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**Remarks on the U.S. Economy
and the
State of the Housing Sector**

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Remarks on the U.S. Economy and the State of the Housing Sector¹

Introduction

As many of you know, I joined the Federal Open Market Committee at a difficult juncture for the Committee and for the American economy. Growth in real gross domestic product, one of our best measures of overall health in the economy, has been sluggish. Financial markets have been struggling to return to normal operation since the current turmoil began in earnest 10 months ago. In addition, the housing sector has been extraordinarily weak for some time, with prices falling and sales of both new and existing homes on the decline. The Federal Reserve has responded to this situation by instituting an array of new lending facilities and sharply lowering interest rates through the fall of 2007 and into the first several months of 2008.

My intention today is to talk about these developments in the context of medium- and longer-term objectives for monetary policy. My sense is that the U.S. economy will be able to post stronger growth in the second half of this year despite the ongoing financial crisis and the drag from the housing sector. As I will make clear, such growth is likely to make the inflation outlook a more pressing concern for the Fed in the second half of this year.

Let me say before I continue that any views expressed here are my own and do not necessarily reflect the official views of the Federal Open Market Committee or the Federal Reserve System.

Before saying more about the current situation in the U.S. economy, let me provide some context for my current views by describing the goals and objectives of monetary policy as I see them.

¹ Portions of this speech were delivered as “A Perspective on Monetary Policy,” in Fayetteville, Arkansas, June 4, 2008.

A General Perspective on the Objectives of Monetary Policy

Over the past two decades, much has been said about the benefits of transparency and accountability in the conduct of monetary policy. Much has been achieved, both in the United States and abroad, to reach these goals. I applaud these developments, and I believe that progress in this direction can and should continue. Consistent with those principles, in my role as the newest participant on the FOMC, I want to talk for a few moments about my fundamental beliefs on the appropriate objectives of monetary policy.

One of the guiding principles from contemporary economic theory is that monetary policy should be conducted in a systematic and predictable fashion. The expectations of economic actors are critically important for the nature of equilibrium in the economy. These expectations evolve in part according to the outlook for future policy itself and the implications of that policy for the path of the economy. This view, once considered radical, is now widely accepted in academia and by monetary policymakers around the world. This perspective rejects an alternative view, common in an earlier era in macroeconomics, that policy actions are most useful when they surprise participants in financial markets and the public more generally.

Systematic monetary policy must start with a clear statement of the ultimate policy objectives. The Federal Reserve is commonly characterized as striving to foster price stability along with maximum sustainable employment. Other central banks, including the European Central Bank (ECB) and the Reserve Bank of New Zealand, for example, are charged with a single mandate: to maintain price stability. In the 1960s, the dual mandate was perceived to require a policy trade-off. Under the then-prevailing Phillips curve hypothesis, lower inflation could be achieved only at a cost of higher unemployment. Today, the consensus view is that there is no long-run tradeoff between inflation and unemployment. Indeed, a succession of Fed

Chairmen—Paul Volcker, Alan Greenspan, and Ben Bernanke—have emphasized the complementarity of the two objectives: namely, that price stability is a precondition for maximum sustainable employment.² I agree with this perspective.

Moreover, I have been impressed during my 18-year career as a Fed economist in considering the contrast in the behavior of the U.S. economy between high-inflation and low-inflation eras. Between 1965 and 1984, U.S. inflation rose to double-digit levels before falling again. Since 1984, inflation has remained under better control. The earlier era was associated not only with higher and more variable inflation, but also with a more volatile real economy. My sense is that a monetary policy better-focused on price stability has made an important contribution to the improved stability on the real side of the economy that we have observed since 1984.³

This stability has meant a lot to the average household in our nation: long periods of uninterrupted growth punctuated by just two mild recessions since the mid-1980s.

