

# Just how overvalued are home prices?

Determining just how much home prices have changed over the long term is actually a rather difficult proposition. We can create an index to measure the value of stocks or bonds over time because they trade on a consistent basis and each individual share of stock for the same company is essentially identical. In other words, my share of IBM stock is no more or less valuable than someone else's. Therefore, I don't have to put mine up for sale to find out how much it is worth, I can simply look to see what someone else's has sold for and know that mine is worth essentially the same. In market parlance this is known as the process of price discovery.

Unfortunately that is not the case when it comes to determining home values. In real estate there exists an almost limitless degree of variability among assets. Even two side-by-side townhomes can develop very different values over time based on their upkeep and fixtures. The effect becomes even more dramatic when we expand our search across differing metro areas, and even more when we look on a regional basis. In an effort to resolve this, economists Robert Schiller and Carl Case have developed the S&P/Case-Schiller Home Price Index. This index provides a measure of price appreciation across 20 different metro areas, based upon transactions which, as accurately as possible, "trace the price path of a typical single-family home located in each metropolitan area."

The S&P/Case-Schiller Home Price Index has quickly become the most watched index used to determine the change in the housing market in the US today. According to that index, home prices across America have fallen by an average of 16.9% over the past twelve months – a disturbing thought to say the least. We are all well aware that home prices rose at a meteoric rate over the past decade, and are now falling as a result. However, what that headline fails to capture is whether or not home prices have pulled back enough to be considered fairly valued or if there are indeed further declines ahead.

The first question that must be answered is: "Where do the index levels stand relative to historical returns for home values?" Certainly we know that things went up much faster than "normal", but just how much? Robert Schiller has done some additional work in the area of historical home values and has created a home price index that covers the period of 1890 to 2004 in America. While he admits that this index is far less accurate than the current S&P version, it still provides a good proxy for the long run level of home price appreciation.

According to Schiller, based upon that long-term index the average annual real (net of inflation) increase in home prices was a mere 0.40%. To most of us that is a shockingly low figure. But remember, this strips out the impact of inflation in order to look at the raw appreciation in the property alone. To see just how consistent this 0.40% increase was, I took a look at the 10 city composite for the S&P/C-S index from its start in 1987 through the end of 1999. Over that 13 year timeframe, the price index increased by 3.64% per year. At the same time, the US Consumer Price Index (CPI) rose at an average annual rate of 3.27% per year. The real gain in home values over that timeframe was therefore 0.37%,

which is right in line with the long-run 0.40% average increase. Note also that this sample was measured prior to the recent run up in prices. Therefore, it would appear that using 0.40% per year as a basis for determining the fair value of the price index is a valid starting point.

By applying that long-run real rate of increase in home prices, combined with historical readings of inflation, we can produce a good estimate of where home prices should be at this point in time. For a proxy of the rate of inflation we can use the US Consumer Price Index. The benefit of this index is that it not only shows the rate of inflation for the US as a whole, but can also be broken down for specific metropolitan areas which we can match up with the metro areas reported in the S&P/C-S Index.

Table 1, shown below, provides the results of my projection for the fair value of the housing price index, based upon the 0.4% real long run average increase as well as the actual nationwide inflation (CPI) for each year. As you can see, the forecast level for the Case-Schiller index is 133.01, representing an average gain of 3.5% per year. However, the actual level for the price index was 168.54, or a gain of 6.4% per year. This means that on a nationwide basis, home prices have overshoot the average by a total of almost 27%. One way to look at this is that it will take 7 years of no increase in home values in order for the index to be brought back into line with the forecast fair value. Of course, it will take less than that amount of time if housing prices continue to decline and more if prices should increase.

<u>Year</u>	<u>Beginning Value</u>	<u>Real Price Increase</u>	<u>CPI Inflation</u>	<u>Forecast Increase</u>	<u>Ending Value</u>
2000	100.00	0.40%	3.39%	3.79	103.79
2001	103.79	0.40%	1.55%	2.02	105.81
2002	105.81	0.40%	2.38%	2.94	108.76
2003	108.76	0.40%	1.88%	2.48	111.24
2004	111.24	0.40%	3.26%	4.07	115.31
2005	115.31	0.40%	3.42%	4.40	119.71
2006	119.71	0.40%	2.54%	3.52	123.23
2007	123.23	0.40%	4.08%	5.52	128.75
May-08	128.75	0.17%	3.14%	4.26	133.01
<b>Forecast Long Run Index Level:</b>			<b>133.01</b>	<b>(+3.5% per year)</b>	
<b>Current C/S-20 Index Level:</b>			<b>168.54</b>	<b>(26.7% overvalued)</b>	

The news is not all grim, however, because the numbers above do not take into account that the housing market varies greatly from area to area across the US. In fact, there are many metro areas that are already either fairly valued or even undervalued compared to the forecast level. Table 2, shown below, lists those metro areas that are undervalued and fairly valued, as well as the most overvalued

across the country. Some of those areas, such as Detroit and to a lesser extent Cleveland are extremely undervalued due to external forces such as the general decline of those cities. However, the same certainly cannot be said for cities such as Denver, Atlanta, Dallas, and Charlotte. What does stand out when looking at this list is that the most overvalued areas are coastal cities, while the fairly valued areas are mainly southern and/or western interior cities.

**Table 2:  
Under or Fairly Valued Metro  
Areas:**

<u>Area</u>	<u>Index</u>	<u>% Diff.</u>
Detroit	92.61	-30.4%
Cleveland	108.88	-18.1%
Dallas	121.61	-8.6%
Atlanta	124.41	-6.5%
Denver	129.72	-2.5%
Charlotte	133.16	0.1%

  

**Most Overvalued Metro Areas:**

<u>Area</u>	<u>Index</u>	<u>% Diff.</u>
Miami	193.19	45.2%
Los Angeles	198.59	49.3%
Washington	199.23	49.8%
New York	193.88	45.8%
San Diego	178.03	33.8%
Seattle	178.67	34.3%

So, are home prices really overvalued? The answer to the question is that it truly depends on the specific geographic region that is involved. On a nationwide basis, home prices are overvalued by nearly 27%. However, most of that is limited to less than half of the 20 metro areas that are represented in the S&P/C-S Home Price Index. It comes as no surprise to see that Miami, LA, Washington DC, and New York lead the charts in being extremely overpriced. It should also come as no surprise that those are the areas that are declining the fastest. For example, while the 20 city composite index fell 17% over the last 12 months, the Miami area fell by 28%, and Los Angeles dropped by 25%. In contrast, Atlanta fell by only 8%, Dallas fell by only 3%, and Charlotte was virtually unchanged.

So what should we take away from this study? First, while home prices nationwide remain heavily overvalued on average, that measure is greatly influenced by those areas that saw the greatest increases in their housing prices. In other words, the overvalued areas are concentrated in several specific metro regions. Second, there are many areas that have already returned to fairly valued levels.

While the length of time that it takes to sell a home in these areas has extended considerably, those markets appear to be well on their way back to normalized conditions. Also, remember that it would be very unusual for prices to overshoot and then simply return to their long-run average levels. It is more likely that prices, particularly in the most overvalued areas, will actually pull back below the long-run average before returning to normal levels. However, those that were not so overvalued will not be nearly as prone to an overcorrection on the downside. And finally, remember that in spite of what we experienced over the past few years, the real-estate market moves much more slowly than the stock market. It will very likely take a full decade for prices to settle back out to their normal levels. Some will return more quickly (and indeed may already have), and some may even take longer.