

Commentary: Understanding Recent Trends in House Prices and Homeownership

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I appreciate the opportunity to comment on Professor Shiller's paper on the role of psychology in housing markets.

It is common to read in the papers about how the collapse of the housing bubble has led to a crisis in debt markets, caused the stock market to fall and LBO activity to stop on a dime. Having begun my career at the Boston Fed in the early 1990s, let me say that what we have seen so far is nothing compared to the fall in house prices in New England or California at that time and certainly not nearly as bad as things were in the oil belt in the late 1980s.

House prices are now under pressure for two reasons: 1) the historic decline in long-term real interest rates has been followed by a steady rise in real rates, at least until recently, and, 2) credit market imperfections that first led to excessive lending in some key housing markets have been followed recently by a sharp pullback of credit.

In a few other places, poor local economic conditions have also played a role. Interestingly, foreclosures and house price weakness first developed in Ohio and Michigan, even though these states did not see the enormous house price appreciation that occurred in other parts of the country.

Professor Shiller presents a very stark perspective on the significant role of psychology in driving real estate booms. While I agree that psychology may play a role in housing appreciation, especially in markets where small investors predominate, I believe that Professor Shiller has overstated the case.

First, let me first comment on the use of the term “fundamentals” in the paper. Professor Shiller almost ignores the role of interest rates in explaining the recent housing boom. He notes the unprecedented correlation in house price growth rates in the U.S. and countries around the world. Yet the paper ignores the most common economic factor across all of these markets: low interest rates driven by a global glut in liquidity. Frankly, I would have been shocked if we had not seen a global real estate boom given the enormous decline in long-term real interest rates and the decline in the price of risk.

Consistent with the interest rate hypothesis, the slowdown in the U.S. housing market corresponds to the time that long-term real interest rates started rising off their trough in 2005. By early 2006, as mortgage rates rose, existing home sales started falling, as did new construction, followed shortly by a fall in median prices.

Professor Shiller’s example of the British housing market downturn in 2004 may have inadvertently reinforced the link between interest rates and house prices. So why did higher short-term interest rates seem to have a big effect in the U.K., but a more pronounced tightening in the U.S. did not result in a housing slowdown here? The answer may be mostly institutional. British mortgages are typically much shorter duration, so increases in the short rate would have had a much stronger effect on housing demand there than it did in the U.S., where we have predominantly fixed-rate mortgages.

Professor Shiller has not just capriciously ignored the role of interest rates. Instead, he cites evidence that U.S. house prices are uncorrelated with interest rates, using data that goes back to the 1880s. Aside from the data problems in combining so many series over long periods of time, this is a tough comparison. During most of his sample, the U.S. was primarily an agricultural economy and cars

were relatively unimportant. It is only after WWII when the modern economy and suburbanization developed and modern mortgages became increasingly available.

I was also surprised to see that Professor Shiller considers the post-war boom in suburban housing construction to be due to a social epidemic. Most economic historians attribute the early 1950s house construction boom to structural economic changes and the huge increase in lending due to government-backed VA loans.

I have examined postwar U.S. housing markets with co-authors Joseph Gyourko and Todd Sinai in a paper titled “Superstar Cities.” We document that house prices have consistently grown faster in cities such as San Francisco, L.A., New York, Boston and Seattle for more than five decades. We label these places superstar cities. Our research attributes this fast appreciation to a combination of scarce land, steady population increases and strong income growth by the highest earners who predominantly live in these superstar cities.

In the following charts, I have separated U.S. housing markets into three categories. The first group, labeled “Cyclical Markets,” is composed of several superstar cities, and exhibits a strong boom/bust pattern. As Charlie Himmelberg, Todd Sinai and I argued in a recent article, higher expected appreciation might cause these superstar cities to exhibit excess volatility relative to slower price-growth markets. We compare the exaggerated volatility in superstar cities to that of high price earnings ratio stocks or long-duration, low-yielding bonds. This effect is exacerbated as long-term interest rates fall. It is not necessary to rely on behavioral economics to explain this pattern of increased volatility.

The second group, labeled “Steady Markets,” has seen little real house price appreciation, except in the last decade as real interest rates fell. Given that land to build has been easily available, house prices appear to be driven primarily by construction costs and local demand. If one is going to have a story of irrational exuberance, it is important to explain why some markets are exuberant, while other markets are not.

