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**The Uncertain Economic Outlook and the Policy Responses**[1]

Good afternoon and thank you for inviting me. I'm delighted to speak before a group of such distinguished forecasters. As a member of the Federal Open Market Committee, I too must regularly predict the course of the economy and lately that has become a particularly hazardous occupation. We are struggling to assess the effects of conditions we haven't seen before, including a near-collapse of the financial system, and to predict the impacts of policies that haven't been tried before, including an array of new Fed initiatives designed to improve conditions in private credit markets.

I share the guarded optimism of most professional forecasters that the economy may begin to grow again within the next several quarters. But I must admit that I see considerable downside risk, and my confidence in this outlook is greatly diminished by the nearly unprecedented set of circumstances we face, circumstances that severely challenge our ability to use historical economic relationships to anticipate future developments. We face an extraordinarily uncertain future, and our main hope for economic recovery lies in the sorts of innovative and aggressive economic policy responses that are being carried out by Federal Reserve and federal government policymakers. We must use all available tools to fight off the significant forces for contraction now hitting the economy.

Last week, the FOMC took some rather dramatic steps to ease the stance of monetary policy. We decided to expand our program to purchase agency mortgage-backed securities

[1] I would like to thank John Judd and Sam Zuckerman for assistance in preparing these remarks.

(MBS) and agency debt by up to $850 billion, and initiated a program to purchase up to $300 billion of longer-term Treasury securities. These actions again demonstrate the Federal Reserve's commitment to do whatever it takes to get the economy moving forward. I'll have more to say about Fed policy at the end of my talk.

**The economic situation**

With that, let me begin with my best effort at an appraisal of the current economic situation. As always, my comments represent my own views and not necessarily those of my colleagues in the Federal Reserve System.

You are well aware of how downbeat most of the economic news has been, despite some scattered positive signals. We are in the fifth quarter of recession and economic activity and employment are contracting sharply, with weakness evident in every major sector aside from the federal government. At the same time, financial markets remain highly stressed and the adverse feedback loop between the economy and the financial sector shows little sign of slackening. These negative dynamics create severe downside economic risks. A process of balance sheet deleveraging has spread to nearly every corner of the economy: consumers are pulling back on purchases, especially on durable goods, to build their savings; businesses are cancelling planned investments and laying off workers to preserve cash; and financial institutions are shrinking their assets to bolster capital and improve their chances of weathering the current storm. Such precautions may be smart for individuals and firms, but they intensify economic distress for the economy as a whole.

Housing construction and prices remain at the center of the storm and rising unemployment and the reduced availability of mortgage credit weigh on demand. Unfortunately, even though housing starts have fallen precipitously, we have yet to see any clear sign that the contraction in home building is near its end. The recent news that housing starts and permits had jumped in February provides a ray of hope, but it’s too soon to know if this is noise or a signal that the contraction will soon end. The ongoing decline in house prices poses significant downside risk to future consumer spending and the health of the financial system. This correction in house prices, especially in combination with rising unemployment, has fueled mortgage delinquencies and foreclosures and the associated losses are seriously weakening banks and the financial system more broadly. Of course, foreclosures also harm the affected communities.

Mortgage rates are a potent influence on housing demand, and it is encouraging that the rates on conforming mortgages backed by Fannie Mae and Freddie Mac have declined. The evidence suggests that the Fed’s decision to purchase mortgage-backed securities guaranteed by these agencies played a role in bringing rates down, and the further rate declines following last week’s FOMC announcement of expanded purchases is a hopeful sign that conforming mortgage rates may decline even more. The rates charged to borrowers seeking nonconforming jumbos have come down too, although not nearly as much as those on conforming loans. However, mortgages are still all but unavailable to borrowers with less-than-stellar credit histories and those who can’t make large down payments.

