House Prices and Monetary Policy

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Dr. Charles I. Plosser
President, Federal Reserve Bank of Philadelphia

Thank you for inviting me to speak today. I am delighted to be here and to be back in London, which is one of my favorite cities. Though to be honest, at current exchange rates, this lovely city is becoming an expensive date.

My assignment today is to talk about developments in the U.S. economy. Yet it is difficult to discuss the state of the economy without addressing the housing market. House prices and housing activity have been important factors in recent developments in the U.S. economy. But the same could be said of a number of other countries, including Sweden, Norway, Spain, Italy, France, Ireland, Australia, New Zealand, and Canada, as well as here in the U.K. The rapid rise in house prices in so many countries in recent years has reinvigorated a debate about whether and how central banks should respond to rapid increases in asset prices. So I decided to broaden my discussion to share with you some thoughts on the role of house prices in the deliberation of monetary policy.

Housing is an asset, and thus thinking about the implications of house price movements for monetary policy naturally leads to a discussion of asset prices more generally. After all, at the beginning of this decade, the discussion of how central banks should respond to changes in asset prices focused on the behavior of the price of another asset—stocks. The sharp increase in U.S. equity prices in the second half of the 1990s, particularly in the communications technology and dot.com sectors, led some to argue that the Federal Reserve should have tried to curtail the run-up in stock prices with more forceful actions than former Fed Chairman Greenspan's verbal warning about "irrational exuberance." Others argued that doing so would likely have been ineffective or even counter-productive, and the Fed should stick with its traditional objectives of price stability and maximum sustainable economic growth.[1]

More recently this debate has focused on the movements of house prices rather than stock prices. Whether and how monetary policy should take into account rapid increases in house prices has been the subject of numerous conferences and meetings of both academics and central bankers in many countries, including the U.K. Indeed, in the spring of 2003 when I was a visiting scholar at the Bank of England, house price appreciation was a topic of considerable interest and debate.

Today I will discuss my views on the role of house prices and other asset prices in monetary policy and then summarize how the recent decline in housing activity has affected the outlook for the U.S. economy.

Are Asset Prices Special?

House prices, like stock prices, are asset prices and thus are conceptually somewhat different from the prices of current goods and services. In general, asset prices are special in that they are forward looking and reflect the market's expectations of the value of the future stream of services associated with the asset. That is, they convey information about future demand and supply conditions. In addition, changes in both home prices and stock prices influence household wealth and therefore impact consumer spending and aggregate demand. Accordingly, asset prices contain important information about the current and future state of the economy and can play an important role in the deliberations of central bankers as they seek to achieve their objectives of price stability and, in the case of the U.S., sustainable output growth.

By and large, economists think of prices as being determined by the fundamentals of supply and demand. Rising prices, then, reflect growth in demand relative to supply. In the case of assets, many of these fundamental factors that shape the market's expectations of future supply and demand are not directly observable. Thus, there is always some question as to whether rapid shifts in asset prices are reflecting changes in the underlying fundamentals or not. After all, asset prices can rise and fall (sometimes very rapidly) and still be based on fundamentals. The reason is that, because asset prices are forward looking, the market must make assessments of future conditions in the determination of the current price. Those expectations can turn out to be wrong or can get revised as new information becomes available, sometimes resulting in dramatic adjustments in prices.

Nevertheless, when we see very rapid increases in asset prices, concerns are frequently voiced that prices may have lost touch with the underlying fundamentals. In such a circumstance, there is the fear a "bubble" may be developing that may eventually burst. Since history suggests a rapid decline in asset prices can be damaging to an economy, the question arises: Should central bankers be more proactive and try to slow the rapid run-up in asset prices – in other words, prick the bubble?

To not keep you in suspense, my short answer to this question is no.

How Should Monetary Policy React to House Prices?

There are two concerns that arise from asset price bubbles. First, because price bubbles, by definition, represent significant departures from fundamentals, they may have broader ramifications. In particular, a price bubble implies that the market is sending misleading price signals, thus distorting resource allocations. For example, over-investment in some assets and under-investment in others is a likely outcome. The bubble may also be accompanied by excessive accumulation of debt. Thus some analysts worry that bubbles lead to imbalances and distortions in the economy that ultimately must be corrected — presumably at some significant cost.

