- October 2, 2008. Presentation. <u>"The Optimal Inflation Target in an Economy</u> with Limited Enforcement," (indianapdf) at Indiana University.
- September 26, 2008. Speech. <u>"Near-Term Challenges for the U.S.</u> <u>Economy,"</u> delivered at the 2008 Annual Economic Outlook Conference, Middle Tennessee State University, Murfreesboro, Tenn.

Near-Term Challenges for the U.S. Economy

September 26, 2008

2008 Annual Economic Outlook Conference, Middle Tennessee State University, Murfreesboro, Tenn.

*I appreciate assistance and comments provided by my colleagues at the Federal Reserve Bank of St. Louis. Kevin Kliesen, associate economist, and Marcela M. Williams, special research assistant to the president, provided assistance. I take full responsibility for errors. The views expressed are mine and do not necessarily reflect official positions of the Federal Reserve System.

Introduction

The U.S. economy has faced severe challenges over the last year. Some of these challenges arose from price declines in housing markets and the associated turmoil in mortgage financing. Others were the product of a breathtaking runup in energy and commodity prices. The Federal Reserve has responded to these challenges in timely and innovative ways. Our actions have included traditional monetary policy moves, but we have also implemented new and unconventional tools. This innovation has intensified in response to market events over the last several weeks. Today I will talk about the near-term outlook for the economy and the challenges my Federal Reserve colleagues and I face as we strive to implement a policy that is designed to deliver low and stable inflation along with maximum sustainable employment.

In the best of times, forecasting is difficult. In times of magnified uncertainty, it may be unwise to attempt to guess the level of economic performance. That said, my sense is that the pace of growth in the U.S. economy over the second half of the year will be positive but slower than its pace over the first half of the

year. Although recent developments suggest that headline inflation may moderate from its current levels, price pressures are elevated and several measures of inflation expectations are inconsistent with the medium-term projections of FOMC participants. A key challenge in the current environment is to navigate through substantial financial market turmoil without creating a new and difficult-to-solve inflation problem in its wake.

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

Current Economic Developments

The economy has shown some strength thus far in 2008. This strength was apparent in the sharp upward revision to real gross domestic product during the second quarter. Earlier this year, many forecasters were predicting negative growth in real GDP in the second quarter. These expectations seemed consistent with the evolving slowdown in growth over the final three months of last year and the first three months of this year. But the sharply negative growth did not materialize. This is only the most recent example of how difficult it can be to get a good handle on short-term economic developments.

One of the most significant recent developments on the real side of the economy has been the steady slowing in the pace of spending by U.S. households. Economists pay close attention to consumer spending, since it comprises about three-quarters of expenditures on real GDP. After increasing by more than 3 percent per year from 2003 to 2006, the growth of real consumer spending began to taper off in the second quarter of last year. Since then, real consumer spending has increased at a slower pace—despite a sizable fiscal stimulus package and aggressive interest rate cuts by the Federal Reserve.

The consumption spending slowdown has occurred against the backdrop of the sharp increase in oil and other commodities prices that began last year. Retail gasoline prices, which had averaged \$2.36 per gallon in the first quarter of 2007, jumped to \$3.02 per gallon in the second quarter of 2007—and they have mostly stayed above \$3 per gallon since. In response to record-high gasoline prices, consumers have changed their buying patterns. First, sales of

domestically manufactured cars and light trucks are on pace to be their weakest since 1991. Although domestic auto sales posted a surprising rebound in August, it seems likely that aggressive sales incentives were an important contributing factor. Second, record-high gasoline prices have caused consumers to switch from relatively high-priced, less-fuel-efficient light trucks and SUVs, to relatively lower-priced, more-fuel-efficient passenger cars. The end result has been a decline in total expenditures on motor vehicles over the past year. Although the demand for durable goods such as cars and trucks is highly cyclical, it seems likely that higher gasoline prices can account for a large percentage of the recent declines in automotive sales.

