An Analysis of The Harvard Center’s Case Against the Housing Bubble

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In response to the surge in home prices in the last eight years, and fears that this could lead to a future collapse in housing prices, the Joint Center for Housing Studies of Harvard University has published a study arguing that the housing market is sound, and that there is little basis for concern about a housing bubble.¹

The study makes four points to support its case that there is no housing bubble:

1) Over the years 1991 to 2001, household income rose almost as rapidly as the home price index;

2) It is rare for home prices to actually decline in nominal terms, more typically after a sharp price run-up homes experience modest declines in real prices, as their price does not rise as rapidly as the overall rate of inflation;

3) There continues to be a rapid rate of household formation (estimated in the paper at 1.2 million annually) due in part to high levels of immigration; and

4) The country is experiencing a low interest rate environment, which is likely to persist for the indefinite future.

It is easy to show that none of these four points should provide any reassurance to homeowners about the future value of their property. Each point is addressed in turn below.

Family Income and Housing Prices

Figure 1 in the Harvard study compares the growth in median family income with the growth in the Home Price Index (HPI) over the years 1991 to 2001.\(^2\) It shows that median income increased at only a slightly slower pace than the HPI over this period, approximately a 4.3 percent annual rate compared to 4.5 percent for the HPI. It infers that income has therefore kept pace with housing prices and therefore there is no housing bubble.

This logic is flawed at a very basic level. The HPI tracks the resale prices of the same homes. In other words, if the HPI rises by 5 percent in a year, it means that, on average, every individual home has increased in price by 5 percent compared with the price it sold for last year. There is absolutely no reason whatsoever why it should be expected that individual home prices would rise in step with family income – and it has never happened before during a period when family income was rising.

Unfortunately, the HPI only goes back to 1975, but prior to 1981, the homeownership component of the consumer price index was constructed in a manner that is similar to the current HPI, tracking the resale prices of the same house. In the years from 1955 to 1973, the shelter index of the CPI (which includes the homeownership component in addition to a rent component) rose by 77.9 percent, or an average of 3.3 percent annually. By contrast, median family income rose by 173 percent over this period, or at an average annual rate of 5.7 percent.

The study appears to confuse two distinct propositions. It is reasonable to believe that as a first approximation expenditure shares do not change much as income rises. This means that if a family’s income rises by 10 percent, we might expect that it will spend 10 percent more on clothes, cars, and housing. In this sense, if we found that spending on housing was rising in step with family income, then we may conclude that this is perfectly normal and should provide no basis for concern. Presumably people are moving into better homes as their income rises.

However, the HPI is not tracking spending on housing – it is measuring the change in the resale price of the same homes. Making an analogy to the auto market, if a family’s income goes up by 10 percent, then it may spend 10 percent more on cars, due to the fact that it will buy a better car. However, it would not spend 10 percent more to buy the same car.

This is exactly what the HPI is telling us – people are paying far more money to buy the same house. In the eight years from the first quarter of 1995 to the first quarter of 2003, the rise in the HPI has exceeded the overall rate of inflation by more than 33 percentage points. There is no historical precedent for this sort of run-up in home prices. Over the whole post-war period prior to 1995, home prices had moved roughly at the same pace as the prices of other consumer goods. There is no theoretical reason why the increase in home prices should exceed the increase in the price of other goods, nor is there any reason why it should keep pace with family income.

Past Patterns in Home Prices

Assuming that nominal home prices will not decline in the future, simply because they have not declined in the past, is simply a case of faulty logic. There has never been a nationwide run-up in housing prices (at least for which we have data) comparable to what has taken place over the last eight years. The extent to which housing prices can fall depends on the extent to which they have become over-valued.

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\(^2\) While the 2002 data may not have been available when the study was written, it is worth noting that the HPI increased by 6.9 percent in 2002, median household income increased by 0.5 percent.
The Harvard Center’s logic on this point is exactly the same as that of people who argued that the stock market was a sound investment even at the peak of the bubble. Extrapolating from prior experience (there had not been a prolonged downturn in the stock market since the Great Depression) is inappropriate in the face of a historically unique event. The run-up in housing prices since 1995 is historically unique in the same way that the run-up in stock prices prior to 2000 was a historically unique event. The extent to which either the housing market or stock market can be expected to fall depends on the extent to which these markets have become over-valued. Prior experience is helpful in this respect only to the extent in which comparable periods of over-valuation can be identified.\footnote{It is also important to note that the distinction between a fall in real versus nominal prices is not nearly as important as the Harvard study appears to suggest. If the nominal price of a house does not change at all over a ten-year period, but the overall price level has doubled, then the real value of this home has declined by 50 percent. If a homeowner had been planning to sell the home in order to support his or her retirement, then they will find that they have half as much wealth as they may have expected when they purchased their home. The fact that this decline in the real value of their home came about as a result of an increase in other prices, as opposed to a decline in home prices, makes little difference.}

The Rate of Household Formation

The Harvard Center expects demand for new homes to remain strong because it anticipates an annual rate of new household formation of 1.2 million annually, driven in part by the natural increase in the population and in part by immigration. While this 1.2 million figure may prove high (immigration has probably lagged in a weak economy and post 9-11 world), the important factor in determining home prices is the relative growth in demand and supply. The economy is currently adding more than 1.8 million housing units annually, an amount that exceeds the Center’s estimate of the rate of household formation by 600,000 a year.

Furthermore, with the housing sector proving extremely profitable for builders, there is no reason why this pace will not be maintained and even increased if housing prices remain at their current levels. The fact that supply growth is currently outstripping demand growth is showing up now in the record vacancy rates for rental housing (see table A-2 in the study). Supply will continue to exceed demand, and probably by a growing margin, unless prices fall back to more sustainable levels.

Interest Rates

The Center’s study was written at a time when interest rates were headed down to a forty year low. Since that time, interest rates have rebounded, although they still are low compared to their levels over most of the last three decades. However, almost no economists anticipate that interest rates (and most importantly real interest rates) will still be low long into the future. The prospect of large budget deficits for the indefinite future, coupled with the likelihood of rising inflation due to a falling dollar virtually guarantee that interest rates will be substantially higher in two or three years than they are today. The Congressional Budget Office projects that the interest rate on ten-year government bonds will average 5.7 percent from 2005-2008, approximately 1.4 percentage points above their current level. Most other forecasters have made similar projections.

Therefore, if low interest rates are the explanation for the run-up in housing prices, then it should be expected that housing prices will plummet when interest rates rise. This would be an argument for the existence of a housing bubble – not an argument against it.
Conclusion

There is little data in the Harvard study that can be taken as evidence against a housing bubble. The study relies primarily on a basic error in logic to make its case – noting that family income has kept pace with home prices – failing to recognize that there is no reason to expect that the price of individual homes will rise in step with family income, even if total spending on housing keeps pace with family income. It should be expected that families will spend more money to buy better homes, not pay more money for the same house. Apart from this error in logic, the Center’s study offers little evidence that undermines the case for a housing bubble.