

## **Chairman Ben S. Bernanke**

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# **Federal Reserve Policies in the Financial Crisis**

It is a privilege for me to be here in Texas, and I would like to thank the Austin Chamber for hosting this luncheon. The Texas economy is strong and diversified, accounting for more than a trillion dollars of output last year. However, our nation, and Texas too, is being tested by economic and financial challenges. Those challenges and the Federal Reserve's policy responses are the topic of my remarks today.

### **Federal Reserve Policies during the Crisis**

As you know, this extraordinary period of financial turbulence is now well into its second year. Triggered by the contraction of the U.S. housing market that began in 2006 and the associated rise in delinquencies on subprime mortgages, the crisis has become global and is now affecting a wide range of financial institutions, asset classes, and markets. Constraints on credit availability and slumping asset values have in turn helped to generate a substantial slowing in economic activity.

The Federal Reserve's strategy for dealing with the financial crisis and its economic consequences has had three components. First, to offset to the extent possible the effects of the crisis on credit conditions and the broader economy, the Federal Open Market Committee (FOMC) has aggressively eased monetary policy. The easing campaign began in September 2007, shortly after the turbulence began, with a cut of 50 basis points in the target for the federal funds rate. The cumulative reductions in the target rate reached 100 basis points--that is, a full percentage point--by the end of 2007. As indications of economic weakness proliferated, the Committee continued to respond, reducing the target rate by an additional 225 basis points by the spring of this year. By way of historical comparison, this policy response stands out as exceptionally rapid and proactive. In taking these actions, we aimed not only to cushion the direct effects of the financial turbulence on the economy, but also to reduce the risk of a so-called adverse feedback loop in which economic weakness exacerbates financial stress, which, in turn, leads to further economic damage. Unfortunately, despite the support provided by monetary policy, the intensification of the financial turbulence this fall has led to a further deterioration in the economic outlook. The Committee again responded by cutting the target for the federal funds rate an additional 100 basis points in October. Half of that reduction came as part of an unprecedented coordinated interest rate cut by six major central banks on October 8.

The Committee's rapid monetary easing was not without risks. Some observers expressed concern at the time that these policies would stoke inflation, and, indeed, inflation reached high levels earlier this year, mostly as the result of a surge in the prices of oil and other commodities. Throughout this period, the Committee remained closely attuned to inflation developments. Because control of inflation requires that the public's longer-term inflation expectations remain well anchored, we paid particularly close attention to indicators of those expectations, as inferred, for example, from financial markets and from surveys of households and businesses. However, the Committee maintained the view that the rapid rise in commodity prices primarily reflected sharply increased demand for raw materials in emerging market economies, in combination with constraints on the supply of these materials, rather than general inflationary pressures. We expected that, at some point, global economic growth and the associated growth in the demand for commodities would moderate, which would result in a leveling out of commodity prices, consistent with the predictions of futures markets. As you know, commodity prices peaked during the summer and, rather than leveling out, have actually fallen dramatically with the weakening in global economic activity. As a consequence, overall inflation appears set to decline significantly over the next year toward levels consistent with price stability.

Although monetary easing likely offset some part of the economic effects of the financial turmoil, that offset has been incomplete, as widening credit spreads and more restrictive lending standards have contributed to tight overall financial conditions. In particular, many traditional funding sources for financial institutions and markets have dried up, and banks and other lenders have found their ability to securitize mortgages, auto loans, credit card receivables, student loans, and other forms of credit greatly curtailed. Consequently, the second component of the Federal Reserve's strategy has been to support the functioning of credit markets and to reduce financial strains by providing liquidity to the private sector--that is, by lending cash or its equivalent secured with relatively illiquid assets.