The second concern rests on the proposition that a price bubble inevitably bursts. If it doesn't, then it wasn't a bubble in the first place. Given the distortions and imbalances created during the run-up in prices, the bursting of the bubble and associated rapid decline in prices can wreak havoc with the balance sheets of individuals and financial institutions. This can impart ripple effects through the rest of the economy. For example, rapid declines in asset prices have at times been associated with sharp contractions of economic activity and severe financial problems as the imbalances and distortions are reversed.

In order for monetary policymakers to do anything about the concern that bubbles cause a misallocation of resources, they first have to determine if, in fact, there is a bubble. In my mind, this turns out to be an overwhelming hurdle.

In general, economists (and policymakers) have great difficulty determining if a rapid increase in asset prices reflects changing fundamentals or a bubble.[2] They even have difficulty deciding *ex post* whether a bubble has occurred. Personally, I am skeptical that central bankers are any better than investors or households in determining if asset prices are out of line with fundamentals. And if prices are not out of line with fundamentals – that is, if there is no bubble – then I think it would be a mistake to interfere with market forces determining those prices.

I am also skeptical about how effective or desirable monetary policy can be in restraining such asset price booms if they do occur. Central banks typically conduct monetary policy by targeting a very short-term interest rate. In the U.S., this policy rate is the federal funds rate – the interest rate at which banks lend funds to each other overnight on an unsecured basis. It simply is not clear how monetary policy should proceed if the goal is to impact the price appreciation of a particular asset.

Let's consider the recent housing boom in the U.S. Some analysts have suggested that the Federal Reserve should have raised its target fed funds rate earlier in this economic expansion to slow or cut off the rapid rise in house prices. They thought the Fed could, and should, have "pricked the bubble" they saw in house prices.

But such a strategy raises a number of difficult questions:

- How do policymakers know how much to raise rates?
- If policymakers raise rates and house prices do not decelerate, do they raise rates again?
- How do policymakers know when enough is enough?
- Do policymakers know what rate of house price appreciation is appropriate?

- Can policymakers slow house price appreciation without causing a precipitous decline in prices that might cause distress in the financial sector, thus increasing economic volatility rather than reducing it?

In addition to my skepticism about central bankers' ability to identify bubbles in asset prices and their ability to act at just the right time to curtail the rise in prices without causing a sharp fall in prices that they might regret, I have two other concerns about monetary policy acting in this fashion.

The first concern involves the impact on other parts of the economy of any policy action to curtail a particular class of asset prices, particularly those parts not party to bubble-like behavior. Central bankers have one instrument (the policy rate) and changes in that instrument are likely to affect other assets, not just the one whose price is rising rapidly. In the U.S., house prices and stock prices do not necessarily move in tandem. Yet, preemptively raising the fed funds rate to slow a rise in house prices may affect the stock market and other assets, not just the housing market. By focusing excessive attention on one sector or asset, the law of unintended consequences may raise its ugly head, resulting in more economic harm than good.

In addition, housing markets and house prices in the U.S. are very much driven by local conditions. In fact, the overall rise in the national average was driven primarily by house price appreciation on the Atlantic and Pacific coasts, and in some parts of the Southwest, such as in Las Vegas. The U.K. appears to have a similarly wide range of appreciation in house prices, with Greater London increasing most rapidly and areas such as the West Midlands and the North having more modest increases.

Yet increases in interest rates would have had nationwide effects that would have affected housing markets in all geographic areas of the country, not just those where house prices were rising rapidly. Is it desirable to conduct monetary policy in such a manner? I would argue that it is not.

My second concern is more important because it involves the potential loss of central bank credibility. Excessive attention to the price behavior of a particular asset or asset class sends confusing and potentially misleading messages to the public. Will the public come to expect the central bank to implicitly place a ceiling on rates of return on certain assets, to the exclusion of its other stated goals? Undermining the credibility of the central bank's commitment to price stability would complicate and raise the costs of achieving that goal. Hence, I view it as unwise to single out the price of houses, or any other item, for special consideration in conducting monetary policy.

Whether rapid increases in asset prices are described as "bubbles that burst" or simply as "price booms and busts" may not be very important in terms of their effects on the rest of the economy. Rapid declines in asset prices can cause balance sheet adjustment problems for banks (and other financial institutions) when the fall in the market value of their assets makes it difficult for them to meet demands from depositors (or debt-holders) to pay off their liabilities. Failures of banks (or other financial firms) can lead to a disruption of the supply of credit that exacerbates the adverse effects of the decline in asset prices and has the potential of leading to more severe contractions in economic activity. As indicated earlier, rapid declines in asset prices have at times been associated with sharp contractions of economic activity and severe financial problems for lenders and the financial system. The most serious cases in the U.S. include the Great Depression of the 1930s. Japan's more recent experience in the 1980s and 1990s also comes to mind, although there the problems were exacerbated by structural issues in the financial system.

