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Monetary Policy in the Financial Crisis

Remarks by

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at the

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In response to the financial turmoil and economic weakness of the past 18 months, the Federal Reserve has taken unprecedented steps in conducting monetary policy. Not only have we reduced our target federal funds rate aggressively, essentially to zero, but we have also made credit available to institutions and markets in which we had not previously intervened. To varying degrees, similar actions have been taken by other central banks around the world. For Dewey's class each January, I have been describing my take on the framework for making monetary policy. I thought a natural extension of that role and a way of honoring Dewey and his abiding interest in policymaking would be to talk about how the crisis has and has not affected that framework. Chairman Bernanke has done that already in several speeches, but participants in this conference might find my perspective useful. In providing it, I will try to address some of the questions people have raised about our policy actions.[1]

Although our actions have been unprecedented, the framework in which I have been considering them remains, at its most fundamental level, the same as the one I have been describing to Dewey's classes over the years. Our objective is to promote maximum sustainable employment and stable prices over time. These goals are enshrined in law, and they also make sense in economic theory and practice. Central banks are uniquely suited to promoting price stability, and they contribute to maximum employment and growth over time by eliminating the uncertainties and distortions of high and unstable inflation. The goal of maximum employment also is critical: A balance between aggregate demand and potential supply is needed to maintain price stability; in addition, significant fluctuations in output impose costs on our economy, add to

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[1] See Ben S. Bernanke (2009), "The Federal Reserve's Balance Sheet," speech delivered at the Federal Reserve Bank of Richmond 2009 Credit Markets Symposium, Charlotte, N.C., April 3, www.federalreserve.gov/newsevents/speech/bernanke20090403a.htm; and Ben S. Bernanke (2009), "The Crisis and the Policy Response," speech delivered at the Stamp Lecture, London School of Economics, London, January 13, www.federalreserve.gov/newsevents/speech/bernanke20090113a.htm.
The views presented here are my own and not necessarily those of other members of the Board of Governors or the Federal Open Market Committee.

uncertainty, and impede planning and growth. Our monetary policy actions in the crisis have been aimed at fostering both broad objectives.[2]

We achieve our objectives by influencing financial conditions--the cost and availability of credit as well as asset prices. Changes in financial conditions, in turn, affect spending and thus the balance between aggregate demand and potential supply. And how close we are to maximum employment is a basic ongoing determinant of inflation, with slack reducing inflation and overly high resource utilization increasing it. The other major determinant is inflation expectations: If expectations are not anchored--if they vary in response to our actions or to persistent gaps between actual and potential output--inflation itself will follow.

Historically, we've achieved needed adjustments in financial conditions by moving our federal funds rate target, and we have done that by adjusting the supply of bank reserves through open market operations in the government securities market. In well-functioning financial markets, changes in actual and expected targets for the federal funds rate are arbitraged through the financial system to affect the cost of credit and the price of assets. Many factors affect these markets, and the relationship of our actions to financial conditions is very loose, but, on balance, we have been able to use our control of the federal funds rate to make the adjustments to financial conditions needed to foster our objectives for prices and employment.

From the time that the financial market turmoil emerged in force in August 2007, however, we could see that the relationship of the federal funds rate to financial conditions, and hence to spending, was especially disrupted, with any given federal funds rate implying much tighter conditions than usual. Banks became quite uncertain about the losses they might have to absorb on mortgages and other lending, about the losses their counterparties might also suffer,

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[2] My remarks will concentrate on actions aimed at broad sectors of the financial markets, not on those aimed at stabilizing individual systemically important institutions, like The Bear Stearns Companies, Inc.; American International Group, Inc., or AIG; and several bank holding companies.

and about the extent to which their liquidity was at risk from having to support off-balance-sheet entities or from experiencing a withdrawal by their own lenders. This uncertainty made banks much more cautious about extending credit to each other and to households and businesses. As financial disruption continued and the economy weakened, lenders generally became much more uncertain about the financial condition of borrowers, sparking a strong preference for safe and liquid assets like Treasury bills. Trading liquidity in many markets dried up, the usual arbitrage among markets broke down, and spreads widened--often by more than seemed justified by the underlying deterioration in the economy and the ability of borrowers to repay. The tightening of financial conditions, in turn, further restrained aggregate demand and economic activity. This adverse feedback loop between financial conditions and the economy has been a prominent feature of the recession.