The burdens afflicting consumers are both serious and numerous, so it is hardly surprising that consumer confidence is at a 30-year low and consumer spending has been weak. Following an outright contraction in the second half of last year, spending has shown signs of stabilizing recently. In addition to soaring unemployment, household balance sheets have imploded. The combined impact on household wealth of falling house prices and plummeting equity prices has been staggering. Household wealth fell by $5 trillion last quarter alone, and by

$13 trillion—or nearly 25 percent—since the peak in mid-2007. Unfortunately, households were not well positioned for such a hit to their wealth, since many had leveraged to the hilt. The combination of the loss in wealth and the overhang of household debt portends years of subdued spending as households go through an extended process of deleveraging. Households are likely to recognize the benefits of stronger balance sheets for precautionary purposes and for meeting longer-term goals, such as down-payment requirements and retirement. Downward pressure on household leverage will come not just from households themselves but also from lenders, as they demand more collateral for loans—collateral that has been devastated by the collapse of housing and other wealth. The one partially offsetting positive for consumer spending is the sharp decline in energy prices since the middle of last year. The bottom line though is that the private saving rate is finally moving up from an exceptionally low level. It is difficult, but critical to the forecast, to judge just how far that rebound will ultimately go.

Sharp cutbacks in investment spending have reinforced the economic drag resulting from the retrenchment in consumer spending. Outlays for equipment and software and structures declined sharply in the fourth quarter of 2008 and firms liquidated inventories at a sizeable pace. The contraction in all of these spending categories appears to have intensified this quarter. This weakness in business investment spending reflects shrinking sales, uncomfortably high inventory-sales ratios, a higher cost of capital, and dysfunctional credit markets. Our business contacts also emphasize that pervasive uncertainty about the length and severity of the current downturn is causing them to defer commitments and more generally hunker down. They have become exceptionally cautious in undertaking commitments to capital spending projects, even when those projects are expected to be profitable in the long term. And they are hoarding liquidity to meet unexpected revenue shortfalls or financing needs.

The budgetary problems facing my home state of California have been well publicized and are exceptionally severe, but state and local governments across the nation face similar problems. Their budgets have been thrown into crisis by the financial and economic turmoil. Reductions in tax collections due to falling income and the downturns in the housing and stock markets have been coupled with tighter credit conditions, making it harder to issue bonds. Many states are cutting spending, drawing down rainy day funds, and, to a lesser extent, raising taxes in response. Fortunately, the recently enacted fiscal stimulus package included a substantial dose of funding for state and local projects, and this should provide meaningful relief. It is especially encouraging that this aid is going disproportionately to states with severe budgetary pressures, which are more likely to put the funds to immediate use.

More broadly, with the passage of the fiscal stimulus package, the federal government is likely to boost its contribution to real GDP this year and next. The Congressional Budget Office estimates that real GDP will be lifted by between 1 and 3½ percent by the end of next year, and that translates into a reduction in the unemployment rate of between ½ and 1¼ percentage points. While a program of this size is not sufficient on its own to solve the economy's problems, the stimulus is welcome, and likely to start hitting the economy as soon as next quarter.

The final factor affecting the outlook for growth is net exports, but significant impetus from this source seems unlikely in coming quarters. Indeed, a truly sobering feature of the current recession is its global nature. This recession is the first during the postwar period to see a simultaneous contraction in output in Europe, Japan, and North America. Economic growth in these areas has weakened sharply as the financial meltdown has spread and the U.S. recession has spilled over to our trading partners. Forecasts for growth in Europe and Japan in 2009 are now even weaker than for the United States. Many developing nations face stark challenges as markets for their products have dried up and capital inflows have abruptly halted, making debt refinancing—if necessary—difficult, if not impossible. Emerging market defaults would trigger further financial turmoil. The downturn in eastern Europe poses especially significant financial risks to western European banks, whose exposure amounts to an estimated $1.5 trillion. Bank loans in Austria exceed 80 percent of GDP, while the exposure of banks in Sweden and Belgium exceed 30 percent of GDP.

