

Carol B. Meeks
John C. Hession

Alternative Mortgages in Nonmetro America

About 10 percent of nonmetro home buyers have alternative mortgages on their homes. These mortgages can have variable interest rates, variable monthly payments, and variable pay-back schedules. Borrowers who use such mortgages generally have higher incomes than borrowers with conventional mortgages, buy more expensive houses, and pay a slightly larger percentage of income on mortgage payments.

Few people can purchase a home without borrowing and the borrowing instruments available for financing home purchases multiplied greatly in the past decade. New mortgages were introduced that affect borrowers and lenders in different ways. This article compares the uses and costs of standard mortgages in nonmetro areas with two new alternative mortgages.

The *fixed-rate mortgage* (FRM), first introduced in the early 1930's, is the main financial instrument to finance housing in the United States. FRM monthly payments and interest rates are constant over the life of the mortgage, and the repayment period is fixed, usually 20–30 years.

Fixed-rate mortgages work well for both borrowers and lenders in a stable economy. However, during periods of high inflation, such as the U.S. economy experienced in the 1970's, interest rates rise and lenders become wary of writing long-term mortgages at fixed interest rates

Carol Meeks and John Hession are economists in the Economic Development Division's Housing Section.

Alternative mortgages (graduated payments or variable rates) accounted for nearly 10 percent of nonmetro home loans outstanding in 1981.



About the Data

The data were obtained from the 1981 Survey of Residential Finance and include first mortgages on one-unit owner-occupied nonfarm properties. The Survey of Residential Finance was conducted in 1981 by the Bureau of the Census as part of its 1980 Census of Housing. A sample of about 62,000 housing units was drawn from addresses in the 1980 Census of Population and Housing.

because of the uncertainty about future interest rates. Lenders willing to take the risk will often add an "inflation premium" into the mortgage interest rate to make sure the loan remains profitable. Since the inflation premium increases the borrower's monthly payments, some borrowers are unable to purchase a home or purchase one that does not meet their long-term needs. Today, the average American family can no longer afford the mortgage payments on the average American home financed with an FRM.

A number of alternative mortgage instruments (AMI's) have been introduced that *initially* have lower interest rates and thus, lower monthly mortgage payments. We discuss the two major types: variable-rate mortgages and graduated payment mortgages (fig. 1).

Variable-rate mortgages (VRM's) allow the interest rate and thus the monthly mortgage payment to change with economic market conditions. Interest rate changes are renegotiated periodically with changes based on a market index such as the prime lending rate, short-term Treasury bills, interest rates on saving accounts, and so forth. A change in the interest rate requires a change in the amount of the monthly payment, the duration of the mortgage, or both. VRM's can differ by the reference index, how often the interest rate is renegotiated, and whether monthly payments or the length of the loan can be changed.



| Type of mortgage | Interest rate | Payments | Length of loan |
|-------------------|---------------|-----------------------|----------------|
| Fixed rate | Fixed | Fixed | Fixed |
| Variable rate | Can change | Can change | Can change |
| Graduated payment | Fixed | Increases at set rate | Fixed |

Figure 1
Major variables among different mortgage instruments

Graduated payment mortgages

(GPM's) have a predetermined schedule of increasing monthly payments. Payments usually rise in a stepwise pattern, although the interest rate is fixed. Payments rise for 5 to 10 years, then remain constant. The lower initial payments are attractive to young borrowers who expect their incomes to rise.

Nearly 10 percent of nonmetro homes were financed with an alternative mortgage as of 1981. GPM's accounted for over 5 percent while VRM's were held by more than 4 percent of borrowers. Over 90 percent of the homes were financed with FRM's (fig. 2).

Although the 10-percent figure for AMI's may seem low, it is higher than one might expect given the novelty of these mortgages in the late 1970's.

Some Mortgage Differences, More Similarities

Mortgage amounts varied by type of mortgage. The average amount borrowed was higher for VRM's and GPM's (about \$30,000) than for FRM's (about \$23,000). This was expected since there was a larger number of older FRM's in the survey (table 1).

Loan terms for FRM's and GPM's were identical; each averaged 23 years compared with 15 years for VRM's.



| Alternative mortgages | Variable rate | 4.2% |
|------------------------|-------------------|-------|
| | Graduated payment | 5.2% |
| Conventional mortgages | Fixed rate | 90.6% |

Figure 2
Alternative mortgages about 10 percent of 1981 nonmetro total

Insurance is an important feature of a mortgage because it protects the holder of the mortgage if the borrower defaults. Mortgage insurance is not mandatory. It is the option of the lender to decide whether the loan requires insurance. About a third of FRM's were insured while about a quarter of GPM's were. Only 3 percent of VRM's were insured. A possible explanation for this disparity relates to government insurance. As of 1981, government agencies did not insure or guarantee VRM's, although the Federal Housing Administration (FHA) is currently working on rules that will allow it to insure such mortgages.

The average nonmetro homeowner with a mortgage was a white male, about 40 years old, whose household contained three or four persons (table 2). Household size, race, sex, and age were nearly identical, regardless of the type of mortgage used to purchase the home.