To ensure that adequate liquidity is available, consistent with the central bank's traditional role as the liquidity provider of last resort, the Federal Reserve has taken a number of extraordinary steps. For instance, to provide banks and other depositories easier access to liquidity, we narrowed the spread of the primary credit rate (the rate at which banks borrow from the Fed's discount window) over the target federal funds rate from 100 basis points to 25 basis points; extended the term for which banks can borrow from the discount window to up to 90 days; and developed a program, called the Term Auction Facility, under which predetermined amounts of credit are auctioned to depository institutions for terms of up to 84 days. These innovations resulted in large increases in the amount of Federal Reserve credit extended to the banking system. Following the funding crises faced by Bear Stearns and other institutions this past spring, we also expanded our liquidity programs to include primary dealers in the government securities market. It should be emphasized that the loans that we make to banks and primary dealers through our standing facilities are both overcollateralized and made with recourse to the borrowing firm, which serves to minimize the Federal Reserve's exposure to credit risk. To further improve funding conditions, the Federal Reserve has also recently introduced facilities to purchase highly rated commercial paper at a term of three months and to provide backup liquidity for money market mutual funds.

In our globalized financial markets, the provision of dollar liquidity has international as well as domestic aspects. To improve dollar funding conditions in important foreign markets, the Federal Reserve has approved bilateral currency swap agreements with 14 foreign central banks. Swap facilities allow each of the central banks involved to borrow foreign currency from the other; in this case, foreign central banks such as the Bank of Japan, the European Central Bank, the Bank of England, and the Swiss National Bank have borrowed dollars from the Federal Reserve to re-lend to banks in their jurisdictions. Because short-term funding markets are interconnected, the provision of dollar liquidity in major foreign markets eases conditions in dollar funding markets globally, including here in the United States. Importantly, these swap arrangements pose essentially no credit risk because our counterparties are the foreign central banks themselves, which take responsibility for the extension of dollar credit within their jurisdictions.

Judging the effectiveness of the Federal Reserve's liquidity programs is difficult. Obviously, they have not yet returned private credit markets to normal functioning. But I am confident that market functioning would have been more seriously impaired in the absence of our actions. My reading of the evidence and the reports we have received is that these programs have been helpful in lowering spreads in certain short-term funding markets, enabling financial and nonfinancial businesses to obtain credit that would have been costly or difficult to obtain elsewhere, and allowing a more orderly process of asset sales and the necessary deleveraging by financial institutions. Ultimately, however, market participants themselves must address the fundamental sources of financial strains by raising new capital, restructuring balance sheets, and improving risk management. This process is likely to take some time. The Federal Reserve's various liquidity measures should help facilitate that process indirectly by boosting investor confidence and by reducing the risk of severe disruption during the period of adjustment. Once financial conditions become more normal, the extraordinary provision of liquidity by the Federal Reserve will no longer be needed, and financial institutions will again look to private counterparties, and not central banks, as a source of ongoing funding.

Consistent with the historical mission of the Federal Reserve, the third component of our policy response has been to use all our available tools to promote financial stability, which is essential for healthy economic growth. At times, this has required working to preserve the stability of systemically critical financial institutions, so as to avoid further costly disruptions to both the financial system and the broader economy during this extraordinary period. In particular, the Federal Reserve collaborated with the Treasury to facilitate the acquisition of the investment bank Bear Stearns by JPMorgan Chase and to stabilize the large insurer, American International Group (AIG). We worked with the Treasury and the Federal Deposit Insurance Corporation (FDIC) to put together a package of guarantees, liquidity access, and capital for Citigroup. Other efforts include our support of the actions by the Federal Housing Finance Agency and the Treasury to place the government-sponsored enterprises (GSEs) Fannie Mae and Freddie Mac into conservatorship and our work with the FDIC and other bank regulators to assist in the resolution of troubled depositories, such as Wachovia. In each case, we judged that the failure of the institution in question would have posed substantial risks to the financial system and thus to the economy.

The Federal Reserve has worked to promote financial stability through other means as well, such as strengthening the financial infrastructure. For example, the Federal Reserve Bank of New York has led cooperative efforts to improve the clearing and settlement procedures for credit default swaps and other over-the-counter derivatives. In addition, the Federal Reserve is collaborating with the Securities and Exchange Commission and the Commodity Futures Trading Commission to facilitate the development of

central counterparties for the trading of credit default swaps. Properly managed, central counterparties can mitigate the counterparty risk that has proved a source of contagion in the past year.

