortage of park space are very difficult to determine, since approximately 50 per cent of all mobile homes produced are placed in rural areas or backyards of suburban land developments.

Recent ventures into construction of mobile home parks by corporate giants indicate a widespread feeling among these firms that shortages of space will provide sufficiently attractive returns to warrant continued expansion in the industry. Some of the recently developed parks are designed to give the appearance of a typical suburban housing development. Some parks also provide swimming pools, community centers, and golf courses.

Zoning and Taxation Another major obstacle to future growth in the industry results from the reluctance of local government authorities to permit parks to be built in areas zoned for residential housing. These restrictions drastically reduce the quantity of reasonably priced land available to park developers and result in the location of parks in sections that are unattractive for, and often far removed from, other residential housing. Not only does this cause the head of the household to commute from outlying areas, but it often means that

Chart I

COMPARISON OF HOUSING STARTS AND MOBILE HOME SHIPMENTS, 1960-1969



Source: Mobile Homes Manufacturers Association and U. S. Department of Commerce, *Construction Review*.

schools and shopping centers are inconvenient for the mobile home dweller.

Recently some states have begun to regulate mobile and other factory-built housing rather than leaving supervision to local authorities. In Virginia, for example, a law which will become effective July 1971, provides that factory-built units and mobile homes meeting state specifications will be allowed in all localities. The opposition which county officials have expressed to this law illustrates why states must take the initiative in zoning regulations. Since the major criticisms cited by county officials have been overcrowding of existing schools and increased need for new schools, an influx of factory-built homes into the counties may force local government officials to re-evaluate the role of these homes in their overall tax structure.

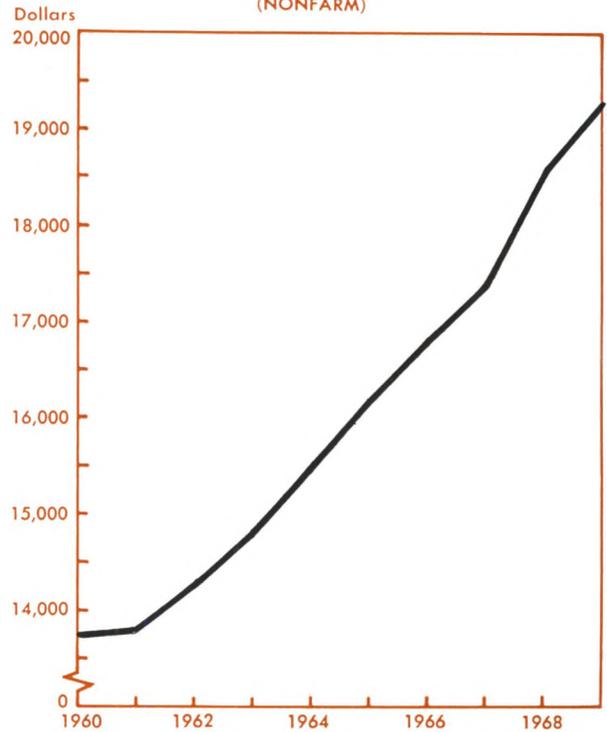
At the present time, some states consider mobile homes as vehicles and issue license plates, while others treat them as personal property not subject to real estate taxes. One state considers them homesteads if they are attached to the ground, and owners are permitted to claim a \$3,000 homestead exemption. The various ways that governmental units approach the problem of taxing mobile home dwellers point to the need for further study in determining an appropriate tax structure.

Financing The third major problem confronting the mobile home industry has been the financing of new homes and parks. Recent legislation should greatly ease financial conditions for both purchasers and developers. In 1968 and again in 1969 Congress passed housing legislation authorizing the Federal Housing Administration to insure mobile homes. The 1969 bill, passed in December, extended the maximum repayment period to 12 years and increased the maximum permissible size of the loan to \$10,000. In order to qualify for a loan, a borrower must plan to use the mobile home as his principal residence at least three-fourths of the year and must have FHA approval of the proposed site.

Revised FHA regulations also provide more favorable conditions for park developers. They permit loans to be insured up to a maximum of \$3,500 per space and permit repayment over a 40-year period. The former regulation limited the insurance to \$1,800 per space and the repayment period to 15 years.

Conventional retail financing of mobile homes is currently similar to that of automobiles. The lending institution usually buys consumer paper from the dealer. Maturity terms range up to seven years for new homes and require only about a 10 per cent down payment. Rates charged by financial institu-

Chart II
AVERAGE CONSTRUCTION COST OF PRIVATE
ONE-UNIT HOUSING, 1960-1969
(NONFARM)



Source: U. S. Department of Commerce, *Construction Review*.

tions for mobile home purchases vary widely throughout the country, currently ranging from the 8 to 9 per cent average on conventional home mortgages to the 18 per cent that other lenders charge for instalment credit. The average effective interest rates are usually 11 to 12 per cent, because mobile homes are still considered vehicles and loans are made on an instalment basis. Since these loans yield a higher rate of return to financial institutions than most other loans, mobile home buyers have been able to finance their purchases in tight money periods.