It is entirely possible that recent developments in the labor markets will compound the slowing in real consumer spending over the second half of this year. In August, nonfarm payroll employment declined by 84,000, and revisions indicated bigger declines over the previous two months than were originally estimated. So far this year, payroll employment has declined by an average of about 76,000 per month. Job losses this year have been largest in the manufacturing and construction sectors, as well as in professional and business services. Interestingly, about 30 percent of the drop in payroll employment since January 2008 is attributable to temporary help services workers. This is much larger than the experience over comparable-length intervals seen in 1990-91 and 2001.

One of the most startling statistics to come out of the August employment report was the rise in the unemployment rate. Over the past year, the unemployment rate has increased sharply—from 4.7 percent to 6.1 percent mostly in the last three months. Although changes in employment can have significant effects on consumer spending, it is also true that households tend to smooth their consumption. That is, during difficult times households rely on accumulated saving and borrowing to maintain living standards. While the decline in employment will probably have some adverse effects on consumer spending in the aggregate, the effect tends to be small relative to other factors that seem more important to households, such as current and expected real incomes. Still, the rise in unemployment is consistent with a cyclical slowing in GDP growth, as firms respond to weaker sales by scaling back their work force.

Higher energy prices also have adversely affected the business sector. To help

protect their narrowing profit margins, firms have attempted to pass along all or part of their cost increases to their customers, they have idled some existing capacity, and they have reduced their labor costs. These are typical responses to an oil price shock. At the same time, sharp increases in oil prices also tend to increase uncertainty about future oil prices. In their decisions to build capacity or expand their work force, firms must be forward-thinking. Increased uncertainty about future oil prices may cause firms to postpone planned capital outlays and perhaps lead to a costly reallocation of resources. As a current example, some automotive manufacturers have announced permanent closures of some plants that produce less-fuel-efficient vehicles.

Beginning late last year, business capital spending on equipment and software weakened. In the second quarter of 2008, for example, real equipment and software expenditures declined at the fastest rate in five and a half years. For the most part, the bulk of this weakness was concentrated in the outlays for industrial and transportation equipment; business spending on informationprocessing equipment and software has remained brisk. Thus, part of this slowdown is undoubtedly energy related.

Some strength has re-emerged in the manufacturing sector. New orders for manufactured durable and nondurable goods have risen strongly for five consecutive months. One source of this strength may be the robust export sector, which has been a key part of the economy's resilience in the face of declining employment. Other areas of business capital spending that are not dependent on foreign demand, such as business spending on commercial and industrial structures, have remained quite strong. On balance, business capital spending seems to be rebounding modestly and may help to offset some emerging weakness in consumer spending.

Going forward, falling oil prices, if sustained, should help households and businesses cope with existing strains. In fact, given that the recent decline in oil prices has probably exceeded the near-term assumptions of most forecasters, it is conceivable that economic growth over the second half of the year may turn out to be moderately stronger than the consensus expects.

To be sure, the timing and extent of a strengthening in the economy will also largely depend on the recovery of the housing sector. Since the first quarter of 2006, the residential housing investment component of real GDP has subtracted, on average, almost a full percentage point from each quarter's real GDP growth. This has been a significant drag on growth, and; so, stabilization in the housing sector should provide a sizable stimulus to overall growth, all else equal.

Most forecasters do not expect to see a bottom in housing construction until early 2009. By then, homebuilders will have probably worked off the bulk of their excess inventories of unsold new homes. However, the inventory of existing homes on the market remains near record-high levels, and it seems likely that it will take longer to work off that inventory. Sales of new and previously sold single-family homes appear to have stabilized over the past few months. It seems unlikely that sales would have stabilized if buyers were still expecting steep price declines.

