Good afternoon. It is a distinct pleasure to join you here in London at the European Economics and Financial Centre, and to have the opportunity to discuss several issues of significance in macroeconomic policy. Among the principal challenges we central bankers face is constructing an effective short-run response to shocks to the economy which simultaneously is consonant with our long-run objectives. Make no mistake, we take our responsibility for financial stability seriously and attempt to ensure, insofar as possible, that periods of instability are few and far between. When financial conditions become unstable, we respond in order to contain the consequences for the real economy. Historical perspective and precedents can help sort through these demands; after all, while history does not repeat itself exactly, we shouldn’t conclude that it isn't of value.

In this spirit, an experience increasingly relevant to current circumstances is the “headwinds” episode of the early 1990s in the United States. In particular, it is possible that an appreciable tightening of credit conditions will, as then, restrain the U.S. economy for a time. This is an immediate problem, but in the historical context we should bear in mind that, after a slow start and with appropriate policy, the 1990s became a decade of growth, of sustained gains in employment and of diminishing inflation.

Too big to fail

Before reviewing this history in greater depth and examining its implications for the present, let me remind you that I am speaking here only for myself and not for others on the Federal Open Market Committee or in the Federal Reserve. In this vein, and before I discuss macroeconomic policy more generally, I want to briefly provide some thoughts on issues related to the so-called too-big-to-fail (TBTF) problem. As you may know, I have long considered this an issue of particular importance and relevance given the growth of large banks, their increasing complexity and the history of government support for such institutions when they get into trouble. Indeed, I have gone so far as to co-author a book* on the topic, in 2004, and I think the

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message and recommendations of the book hold up well against the background of recent events. I see ample opportunity for application of our analyses and recommendations to the current debate as policymakers consider long-run responses and lessons learned from current problems.

The message of the book is straightforward. While governments cannot and should not uniformly avoid public support for creditors of failing banks, they should seek to minimize that support because of the distortions it produces. Such public support—even when it passes a benefit-cost test at the time of provision—encourages future risk-taking by institutions whose creditors expect to benefit from future support. Such risk-taking can even contribute to the specific financial conditions that prompt further government support. The key to addressing these costs is, when times are good, to act to reduce creditors' expectations of receiving protection.

As we detail in the book, managing expectations of protection requires that policymakers take steps before a crisis to make it less likely that the failure of large or important financial institutions “spills over” to other institutions, markets and the rest of the economy. Policymakers should also undertake steps to better understand the potential for spillovers before large institutions get into trouble, as this would allow them to target any support they provide, or perhaps make it more likely that support could be avoided. Because I believe spillovers drive the provision of after-the-fact government support, I am not convinced that other approaches are as likely to alter creditors' expectations.

Let me provide just one example of the type of actions policymakers can take before a crisis. In the book we call for the relevant regulatory agencies to simulate the failure of a large financial institution with a particular focus on those aspects of the failure that would produce spillovers. The information gathered from such an exercise would help set the agenda for reforms that agencies could pursue to limit the type of events that would end up justifying government support.

A final TBTF comment: Recent events have likely reaffirmed and strengthened some creditors’ expectations of support, or have created those expectations for the first time. I think one would be hard pressed to dismiss our analyses or proposals by claiming that such expectations do not exist. On the opposite end of the spectrum, some might dismiss our suggestions, arguing that we cannot influence creditors’ expectations. I reject that view as equally untenable. We simply cannot allow widespread perceptions of government support to pervade the financial system. Experience in other countries suggests that such a strategy is quite costly. And, in any case, our proposals seek to reduce systemic risk, an outcome presumably shared by policymakers regardless of their views on TBTF per se.

Financial shock

Even as the economic expansion continued for its sixth consecutive year in 2007, it became clear that problems in housing and in subprime (adjustable-rate) mortgages had been building for quite some time and had, in fact, become severe. While no doubt there were lots of reasons for these difficulties (including instances of fraud, predatory lending, faulty credit agency ratings and inadequate risk management practices at financial institutions), one principal source was expectations of ever-rising home prices. Many transactions would have worked out satisfactorily if only housing prices had continued to rise rapidly. Also, to add perspective, even with heightened delinquencies and foreclosures, the preponderance of subprime borrowers are still in their homes today, making timely payments, and so presumably are better off than they otherwise would have been.