The Federal Reserve took a two-pronged approach to countering the effects of financial stringency on the economy: We used our conventional policy tools, and we initiated a range of unconventional policy actions to support the extension of credit. In the first category, we cut the federal funds rate target and did so aggressively after the economy began to weaken substantially in late 2007. By December of last year, we had reduced the target to a range of 0 to 1/4 percent. Lowering the federal funds rate helped offset a portion of the effects of financial disruption on credit conditions for households and businesses. And policy easing should have helped the flow of credit by reducing some of the concerns about the effects of a weaker economy on repayment prospects.

But reducing the federal funds rate has not seemed sufficient, and so we also have taken actions to ease conditions in credit markets more directly--what Chairman Bernanke has referred to as “credit easing.” In many respects, these actions have been extensions of our traditional methods of operation, though they have taken us into new territory in which we have used the tools in very new ways.

Beginning early in the turmoil, we eased the terms on which we lent to depository institutions (our traditional borrowers) quite dramatically. We lowered the interest rate on discount window loans, increased their maturity, and, to reduce the stigma of borrowing from the window, auctioned credit. We cooperated with foreign central banks through currency swaps to make dollar funding available to banks operating abroad. Later, for the first time since the 1930s, we extended credit to nondepository institutions, granting discount window access to primary dealers when it became evident that constraints on their access to liquidity threatened broader financial stability and economic activity.[3] Given the increasing reliance on securities markets to intermediate credit in our financial system, these dealers had become more central to maintaining the flow of credit from savers to borrowers. Last fall, when a run on money market mutual funds was severely constricting their purchases of commercial paper, an important source of credit to many businesses, we supported the funds, their customers, and their borrowers by making credit available that allowed funds to meet heavy redemption requests and also provided credit directly to borrowers in the commercial paper market.

Our objectives in these programs are consistent with central banks' classic function as lenders of last resort. We are encouraging the continued provision of private-sector funding to intermediaries by assuring their creditors that sound intermediaries have a sure source of liquidity to repay debts. When, despite this encouragement, private lenders have such a strong preference for safety and liquidity that credit is not forthcoming, we lend, often at a penalty rate relative to normally functioning markets; that lending is intended to prevent disorderly and

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[3] Primary dealers are broker-dealers that trade in U.S. government securities with the Federal Reserve Bank of New York.

disruptive failures and fire sales of illiquid assets, which would drive asset prices lower, intensify the disruption of credit flows, and deepen the pullback in spending.

Most recently, in collaboration with the Treasury, we have begun supplying liquidity to purchasers of securitized credit. Under this program, private investors absorb credit risk up to a certain level, and the Treasury takes on the bulk of the credit risk above that level. The Federal Reserve's residual credit risk is designed to be quite small. The asset-backed securities market that this program supports had become a key vehicle over the past couple of decades for financing credit extended to households and businesses, but its functioning deteriorated rapidly over the second half of last year, with issuance tailing off almost completely. The availability of credit from the Federal Reserve and the insurance against severe downside risks from the Treasury should buoy demand for securitized debt and thus help bolster the flow of credit to households and businesses.

A shortage of funding has not been the only factor impeding the extension of credit. Lenders have been concerned about counterparty risk and about conserving their own capital against unforeseeable events. We can't deal with those concerns through our lending because we do not take appreciable credit risk. But confidence about access to funding has been a part of the problem, as reflected in the evaporation of trading in term maturities in a wide range of wholesale funding markets and the elevated spreads paid by even very safe borrowers. The limited availability of credit to sound borrowers, even when secured by what had been seen as good collateral, has been a source of instability and constraint on credit flows. Central banks can address such a shortage because they can remain unaffected by panicky flights to liquidity and safety. Their willingness to extend collateralized lending in size against a broad range of assets can replace flows of private credit that are normally uncollateralized.