Price stability has multiple interpretations. In the late 19th and early 20th centuries, price stability meant that variations in the general level of prices would be transitory: the price index would revert to a mean. In recent policy discussions, price stability generally is interpreted as a small positive rate of inflation. Under these conditions, the level of prices does not revert to a constant, but trends upward. I accept this latter definition of price stability. There may be theoretical and practical reasons to believe that the best price indexes we have available are subject to upward biases. While I am not a big fan of the upward-bias argument—after all, the best-available adjustments are already made to the indexes—I admit that I do not have better

² See, for example, Ben S. Bernanke, “The Benefits of Price Stability,” February 24, 2006. <www.federalreserve.gov/newsevents/speech/bernanke20060224a.htm>.

³ For a discussion of this possibility, see John B. Taylor, “Monetary Policy and the Long Boom,” April 16, 1998. <<http://research.stlouisfed.org/publications/review/98/11/9811jt.pdf>>.

measures myself. My preferred definition of price stability is that trend inflation, correctly measured, is zero. In practice, this likely converts into a trend in measured inflation on the order of ½ to 1½ percent, depending on the particular price index referenced.

A sustained era of price stability requires that central banks create an environment in which financial market participants and the general public maintain the expectation that future inflation will remain low and stable. Such an environment frequently is characterized as having an “anchor for inflation expectations.” Some central banks have established such an anchor for the economy by announcing an explicit numeric inflation target. The Reserve Bank of New Zealand was the first institution to choose this approach. During the 1990s it was followed by the Bank of Canada, the Bank of England, and the European Central Bank, among others.

The FOMC has chosen not to announce such a quantitative guideline, although many past and current participants on the Committee have expressed individual preferences or “comfort zones” about ranges of inflation that they personally feel are appropriate objectives for policy. Within the past year, the FOMC has started publishing the ranges and central tendency of the inflation forecasts of the participants on a three-year horizon. These forecasts generally have been consistent with the revealed “comfort zones.” In the media, midpoints of these forecasts are often associated with an implicit FOMC objective for trend inflation. This represents important progress concerning the transparency of the FOMC inflation objective. Still, there is some risk that if the evolving inflation situation appears inconsistent with the inflation objective that is inferred from the revealed preferences of the individual FOMC participants, the anchor for inflation expectations may start to drag or come completely loose.

I take some comfort that, even absent an explicit numeric inflation objective, the FOMC has achieved a nominal anchor for the economy over the past 25 years. The Committee

accomplished this the old-fashioned way—the Fed earned credibility for the expectation of low and stable trend inflation based on the successful outcome of about 25 years of policy history. The Volcker disinflation in the early 1980s succeeded in stabilizing inflation around 4 percent per annum. After a mild and short-lived inflation breakout in the late 1980s, the Greenspan Fed produced a declining trend in inflation throughout the 1990s and into the first few years of the 21st century.

Despite this past success, it is my judgment that at the present time inflation expectations are fragile. By many measures, inflation itself has trended up in recent years, while inflationary expectations, whether measured from survey data or from Treasury inflation-protected securities spreads, have remained remarkably stable. How long can this situation continue? My sense is that, absent stabilization or reversal of the recent trend in inflation, inflation expectations will begin to move higher. That is, market participants, businesses, and consumers will come to view higher inflation as part of the economic landscape. These expectations, if allowed to persist, will then feed into the equilibrium of the economy and will be difficult to reverse.

A breakdown in inflation expectations has not occurred yet, to be sure, but the risk is real. It is possible that a breakdown could happen over a very short horizon. Indeed, in the May 2008 University of Michigan/Reuters survey, the 12-month-ahead median expected inflation rate jumped to 5.2 percent (from 4.8 percent) and 25 percent of respondents reported expecting inflation in excess of 10 percent over the next 12 months! My sense is that these extraordinary readings were driven in part by recent exceptional increases in certain commodities prices, especially gasoline. Still, the five-year-ahead median expected inflation has drifted up to 3.3 percent.

Despite these worrisome numbers, I think that the Fed can contain the potential for inflation expectations to drift higher. It is rule number one in modern central banking that inflation and inflation expectations be kept under control. Let me repeat that: It is rule number one in modern central banking that inflation and inflation expectations be kept under control. After a 10-month period in which the dominant policy concern has rightly been the state of financial markets, policy can begin to address pressing inflationary concerns during the remainder of the year. While it is too early to say that the financial market turmoil has completely abated, the Fed's new lending facilities combined with an environment of low interest rates have gone some distance to return markets to more normal operation.