The Federal Reserve's efforts in conjunction with other agencies to prevent the failure of systemically important firms have been controversial at times. One view holds that intervening to prevent the failure of a financial firm is counterproductive, because it leads to erosion of market discipline and creates moral hazard. As a general matter, I agree that preserving market discipline is extremely important, and, accordingly, the government should intervene in markets only in exceptional circumstances. However, in my view, the failure of a major financial institution at a time when financial markets are already quite fragile poses too great a threat to financial and economic stability to be ignored. In such cases, intervention is necessary to protect the public interest. The problems of moral hazard and the existence of institutions that are "too big to fail" must certainly be addressed, but the right way to do this is through regulatory changes, improvements in the financial infrastructure, and other measures that will prevent a situation like this from recurring. Going forward, reforming the system to enhance stability and to address the problem of "too big to fail" should be a top priority for lawmakers and regulators.

In particular, recent events have revealed a serious weakness of our system: the absence of well-defined procedures and authorities for dealing with the potential failure of a systemically important nonbank financial institution. In the case of federally insured depository institutions, the FDIC has the necessary authority to resolve failing firms; indeed, in situations in which the failure of a firm is judged to pose a systemic risk, the FDIC's powers are quite broad and flexible. No comparable framework exists for nondepository financial institutions. The Federal Reserve is authorized to lend to nondepositories under unusual and exigent circumstances, but such loans must be backed by collateral sufficient to provide reasonable assurance that they will be repaid; if such collateral is not available, the Fed cannot lend. And until recently, the Treasury also did not have the authority to inject capital to prevent the disorderly failure of systemically significant private institutions.

In the absence of an appropriate, comprehensive legal or regulatory framework, the Federal Reserve and the Treasury dealt with the cases of Bear Stearns and AIG using the tools available. To avoid the failure of Bear Stearns, we facilitated the purchase of Bear Stearns by JPMorgan Chase by means of a Federal Reserve loan, backed by assets of Bear Stearns and a partial guarantee from JPMorgan. In the case of AIG, we judged that emergency Federal Reserve credit would be adequately secured by AIG's assets. However, neither route proved feasible in the case of the investment bank Lehman Brothers. No buyer for the firm was forthcoming, and the available collateral fell well short of the amount needed to secure a Federal Reserve loan sufficient to pay off the firm's counterparties and continue operations. The firm's failure was thus unavoidable, given the legal constraints, and the Federal Reserve and the Treasury had no choice but to try instead to mitigate the fallout from that event.

Fortunately, we now have tools to address any similar situation that might arise in the future. The intensification of the financial crisis this fall made clear that a comprehensive approach involving the fiscal authorities was needed to address more effectively the problems of the financial system. On that basis, the Administration, with the support of the Federal Reserve, asked the Congress for a new program aimed at stabilizing our financial markets. The resulting legislation, the Emergency Economic Stabilization Act (EESA), provides the necessary authorizations and resources to strengthen the financial system and, in particular, to deal with the potential failure of a systemically important firm. Notably, funds provided under the act facilitated the recent government actions to stabilize Citigroup. More broadly, the act allows the Treasury to recapitalize and stabilize our banking system by purchasing preferred stock in financial institutions. The Capital Purchase Program is voluntary and designed to encourage participation by a broad range of institutions while maintaining the ability of participating institutions to raise private capital. Up to \$250 billion has been committed to this program. In addition to measures being implemented by the Treasury, the FDIC has announced programs to guarantee selected liabilities of FDIC-insured depository institutions and their holding companies. With time, these measures should help strengthen the banking system, allowing credit to flow more freely to support economic growth.

Collectively, the Treasury, the FDIC, and the Federal Reserve are now much better equipped to address potential systemic risks quickly and effectively, and we are firmly committed to doing so. However, measures such as the Capital Purchase Program and the FDIC guarantee are temporary. In the longer term, the development of a statutory framework for resolving systemically critical nonbank financial institutions in ways that do not destabilize the financial system as a whole must be another key priority.

