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Housing Bubbles and Monetary Policy

Tonight I would like to focus on how the Fed, or central banks, more generally, should respond to asset price bubbles. This is one of the few policy issues where the Fed's approach has come in for real criticism. I thought it might be of interest to this audience since, one way or another, it has probably touched the life of almost everyone here in the Bay Area. I saw that in memorable ways when I returned to MBA teaching at Haas in the fall of 1999 after a stint in Washington including 2½ years as a Governor of the Fed. During one class, I heard some background buzz. A student in my global macroeconomics class was chattering away on his cell phone. I looked his way and frowned. He apologized, explaining that he was finalizing the details for his internet startup to go public. Those were heady days in the markets, in the Bay Area, and at Haas. The Fed suspected there was a stock price bubble developing as early as 1996. I was still at the Board when Greenspan made his famous irrational exuberance speech. The Fed chose not to try to burst the bubble. Instead, it did its very best to pick up the pieces when the bubble finally popped. I think that effort was pretty successful. But many observers wonder if we erred and think the Fed should have tightened monetary policy sooner.

The question is not one of purely historic interest. Today, it's not stock prices but house prices that have been soaring. Those of us who live in the Bay Area know that you can't get through a cocktail party without some discussion of an eye-popping price somebody just got for their two-bedroom, one-bath handyman special.

But the Bay Area isn't the only place in the country, or the world, for that matter, where soaring house prices have raised concerns about national economic stability. In the U.S. as a whole, the share of residential investment in GDP is now at its highest level in decades, and this sector has been a key source of strength in the current expansion. The question for policy is: will this source of strength reverse course and become instead a source of weakness? Put more bluntly: Is there a house-price "bubble" that might deflate, and if so, what would that mean for the nation's economy? What, if anything, should policy do beforehand? Fortunately, there is a large scholarly literature on asset price bubbles and monetary policy, and Haas faculty in finance, economics and real estate have made important contributions.

The literature generally defines a bubble as a situation where the price of an asset—in this case, housing—is significantly higher than its fundamental value. One common way of judging whether housing's price is in line with its fundamental value is to consider the ratio of housing prices to rents. This is analogous to the ratio of prices to dividends for stocks. In the case of housing, rents reflect the flow of benefits obtained from housing assets—either the monetary return from rental property, or the value of living in owner-occupied housing. Historically, the ratio for the U.S. has had many ups and downs, but over time it has tended to return to its long-run average. In other words, when the price-to-rent ratio is high, housing prices tend to grow more slowly or fall for a time, and when the ratio is low, prices tend to rise more

rapidly. I want to emphasize, though, that this is a loose relationship that can be counted on only for rough guidance rather than a precise reading.

Currently, the ratio for the U.S. is higher than at any time since data became available in 1970—about 38 percent above its long-run average. Of course, the ratios vary widely from place to place in the U.S. and in different countries. For Los Angeles and San Francisco, the price-to-rent ratio is about 75 percent higher than the normal level, while for Cleveland the ratio is very near its historical average. For the U.K., the ratio is more than double its long-run average, whereas in Japan it's only about three-quarters of its normal level.¹

Higher than normal ratios do not necessarily prove that there's a house-price bubble. House prices could be high for some good, fundamental reasons. For example, there have been changes in the tax laws that reduce the potential tax bite from selling one home and buying another. Another development, which may be making housing more like an investment vehicle in the U.S., is that it's now easier and cheaper to get at the equity—either through refinancing, which has become a less costly process, or through an equity line of credit. These innovations in mortgage markets make the funds invested in houses more liquid. There are also constraints on the supply of housing in a number of markets, including the Bay Area. Probably the most obvious candidate for a fundamental factor is low mortgage interest rates. Even so, the consensus seems to be that the high price-to-rent ratio for housing cannot be fully accounted for by these factors. So, while I'm certainly not predicting anything about future house price movements, I think it's obvious that the housing sector represents a serious issue for monetary policymakers to consider.