Finally, let me to turn to inflation. With the global recession putting downward pressure on commodity prices and slack in both labor and product markets swelling, we've seen an outright decline in consumer prices over the past six months. I anticipate that unemployment will continue to increase before peaking in 2010, and, as a consequence, I expect inflation to be extremely subdued for quite some time. It seems likely, in fact, that headline consumer inflation will be barely positive for 2009 as a whole and core inflation could remain below 1 percent for the next several years. Such rates are notably below the 2 percent pace that most FOMC members consider appropriate to best promote the Committee's dual mandate for full employment and price stability.

So let me put all of these observations together into an overall view of future economic growth. With the caveat that my forecast is subject to exceptional uncertainty in the present environment, my best guess is similar to that of most forecasters, who expect to see moderately positive real GDP growth rates beginning later this year or early in 2010, followed by a gradual recovery.[2]

However, I am well aware that my views are strikingly more optimistic than those I hear from the vast majority of my business contacts. They tend to see conditions as dire and getting

[2] For example, the Blue Chip consensus shows modest positive growth rates in both the third and fourth quarters. Even the average of the lowest ten Blue Chip forecasters shows a small positive number in the fourth quarter.

worse. In fact, many of them can't believe I would even suggest what they see as such a patently rosy scenario! So why is it that so many of us who prepare forecasts seem to be more optimistic than many others? I think there are several reasons. First, as forecasters, we distinguish between growth rates and levels. It's true that the Blue Chip consensus shows moderate positive growth rates in output in the second half of this year. But even so, the level of the unemployment rate would still rise throughout 2009 and into 2010. So, in this sense, the worst of the recession is not expected to occur until next year. And, even by the end of 2011, I would expect the unemployment rate to be above its full-employment level. So I wouldn't call this a particularly rosy scenario.

Second, it takes less than many people think for real GDP growth rates to turn positive. Just the elimination of drags on growth can do it. For example, residential construction has been declining for several years, subtracting about 1 percentage point from real GDP growth. Even if this spending were only to stabilize at today's very low levels—not a robust performance at all—a 1 percentage point subtraction from growth would convert into a zero, boosting overall growth by 1 percentage point. A decline in the pace of inventory liquidation is another factor that could contribute to a pickup in growth. Inventory liquidation over the last few months has been unusually severe, especially in motor vehicles—a typical recession pattern. All it would take is a reduction in the pace of liquidation—not outright inventory building—to raise the GDP growth rate. In addition, pent-up demand for autos, durable goods, or even housing could emerge and boost demand for these items once their stocks have declined to low enough levels.

Third, policies are in place that could jump-start the economy, including the fiscal stimulus package, the Administration's housing program, and a growing list of Federal Reserve and Treasury credit programs that aim to improve financial market function and the flow of credit. These programs offer the prospect that financial distress may gradually give way to more normal functioning over the course of the year.

Finally, at some point, negative feedback loops can turn positive. For example, if federal government and Federal Reserve policies were to jump-start the economy, credit losses of financial institutions could diminish and lenders might increase the supply of credit available to finance spending. More credit, and better consumer and business confidence, could further boost the economy and employment, which would feed back positively on credit conditions. In other words, the negative feedback loop that is currently in play could be replaced by self-reinforcing positive dynamics.

**Heightened uncertainty**

While there are good reasons to think the economy could begin to recover fairly soon, I'm far from confident and thus don't want to press the case too strongly. Indeed, in all humility, most of us have failed to anticipate the depth of this downturn and have had to mark down our forecasts repeatedly. For example, the Blue Chip consensus for real GDP growth in 2009 has shown negative revisions in 12 of the past 13 months. Even Chairman Bernanke recently compared his forecasting record to that of the losing Washington Nationals baseball team. The imponderables in forecasting are always large—and it's always tempting to think that we face more than the usual amount of uncertainty. But, for a host of reasons, this sentiment is actually true right now!

First, the shocks hitting the economy from housing and the financial markets have pushed it well outside of the normal range of experience that allows for analysis based on history. For example, research suggests that, in normal times, factors such as consumer and business confidence do not warrant special attention in developing an outlook because they essentially summarize information, like income and equity prices, that are already taken into account. In contrast, in these exceptional circumstances, psychological factors such as consumer and business confidence may exert a large and independent influence.