Widely watched house price measures include the S&P/Case-Shiller index and the Office of Federal Housing Enterprise Oversight (OFHEO) index. There are some significant differences between the two. (1) The Case-Shiller index includes homes purchased with nonconforming mortgages—also known as jumbo mortgages. By contrast, the OFHEO index has broader geographic coverage and only includes conforming mortgages, that is, mortgages that are eligible to be purchased by government-sponsored enterprises such as Fannie Mae and Freddie Mac. The Case-Shiller index includes homes purchased with nonconforming mortgages—also known as jumbo mortgages. By contrast, the OFHEO index has broader geographic coverage and only includes conforming mortgages, that is, mortgages that are eligible to be purchased by governmentsponsored enterprises such as Fannie Mae and Freddie Mac. (2) Over the four quarters ending in the second quarter of 2008, the Case-Shiller national price index has declined by a little more than 15 percent, while the OFHEO price index has declined by a little less than 5 percent. Over the four quarters ending in the second quarter of 2008, the Case-Shiller national price index has declined by a little more than 15 percent, while the OFHEO price index has declined by a little less than 5 percent.

The decline in home prices, which has been most severe in parts of the West and in the Southeast—places where home prices had earlier posted the largest increases—has affected the economy in important ways. One widely cited effect is that falling house prices reduce household equity wealth, which may have a depressing effect on consumer spending. My sense is that these effects may not be very large. A recent study published by the Bank of Canada notes that in the United States the extra boost to consumption from an increase in housing wealth ranges from 2 to 11 percent according to existing empirical research. (3) That's a large range. Moreover, other studies have found that a decline in housing wealth has no effect on consumption. These results suggest that we want to be careful not to overstate wealth effects.That's a large range. Moreover, other studies have found that a decline in housing wealth has no effect on consumption. These results suggest that we want to be careful not to overstate wealth effects.That's a large range. Moreover, other studies have found that a decline in housing wealth has no effect on consumption. These results suggest that we want to be careful not to overstate wealth effects.That's a large range. Moreover, other studies have found that a decline in housing wealth has no effect on consumption. These results suggest that we want to be careful not to overstate wealth effects.

Recent Developments in Financial Markets

More substantial macroeconomic effects from falling house prices may come through financial markets. A large number of financial institutions have had considerable holdings of mortgage-backed securities on their balance sheets. These securities provided holders with a flow of income derived from the monthly mortgage payments of the underlying asset. The recent decline in house prices, along with a slowing economy, caused many homeowners to default or walk away from their houses—especially those with nontraditional mortgages. These conditions have eroded the value of the mortgage-backed securities and thus reduced the net wealth of those investors and institutions that held them.

The resulting illiquidity of mortgage-backed securities and related financial instruments has caused severe stress for the U.S. financial system over the past year. Many financial firms simply did not manage risk exposure on these securities well and, as a result, have struggled with losses and write-downs. A financial sector shakeout has ensued, one which was entirely appropriate considering the magnitude of the mismanagement involved. As is normal during an industry shakeout, weaker firms are forced into bankruptcy or merge with stronger partners, and opportunity abounds for those firms that are able to survive and build market share in the post-shakeout industry structure.

The Federal Reserve has responded aggressively in an attempt to mitigate the effects of the shakeout on the rest of the economy. The key concern has been

that if important financial market players are failing, the failure should occur in an orderly way with the lowest level of market disruption. In the banking sector, there are well-established procedures for resolving a failed institution in an orderly way. It is very important to recognize that in the non-bank financial sector there are no such procedures. This has kept the Fed improvising, especially during the last seven months.

The Bear Stearns episode provided the first case of a large-scale failure. The novelty of the situation suggested that a Bear Stearns bankruptcy was largely unexpected within financial markets and therefore likely to cause significant market disruption. In that case, the Fed helped arrange a merger with JPMorgan Chase as the stock price of Bear Stearns was declining toward zero.

During the summer, mortgage giants Fannie Mae and Freddie Mac experienced increasing stress, eventually leading to an aggressive policy change. Placing these entities into conservatorship was largely a Treasury action in conjunction with the primary regulator, the Federal Housing Finance Agency (FHFA), with only a consultative role for the Federal Reserve. The GSEs were previously implicitly backed by the U.S. government, and the recent action makes that backing completely explicit. The GSE conservatorship removes a key uncertainty from the scene and should help to stabilize markets going forward.