Clearly, house prices in some markets have gotten way out of line with fundamentals. The third category, “Recent Boomers,” looks much more like the markets that Professor Shiller describes in his paper. All of you know where they are: Phoenix, Las Vegas, much of southern Florida and parts of southern California. House prices in these bubble markets grew at rates well above historical norms even as developers built many more units than could be sustained by reasonable growth in demand. These markets were fueled by a lethal mix of easy capital through the subprime market and small investors who wanted to flip houses for quick profits.

This leads me to my second key point: I believe that debt market excesses are also much more important than Professor Shiller alludes to in his paper. Richard Peach, Joseph Tracy and James Vickery from the New York Fed have documented a strong correlation between excess housing production, increases in median house prices and the growth in the use of subprime mortgages.

So that begs the question: Why did debt markets get into so much trouble? It is tempting to argue that the housing bubble caused the debt crisis, but I believe the opposite was true. While causality is very hard to establish and will undoubtedly be the subject of many future studies, let me provide a couple of facts that support the claim that it is really debt market problems that led to mispricing of houses in some key markets.

As Bill White highlighted, the growth of securitization and CDOs was not limited to the housing market. It also led to a boom in corporate LBOs and an enormous growth in commercial real estate prices. Despite all of the claims about the great efficiencies in securitization, we are starting to learn many of the accompanying pitfalls. While Chairman Bernanke referred to conflicts associated with free-standing originators selling loans to not-fully informed investors, material conflicts also exist between various groups of investors. And, as we may see in the years ahead, servicers may not have the incentives or flexibility to manage the renegotiation and foreclosure process in a way that maximizes the economic value between the borrower and the lender.

CDOs just exacerbate the problems of ABS, adding another layer of conflicts and lots of leverage to already highly leveraged debt instruments. In addition, CDO managers started to combine various types of debt to get greater diversification, ultimately buying leveraged products that they did not fully understand. History is replete with examples of new and innovative financial products that are really just an opportunity to add excessive leverage in the name of financial efficiency.

Next, let's look at the link between debt markets and house prices. In the last three charts, I examine the ratio of the annual cost of owning a house with the rental cost for the three groups of cities. The solid line at one represents the 27-year average of this ratio for each city. The methodology is based on my work with Himmelberg and Sinai. The programs and data are available on my website, where the data are updated on a quarterly basis. The latest data point on the right is the current ratio of the cost of owning to renting from the first quarter of this year. A value above one represents a time that house prices are relatively expensive compared to renting.

The states with the highest growth in subprime usage (as documented by Peach, Tracy and Vickrey), Nevada, Arizona, Florida, and California, are the same states where the annual cost of housing has gotten far above rental values. However, counter to the irrational exuberance theory, other high-appreciation rate states like New York, Connecticut, New Jersey and Massachusetts were not big users of subprime debt and also do not appear to be grossly overpriced using our methodology. Predictions from the nascent housing futures market show a similar pattern of further weakening prices in the overpriced markets like Miami and Las Vegas, but somewhat stabilizing house prices in Boston and New York.

So what do I conclude? I think Professor Shiller has overstated his argument that psychology has played the predominant role in causing house price bubbles to appear. While psychology is important, economic fundamentals, particularly long-term interest rates and housing supply constraints, seem to matter more. Similarly, credit market excesses appear to have played a very important role in the places where prices got ahead of fundamentals. While causality is hard

to demonstrate, it would be quite a coincidence if housing caused the debt market excesses that occurred simultaneously for corporate LBOs and commercial real estate.

This does not mean that psychology does not matter at all. The tendency for some borrowers to use too much of that cheap and easy debt may well have been related to their assumption that house prices would grow and quickly bail them out. An interesting but unanswered question is why excessive lending practices appear to have driven prices ever higher in some markets, but not others. It is quite possible that the involvement of small investors in places like Miami and Las Vegas were strong contributors to the housing excesses. Small investors appear to have played a similar role in the Tech Boom. Finally, the Land Boom described by Professor Shiller may also be due to the tendency of investors, particularly foreign investors, to overstate expected appreciation in markets they do not fully understand. The same thing also occurred in commercial real estate in the late 1980s.

Finally, I agree with Professor Shiller that monetary policy may not be able to do much to help the housing market today, although for different reasons. My empirical work shows that long-term interest rates are what matter most for U.S. house prices. Discount rate cuts are unlikely to spur the housing demand much, even as the increase in rates from 2003-2005 did little to deter house prices from rising.

