below 100 indicates that the monthly mortgage payment places a significant burden on first-time home buyers, even during a period of record low interest rates. NAR's first-time home buyer index ranged from 75 to 86 between 1991 and 1993 (84 in 1994).

(5) *Increased Interest Rates*. The 1994 jump in interest rates reduced housing affordability. According to Freddie Mac's primary market survey, interest rates for conventional, 30-year, fixed rate mortgages increased from a 25-year low of 7.05 percent in the fourth quarter of 1993 to 9.10 percent in the fourth quarter of 1994, with a subsequent decline to 7.95 percent in the second quarter of 1995. The 1994 increase made it more difficult for potential first-time home buyers to qualify for conventional mortgages, as reflected in the decline in NAR's composite affordability index from 142 in the fourth quarter of 1993 to 127 in the fourth quarter of 1994. The first-time home buyer's index dropped from 92.3 to 82.4 during this period. Both indexes would have fallen further if incomes had not risen to partially offset the effects of increased interest rates.[33] However, interest rates continue to remain lower and housing more affordable than was true for any previous extended period since 1977. Moreover, as the economic recovery continues, rising incomes should continue to offset the effects of higher interest rates.

While all of the factors identified above are subject to change, interest rates are perhaps the most volatile. HUD assessed the impact on Fannie Mae's and Freddie Mac's business from a 100- or 200-basis-point increase above actual 1993 and 1994 interest rates, that averaged 7.33 and 8.35 percent, respectively.[34] Table A.1. shows the resulting changes in purchases, assuming no offsetting increases in income or reductions in loan amounts for households with less than median incomes.

Holding everything else constant, a 100-basis-point increase in mortgage interest rates would result in a 2–3 percentage point drop in the GSEs' purchases of lower-income mortgages.[35] While the percentage of business in the lower-income category changes by less than 2 to 3 percentage points, the proportional change relative to its small base is far greater than that on the GSEs' share of higher-income business. This is because the lower the income classification, the greater the concentration of households near the 28 percent limit on the qualifying payment-to-income ratio. As Table A.1 shows, the pattern becomes more exaggerated with a 200 basis point change.

BILLING CODE 4210–32–P

[33] The qualifying payment-to-income ratio depends essentially on three elements: The interest rate, loan amount, and borrower's income. It can be shown that for every 100 basis point increase in interest rates (one percentage point), payment-to-income ratios rise by approximate 8 percent. However, this effect can be offset with either an 8 percent increase in income or an 8 percent reduction in the loan amount.

[34] The GSE data were limited to long-term, fixed-rate loans for one-unit, owner-occupied properties in metropolitan areas. A payment ratio was estimated for each loan using the Freddie Mac coupon rate prevailing 2 months prior to the origination date, an assumed annual tax and insurance rate of 1.8 percent, acquisition unpaid principal balance, and borrower's income. Estimated payment ratios would be biased upward to the extent the associated monthly Freddie Mac coupon rate or tax and insurance percentages exceed actual loan-specific rates. Because the monthly average of interest rates varied by less than one-half percentage point over any two-month period in 1993 or 1994, the potential bias is likely to be less than 1 percentage point in either direction.

[35] It was assumed that the lower-income, i.e., below-median-income, households whose payment-to-income ratios rose above 28 percent would leave the GSE distribution and either pursue non-GSE conventional or FHA mortgages to maintain their loan amount or defer their home purchase. Above-median-income households whose payment-to-income ratios rose above 28 percent were retained in the subsequent distributions under the expectation that they would either lower their loan amounts, raise their down payments, or switch to an ARM.