In recent weeks, the investment bank Lehman Brothers appeared to be in a position similar to Bear Stearns. The Lehman Brothers situation had been evolving for a year, and market players had already seen the demise of an investment bank. In this case, counterparties had plenty of time to assess the potential for Lehman to fail. As a consequence, financial market participants were much less likely to have been surprised and significant market disruption was judged less probable. In addition, the Fed had implemented additional liquidity facilities in the wake of Bear Stearns in an attempt to mitigate adverse consequences from future failures. Lehman filed for bankruptcy. Since then, important pieces of the company have been sold to Barclays Capital. In a related development, investment bank Merrill Lynch agreed to sell itself to Bank of America. The two remaining investment banks, Goldman Sachs and Morgan Stanley, this week changed their charters to become commercial banks. These events have left the U.S. with no investment banks.

One difficulty in dealing with a crisis is the element of surprise. Just as the events surrounding Lehman were coming to a head, solvency problems at insurer American International Group, with \$1.1 trillion in assets, became acute. While AIG's stock price had been declining for some time, its demise was rapid and unanticipated. A bankruptcy filing in the immediate aftermath of Lehman was judged likely to cause significant market disruption. The AIG board of directors agreed to a Fed bridge loan. The terms included the ouster of the CEO and an interest rate set at Libor plus 850 basis points.

It is important to stress that the Federal Reserve's intent in each of these cases has not been to save these firms but to orchestrate an orderly transition for financial markets as these firms exit the scene in their current form.

Again, because of the lack of a regime for the orderly resolution of failed institutions in the non-bank financial sector, the Fed was forced to improvise in the Bear Stearns, Lehman and AIG episodes. These improvised actions have had mixed success. In the Bear Stearns episode, there was significant, but manageable, turmoil in the aftermath of the merger announcement. In the Lehman-AIG episode, there was significant turmoil, which threatened to spread globally to seemingly unrelated markets. Part of this was attributable to the largely unexpected nature of the AIG bankruptcy threat within 48 hours of Lehman's bankruptcy filing.

The continuing turmoil has prompted Treasury Secretary Paulson to approach Congress concerning a more systematic method of handling the shakeout in the financial sector. The intent of the Secretary's proposal is to create a market for the illiquid asset-backed securities and related instruments that are at the heart of the present situation. These assets have current prices that are very low, the so-called fire sale price, due to the fact that so many firms would like to sell their holdings, and there are few buyers in the current climate. But these securities also have a hold-to-maturity price that reflects the likely value of the stream of revenue for a patient investor who is willing to simply hold the asset for a period of time. Under the proposal, the government would play the role of the patient investor, buying the securities at auction and holding them or selling them at a future moment when financial market stress has receded. In principle, this idea could be executed at no ultimate cost to the taxpayer, although taxpayer money would be put at risk. An important part of the concept is that taxpayer money would be used to purchase assets, which would then be sold in the future, recouping most or all of the initial outlay. A program like this would probably go a long way toward liquefying illiquid asset-backed securities markets and; so, would help progress toward an orderly financial market consolidation.

It is far from clear how financial market turmoil of this magnitude will ultimately affect the real economy. The leading modern example for large economies is Japan, where substantial problems in real estate and the banking sector were followed by a decade or more of subpar economic performance. Many Asian countries involved in the currency crises of 1997 and 1998 suffered through severe recessions. In the U.S. we have been more fortunate so far. The 1987 stock market crash has often been mentioned in conjunction with recent events, but real GDP growth was actually strong during the second half of 1987: Third quarter growth was 3.7 percent, and fourth quarter growth was 7.2 percent. At the time, many suggested that the U.S. was in or would immediately go into recession due to financial market upset. It did not happen, which provides an object lesson about how difficult it can be to really understand what is driving short-term dynamics in the economy. Similarly, the collapse of Long-Term Capital Management occurred in the second half of 1998, the culmination of a year of turmoil in global financial markets. But U.S. real GDP growth in the second half of 1998 averaged about 5.5 percent.

All of these events offer clues but also differ in important ways from the current episode. We do not know what will happen this time around, and we should be humble in our predictions. Still, these examples suggest that there is substantial downside risk. There is some possibility of a relatively benign outcome, where the financial market shakeout plays itself out and real economic performance is muted but not disastrous. But there is also some possibility of a very adverse outcome in which the entire economy is drawn into a protracted downturn.