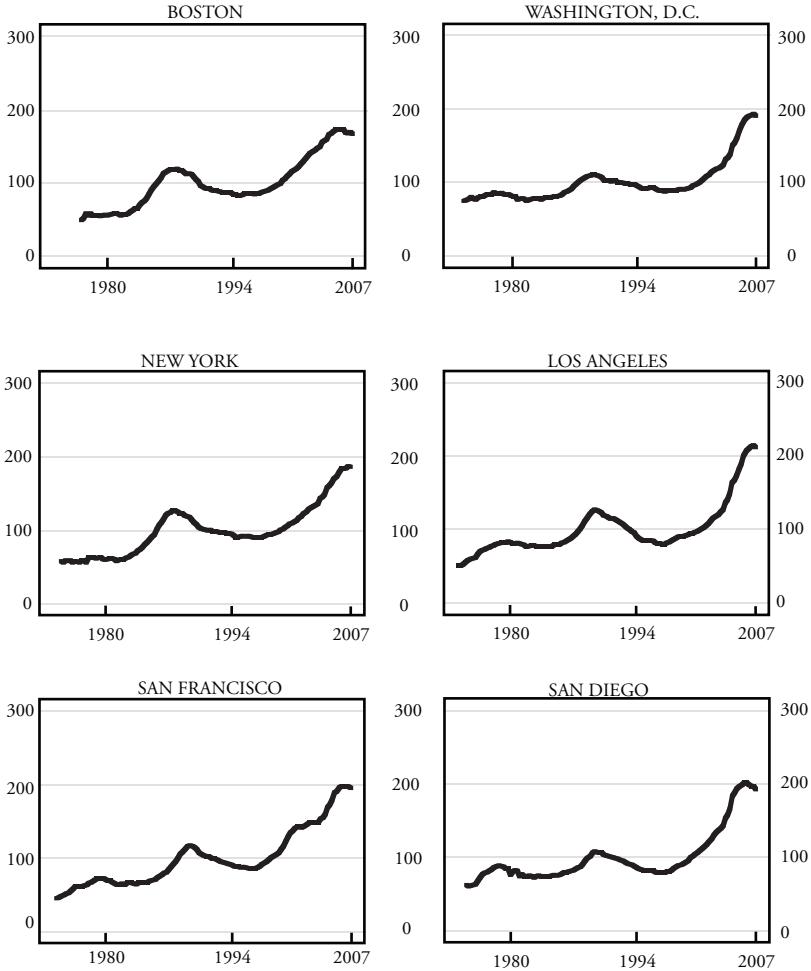
While I would normally be optimistic for housing prices given the recent decline in long-term rates, this positive effect has been more than offset by a sharp reduction in mortgage lending almost across the board. Most ominously, spreads on relatively-safe prime mortgages have spiked by more than 50 basis points in the last 10 weeks.

A close look at the data shows that the general housing market had started to recover at the beginning of this year until the subprime crisis hit. Then existing housing sales slowed again, and construction fell to a halt. To my mind, the credit crunch, rather than psychology, poses the greatest risk to the housing market through a simultaneous reduction in mortgage lending across the country. It is unlikely that we have seen the end of the credit problems given the slow speed of

foreclosures and the amount of leverage embedded in many ABS and CDO structures that handicaps new lending going forward. And the availability of credit when mortgages are funded by securitization rather than banks is something that is much harder for the Fed to effectively manage.