How, then, should monetary policy react to unusually high prices of houses—or of other assets, for that matter? As a starting point, let me note that the issue is *not* now (nor during the stock market boom) whether policy should react at all. As part of its analysis of demand in the economy, central bank models have long incorporated the wealth effect of house prices and other assets on spending; it is just one of many factors, including fiscal policy, exchange rates, and so on, that affect demand. The debate lies in determining when, if ever, policy should be focused on deflating the asset price bubble itself.²

In my view, it makes sense to organize one's thinking around three consecutive questions—three hurdles to jump before pulling the monetary policy trigger. First, if the bubble were to deflate on its own, would the effect on the economy be exceedingly large? Second, is it unlikely that the Fed could mitigate the consequences? Third, is monetary policy the best tool to use to deflate a house-price bubble?

My answers to these questions in the shortest possible form are, “no,” “no,” and “no.” In the most thorough possible form, my answers might take a few hours, and would give full play to the many gray areas that are involved. Since the short answer is not satisfactory and the thorough one overwhelms our time limits, I will compromise and give just a brief explanation for my trio of “nos.”

In answer to the first question on the size of the effect, it could be large enough to feel like a good-sized bump in the road, but the economy would likely be able to absorb the shock. For example, a reversion to the long-run price-rent ratio would appear to represent a shock that is only about half the size of the U.S. stock market collapse in 2000 and 2001.

In answer to the second question on timing, the spending slowdown that would ensue is likely to kick in gradually, because it mainly affects household wealth. This is important, because Fed policy actions don't have instantaneous effects, but work through the economy over

time. So the impact of a gradual spending slowdown could well be cushioned by an easier policy.

In answer to the third question on whether monetary policy is the best tool to deflate a house-price bubble, there are several points to consider. For one thing, no one can predict exactly how much tightening would be needed, or by exactly how much the bubble should be reduced. Beyond that, a tighter policy to deflate a housing bubble could impose substantial costs on other sectors of the economy that would lead to equally unwelcome imbalances. Finally, it's possible that other strategies, such as tighter supervision or changes in financial regulation, would not only be more tailored to the problem, but also less costly to the economy.

Taking all of these points into consideration, it seems that the arguments against trying to deflate a bubble outweigh those in favor of it. So, my bottom line is that monetary policy should react to rising prices for houses or other assets only insofar as they affect the central bank's goal variables—output, employment, and inflation. But I want to stress that the debate surrounding these issues is still very much alive. As I hinted earlier, there are significant “gray areas” to consider, and these, of course, are often the most interesting, because they involve both subtlety and the complex interplay of economics, politics, and human psychology.

I hope that, in these remarks, I have given you some insight into how at least one policymaker is framing the question of whether to respond to house-price bubbles.

¹ *Erratum* (posted November 7, 2005). This table clarifies and corrects the estimates cited. Note that differences in the numbers do not alter the overall import of the paragraph.

Price-to-rent ratios

	<u>Sample length</u>	<u>% difference from long-run average</u>
U.S.	1982.4-2005.2	38
U.S.	1970-2004	25 (approx.)
S.F.	1982.4-2005.2	79
L.A.	1982.4-2005.2	74
Cleveland	1982.4-2005.2	22
U.K.	1982.2-2004.2	59
Japan	1982.2-2004.2	-28

Sources: U.S. 1970-2004: repeat transactions price indexes from OFHEO and Freddie Mac and tenants' rent index from CPI; see also Joshua Gallin, “The Long-Run Relationship between House Prices and Rents,” Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series #2004-50 (<http://www.federalreserve.gov/pubs/feds/2004/200450/200450abs.html>). Other U.S. and MSAs: house prices from OFHEO; rents from the BLS. U.K.: property prices are All Dwellings Price Index from U.K. Department of Environment; rents from CPI. Japan: house prices are Nationwide Residential Land Price Index from Japan Real Estate Institute; rents are from CPI.

² For a fuller discussion of these issues, see Glenn D. Rudebusch, “Monetary Policy and Asset Price Bubbles,” *FRBSF Economic Letter* 2005-18 (August 5, 2005). <http://www.frbsf.org/publications/economics/letter/2005/el2005-18.html>