## Is There a Housing Bubble in Humboldt County? The Housing Market in a Rural California Region, 1989-2004— Executive Summary

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A great deal of attention has been paid recently to the price of houses in the U.S. and other countries because the average price has increased tremendously over the past few years. Current and future house owners, the real estate industry, and policy makers are concerned that a "housing bubble" has formed and that a bursting of the bubble is near at hand. A real estate market bubble is similar to a stock market bubble except that the asset price under consideration is the price of housing rather than the price of stocks. An asset price bubble is loosely defined as a situation where the price of the asset rapidly increases due to expectations of future price increases rather than changes in the underlying supply and demand "fundamentals" of the market. In the housing market, the fundamentals that affect house prices include the number of houses built, changes in population or income, and availability of mortgages, among other factors.

A detailed study of the housing market has not been performed for Humboldt County because Humboldt County is remote and rural. In general, many economists believe that there are housing bubbles in coastal U.S. markets while most areas of the interior U.S., especially the rural areas, exhibit no strong evidence of a bubble. While Humboldt County is located in California, a growing coastal state, it is also to a large degree more rural than other areas of California. Therefore, it is unclear whether Humboldt County will exhibit real estate market activity similar to other major California cities or to other rural cities in the nation.

There are some indications that a housing bubble may have recently formed in various U.S. markets. There has been an increase in the percent of people who own their house and a larger portion of house purchases are for second houses. More people report purchasing a house for "speculative" purposes rather than for residence. After the 2000 stock market decline, people may be more cautious about investing in stocks and may have turned to housing as a form of investment. Additionally, house ownership has become more attainable since credit has become more available, which has allowed

people to purchase houses that are a greater fraction of their income. However, this means that housing prices have increased far greater than household income. The Humboldt Association of Realtors calculates an "affordability" index, which is the percent of Humboldt County households that can afford a mortgage on the median priced house. In June, 1999 the value was 49%. By June, 2005, the value had fallen to only 13%.

The most common way to look for a housing bubble is to look at changes in the P/E ratio, which is the price of the house divided by the current yearly rent that the house could earn, after adjusting for maintenance costs.

Figure 2 shows the median price of houses sold. The median or middle price may be a more accurate indicator of the overall housing market price because the mean or average price is influenced more by changes in the top end of the market. Since 1989, the median price has risen but the rise has been much more pronounced since about 2002. There was a strong rise in housing prices from \$79,354 in 1989 to \$113,573 in 1994. Prices were unchanged for five years and began to rise in 1999 until they hit \$141,987 in 2001. Prices rose by almost \$25,000 in 2002 and almost \$37,000 in 2003. In 2004, the median house price rose by almost \$48,000 to \$251,746. Prices rose by 18, 22, and 24 percent in 2002, 2003, and 2004, respectively. The only other years in which the median price rose by over ten percent was in 1990 and 1991 when the price rose by 12 and 14 percent, respectively. Thus, in both absolute and percentage terms, the rise in median house prices in 2002-2004 was greater than in any period over the last fifteen years.

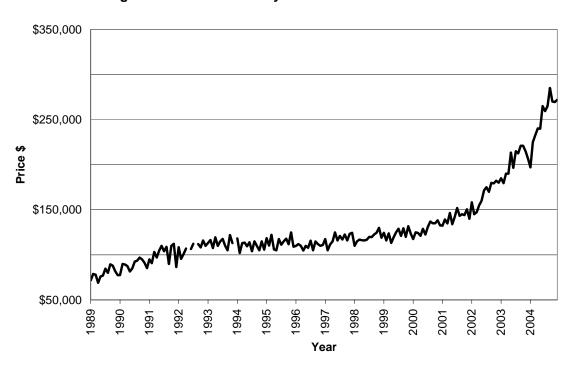


Figure 2. Humboldt County Median Price of Houses Sold

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House rental prices show a similar trend to house purchase prices. Figure 3 shows that rental prices rose until 1991, were flat and then began to increase in about 2001. The average rent increased by \$70, \$104, \$75, and \$101 in 2001, 2002, 2003, and 2004, respectively. The corresponding percentage increase in these years was 9%, 13%, 8%, and 10%. The only other time rents increased by more than five percent was in 1997 when the \$50 increase represented a 8% increase.

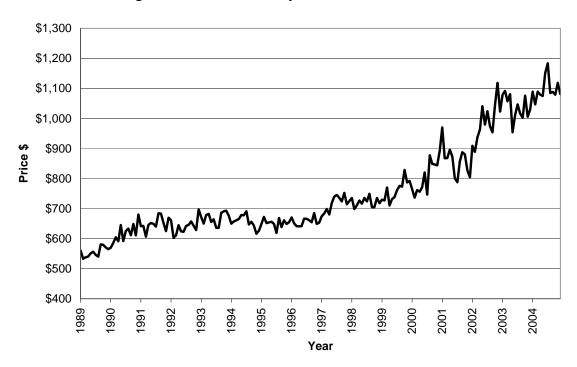


Figure 3. Humboldt County Mean House Rental Price

Figure 4 shows the P/E ratio for houses in Humboldt County. The yearly average P/E ratio rose slightly through 1992 then remained unchanged through 2002. In both 2003 and 2004, the P/E ratio rose by 3 points. In no year other than 2003 and 2004 did the yearly average P/E ratio rise or fall more than one point. The lowest monthly P/E ratio was 12.0 in May, 1990 and the greatest P/E ratio was 24.8 in September, 2004. From 1989 to 2002, the monthly P/E ratio average 15.4, while from 2003 to 2004 the P/E ratio averaged 20.2.

The rapid rise in the P/E ratio in 2003 and 2004 was more pronounced than any change in the P/E ratio over the period 1989-2004. Compared to 1989-2002, the P/E ratio in 2003-2004 averaged almost five points or 33% more. This P/E ratio increase is not as great as that which is observed in some housing markets, but it is greater than others in which a housing bubble is thought to exist. There is some evidence that low interest rates and vacancy rates may explain part of the increase in the P/E ratio, but other market fundamentals cannot explain the rise in the P/E ratio. We conclude that the P/E evidence is consistent with a housing bubble in Humboldt County.

₩ 18 Year

Figure 4. Humboldt County Housing P/E Ratio (medium home price/mean rent, adjusted for expenses)

We cannot predict what will happen to housing prices in the future. If there is a bubble, and if the bubble pops, then one possibility is an actual decline in housing prices, as was experienced by many regions in California over 1991-1992. This decline may be mild or severe. Another possibility is a very long period, perhaps a decade or longer, of stagnant house prices.

To summarize, the data we present for Humboldt County 1989-2004 is consistent with housing price movements in other coastal regions of the U.S. where some believe that a "housing bubble" has formed. In the three years from January, 2002 to December, 2004, the median house price appreciated by 72% or \$113,750, with the most rapid increase in 2004. More importantly, the P/E ratio never rose or fell by more than one point from 1989-2002. In both 2003 and 2004, however, the P/E ratio climbed by three points, so that it was 23.8 in December 2004 while it averaged 15.4 from 1989-2002.

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