Some Implications for the Current Policy Environment

In August of last year, the FOMC took the first of a sequence of policy actions that reduced the target for the federal funds rate 325 basis points, from 5.25 percent to 2 percent. The initial actions were motivated by turmoil in credit markets. By the end of last year, evidence of slowing economic growth emerged. By early this spring, many commentators and some economic forecasters were predicting that the economy was in or about to enter a recession. The most recent Blue Chip consensus forecast projects positive growth in real GDP for each quarter in 2008, though the projected growth in the second quarter is close to zero. The most recent quarter-by-quarter outlook from the Survey of Professional Forecasters is almost identical to the Blue Chip consensus. Within the past month, consistent with some stronger-than-expected economic data, forecasters have generally backed off substantially in their estimates of the probability that the economy is now in or will soon enter a recession.

These forecasts may have a more optimistic tone than many of you have heard earlier this year. I think this is because financial market turmoil is waning. A financial crisis is, naturally, a time of great uncertainty, as market participants are all wondering what will happen next. Forecasters have to take into account the possibility that the crisis will worsen to the point that a great deal of harm is done to U.S. financial markets. My sense is that, during the first several months of this year, some forecasts were putting a high probability on such an outcome. As the probability of especially severe damage to the financial system recedes, forecasts are being revised upward. This is complicating the inflation outlook for those projecting that significant economic slack would help to keep inflation in check.

Current consensus forecasts show no sign of relief for the near-term inflation situation. The Blue Chip consensus forecast for core CPI inflation for 2008 over 2007 is 2.4 percent. The forecast for 2009, at 2.3 percent, is essentially unchanged. The Survey of Professional Forecasters puts inflation at 2.3 percent in both years. These forecasts show little change from the inflation experience in 2007. Forecasts of *headline* CPI inflation are more disturbing, with both the Blue Chip and the Survey of Professional Forecasters current forecasts in excess of 3 percent. These forecasts suggest that headline CPI inflation will moderate from its recent pace over the past six months, which is 4.5 percent. While heartening, this inflation outlook is still not consistent with my view of price stability.

Still, given the current economic environment and the outlook for the next 18 months, my view is that policy is appropriately calibrated at this time. I see several reasons why maintaining the current policy is a good option for now.

First, while the economy is clearly sluggish now, the FOMC has already reduced the target federal funds rate by 325 basis points. These policy actions were preemptive and involved

more aggressive rate cuts than in previous episodes, such as 1990-91 or 2001. The rate reductions were based on forecasts that economic activity would slow in the face of contracting housing activity and substantial turmoil in financial markets. Growth has indeed been slow, at least for the first half of 2008, but that cannot now be justification for further rate reductions. Surprises to forecasts of economic activity, if any, have been to the upside. Acting preemptively means that patience is required when circumstances play out in a way that is consistent with the forecast. Further action in the absence of substantial forecast errors would be double counting: in effect, reacting twice to the same concern.

Second, the full impact of monetary policy actions is not realized immediately. It is likely that additional stimulus to economic activity from the monetary policy actions taken in January and March will peak in the second half of 2008. In addition, there is a fiscal stimulus program in place that may shift some spending into the second and third quarters of this year. Any additional monetary policy actions must be judged by their expected impacts in the future in light of current forecasts of the evolution of the economy. The best judgment, as incorporated in current forecasts, is that the pace of economic activity will recover in the second half of 2008 and throughout 2009.

Third, at the current federal funds rate target of 2 percent, real interest rates are quite low by historical standards. Short-term real rates—computed by subtracting near-term forecasts of headline inflation from nominal rates—are significantly negative. Three- to six-month-ahead headline CPI inflation forecasts exceed 3 percent; some forecasts for this period exceed 3.5 percent. Three-month Treasury bill and prime nonfinancial commercial paper rates are less than 2 percent. Even when evaluated against forecasts of core inflation rates, these yields are zero to

slightly negative in real terms. Five-year inflation-indexed Treasury note yields are essentially zero.

In short, the Fed has created a low-interest rate environment that should allow the economy to continue to adjust to the drag from the housing sector and the aftermath of financial market turmoil.

