The Affordability of Alaska's Housing: 1987-1991

by F. Terry Elder

Changes in the affordability of homes result from an interaction of changes in home prices, interest rates, underwriting standards, and borrower income. Based on loan data obtained from the Alaska Housing Finance Corporation (AHFC), housing became less affordable during the year ending March 1991. The good news for home buyers, however, is that housing in Alaska was still more affordable than it was in the fourth quarter of 1987. These are the conclusions of a report recently prepared for AHFC by the Research and Analysis Section of the Alaska Department of Labor. (See sidebar this page.)

More affordable housing is good for home buyers, of course. If it results from falling market values of homes, however, it is bad for current homeowners. In the best of worlds, housing would become more affordable as rising incomes more than compensate for stable or rising home values. As the period of 1987 to the first quarter of 1991 shows, however, it is not always the best of worlds.

During the four years ended in the first quarter of 1991, changes in prices generally dominated changes in affordability. Not every type of housing and every area is affected the same way. Therefore, there are always some areas and types of homes that are weaker or stronger relative to others. A complete analysis of affordability would be based on all of a household's sources of income and its assets. The income is needed to meet the mortgage payments. The assets are needed to meet the required down payment and closing costs. Since such data are not available on a timely basis for each geographic area of the state, the unemployment insurance wage file was used to determine the median value of wage income in various locations of the state.

This median wage can be compared to the income required by a lender to meet the monthly payment (principal plus interest) on a 90% mortgage on the median priced home in the same area. As the monthly mortgage payments rise relative to incomes, housing becomes less affordable. As incomes rise relative to mortgage payments, housing becomes more affordable.

The report features an "Affordability Index" which indicates the ease or difficulty of qualifying for an average mortgage. The index is expressed as an area's average number of persons per household required to afford the average mortgage. It is computed by dividing the minimum income required for the area's average mortgage by the area's average wage income.

A larger index number means the household must contain more people, who are earning the average wage income, in order to qualify for the mortgage. If the indicator gets larger over time in a particular geographic area, it is becoming more difficult to qualify for the average home in that area. During any quarter of any year, the value of the indicator in one area can be compared to that of another area. Again, housing is considered to be less affordable in the area with the larger value for the indicator.

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Income increased, home prices declined

All three types of single family dwellings (condominiums and single family residences with and without a garage) increased in affordability between the first quarters of 1987 and 1991. (See Figure 1.) The number of wage earners needed to qualify for a 90% mortgage (the Affordability Index) fell sharply through 1987. This means that housing became more affordable. The index continued to decline moderately until the second quarter of 1990. It began to rise as home price increases began to outpace income gains, and AHFC's subsidy reduction slightly increased the median mortgage payment.

Over the entire period, two primary factors influenced the index and caused housing to increase in affordability.

The publication, *Alaska Housing Market Indicators*, provides detailed statistics relating to Alaska's housing market. The report was funded by the Alaska Housing Finance Corporation in order to establish baseline indicators of the condition of Alaska's housing market. The information is derived from new surveys conducted by the Alaska Department of Labor, from housing loan characteristic information from Alaska Housing Finance Corporation and other sources. Selected housing market statistics from the 1990 Census are also included in this report. Building permit information was obtained through personal and survey contact of virtually every local government agency in Alaska. Housing sales information was obtained from the reporting Multiple Listing Service agencies throughout the state

[1]For most of the 1980s, AHFC loans have included a state subsidy which takes the form of a lower interest rate on the borrower's loan. The unsubsidized interest rate is essentially the corporation's cost of funds. The subsidized rate is less than the cost of funds only when the cost of funds exceeds 10%. The subsidized and unsubsidized rates were both 9.125% in early 1987. The subsidized interest rate may not apply to the total loan amount. There is a size limit set by law, and that limit is being phased out gradually.

Average wage income increased, and average home prices declined. These more than offset slightly higher interest rates, whose rise had a negative effect on affordability. The underwriting standard was unchanged during the time period.

The median price of single family homes with a garage ended the period 22.1% lower than in the first quarter of 1987, but 28.5% higher than the low reached in the first quarter of 1990. The median price of single family homes without a garage declined 39.2% over the four-year period, and ended the period only 14.0% above the low reached in the second quarter of 1990. The greatest price volatility was in condominiums. The median price of condominiums ended the four year period 44.7% below the first quarter of 1987, but 42.5% greater than the low point reached in the first quarter of 1990.

From the first quarter of 1987 to the first quarter of 1989, average monthly wages fluctuated in a narrow range around $2,300. There was a sharp jump in the second and third quarters of 1989, and average monthly wages ended the period at a preliminary level of $2,465, up more than 7 percent. This increase caused homes to become modestly more affordable over the period.

Interest rates affect mortgage payments

Increases in AHFC interest rates slightly offset the positive impacts of declines in home prices and increases in wage income. The subsidized interest rate was 9.1% during the first half of 1987, and then rose to a level of 10% for the rest of the period[1]. The unsubsidized rate rose sharply in the third quarter of 1987 from 9.1% to 11.1%. It declined in an irregular fashion beginning in the first quarter of 1990, but still ended the four-year period at 10.3%.

In addition to the higher interest rates, the monthly mortgage payment increased due to a reduction in the amount of the loan which was subject to the subsidized rate. From the first quarter of 1987 through the second quarter of 1990, the first $90,000 of a loan was subject to the subsidized rate. On July 1, 1990, this was reduced to $70,000. The effect of this action was the same as a general increase in interest rates on loans greater than $70,000. When the change occurred, only the median price of single family homes with a garage was greater than $70,000. The change did not affect a loan for the average condominium or single family home without a garage. The net result (holding other factors constant) was to make single family homes with garages less affordable both absolutely and *relative* to the other two types of homes.

The increases in interest rates, coupled with the reduction in the amount of the loan subject to the subsidized rate, reduced the affordability of housing (holding other factors constant). For example, on a $90,000 30-year fixed-rate loan, an increase in the loan rate from 9.1% to 10.1% increases the monthly mortgage payment by about $66. Applying this mortgage payment increase to the underwriting standard results in the lender requiring the borrower to earn $275 per month more to qualify for a loan.

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Affordability Index
(Number of Earners Required to Qualify for a 90% Mortage)
Statewide , 1st Quarter 1987-1991

Note: 4th Quarter 1990 and 1st Quarter 1991 are preliminary

Source: Alaska Department of Labor, Research & Analysis