Many commercial banks and savings and loan associations, however, are reluctant to begin making mobile home loans. Financing in the past has been concentrated in a small number of commercial banks and finance companies which also provide inventory financing for dealers. Since 1965 finance companies have become more and more active in mobile home and park financing. Statistics indicate not only a higher rate of return on mobile home loans than most other types of loans found in the portfolios of financial institutions, but also a lower delinquency rate than loans on one- and two-family houses insured by the FHA.

In an effort to allow Federal savings and loan associations to engage actively in mobile home financing, the Federal Home Loan Bank Board has enacted three changes. The recent ruling permits the savings and loan industry to lower immediately its ratio of liquid assets to total deposits from 6 to 5½ per cent, thus freeing additional funds for lending purposes; it formally authorizes Federal savings and loan associations to finance mobile homes; and it allows them to lend up to 5 per cent of their assets for new and used mobile homes. Maximum maturity periods of 12 years are permitted for new homes and 8 years for used homes.

OTHER DEVELOPMENTS IN HOUSING

Despite a threefold increase in sales since 1960, mobile homes alone cannot fill the void in housing requirements. A likely candidate which has emerged in recent years to fill this gap is the related modular housing industry. Like mobile homes, modular homes are built in factories rather than at the residential site. One or more units are moved to the location and are then assembled at the site.

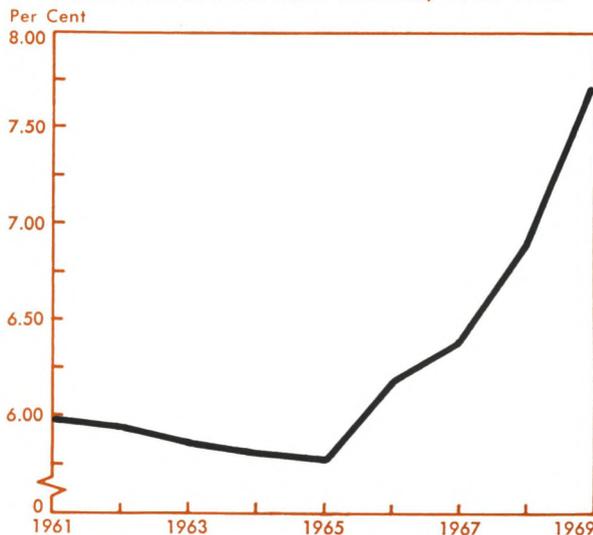
The major advantages enjoyed by modular construction firms over conventional contractors are obvious. Labor costs, as indicated earlier, are substantially lower for factory-produced housing than for conventionally-built units. Assembly line techniques result in more efficiency and better quality control than is possible in on-site building. The rate of output per man-hour is also considerably higher for factory-built homes.

Modular units are no longer limited to a small number of unattractive box-like structures. Several firms now have the ability to produce single- or multiple-family housing units in a variety of shapes with choices of wood, aluminum, and brick-veneer sidings.

HUD's "Operation Breakthrough" provides an indication of the importance of modular construction in satisfying future housing needs. The project's major purpose is to develop methods for producing reasonably-priced high-density housing. HUD selected 22 companies to participate in Government-sponsored nationwide building projects. The emphasis is apparent when examining the plans of the award-winning firms; for example, one HUD award winner plans to build two 150-unit high-rise apartment houses using modular units.

Modular construction, however, is not without its

Chart III
CONTRACT RATE ON CONVENTIONAL FIRST MORTGAGES FOR NEW HOMES, 1961-1969



Note: Interest rate data for 1961 and 1962 are F.H.A. estimates.

Source: Federal Reserve Bulletin.

obstacles. Problems similar to those facing the mobile home industry must be overcome if the potential of the industry is to be realized. In some sections of the country, modular units are prohibited since local building inspectors must be able to examine wiring and plumbing at the home site. FHA officials travel to factories to check units as they are constructed, but local governments often do not provide factory inspection. Before factory-built housing receives general acceptance, the public must be convinced that the quality of workmanship equals or surpasses that of conventionally-built homes.

CONCLUSIONS

With the total number of households expected to grow from approximately 63 million in 1970 to 84 million in 1985, total housing requirements in this country will continue to increase. Mobile homes have emerged as one possible means for satisfying a small portion of the housing needs. Perhaps the greatest potential, however, lies in multiple-unit modular construction. Rising land and construction costs necessitate the development of methods that will provide high-density low-cost housing, and modular construction appears to be the most likely candidate to meet these qualifications.

*Clyde H. Farnsworth, Jr.
H. Suzanne Jones*