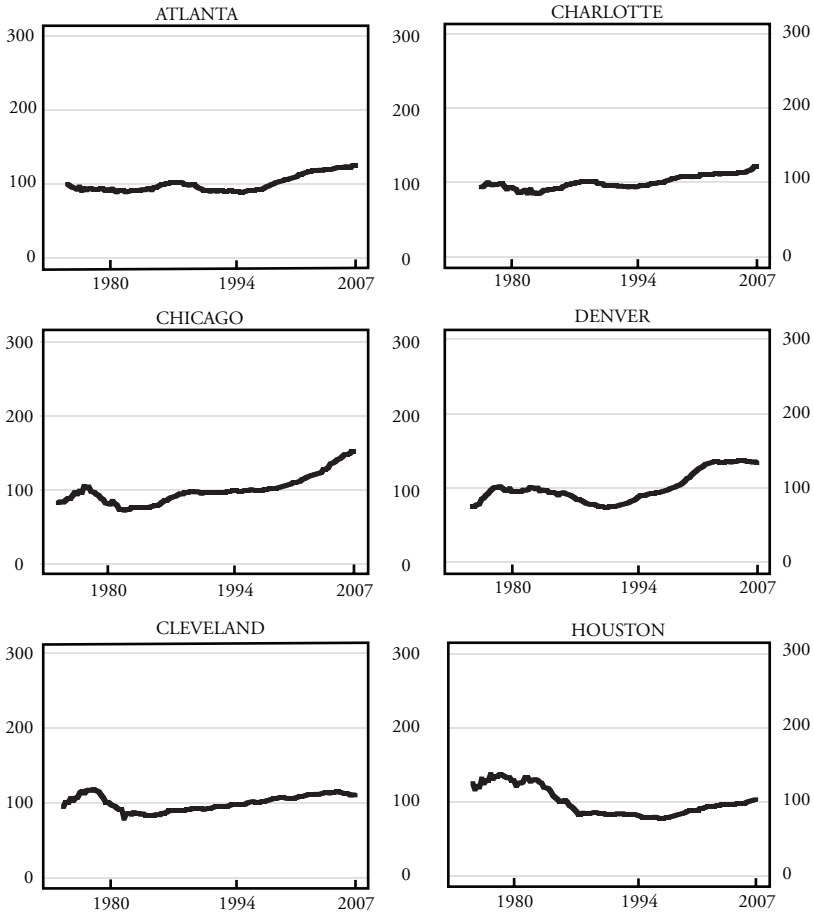
Appendix

Chart 1 Real House Prices: Cyclical Markets



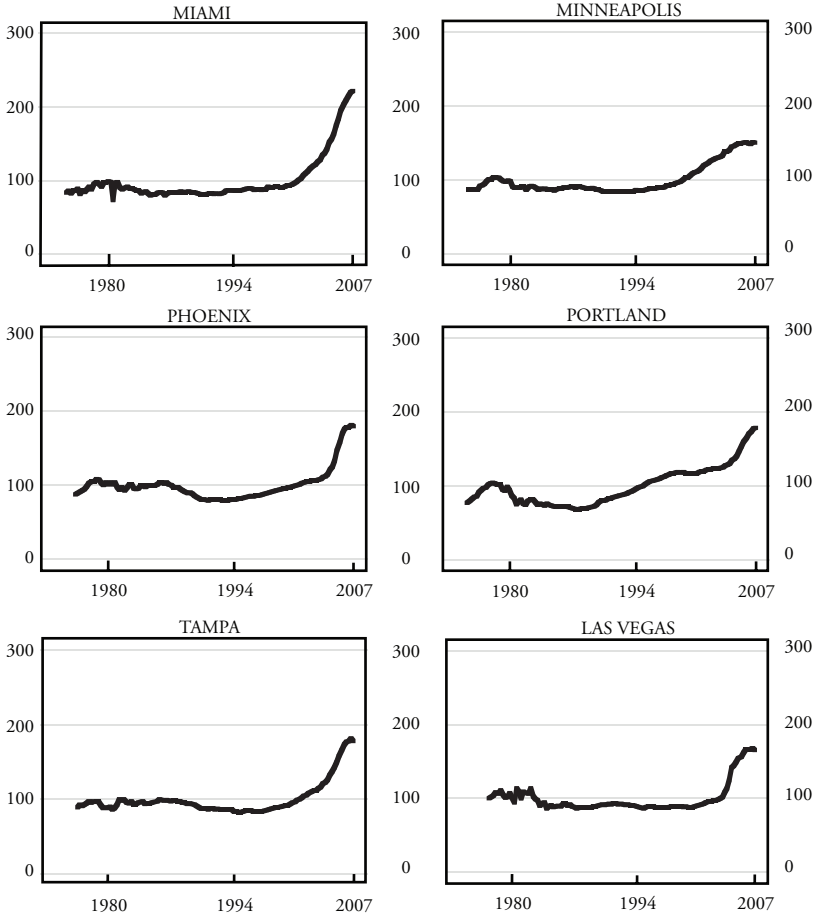
Current as of Quarter 1, 2007
Source: OFHEO and BLS
Real Home Price Index
Index = 1: Sample Average