Another aspect of our efforts to affect financial conditions has been the extension of our open market operations to large-scale purchases of agency mortgage-backed securities (MBS), agency debt, and longer-term Treasury debt. We initially announced our intention to undertake large-scale asset purchases last November, when the federal funds rate began to approach its zero lower bound and we needed to begin applying stimulus through other channels as the economic contraction deepened. These purchases are intended to reduce intermediate- and longer-term interest rates on mortgages and other credit to households and businesses; those rates influence decisions about investments in long-lived assets like houses, consumer durable goods, and business capital. In ordinary circumstances, the typically quite modest volume of central bank purchases and sales of such assets has only small and temporary effects on their yields. However, the extremely large volume of purchases now underway does appear to have substantially lowered yields. The decline in yields reflects "preferred habitat" behavior, meaning that there is not perfect arbitrage between the yields on longer-term assets and current and expected short-term interest rates. These preferences are likely to be especially strong in current circumstances, so that long-term asset prices rise and yields fall as the Federal Reserve acquires a significant portion of the outstanding stock of securities held by the public.

Against this general background, let me address some questions about our operations.

Have They Been Effective?

Yes, I believe they have helped ease financial conditions, though they can’t address all the problems in financial markets. And the situation in financial markets and the economy would have been far worse if the Federal Reserve hadn’t taken the actions we did in supplying liquidity as well as lowering our federal funds rate target.

Clearly, sharp decreases in the federal funds rate target have shown up directly in other short-term interest rates. Our commercial paper facilities helped stabilize money market mutual funds and have steadied the commercial paper market and lowered rates for high-quality issuers. And the announcements of our purchases of MBS and Treasury bonds have reduced mortgage and other long-term interest rates appreciably--by some estimates as many as 100 basis points.

Our provision of liquidity to banks in the United States and, via currency swaps with other central banks, abroad appears to have eased pressures in dollar funding markets, as indicated by declines in spreads between the London interbank offered rate, or Libor, and the overnight index swap rate. This easing has lowered rates for bank borrowers paying rates tied to Libor and given banks better access to interbank liquidity to support lending and market making. The extension of liquidity to primary dealers has been critical in providing stability when private lenders have, from time to time, become reluctant to make even secured loans to these counterparties. Our own sense, reinforced by many reports from market participants, is that our willingness to extend credit to commercial and investment banks prevented far worse market outcomes when flights to liquidity and safety intensified--say, around the time of the problems of Bear Stearns and in the wake of multiple failures and near-failures of financial firms in the second half of September. Private lenders have demanded that intermediaries be much less leveraged. That development is healthy over the long run, but when the transition is compressed by extreme risk aversion and market participants are forced to delever through fire sales, the financial markets and economy suffer. Our liquidity facilities allow for a more gradual and controlled process.

Are We Allocating Credit?

Our actions are aimed at increasing credit flows for the entire economy; we are not trying to favor some sectors over others. However, an element of credit allocation is inherent in some of our interventions. That element grows out of the very market characteristics that have necessitated these interventions and have made such interventions effective. If markets were highly liquid and investors and lenders were willing to take normal risks and arbitrage across markets, financial conditions wouldn't have tightened so much, intensifying the economic downturn, and adjustments in the federal funds rate could well have sufficed to stabilize the economy. As we have been forced to attack overly tight financial conditions by extending our discount window facilities to new intermediaries and certain markets and to extend open market operations to agency debt and MBS, we have recognized that the resulting effects can be uneven across markets and lenders. This outcome is not a comfortable one for the central bank, and we have taken steps to minimize the extent of any credit allocation. We try to limit our interventions to broad market segments or classes of intermediaries, and we choose them based on judgments that improved functioning will reduce systemic instability or have a material effect on credit flows and the economy and that our actions have high odds of yielding improvements.