Table 1—Profile of nonmetro mortgage characteristics, 1981

| Mortgage characteristic | FRM | VRM | GPM |
|-------------------------|----------|----------|----------|
| Amount of mortgage | \$23,313 | \$29,846 | \$28,444 |
| Term (years) | 22.9 | 14.6 | 23.0 |
| Percent insured | 37.7 | 3.0 | 23.9 |

Household incomes of alternative mortgage borrowers averaged about \$4,000 higher than those of borrowers with FRM's—\$27,000 vs. \$23,000. A more important measure of a house's affordability is the percentage of yearly income used to pay the yearly sum of the mortgage payments. This indicator varied slightly by mortgage type. Households with FRM's paid the least (about 14 percent), followed by GPM borrowers (15.5 percent) and VRM borrowers (nearly 16 percent). A common rule of thumb is that a household should spend no more than 25 percent of its gross income on housing.

If interest rates on VRM's increase, so will their payment-to-income ratios. VRM borrowers are well positioned with regard to these ratios, however. Interest rates would have to increase dramatically before VRM borrowers would approach the 25-percent threshold. They have plenty of leeway for interest rate increases.

One argument for the introduction of AMI's was that some borrowers who could not afford the payments on a home with an FRM may qualify with an alternative mortgage, since AMI's initially have lower payments. Although the logic of this argument is sound, it does not fit the data. The average home values were much higher for homes purchased with AMI's than for homes purchased with FRM's. The average FRM home was valued at \$48,685 compared with \$58,004 for GPM homes and \$63,632 for VRM homes (table 3). Thus, it appears that borrowers are using AMI's to purchase higher quality homes to meet their long-term housing needs rather than to buy a home they cannot afford with an FRM.

Summary

Growth of alternative mortgages in residential finance has been rapid. About 10 percent of all nonmetro mortgages in 1981 had terms that could change over the life of the mortgage. AMI borrowers were quite similar to FRM borrowers in most respects. The chief differences were that AMI buyers had higher incomes,

Table 2—Snapshot of owners of nonmetro mortgages, 1981

| Owner characteristics | FRM | VRM | GPM |
|---|----------|----------|----------|
| Average household income | \$23,277 | \$27,342 | \$26,315 |
| Income spent on mortgage payments (percent) | 13.6 | 15.9 | 15.5 |
| Average household size (number) | 3.4 | 3.3 | 3.6 |
| Median age of household head (years) | 41 | 41 | 40 |
| Percent male | 86.4 | 92.3 | 89.4 |
| Percent white | 94.0 | 100.0 | 96.3 |

Table 3—House characteristics of nonmetro mortgages, 1981

| House characteristics | FRM | VRM | GPM |
|-------------------------|----------|----------|----------|
| Average number of rooms | 6.3 | 6.3 | 6.4 |
| Median age (years) | 20 | 14 | 20 |
| Average value | \$48,685 | \$63,632 | \$58,004 |

purchased higher valued homes, and borrowed more for their homes than FRM buyers.

Where does this lead us? The mortgage market is changing and will continue to do so. The use of AMI's will increase. A survey conducted by the National Association of Realtors found that 36 percent of home sales nationwide were financed with a VRM in June 1984. The Department of Housing and Urban Development published interim rules, which became effective July 30, 1984, dealing with FHA-insured VRM's. The rules state that interest rate changes must be pegged to changes in the weekly average yields on U.S. Treasury securities adjusted to a constant maturity of 1 year. Interest rate adjustments must be made annually with no single adjustment exceeding 1 percentage point over the previous year's rate, and a total maximum adjustment of 5 percent over the life of the mortgage.

AMI's seem to be here to stay. Undoubtedly, some borrowers will face managerial problems if interest rates and mortgage rates rise to higher levels than expected, or if incomes fail to rise as fast. In nonmetro areas, AMI borrowers spent about 16 percent of their income on mortgage payments and could in theory afford higher payments. **FDP**

Robert A. Hoppe

Some Persistently Low-Income Counties Make Advances

Some of the poorest counties in the Nation in the 1950's and 1960's improved their incomes in the 1970's. They did that primarily through nonfarm industries, especially services and manufacturing. Mining also provided a large share of the growth in some of the counties with the largest income improvements. Farming helped some counties, but farm income has been too erratic recently to be reliable. Nothing guarantees a county's escape from low income; some of those that escaped earlier in the decade returned to low-income status by 1979.

Despite rural America's economic gains during the 1970's, some nonmetro areas remained as severely depressed as they had been for decades. I recently examined 298 nonmetro counties with persistently low income in the 1950's and 1960's to see how they fared in the 1970's. These persistently low-income counties had per capita income in the lowest fifth of all nonmetro counties in 1950, 1959, and 1969.

Some counties made economic progress despite their history of persistently low incomes. The data show what causes growth and how low-income counties can rise from poverty.

I divided the 298 persistently low-income counties into four categories based on per capita income in 1975 and 1979. I used 2 nonconsecutive

Robert Hoppe is an economist with the Economic Development Division's Income Studies Section.