

# Bubble Trouble? Not Likely.

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For the past several years, Chicken Littles have squawked that the sky -- or the ceiling -- is about to fall on the housing market. And it's tempting to believe them. The market sure feels like a bubble: The rampant growth of house prices over the past decade, the rising price of houses relative to rent and the astonishing gap in many cities between price and income are almost unprecedented in recent history. The last time things felt this way, in the late 1980s, real house prices subsequently dropped by one-third in cities like Boston and Los Angeles.

Yet basic economic logic suggests that this apparent evidence of a bubble is anything but. Even in the highest-price cities, housing is, at most, slightly more expensive than average. Here's why: While house prices over the last decade have gone through the roof, the annual cost of owning a house has not.

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The annual cost of owning, not the price of the house itself, is what homebuyers should (and do) consider when contemplating a purchase. And when comparing the cost of owning with annual rent or annual income -- which is a good way of determining whether house prices are out of whack in relation to the rental market or families' ability to pay -- annual cost is the right measure to use. That cost is simply the net cash outflow required to own a house for a year -- namely, the after-tax cost of financing the purchase price either by borrowing or through the lost risk-adjusted return on the equity tied up in the house, plus carrying costs such as maintenance and economic depreciation -- less the expected appreciation on the property.

We, along with Charles Himmelberg, a research economist at the Federal Reserve Bank of New York, computed annual housing costs for 46 housing markets from 1980 to 2004 in a study due to be published this fall in the *Journal of Economic Perspectives*. Our findings are striking. In none of the hottest housing markets did the ratio of the cost of owning to rent in 2004 exceed the average over the sample period in their own market by more than 13%. The highest was in Portland, Ore. Miami's ratio was 12% above average. But the ratios in the other oft-cited "bubble" cities such as Boston, L.A., New York and San Francisco were no more than 3% above their long-run averages. A similar pattern arises when we compare a city's cost of housing to its mean family income.

By contrast, in the late '80s, immediately prior to the large house-price declines of the early '90s, the ratio of the annual cost of owning to rent peaked 52% above the long-run average in San Francisco and New York. Boston and L.A. topped out, respectively, at 37% and 42% above the long-run average. Even allowing for growth in house prices during 2005, it is clear that while owning a house is not cheap, it is not inordinately expensive by historical standards.

Portland and Miami, and to a degree San Diego, are cities where we have a nascent concern. In those cities, the previous peaks exceeded 2004 levels by just 14 (Portland) to 25 (San Diego) percentage points. Of course, we don't know what ratio of owning to renting costs, or owning costs to income, would precipitate declines in house prices. But in these three cities the ratio of the cost of owning to the cost of renting was higher in 2004 than in at least 17 of the prior 25 years. In almost all other cities, the annual cost of owning in 2004 was no higher than their median values over the previous 25 years.

The number one reason the current cost of owning differs so much from the price of a house is the historically low level of real, long-term interest rates. Low rates reduce the yearly cost of financing and lessen the cost of tying up capital in the house. At a lower cost-per-dollar of housing, families are willing to spend more for a house, bidding up prices. A further decline in interest rates yields an even greater percentage reduction in the cost of owning because the base cost is already low. This relationship helps explain the increasing growth rates of house prices in the last several years in those cities where new home building is constrained by scarce land and regulation. (Ease of development is why the dislocation caused by Hurricane Katrina should have little lasting effect in many Southern markets around New Orleans, despite the inevitable near-term disruptions. For example, even in the face of strong population growth, Houston and Dallas have seen no real house-price increase over the last 30 years.)

On top of that, the priciest U.S. markets are themselves the most sensitive to interest rates. These cities have the highest rates of expected house price appreciation and thus their costs of owning -- which are reduced by capital gains -- are especially low relative to their prices. And a given change in interest rates has a larger percentage effect in those places where the cost of owning is the lowest.

Even the fact that some cities have higher price-to-rent ratios than others does not necessarily make owning there more expensive than renting. For example, the growth rate of house prices in San Francisco has exceeded the national average for more than 60 years, so relatively high financing costs are offset by above-average expected capital gains, reducing the owning cost-to-rent ratio. Indeed, owning a house in San Francisco is like buying a growth stock -- it may have a high price-to-earnings ratio, but no higher a risk-adjusted return.

We obviously don't think the sky's the limit for house prices. But when you combine the annual cost concept with recent growth in rents and incomes, today's pricing looks justifiable in most of the U.S. Despite all the talk of a bubble, we find little evidence that house prices are being bid up based on unreasonable expectations of future price growth. While annual costs have risen a bit faster than rents or incomes in the past decade, they started from a historic circa-1995 low in most cities. (A caution: Our study did not consider condominiums or second homes, where new construction is much easier and investors are more prevalent.)

Of course, the same logic that says today's market price of housing is reasonable also implies that house prices are especially sensitive to real, long-term interest rates. In the

absence of an offsetting increase in housing demand, an unanticipated rise in real mortgage rates could cause appreciable declines in house prices. For this reason we don't think speculation is justified in the housing market -- gambling on above-average capital gains is simply an interest-rate bet.

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