Chart 2 Real House Prices: Steady Markets



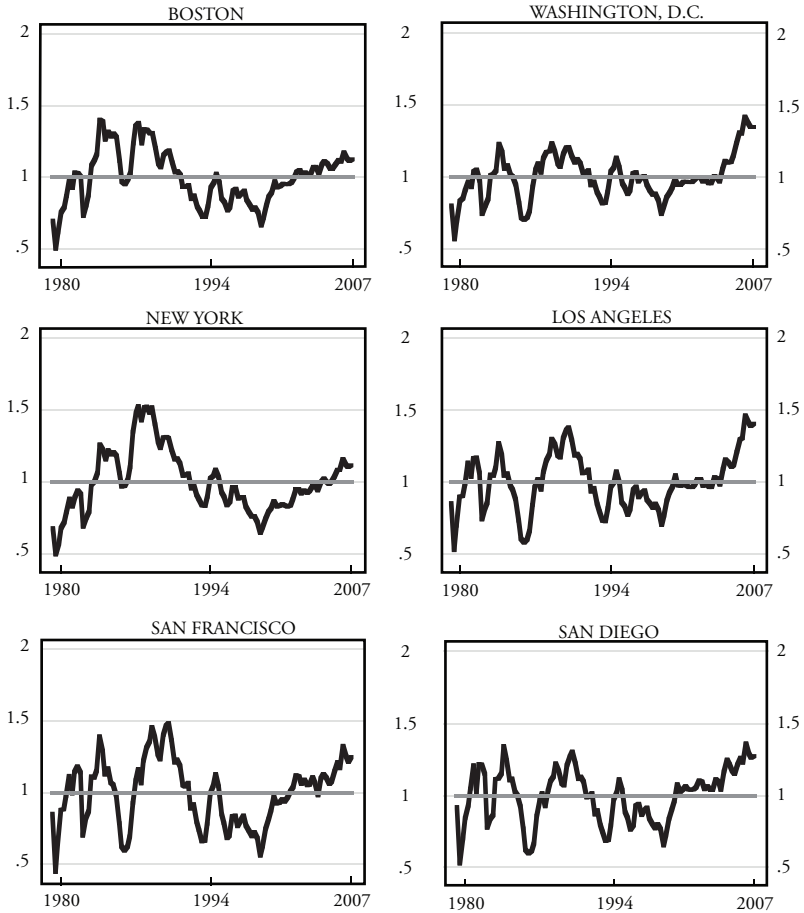
Current as of Quarter 1, 2007
Source: OFHEO and BLS
Real Home Price Index
Index = 1: Sample Average

Chart 3
Real House Prices: Recent Boomers



Current as of Quarter 1, 2007
Source: OFHEO and BLS
Real Home Price Index
Index = 1: Sample Average

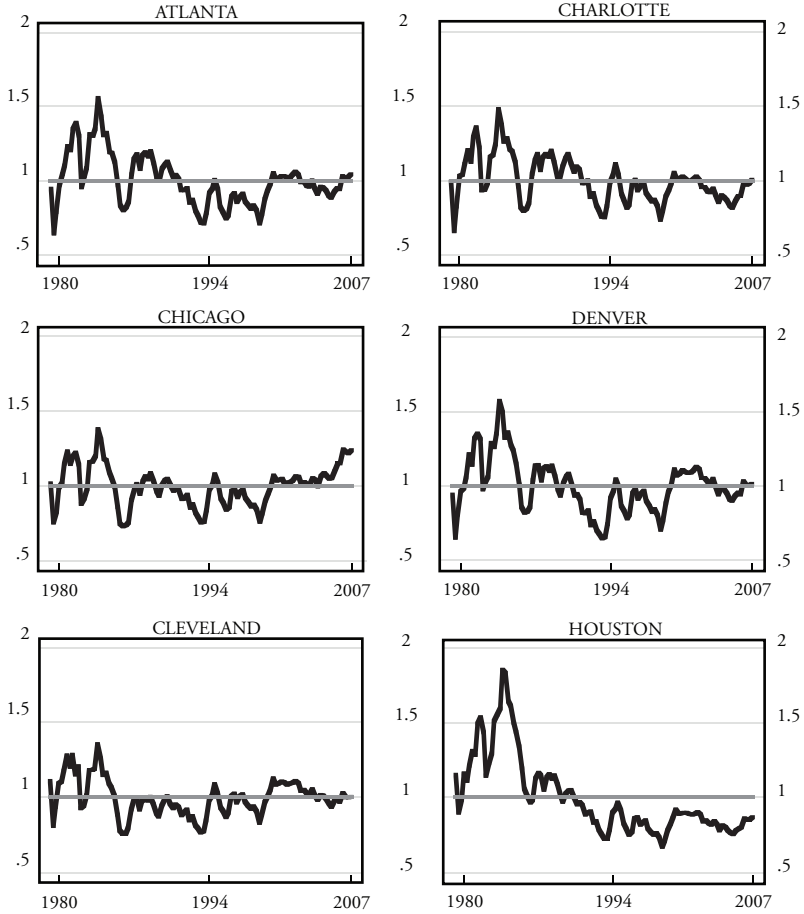
Chart 4 Annual Cost of Ownership/Rent Ratio: Cyclical Markets