The Housing Sector

Let me turn now to more specific comments on the housing sector. Private single-family housing starts peaked in January 2006 at an annual rate of 1.823 million units. Since that time, housing starts have continued to fall; in April 2008, they were only at an annual rate of 692 thousand units, roughly 38 percent of the previous peak value. As striking as these statistics appear, they are not unprecedented. To put the contraction in housing production in a longer-term perspective, it is useful to divide housing starts by the number of households. In February 2006, housing starts per household peaked at 1.65 percent. In March 2008, they had declined to 0.64 percent per household. A startling fall, to be sure, but it has happened before. In January 1973, housing starts per household peaked at 2.10 percent before declining to a trough of 0.94 percent in February 1975. The 1973-75 decline was similar in magnitude to our current situation, according to this metric. A similar phenomenon occurred later in the 1970s. In December 1977, housing starts per household were 2.03 percent before beginning to fall. They fell all the way to 0.66 percent in November 1981. These statistics remind us that housing can be a highly cyclical industry. They also illustrate that the current contraction has clear precedents. Indeed, it is perhaps comforting that the order of magnitude in the previous declines is not unlike

today's figures and that, when housing starts per household have fallen this low in the past, it was near a turning point.

A difference in the current environment is that housing prices have declined. The national OFHEO purchase-only house price index in March of this year was about 3.4 percent lower than one year ago. The FHLMC conventional mortgage purchase-only home price index was about 4.4 percent lower in the first quarter of this year as compared to one year earlier. More ominously, the national S&P/Case-Shiller home price index was about 14.1 percent lower in the first quarter of 2008 compared to one year earlier. The Radar Logic per-square-foot measure of housing prices in 25 metropolitan statistical areas shows declines similar to those in the Case-Shiller measure. The median sales price of existing homes is off about 8.5 percent from one year earlier. These various measures have strengths and weaknesses, but they all tell a tale of declining prices over the past year.

A key question for the macroeconomic outlook is whether and to what extent home prices will continue to decline. My sense is that house prices today may be closer to fundamental value than is commonly believed. Consider the following simple calculation. Starting in the first quarter of 2001, a recession year, normalize the value of nominal GDP to one and the value of the house price index to one. Let's use the house price index showing some of the most dramatic movements, the Case-Shiller national index. Now plot the level of the two indexes from 2001 to today. The nominal GDP index grows at a more or less steady pace up to the most recent quarter for which data are available, the first quarter of this year. The Case-Shiller index shows a dramatic rise—often called a housing price bubble—before falling off again beginning in 2006. But, given the recent housing price declines, the level of the Case-Shiller index in the first quarter of 2008 is not far from the level of nominal GDP. If we expect fundamental house

prices to grow roughly in line with nominal GDP, then the current level of house prices is not far from fundamental value. One can reach similar conclusions using the other measures of housing prices. I take this as one indication that much of any “bubble component” of house prices is now out of the market.

This calculation depends on the idea that in 2001, we were not already in a housing bubble. I do not think we were. It is true that the Case-Shiller index was growing fairly rapidly in the late 1990s, but I interpret that as catching up from lower rates of growth earlier in that decade. The calculation also depends on the idea that nominal GDP provides a rough benchmark for nominal expenditure on housing and that house prices are a good measure of spending on housing services. This is probably broadly true, but there are many details that would need to be addressed to produce a good theoretical model of fundamental housing prices. This is a great area for research. And finally, the calculation concerns national measures of the level of housing prices. Of course, real estate markets are driven by many local factors as well.