Fortunately, legislative and regulatory changes in the U.S. over the past several decades have allowed banks and other financial firms to diversify not only their portfolios of assets, but also their geographic boundaries. Savings institutions that make mortgage loans no longer are limited to taking deposits within limited geographic areas; they no longer are restricted as to what interest rate they can pay on those deposits; and they no longer are prevented from making other types of loans. In addition, financial innovations, such as asset securitization, have allowed the spreading of risks in the financial system. Today, a U.S. bank or savings institution that makes mortgage loans often will sell the loan rather than hold the loan in its portfolio. Such loans typically become part of a pool of loans sold to investors. This means that today banks and many other financial institutions are much better diversified than during previous housing cycles. Thus, both deregulation of the financial system and innovations in financial products have lessened the risk of asset price declines triggering substantial adverse effects in the financial sector.

Nevertheless, there is general agreement among economists and policymakers that, regardless of the cause of a rapid rise in housing or other asset prices, the rapid unwinding of such price booms should be monitored carefully by policymakers.[3] A central bank should be prepared to act quickly to forestall any subsequent large adverse effects to the economy or financial system. I share that view, particularly because of the importance of ensuring financial stability. Policymakers must be careful, however, to allow the marketplace to make necessary corrections in asset prices. To do otherwise would risk misallocating resources and risk-bearing, as well as raise moral hazard problems, all of which could ultimately increase, rather than reduce, risks to the financial system.

The bottom line is that I share the view of a number of others, both academics and policymakers, who argue that central banks should respond to rapid increases in asset prices only to the extent that they contribute to our understanding of the general evolution of inflation and output.[4] Actions that have been characterized as "leaning against the wind" or "extra action" designed to achieve particular outcomes for target assets should be avoided.[5] I also would not want to think of changes in asset prices as another variable in the central bank's reaction function, which would give them the same level of attention as inflation and output. Doing so would risk creating the impression that the central bank is targeting a specific level of asset prices. That would be a very undesirable precedent because it could undermine the credibility of the central bank's commitment to price stability.

The U.S. Economy

Let me turn now to a look at the U.S. economy and how this ongoing adjustment in housing is affecting overall economic and financial developments.

The major story in 2006 was the resiliency of the U.S. economy in the face of a nearly 13 percent decline in residential investment and dramatic fluctuations in oil prices, which went from about $60 a barrel to about $75 during the first half of the year, followed by a decline back to $60 toward the end of the year. Residential investment alone reduced real GDP growth by almost one full percentage point. Even with such significant shocks, the economy grew slightly in excess of 3 percent last year, about the average rate of growth over the past 10 years.

The economy added 2.3 million jobs to nonfarm payrolls — a growth rate of 1.7 percent — bringing the unemployment rate down to 4.5 percent. With the strong labor market came strong gains in compensation. Average hourly earnings increased 4.1 percent in 2006. Thanks to the dramatic swing in oil prices, headline inflation rates soared during the first half of the year and fell during the second half. Thanks to the strong labor market and rising personal income, consumer spending grew at a healthy 3.6 percent pace during 2006. Core price indexes — those that exclude food and energy — remained uncomfortably high for the year. Specifically, the core CPI rose 2.7 percent and the core PCE rose 2.2 percent for the year.

While much has been written about the decline in residential investment during 2006, strong corporate profits and healthy balance sheets seem to have sparked strong growth in commercial real estate construction and solid business investment overall — offsetting much of the decline in residential construction. Finally, there were positive and encouraging signs late in the year that the drag on GDP from net exports was diminishing.

The economy, however, hit an unexpected soft patch in the first quarter of 2007. Overall growth fell to just 0.7 percent at an annual rate. The surprise arose not from the residential sector, which was expected to be weak, but from an unexpected decline in the accumulation of inventories and somewhat weaker than expected growth in business investment. There was also a modest increase in the drag from net exports.