Recent Inflation Developments

One of the most unsettling aspects of the current macroeconomic environment is the high and volatile rate of inflation. In 2007, headline inflation—whether measured by the consumer price index (CPI) or the personal consumption expenditures price index (PCE Price Index)—reached its highest rate in more than 17 years! Skyrocketing oil and commodity prices over the first seven months of this year contributed to the high inflation rate. As a result, through August, the CPI has increased at an annual rate of more than 5 percent, while the PCE price index has increased at an annual rate of a little less than

When discussing the outlook for inflation, the FOMC has tended to place considerably more weight on core inflation measures that exclude food and energy prices. The rationale for this is that price shocks emanating from higher oil or commodity prices have historically tended to be temporary. However, one could argue that the rise in oil prices from a little less than \$20 per barrel in late 2001 to more than \$100 per barrel this year reflects a permanent increase in the demand for crude oil from rapidly growing countries in Asia, Eastern Europe and Latin America. It is natural to think that global demand will continue to rise for some time.

Higher oil prices have both direct and indirect effects on prices paid by households. An example of a direct effect is the increased price of gasoline or diesel fuel, or the natural gas to heat one's home. The indirect effects occur when businesses experiencing compressed profit margins due to higher energy costs are able to increase their selling prices on non-energy goods and services or to add on fuel surcharges. These indirect effects typically show up in the core measures of inflation. There is considerable evidence—as most recently discussed in the September Beige Book narrative—that producers are increasingly able to pass along their higher input costs to offset the compression in their profit margins. We can perhaps see this most clearly in the acceleration in the core inflation rate over the past three months.narrative—that producers are increasingly able to pass along their higher input costs to offset the compression in their profit margins. We can perhaps see this most clearly in the acceleration in the core inflation rate over the past three months.narrative—that producers are increasingly able to pass along their higher input costs to offset the compression in their profit margins. We can perhaps see this most clearly in the acceleration in the core inflation rate over the past three months.

A key concern is that the current level of the federal funds target rate, at 2 percent, is well below the current rate of overall inflation. This means that the real cost of borrowing short-term is negative. In other words, the FOMC's interest rate target is unusually low. Over time we will need to adjust this rate to a level that is more conducive to long-run price stability and maximum sustainable employment.

Conclusions

In summary, the near-term outlook for economic growth and inflation is above all uncertain. Two keys to future economic performance will be stabilization in housing and financial markets. Financial market turmoil has recently been severe, and the consequences of this turmoil on real economic performance entail clear downside risk. If financial market turmoil can be contained, the FOMC can turn attention to achieving better inflation results than those recently experienced. Until inflation clearly moderates, my colleagues and I will need to be especially watchful that our accommodative policy stance does not begin to worsen the outlook for long-run price stability.

Footnotes

1. See "Revisiting the Differences between the OFHEO and S&P/Case-Shiller House Price Indexes: New Explanations."

(http://www.ofheo.gov/media/research/OFHEOSPCS12008.pdf) for an analysis on the differences between the two price indexes.

2. The Housing and Economic Recovery Act of 2008 raised the conforming mortgage limit from \$417,000 to \$625,000. The legislation also indexed this limit to the rate of inflation.

3. See Flood, Kolet and Morin (2008).

References

Flood, Kimberly, Kolet, Ilan and Sylvie Morin. "House Prices and Consumer Spending," Bank of Canada Review , Summer 2008, pp. 31-44., Summer 2008, pp. 31-44.

OFHEO. "Revisiting the Differences between the OFHEO and S&P/Case-Shiller House Price Indexes: New Explanations. (http://www.ofheo.gov/media/research/OFHEOSPCS12008.pdf)

• September 13, 2008. Presentation. <u>"Three Issues in Learning and Monetary</u> <u>Policy," (cambridge9september2008pdf)</u> Adaptive Learning in Macroeconomics. Sponsored by the Centre for International Macroeconomics