## **Economic Outlook**

Despite the efforts of the Federal Reserve and other policymakers, the U.S. economy remains under considerable stress. Economic activity was weakening even before the intensification of the financial crisis this fall. The sharp falloff in consumer spending during the summer was particularly striking. According to the latest estimates, real gross domestic product (GDP) declined at an annual rate of 0.5 percent in the third quarter, with personal consumption falling at an annual rate of 3.7 percent.

However, economic activity appears to have downshifted further in the wake of the deterioration in financial conditions in September. Employment losses, which had been averaging about 100,000 per month for much of the year, accelerated to more than 250,000 per month, on average, in September and October, and the unemployment rate jumped to 6.5 percent in October. Moreover, recent increases in the number of new claims for unemployment insurance suggest that labor market conditions worsened further in November. Housing markets remain weak, with low demand and the increased number of distressed properties on the market contributing to further declines in house prices and ongoing reductions in new construction. In reaction to worse economic prospects and tightening credit conditions, households have continued to retrench, putting consumer spending on a pace to post another sharp decline in the fourth quarter. In particular, sales of light motor vehicles fell to an annual rate of 10-1/2 million units in October, the lowest level since 1983, and November sales reports are downbeat.

Business activity also slowed in recent months. Excluding the effects of the hurricanes and the Boeing strike on production, manufacturing output fell 2 percent over the months of September and October, orders and shipments of nondefense capital goods fell markedly in October, and most survey measures of business conditions are at or close to record lows.

Amid the bad news, there have been some positives. The pronounced declines in the prices for crude oil and other commodities have helped to reverse what had been a significant drag on household purchasing power through much of the year. And there have been a few tentative signs of stabilization in financial markets. For instance, short-term funding costs for banks and commercial paper issuers have come down recently, and issuance of investment-grade bonds by nonfinancial corporations appears to have held up well. Banks have recently issued bonds backed by the FDIC guarantee. That said, investor concerns about credit quality have increased further, and risk aversion remains intense. As a result, in almost all credit markets, spreads remain wider, maturities shorter, and availability more constrained than was the case before the intensification of the crisis this fall.

The likely duration of the financial turmoil is difficult to judge, and thus the uncertainty surrounding the economic outlook is unusually large. But even if the functioning of financial markets continues to improve, economic conditions will probably remain weak for a time. In particular, household spending likely will continue to be depressed by the declines to date in household wealth, cumulating job losses, weak consumer confidence, and a lack of credit availability.

The global economy has also slowed. Many industrial countries were affected by the financial crisis from the beginning, but the latest economic data point to a more noticeable weakening of conditions. And emerging market economies, which were little affected at first, are slowing now as well. One implication of these developments is that exports are not likely to be as great a source of strength for U.S. economic activity in coming quarters as they had been earlier this year.

At the same time, the increase in economic slack and the declines in commodity prices and import prices have alleviated upward pressures on consumer prices. Moreover, inflation expectations appear to have eased slightly. These developments should bring inflation down to levels consistent with price stability.

Although the near-term outlook for the economy is weak, a number of factors are likely over time to promote the return of solid gains in economic activity and employment in the context of low and stable inflation. Among those factors are the stimulus provided by monetary policy and possible fiscal actions, the eventual stabilization in housing markets as the correction runs its course, and the underlying strengths and recuperative powers of our economy. The time needed for economic recovery, however, will depend greatly on the pace at which financial and credit markets return to more-normal functioning.

## **The Outlook for Policy**

Going forward, our nation's economic policy must vigorously address the substantial risks to financial stability and economic growth that we face. I will conclude my remarks by discussing the policy options of the Federal

Reserve, focusing on the three aspects of policy that I laid out earlier: interest rate policy, liquidity policy, and policies to stabilize the financial system.

