

December 17, 2002

## COMMENTARY

# Safe as Houses?

By **ROBERT J. SHILLER**

Homeowners across America are waiting for the other shoe to drop. At dinner tables and in carpools, there's a theory making the rounds that bubbles in home prices tend to peak a couple years after stock prices. After the last major U.S. stock market bubble in the 1920s, home prices fell almost 25% between 1929 and 1933. But is a massive real estate fall-off really lurking around every corner?

There's enough historical pattern to draw on, to be sure. Aside from the U.S. experience in the Depression, Japan has its own raft of cautionary tales. After the Japanese stock market bubble of the 1980s, which peaked in 1989, residential land prices in Tokyo began falling in 1991 and fell to half by 2001. And after the 1987 stock market crash, home prices in some cities on both the East and West coast peaked around 1990 and then fell between 10% and 25% by the mid-1990s.

History does offer useful warnings but it never repeats itself exactly. Now is a time to be watchful, not panicked.

### A Different Crash

Stock price crashes historically have been much sharper, more frequent, and more severe than home price drops. There is a reason for this. Stocks are claims on something intangible, the profits of corporations, the residual from revenues after all costs are deducted. In a highly competitive, rapidly changing, economy, this residual is inherently difficult to evaluate and predict. Flights of investor fantasy, and sudden changes of opinion, are not just possible, but typical.

Houses are, for obvious reasons, more straightforward. They are visible and solid and reproducible. One house can be built as an exact copy of another and offer the same comfort dividend. There is an industry that reliably produces new houses. There is no industry that reliably produces new profit-making firms.

The construction industry is a steadying influence on the market -- continuing to produce new houses without great drama year to year. The cost of building a house in the U.S., including costs of labor, lumber, steel and concrete, has, according to Engineering News-Record, increased at the rate of 3.4% a

year on average since 1980, and the pace of increase was remarkably steady over that time. Those numbers are not widely quoted since they're boring -- just marching up at roughly the same rate year after year.

Meanwhile, the average inflation rate since 1980, as measured by the consumer price index (CPI) has been 3.7% a year. This means that the real (inflation-corrected) price of building a house has fallen at a rate of 0.3% a year since 1980. This decline has happened because of productivity growth and a weak labor market over this period.

Looking at the numbers, it might seem logical that home prices would be increasing at just under the rate of CPI inflation too. As rapid productivity increases have kept the price of computers falling since 1980, the productivity increases in house construction, albeit slower, ought to keep home prices, while not falling, from rising as fast as the inflation rate, right? If a bubble ever began, builders would see the opportunity to build more homes and profit by selling them for more than it costs them to build them. Market incentives would ensure that the supply increases until prices fall back down to levels dictated by construction costs.

But there is a weakness in this reasoning: Home prices are prices of both the house and the land on which it stands. The value of land in a particular location is inherently much more speculative, depending on assessments that most people find very difficult to make: What is the future of the economy in this city?

To gauge how price increases compare with cost increases, it is important to look at a repeat-sales home price index, an index that infers price changes only by looking at changes in price between sales of individual homes. The median price of a home is not suitable for this purpose: The trend towards building larger and larger houses would create a spurious increase in the median home price.

According to the repeat-sales price indexes that my colleague Karl Case and I have developed, many U.S. cities have shown home price increases roughly in line with construction cost increases. Milwaukee's home prices have increased at 3.9% a year since 1980. Orlando's have increased at a rate of 3.6% a year since 1980. Phoenix's have increased at 3.6% a year since 1983. These cities and others have shown steady, unexciting, markets for homes: Home prices have been increasing at roughly the CPI inflation rate.

Recent years have shown a pickup in the rate of price increase, but nothing dramatic there. In the latest year, Milwaukee has increased 5.3%, Orlando 6.5%, and Phoenix 5.1%, just two or three percentage points above the increase in construction costs.

The low-price-increase cities tend to be the ones for which the land component (versus house component) of home prices is relatively low. In cities with an availability of inexpensive land, with plenty of room to build new houses, it is very hard for a real-estate bubble to get started. Even though the supply response may take a year or more to take effect, it would tend to come on before the bubble psychology ever began to take hold. But, this applies only to cities with a ready availability of land.

Other cities have shown much stronger home price growth since 1980. San Jose, in Silicon Valley, has had home price increases averaging 7.6% a year since 1980. Boston home prices have increased at the rate of 7.5% a year. Over a couple of decades, the difference between a price increase in the 7% to 8% range and a price increase in the 3% to 4% range means that these higher-price-increase cities have seen a doubling of value relative to the other cities. The higher price increases in those cities are fundamentally related to increases in the price of land there.

Over time, the public in those cities that have experienced rapid price changes have become focused on real estate price movements, because they have learned in the past that their prices are highly speculative. They talk more about price movements. They worry more about price movements, either up or down. When prices are going up, those who do not yet own homes or those who are hoping to trade up to a bigger home worry that they will soon be priced out of the market. When the price increase stops, they worry that there will be a drop in home prices.

People in such cities have worries about price changes in those cities since they have vividly experienced them. Boston and San Jose have experienced sharp price increases and sharp decreases. Boston home prices rose 38% between 1984 and 1985, fell 12% between 1990 and 1991, and doubled between 1995 and 2002. San Jose prices rose 36% between 1999 and 2000 and fell 11% between 2000 and 2001, then rose again 7% between 2001 and 2002. Changes like these attract public attention and talk, and build a speculative culture that will last there for years.

In contrast, in places like Milwaukee, Orlando or Phoenix, real estate prices are just not exciting. Try to engage someone from there in a conversation about real estate prices, and you'll likely get a blank stare. People there mostly assume that prices will increase at about the rate of inflation, and do not trouble themselves much more about it.

### **Little to Fear**

People in those cities have little to fear. But the price situation in extremely expensive places like Boston or San Jose is vulnerable today, as it is in Los Angeles, New York, San Diego and San Francisco, as well as in some other expensive places with economies that appear at risk of faltering, like Denver or Seattle. In such speculative areas, valuations are vulnerable to a change in story, a change in the talk of the town, to sudden fears of price drops, and to a self-fulfilling prophecy as people dump their houses on the market. Price drops of 10% a year could certainly happen again in the next few years, though prices still seem to be going up just about everywhere in the U.S. now.

But it is most unlikely that there would be a nationwide drop in home prices. With available data of the last few decades, there has never been a nationwide price drop. There are too many places with a history of home prices tracking construction costs, and of real estate markets that are dull and consistent. It is only the high-flying cities that need to worry about a real estate bubble.

*Mr. Shiller, a professor at Yale, is the author of "Irrational Exuberance" (Princeton University Press, 2000) and co-founder of the real estate research firm Fiserv CSW, Inc.*