A trend line is not a theory. I want to briefly mention some research that I have seen at recent conferences that has shaped some of my thinking on house prices. These papers have a common theme that I think is important to emphasize—namely, that there are reasons to think that the run-up in housing prices since the last recession reflect fundamental factors in part, and that not all observed price movements can be attributed to a “bubble.” One paper is by the University of Wisconsin’s own Morris Davis and François Ortalo-Magné, called “Household Expenditures, Wages, Rents,” which argues that expenditure share on housing is constant over time. This seems important to me from a research perspective because it means we can build macroeconomic models with housing sectors that use standard preferences for households. A second paper is by Carlos Garriga, who is on the staff at the St. Louis Fed, with co-authors

Matthew Chambers and Don Schlagenhauf, titled “Accounting for Changes in the Homeownership Rate.” The authors look at how changes in mortgage product aspects, such as downpayment requirements and repayment structure change participation of different demographic and income groups in a general equilibrium setting. This is an important topic as a key, long-standing public policy goal in the United States has been to increase homeownership, and this paper helps us understand how innovations in financing might shape the participation rate in equilibrium. The third paper is by Princeton University economist Nobuhiro Kiyotaki with co-authors Alexander Michaelides and Kalin Nikolov, titled “Winners and Losers in Housing Markets.” These authors emphasize that when the share of land value in the value of structures is large, housing prices can be importantly influenced by changes in real interest rates. In all of these studies, and many others that I do not have time to mention here, a theme is that theoretical modeling of the housing sector is a difficult but important problem in macroeconomics. Many details come into play—life cycle and demographic features, housing as capital, housing as an asset, and the role of financing—each of which is a separate topic in the economics literature. Another theme, and an important one from a policy perspective, is that house price movements may have more to do with fundamental factors than is commonly thought.

Conclusions

In conclusion, I appreciate having this opportunity to share with all of you some of my thoughts on the current state of the U.S. economy. While these are challenging times for monetary policymakers, I am cautiously optimistic that we can move into the second half of

2008 on firmer footing with reduced financial market turmoil, reduced drag from the housing sector, more rapid economic growth, and a renewed focus on keeping inflation low and stable.

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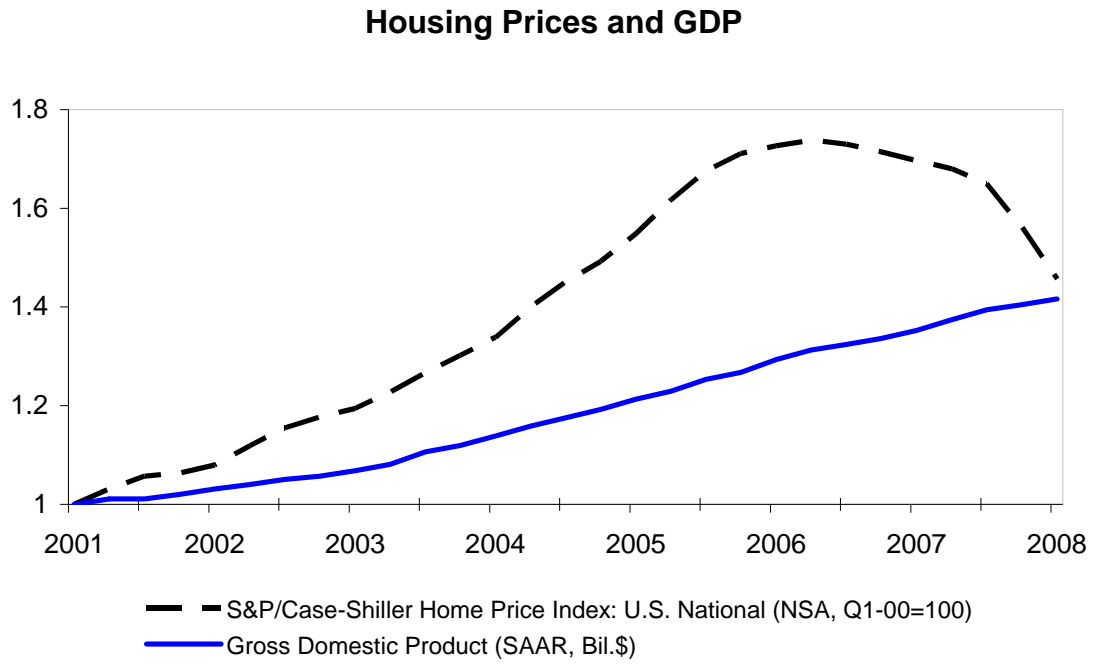
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Figure 1



Source: S&P, Fiserv, and MacroMarkets LLC, BEA, Haver Analytics