Going forward, until housing demand picks up and some of the inventory of unsold homes is worked off, residential construction will continue to be a drag on economic growth. I expect this drag to diminish but continue until sometime next year. However, the other factors that contributed to the weakness in the first quarter are likely to be temporary. Exports were unusually weak in the first quarter and are likely to rebound, and inventories have already shown signs of picking up. Data on new orders and shipments of manufactured goods have shown modest improvement in recent months, suggesting a bounce back in manufacturing and business investment in the second quarter.

In light of the data available so far, many private sector forecasters are expecting second quarter real GDP growth to rebound, with growth for the year as a whole expected to still be in a 2 to 3 percent range. This is consistent with my own view as well.

Consumer spending remained strong in the first quarter, and is likely to continue to grow at a reasonable pace. To many observers, this has been a surprise. They have been anticipating a dramatic weakening in consumer spending, arguing that spending has been largely supported by consumers taking money out of the equity in their homes. Since it is widely perceived that home prices are declining, household wealth must be falling and spending should decline. This is the so-called spillover effect of the collapse in housing that everyone has been talking about – but it has yet to materialize.

While there remains the risk that such spillovers may develop, I have doubts they will be very large for several reasons.

In my view, the widely reported headline numbers overstate the decline in home prices. As I mentioned earlier, the house price boom was not uniform across the country. Certainly some areas experienced extraordinary increases in house prices. But in other areas the increases were more modest. What we are currently observing is that those areas with the biggest run-ups are the ones experiencing the greatest adjustments. There are many areas of the country where house prices have not declined, but have merely slowed in their rate of appreciation. I think this fact is sometimes lost in the news headlines.

In the U.S. we have several different measures of house prices. The OFHEO index of house prices (OFHEO stands for the Office of Federal Housing Enterprise Oversight) tracks the prices of single-family homes based on repeat sales or refinancings of the same properties in all states and most metro areas of the country. But it does not include condominiums or other multi-family housing, nor the more expensive single-family homes, nor the least expensive ones that are financed with government-insured loans. The OFHEO index has not yet shown an outright decline of house prices for the nation as a whole, but the most recent quarterly data show that house prices have declined in some metropolitan areas.

Another measure tracks the prices of new homes of all types and in all price ranges from data on the number of new home sales. Sales of new homes peaked in the summer of 2005 and are more than 30 percent lower in May of this year. New home prices, however, did not start to level off until April 2006, and the median price of new homes has since fallen less than 10 percent.

Yet another measure tracks the prices of existing homes of all types and in all price ranges from data on the number of existing home sales. Sales of existing homes peaked in the fall of 2005, and have since fallen about 17 percent. Existing home prices leveled off around June 2005, and the median price has since fallen less than 5 percent.

The picture painted by these alternative measures suggests the decline in house prices has – at least so far – not been as large or as widespread as implied by the headlines, even though some individual metro areas have indeed been experiencing declining prices. On the surface, this might give some insight as to why there has been so little in the way of spillovers. Moreover, for people who bought their houses to live in them for a prolonged period, the transitory paper gains or losses they experience are likely to have only a modest effect on their consumption patterns.

We also can look at data on household wealth. As of the first quarter of this year, household net worth continued to rise, according to the Federal Reserve's Flow-of-Funds data, as did the value of the housing component of household wealth. To the extent that reductions in housing wealth do occur because of a decline in house prices, the negative wealth effect may largely be offset for many households by higher stock market valuations. In that case, households' financial positions will not be as constrained as one might think looking at a decline in house prices alone. Nevertheless, we should recognize that the impact of falling house prices on lower-income households may be relatively larger since they have little wealth to begin with and typically do not hold stocks.

Based on the fact that house prices have not declined very much for most consumers and that household wealth continues to grow, especially for those households that account for the largest share of aggregate consumption spending, it seems unlikely that we will see significant spillover effects on aggregate consumption from the housing sector. Moreover, strong employment growth, averaging 145,000 jobs per month so far this year, will support personal income growth, which in turn will continue to support healthy consumer spending.

So far, then, the troubles in the housing sector and the end of the boom in house prices have not had the dire consequences many feared for the overall U.S. economy, although it has contributed to a slowing of economic growth during 2006 and so far in 2007.

But what about financial effects from the weak housing market? As noted earlier, the central bank should be concerned about the potential impact of house price busts on both the real economy and the stability of the financial system. So far the financial system has not shown significant strains, although there certainly have been specific problems in some sectors, most notably the subprime loan market.