Regarding interest rate policy, although further reductions from the current federal funds rate target of 1 percent are certainly feasible, at this point the scope for using conventional interest rate policies to support the economy is obviously limited. Indeed, the actual federal funds rate has been trading consistently below the Committee's 1 percent target in recent weeks, reflecting the large quantity of reserves that our lending activities have put into the system. In principle, our ability to pay interest on excess reserves at a rate equal to the funds rate target, as we have been doing, should keep the actual rate near the target, because banks should have no incentive to lend overnight funds at a rate lower than what they can receive from the Federal Reserve. In practice, however, several factors have served to depress the market rate below the target. One such factor is the presence in the market of large suppliers of funds, notably the government-sponsored enterprises (GSEs) Fannie Mae and Freddie Mac, which are not eligible to receive interest on reserves and are thus willing to lend overnight federal funds at rates below the target.<sup>1</sup> We will continue to explore ways to keep the effective federal funds rate closer to the target.

Although conventional interest rate policy is constrained by the fact that nominal interest rates cannot fall below zero, the second arrow in the Federal Reserve's quiver--the provision of liquidity--remains effective. Indeed, there are several means by which the Fed could influence financial conditions through the use of its balance sheet, beyond expanding our lending to financial institutions. First, the Fed could purchase longer-term Treasury or agency securities on the open market in substantial quantities. This approach might influence the yields on these securities, thus helping to spur aggregate demand. Indeed, last week the Fed announced plans to purchase up to \$100 billion in GSE debt and up to \$500 billion in GSE mortgage-backed securities over the next few quarters. It is encouraging that the announcement of that action was met by a fall in mortgage interest rates.

Second, the Federal Reserve can provide backstop liquidity not only to financial institutions but also directly to certain financial markets, as we have recently done for the commercial paper market. Such programs are promising because they sidestep banks and primary dealers to provide liquidity directly to borrowers or investors in key credit markets. In this spirit, the Federal Reserve and the Treasury jointly announced last week a facility that will lend against asset-backed securities collateralized by student loans, auto loans, credit card loans, and loans guaranteed by the Small Business Administration. The Federal Reserve's credit risk exposure in this facility will be minimized because the collateral will be subject to a "haircut" and because the Treasury is providing \$20 billion of EESA capital as supplementary loss protection. Each of these approaches has the potential to improve the functioning of financial markets and to stimulate the economy.

Expanding the provision of liquidity leads also to further expansion of the balance sheet of the Federal Reserve. To avoid inflation in the long run and to allow short-term interest rates ultimately to return to normal levels, the Fed's balance sheet will eventually have to be brought back to a more sustainable level. The FOMC will ensure that that is done in a timely way. However, that is an issue for the future; for now, the goal of policy must be to support financial markets and the economy.

Finally, working together with the Treasury, the FDIC, and other agencies, we must take all steps necessary to minimize systemic risk. The capital injections into the banking system under the EESA, the FDIC's guarantee program, and the provision of liquidity by the Federal Reserve have already served to greatly reduce the risk that a systemically important financial institution will fail. We at the Federal Reserve and our colleagues at other federal agencies will carefully monitor the conditions of all key financial institutions and stand ready to act as needed to preserve their viability in this difficult financial environment.

I have not discussed the international response to the crisis today, but policymakers abroad as well as those in the United States have taken a series of extraordinary steps to address an extraordinary situation. These steps include strong fiscal and monetary actions as well as measures to stabilize key financial institutions and markets and to strengthen the financial infrastructure. I am not suggesting the way forward will be easy. But I believe that the policy responses taken here and by our international partners, together with the underlying vitality and resilience of the American economy, will help to restore confidence to our financial system and place our economy back on the path to vigorous growth.

1. Banks have an incentive to borrow from the GSEs and then redeposit the funds at the Federal Reserve; as a result, banks earn a sure profit equal to the difference between the rate they pay the GSEs and the rate they receive on excess reserves. However, thus far, this type of arbitrage has not been occurring on a sufficient scale, perhaps because banks have not yet fully adjusted their reserve-management practices to take advantage of this opportunity.