Are We Taking Credit Risks That Will End Up Being Paid for by the Taxpayer?

For the credit facilities that we make available to multiple firms, we are not taking significant credit risk that might end up being absorbed by the taxpayer. For almost all the loans made by the Federal Reserve, we look first to sound borrowers for repayment and then to underlying collateral. Moreover, we lend less than the value of the collateral, with the size of the "haircuts" depending on the riskiness of the collateral and on the availability of market prices for the collateral. Some of our lending programs involve nonrecourse loans that look primarily to the collateral rather than to the borrower for repayment in the event that the value of the collateral falls below the amount loaned. In these circumstances, we insist on taking only the very highest quality collateral, lend less than the face amount of the collateral, and typically have other sources to absorb any losses that might nonetheless occur--for example, Treasury capital for our lending against securitized loans.[4]

We have increased the amount of information that we publish about the collateral and other steps we take to protect against credit losses. But, understandably, given the sharp increase in loans to new institutions and markets, the public is naturally interested in our lending practices, and we will be releasing even more information about what stands behind our loans in coming weeks.

How Will We Gauge How Much to Do?

This is a difficult question without a ready answer, even under more normal circumstances when we are focused on the federal funds rate, and it is an even harder judgment when, as now, the federal funds rate is near zero and we are intervening in other ways to affect financial conditions. We have some, albeit limited, ability to gauge the effects of large-scale asset purchases on interest rates; the effects of liquidity facilities, like the Term Asset-Backed Securities Loan Facility and other programs, are even more difficult to assess and predict. And with markets disrupted and confidence depressed, the relationship between a particular constellation of interest rates and asset prices and future spending and inflation is more uncertain than usual. We will continue to analyze these relationships in light our experience and adjust our forecast of the evolution of the economy under various policy alternatives, but we need to recognize that those forecasts could change appreciably and be ready to adapt policy flexibly.

[4] Loans or credit protection offered in association with government help to stabilize individual systemically important institutions probably have higher credit risk than the more general liquidity facilities described in this talk. But even in those cases, the Federal Reserve has taken steps to protect itself from credit losses.

That flexibility could entail doing more to ease credit if the economy proves resistant to the monetary and fiscal stimulus now in train, or it could involve reversing actions to forestall potential inflationary effects of past actions, as I will discuss in a moment.

In gauging the effects of market interventions in the current crisis, one approach is to look to the size of increases in the quantity of reserves and money to judge whether sufficient liquidity is being provided to forestall deflation and support a turnaround in growth--an approach often known as quantitative easing. The linkages between reserves and money and between either reserves or money and nominal spending are highly variable and not especially reliable under normal circumstances. And the relationships among these variables become even more tenuous when so many short-term interest rates are pinned near zero and monetary and some nonmonetary assets are near-perfect substitutes. In our approach to policy, the amount of reserves has been a result of our market interventions rather than a goal in itself. And, depending on the circumstances, declines in reserves may indicate that markets are improving, not that policy is effectively tightening or failing to lean against weaker demand. Still, we on the Federal Open Market Committee (FOMC) recognize that high levels of Federal Reserve assets and resulting reserves are likely to be essential to fostering recovery, and we have discussed whether some explicit objectives for growth in the size of our balance sheet or for the quantity of the monetary base or reserves would provide some assurance that policy is pointed in the right direction.

Will These Policies Lead to a Future Surge in Inflation?

No, and the key to preventing inflation will be reversing the programs, reducing reserves, and raising interest rates in a timely fashion. Our balance sheet has grown rapidly, the amount of reserves has skyrocketed, and announced plans imply further huge increases in Federal Reserve assets and bank reserves. Nonetheless, the size of our balance sheet will not preclude our raising interest rates when that becomes appropriate for macroeconomic stability. Many of the liquidity programs are authorized only while circumstances in the economy and financial markets are "unusual and exigent," and such programs will be terminated when conditions are no longer so adverse. Those programs and others have been designed to be unattractive in normal market conditions and will naturally wind down as markets improve.