Subprime mortgage delinquencies and defaults have been rising sharply. A number of lenders that specialized in subprime lending have declared bankruptcy. And foreclosures on subprime loans are up substantially during the past six months. Recently a hedge fund suffered large losses from positions it took in the subprime market, and there is concern that this could lead to large spillover effects to other hedge funds or to mainstream lenders to such funds. How severe such effects will turn out to be remains to be seen. The coming months should provide a better indication of the magnitude of any adverse effects from this sector.

A key ingredient for ensuring asset price busts do not have widespread adverse effects on the financial system is to have a healthy banking system at the beginning. Fortunately, banks have been quite healthy in the U.S. in recent years. They have enjoyed relatively strong earnings, have been well-capitalized, and have had relatively low delinquencies going into this period of adjustment in the housing market. Also as I noted earlier, the financial system is now more diversified and has less exposure to risks from sharp declines in asset prices than was the case in past decades. As a regulator and supervisor, the Federal Reserve's job is to ensure that financial institutions engage in sound risk management practices, which in turn helps ensure the safety and soundness of the financial system.

Conclusion

In sum, house prices and housing activity have received a lot of attention in the U.S. as well as other countries in recent years, particularly in the U.K. What role house prices should play in the conduct of monetary policy is likely to be a topic of debate whenever a country experiences a boom in house prices. In my view, the central bank should not make changes in monetary policy that are above and beyond what would be normally called for to achieve its objectives – which in the U.S. are price stability and maximum sustainable growth of output. However, how the financial system responds to adverse impacts of a house price bust that follows a boom is also important. The main focus of the central bank in such cases should be to ensure financial stability.

In the U.S., the recent reversal of the boom in housing activity and house prices has contributed to a slowdown in economic growth. But the consequences of the declines in housing activity and house prices, in my view, have so far not derailed the prospect that economic growth will return toward trend at the end of 2007 and in 2008.

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[1] For example, see the papers in *Asset Price Bubbles: The Implications for Monetary, Regulatory and International Policies* (eds. W. C. Hunter, G. G. Kaufman and M. Pomerleano), MIT Press (2003).

[2] See Timothy Schiller (Q4 2006), "Housing: Boom or Bubble?" *Business Review*, Federal Reserve Bank of Philadelphia, pp. 9-18.

[3] See *Asset Price Bubbles: The Implications for Monetary, Regulatory and International Policies* (eds. W. C. Hunter, G. G. Kaufman and M. Pomerleano), MIT Press (2003); and Roger W. Ferguson, Jr., "*Recessions and Recoveries Associated with Asset-Price Movements: What Do We Know?*" speech at the Stanford Institute for Economic Policy Research, Stanford, California (January 12, 2005).

[4] See, for instance, Bernanke and Gertler (2001), “Should Central Banks Respond to Movements in Asset Prices?” *American Economic Review*, 91(2), pp. 253-257; Charles Bean, “Asset Prices, Financial Imbalances and Monetary Policy: Are Inflation Targets Enough?” remarks at the Bank for International Settlements, Basel (March 29, 2003); Marvin Goodfriend (2003), “Interest Rate Policy Should Not React Directly to Asset Prices,” in *Asset Price Bubbles: The Implications for Monetary, Regulatory and International Policies* (eds. W. C. Hunter, G. G. Kaufman and M. Pomerleano), MIT Press, pp. 427-444; Gruen, Plumb, and Stone (2003), “How Should Monetary Policy Respond to Asset-Price Bubbles?” in *Asset Prices and Monetary Policy*, (eds. Anthony Richards and Tim Robinson), Reserve Bank of Australia, pp. 260-280; Donald Kohn, “Monetary Policy and Asset Prices,” remarks at “Monetary Policy: A Journey from Theory to Practice,” a European Central Bank Colloquium held in honor of Otmar Issing, Frankfurt, Germany (March 16, 2006); and Frederic Mishkin, “The Role of House Prices in Formulating Monetary Policy,” speech at the Forecasters Club of New York (January 17, 2007).

[5] On this topic, see Cecchetti, Genberg, and Wadhwani, (2003), “Asset prices in a flexible inflation targeting framework,” in *Asset Price Bubbles: The Implications for Monetary, Regulatory and International Policies* (eds. W. C. Hunter, G. G. Kaufman and M. Pomerleano), MIT Press, pp. 427-444; and Donald Kohn “Monetary Policy and Asset Prices,” remarks at “Monetary Policy: A Journey from Theory to Practice,” a European Central Bank Colloquium held in honor of Otmar Issing, Frankfurt, Germany (March 16, 2006).