Since late last summer, economic events have been largely overshadowed by developments in financial and credit markets in the United States. I will not recite the litany of what has transpired, assuming that it is generally familiar to many of you, except where it is pertinent to describing the outlook and assessing the issues before us.
While governments cannot and should not uniformly avoid public support for creditors of failing banks, they should seek to minimize that support because of the distortions it produces. ... Managing expectations of protection requires that policymakers take steps before a crisis to make it less likely that the failure of large or important financial institutions “spills over” to other institutions, markets and the rest of the economy.

Suffice it to say that for a time many financial markets were seriously impaired and, although conditions in some have shown signs of improvement more recently, other markets remain dysfunctional. There has been an appreciable amount of turmoil and turbulence. Further, many large banks, both in the United States and abroad, have found that their balance sheets have expanded measurably as holdings increased of nonconforming mortgages, leveraged loans and other credits that they had extended but for which well-functioning secondary markets no longer exist. Moreover, banks that had acted as sponsors of structured credit products and special-purpose investment vehicles came under pressure to take the assets of the off-balance-sheet entities onto their own books. And as this was happening, some banks began to report large losses, so the combination of larger-than-anticipated balance sheets and unexpected losses has prompted banks to hoard liquidity and balance-sheet capacity and thus to become less willing to provide funding to others.

These are consequential developments in my judgment, as is the failure of Bear Stearns, the fifth-largest investment bank in the United States, but while significant to economic prospects, these circumstances are not completely unfamiliar. A brief review of history can help frame our short- and longer-term objectives and implementation approaches in the current period.

**Headwinds**

The situation we confront today is reminiscent, in several salient ways, of the headwinds environment that prevailed in the aftermath of the 1990–91 recession. In this regard, the 1994 Economic Report of the President devoted part of a chapter to those headwinds and provides a convenient jumping-off point to examine similarities. According to the 1994 report, the headwinds that restrained the economy in the early 1990s consisted of reductions in spending on national defense, weak foreign economies, a debt overhang, excesses in commercial construction, corporate restructuring and a credit crunch. Several of these conditions are not pertinent today, and so I would dismiss parallels in defense spending, foreign economies and restructuring.

However, while excesses in commercial construction have been avoided for the most part during the current expansion, the same cannot be said, of course, of residential construction, where the unsold, unoccupied inventory of houses and condominiums is large and where adjustment is still in train. Further, trends in commercial real estate finance and loan performance are starting to suggest softness in the underlying income-producing capability of some properties. And while I think the term “debt overhang” is overly broad, a significant number of homeowners are experiencing considerable strain in meeting their monthly obligations. Finally, in view of my earlier comments about impaired markets and institutions, the possibility of a credit crunch, and its attendant effects on economic performance, cannot be ruled out, and this is indeed a central focus of concern.

To my knowledge, there is not a precise definition of a credit crunch, but I would describe it as an environment in which quality borrowers find credit either unavailable or available only on very expensive terms. To the extent that such a situation develops, some investment projects and planned spending will be deferred or delayed for a time because of the difficulty of obtaining financing, resulting in more modest economic growth than would otherwise occur. While the data are not entirely unambiguous, it appears that the headwinds associated with credit conditions limited the pace of the economic expansion in the early 1990s for a period of from one to nearly three years, so the effects were important.

**Outlook**

The potential for headwinds is integral to thinking about U.S. economic prospects over the next year or two. To the extent that headwinds gain momentum, they suggest relatively modest growth for a time and the likelihood of increases in the unemployment
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Rate. Their implications for inflation are not so clear, although I would note that the pace of inflation diminished in the early 1990s relative to its performance over the preceding several years. And this diminution in inflation occurred despite a significant reduction in the federal funds rate, from about 9 3/4 percent in early 1989 to 3 percent in September 1992, where it stayed until early 1994.

As you know, the Federal Reserve has acted decisively in recent months to address both illiquidity in financial markets and the deterioration in the economic outlook. To be specific:

1. Initially, the gap between the discount rate (the rate on the primary credit facility) and federal funds rate target was reduced from 100 to 50 basis points to make discount window credit more attractive to banks; this spread was subsequently reduced by another 25 basis points.

2. A Term Auction Facility (TAF) was initiated in December, to make 28-day term credit available to banks against a variety of collateral. This was done to add liquidity and to unlock short-term markets that had frozen up. This action was coordinated internationally to assist dollar funding markets abroad as well.