Current as of Quarter 1, 2007
Index = 1: 27-Year Average

Annual cost of ownership calculations are taken from Himmelberg, Mayer and Sinai, *Assessing High House Prices: Bubbles, Fundamentals, and Misperceptions* (2005)
To view data, go to: <http://www0.gsb.columbia.edu/realestate/research/housingcost>

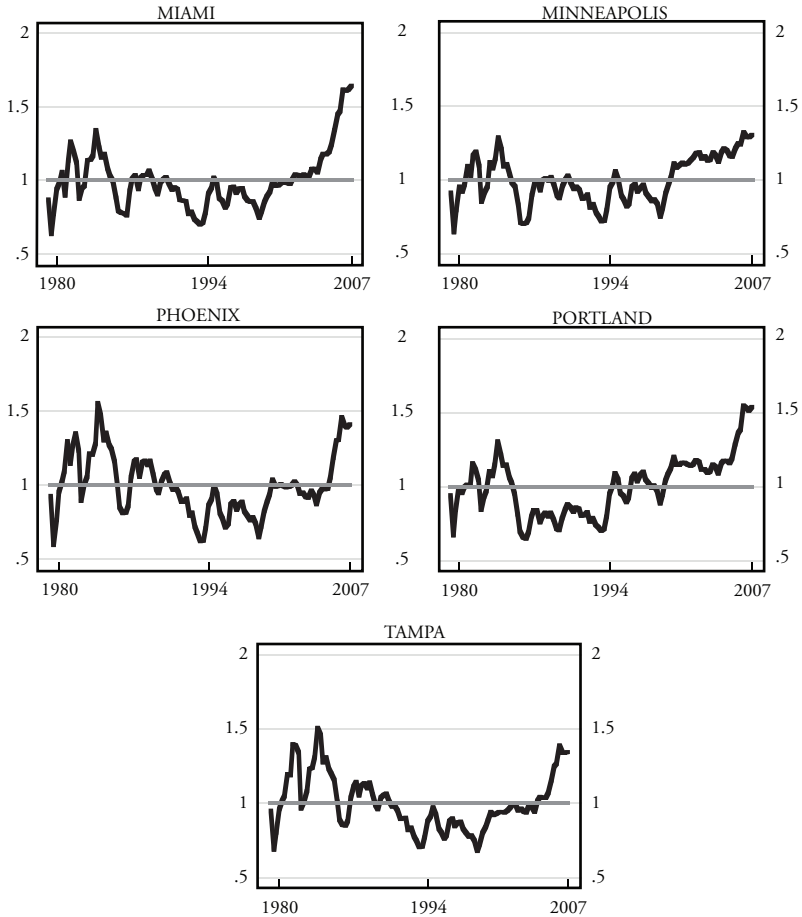
Chart 5
Annual Cost of Ownership/Rent Ratio:
Steady Markets



Current as of Quarter 1, 2007
Index = 1: 27-Year Average

Annual cost of ownership calculations are taken from Himmelberg, Mayer and Sinai, *Assesing High House Prices: Bubbles, Fundamentals, and Misperceptions* (2005)
To view data, go to: <http://www0.gsb.columbia.edu/realestate/research/housingcost>

Chart 6
Annual Cost of Ownership/Rent Ratio: Recent Boomers



Current as of Quarter 1, 2007
 Rent data is not available for the Las Vegas MSA
 Index = 1: 27-Year Average

Annual cost of ownership calculations are taken from Himmelberg, Mayer and Sinai, *Assessing High House Prices: Bubbles, Fundamentals, and Misperceptions* (2005)
 To view data, go to: <http://www0.gsb.columbia.edu/realestate/research/housingcost>