

Serdar's Semi-log Blog

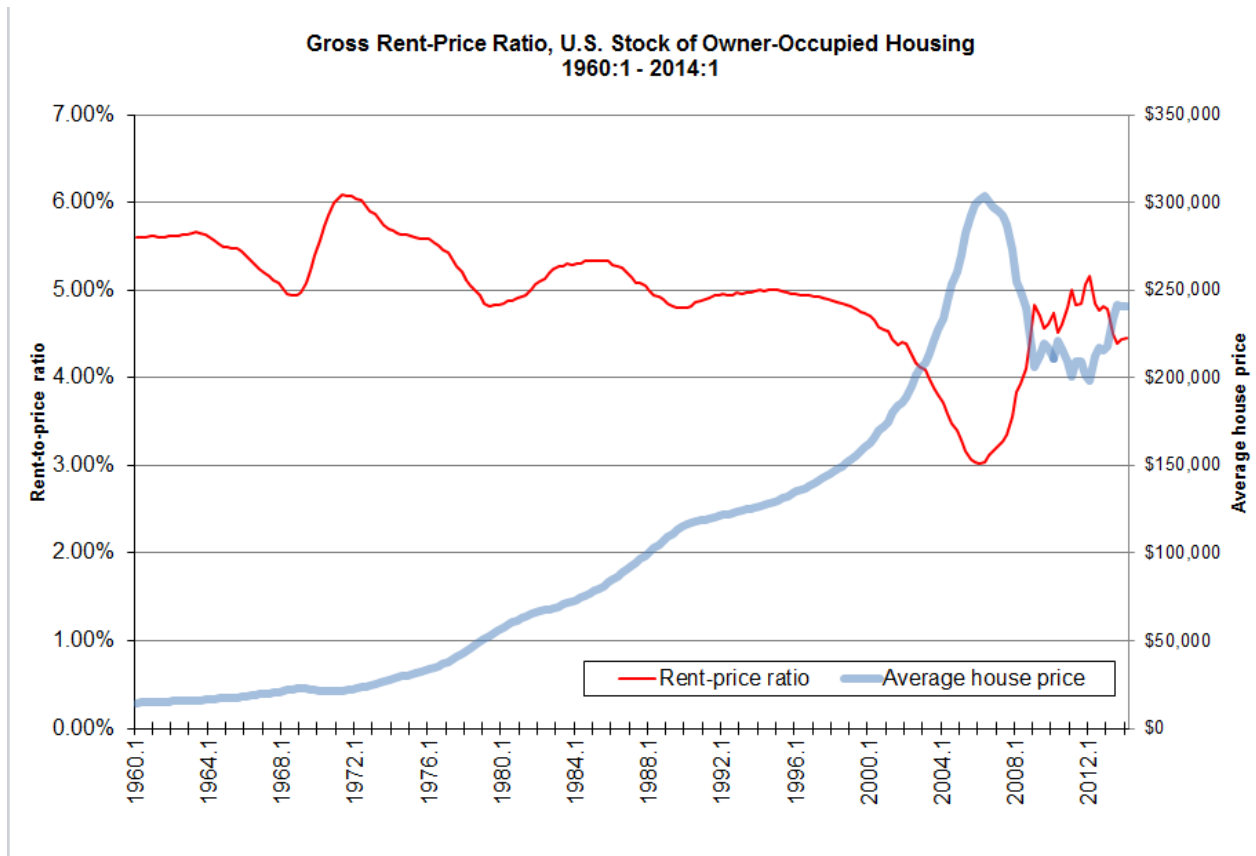
By Serdar Dalkir

Rent-to-price ratio as a possible predictor of a housing bubble burst

Recently, I attended my neighborhood's meet-your-neighbor party. Topics that were brought up to break awkward silences included the nearly-completed construction of a new supermarket within a 10-minute walk. Some of my neighbors were excited that this might lead to higher property prices. Not to sound dismal, I did not directly point out that the existing prices probably account for this "supermarket effect" to a large extent. Others who are renting were dismayed that rents may also go up. Although rents may in fact increase due to the supermarket effect, I wondered whether they would go up faster, or slower, than property prices. If rents went up faster, then the rent-to-price ratio would increase. If rents were slower, then the rent-to-price ratio would decrease. I set out to look for the historical relationship that existed between rents and house prices. I looked up "rent-price ratio" on the web, which brought up some useful data for the US between 1960 and 2014.

(<http://www.lincolnst.edu/subcenters/land-values/rent-price-ratio.asp> "Use of data in a paper should include the following citation: Davis, Morris A., Lehnert, Andreas, and Robert F. Martin, 2008, "The Rent-Price Ratio for the Aggregate Stock of Owner-Occupied Housing," Review of Income and Wealth, vol. 54 (2), p. 279-284; data located at Land and Property Values in the U.S., Lincoln Institute of Land Policy <http://www.lincolnst.edu/resources/>")

Looking at those data, I realized that the average rent value can serve as a benchmark when comparing current property prices to historical values. This, I further hypothesized, can have implications about how the rent-price ratio behaves during housing bubbles relative to times when a price bubble is not present or suspected. The spreadsheet I downloaded from lincolninst.edu contained an embedded chart which displayed the historical rent-price ratios based on two distinct sources for the average house price. The two price series were not too different so I focused on one. This is the red line in the chart on this page.



As it turns out annual rents have fluctuated roughly between 3% and 6% of the average owner-occupied house price. The rent-price ratio stayed around 5% right up to 2001, when the ratio first slipped below 4.5% in a long time ever. From then on the ratio slid further and hit almost 3% by 2006. By 2008 the ratio had risen to 4% and it stayed between 4% and 5% afterwards. Next, I added a line for the quarterly average house price in dollars shown as the faded blue line in the chart. That line peaks out in 2006, meaning the housing bubble burst in that year. Looking at the two lines in the chart, one could say that a housing bubble can be expected to burst when the rent-price ratio is at about 3% by US standards. For other countries one may be able to say that a bubble is about to burst when the rent-price ratio approaches half of its historical maximum (3 percent over 6 percent) or about 60% of what appears to be the rough historical mean or median (3 percent over 5 percent).

There are caveats. If the bursting of the bubble is a “forced” or discretionary event then it could not have been predicted by considering the rent-price ratio. For example, if the US bubble burst because the US government or the lawmakers said in 2006 “enough is enough, we will stop to write open checks for the mortgage lenders” and this is the reason that the bubble burst then the rent-price ratio will not be a good predictor. Even then, if the rent-price ratio was an indicator that prompted the government to act, or for some unknown reason it tracks political decisions about mortgage financing, then it may still have some predictive value. The rent-price ratio may also be a poor predictor if the reason for the US bubble’s burst was seemingly random or an external event. For example, if a foreign financial institution happened to default in 2006 and this forced everyone to look at the US mortgage market and realize the underlying infirmities, causing a sell-off, then the rent-price ratio may not be an especially good predictor for that. Yet, if the ratio is correlated with the extent of the financial market infirmities then it still may retain some predictive value.

So what is the answer to my original question? The rents do not appear to have increased faster than the house prices. It appears that they kept steady or increased at a slower pace when house prices were rising beginning 1996.