3. In March, both a Term Securities Lending Facility (TSLF) and a Primary Dealer Credit Facility (PDCF) were introduced to enhance liquidity and foster the functioning of financial markets.

4. The target for the federal funds rate is now 2 1/4 percent, down from 5 1/4 percent as recently as September.

Against the background of the financial shocks that have beset the markets and the economy and their implications for the outlook, these actions, including the reduction in the funds rate target, appear wholly appropriate. The Federal Reserve has a responsibility, insofar as possible, to restore financial stability and to protect the real economy from collateral damage stemming from instability. On numerous previous occasions, I have extolled the underlying resilience of the economy, but I have also pointed out that resilience is in some sense “endogenous”; that is, it has resulted in part as a consequence of well-functioning financial markets and appropriate policy responses to emerging problems.

To this point, I have for the most part emphasized the similarities between current circumstances and the headwinds environment of the early 1990s. But there are some important distinctions as well. Inflation and inflation expectations are lower today than they were in the late 1980s–early 1990s, as is the rate of unemployment. Similarly, nominal and real interest rates are lower now. Compared to the earlier episode, the balance sheets of nonfinancial corporations are stronger and healthier today on average, as is the financial condition of most depository institutions. On the other hand, while there was a prolonged contraction in residential construction in the latter part of the 1980s which extended into 1991, the current downturn in housing appears to be more severe, as is the intensity of the illiquidity engulfing financial markets and the scope of decline in housing values. Some of these differences serve to mitigate concerns about the outlook, but others exacerbate them; to state the obvious, there is a great amount of uncertainty.

We in the Federal Reserve are fully aware of the “time inconsistency” problem and recognize that we have to take care that the policies we have pursued to date do not compromise achievement of our dual mandate and, in particular, our objective of sustained low inflation. Inflation expectations have remained reasonably well anchored so far, which is encouraging. But the key to maintaining low inflation and inflation expectations is likely to be the timeliness and magnitude of decisions we make to reverse course. We are highly sensitive to this issue, and I am confident that we will conduct policy in an appropriate and timely manner.

Asset prices

There is one additional issue I would like to consider briefly, having to do with policy and asset prices,
While I have not yet changed my opinion that asset-price levels should not be an objective of monetary policy, I am reviewing this conclusion in the wake of the fallout from the decline in house prices and from the earlier collapse of prices of technology stocks. ... It has proven to be neither easy nor costless to deal with the aftermath of unsustainably high asset prices.

before concluding these remarks, because it follows directly from some of the issues we currently confront. Here is another example of how history, however recent, can inform our understanding of current events. While I have not yet changed my opinion that asset-price levels should not be an objective of monetary policy, I am reviewing this conclusion in the wake of the fallout from the decline in house prices and from the earlier collapse of prices of technology stocks. To be sure, it is challenging at best to identify when asset prices have reached excessive levels, to build support for action once identification has occurred and to implement corrective policy successfully. These are all significant obstacles, and thus it may well be that containing damage as and after prices correct is, in the end, the preferable alternative.

However, I think it is important to consider these conclusions in light of recent events, where it has proven to be neither easy nor costless to deal with the aftermath of unsustainably high asset prices. I won’t try your patience this afternoon by going into this topic in depth; let me just say at this point that I suspect that there may be practical, albeit far from infallible, ways to identify excesses in asset prices. Moreover, it is well within the realm of possibility for policymakers to build support for, and at least obtain tolerance of, policies designed to address excesses. It is not clear, however, that such policies would necessarily pass a cost-benefit test, for actions to limit or reduce asset prices quite likely would have implications for economywide growth and employment. But then, so, of course, do asset-price collapses, and thus this is a juncture, likely one among several, where careful thought and rigorous analysis have to be brought to bear. This is a task for another day, however.

**Conclusion**

So let me conclude. I think the Federal Reserve has taken appropriate policy steps to respond to a significant financial shock, a shock which has rendered some markets illiquid and which has affected the economic outlook negatively. This shock may well produce parallels to the headwinds episode of the early 1990s. In this environment, policy needs to remain sensitive to evolving financial conditions and to incoming information on business activity in order to further determine the relevance of that earlier experience. And the aftermath of that episode may also prove relevant, in that the 1990s, taken as a whole, illustrate the underlying resilience of the American economy and the value of policy adherence to the dual mandate.

Thank you for your attention.