However, our newly purchased Treasury securities and MBS will not mature or be repaid for many years; the loans we are making to back the securitization market are for three years, and their nonrecourse feature could leave us with assets thereafter. But we have a number of tools we can use to absorb the resulting reserves and raise interest rates when the time comes. We can sell the Treasury and agency debt either on an outright basis or temporarily through reverse repurchase agreements, and we are developing the capability to do the same with MBS. We are paying interest on excess reserves, which we can use to help provide a floor for the federal funds rate, as it does for other central banks, even if declines in lending or open market operations are not sufficient to bring reserves down to the desired level. Finally, we are working with the Treasury to promote legislation that would further enhance our toolkit for absorbing reserves.

Our work on the framework for exiting these programs is one indication that we are focused on maintaining price stability over time even as we concentrate for now on promoting economic recovery. Another such indication is our increased emphasis on defining the price stability goal more clearly. Already the FOMC has extended its forecast horizon to indicate where the Governors and Reserve Bank presidents would like to see inflation coming to rest over time. And we are continuing to discuss within the Committee whether an explicit numerical objective for inflation would be beneficial. Under current circumstances, those benefits would include underscoring our understanding that our legislative mandate for promoting price stability encompasses both preventing inflation from falling too low in the near term and from rising too far as the economy recovers.

Have We Compromised Our Independence?

No. Central banks all over the world and the legislatures that created them have recognized that considerable independence from short-run political influences is essential for the conduct of monetary policy that promotes economic growth and price stability. To be sure, in the process of combating financial instability, we have needed to cooperate in unprecedented ways with the Treasury. Our actions with the Treasury to support individual systemically important institutions have sparked intense public and legislative interest. As Chairman Bernanke has indicated, the absence of a regime for resolving systemically important nonbank financial institutions has been a serious deficiency in the current crisis, one that the Congress needs to remedy. Congress and the public, quite appropriately, want to know more about lending programs that have greatly increased the scope and size of the Federal Reserve's interventions in financial markets, and we will give them that information. In addition, our country, like others, is undertaking a broad examination of what changes are needed in our financial regulatory system. This examination will consider the role of the Federal Reserve in the supervision and regulation of financial institutions and the advantages and disadvantages of establishing a systemic risk authority.

It is natural and appropriate for our unusual actions in combating financial instability and recession to come under intense scrutiny. However, increased attention to, and occasional criticism of, our activities should not lead to a fundamental change in our place within our democracy. And I believe it will not; the essential role for an independent monetary policy authority pursuing economic growth and price stability remains widely appreciated and the Federal Reserve has played that role well over the years. The recent joint statement of the Treasury and the Federal Reserve included an agreement to pursue further tools to control our balance sheet, indicating the Administration's recognition of the importance of our ability to independently pursue our macroeconomic objectives.[5]

Conclusion

The Federal Reserve's actions over the past 20 months have been consistent with the principles of central banking that have been developed over the course of centuries. But the greatly increased complexity of our financial institutions and markets, as well as the virulence of the financial crisis in choking off the flow of credit through a broad range of channels, has meant that in applying these principles, the Federal Reserve and other central banks have had to extend their reach and adopt new measures to preserve financial stability and to counter the effects of financial turmoil on the economy. In my view, these actions have been necessary, safe, and effective and will not lead to adverse aftereffects. But they have raised a number of questions that I have addressed today. I expect to be back here in 10 years to celebrate Dewey's 100th birthday, at which time you can hold me accountable for my answers.

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[5] Board of Governors of the Federal Reserve System and U.S. Department of the Treasury (2009), "The Role of the Federal Reserve in Preserving Financial and Monetary Stability: Joint Statement by the Department of the Treasury and the Federal Reserve," joint press release, March 23, www.federalreserve.gov/newsevents/press/monetary/20090323b.htm.