Second, our models take for granted that financial markets are working normally and are linked together through arbitrage, so that financial conditions can be captured with a few variables such as equity prices, the exchange rate, and a short- and long-term interest rate. That assumption is obviously invalid now, so the historical relationships in our models linking the financial and the real sides of the economy may provide a less accurate characterization of the transmission mechanism. As a consequence, they now may be less reliable forecasting guides.

Finally, the Federal Reserve and the federal government are deploying policy tools that are unconventional, to say the least, and few, if any, models are prepared to tell us what macro effects they might have. For example, it's very difficult to gauge the quantitative impact of such policy actions as equity injections into banks, programs to prevent home foreclosures, purchases of mortgage-backed securities and longer-term Treasuries, and facilities to boost issuance in dysfunctional markets for asset-backed securities.

**Economic policies**

For me, this extreme uncertainty about the future creates a very strong case for bold policy actions on a broad front—by both the monetary and fiscal authorities—to stimulate economic activity and prevent inflation from falling any further. I am heartened by the aggressive and innovative actions that policymakers are taking.

To address this crisis, the federal government has taken a number of steps to get the economy moving again. In addition to the nearly $800 billion fiscal stimulus plan that was enacted into law recently, the administration has initiated a number of other programs. One helps homeowners restructure or refinance their mortgages to avoid possible foreclosure. In addition, a multifaceted Financial Stability Plan (FSP), involving the Treasury, the Fed, the Federal Deposit Insurance Corporation, and other financial agencies, provides additional capital to commercial banks and a mechanism for taking so-called toxic financial assets off private sector balance sheets. With regard to these assets, the Treasury earlier this week announced more details of its Public-Private Investment Program (PPIP), which facilitates the purchase of existing, or legacy loans, and legacy securities. The goal of the PPIP is to facilitate price discovery and market liquidity.

The Fed has also acted vigorously to turn the economy around. In particular, the FOMC cut its federal funds rate target by roughly 5 full percentage points, establishing a target range of 0 to ¼ percent since its December 2008 meeting. Although, for all practical purposes, this interest rate cannot be pushed any lower, the Fed also has stated that an exceptionally low level of the funds rate would likely be warranted "for an extended period" due to weak economic conditions. By offering guidance about the likely course of future short-term interest rates, conditioned on the Committee's economic forecast, the Committee hopes to influence longer-term interest rates and asset prices, which in turn affect the spending decisions of households and firms.

Beyond interest-rate policy, the Fed is using other tools to improve the functioning of financial markets and to lower longer-term interest rates. A variety of new unconventional programs rely on the Fed's balance sheet. These programs serve three basic purposes. First, they provide a reliable source of liquidity to financial institutions so that they are better able to extend credit. Second, in cooperation with the Treasury, they have helped to prevent the failure of several systemically important financial institutions. Third, again in concert with the Treasury, they work to augment the flow of credit to the economy.

I would like to focus most of my attention on the third category, since that currently is taking center stage. To open the flow of credit to the private sector, the Fed has taken several approaches. First, the Commercial Paper Funding Facility (CPFF) provides a liquidity backstop to U.S. issuers of highly rated three-month unsecured and asset-backed commercial paper. This facility holds a substantial volume of this paper, and borrowing rates in these markets have fallen noticeably.

Second, the Fed has developed the Term Asset-Backed Securities Loan Facility (TALF) program jointly with the Treasury to help restore functioning in other impaired markets that provide credit to households and businesses. The TALF supports the issuance of securities collateralized by auto, student, credit card, and Small Business Administration loans—sectors where the issuance of new securities has slowed to a trickle. This approach may be expanded to include additional asset classes, such as commercial and residential mortgages. Purchases of newly issued securities under this program began this month, but are still fairly small in scale. In addition, the TALF will be expanded to include legacy securities as part of the PPIP.

To support the housing sector, the Fed announced last November that it would begin to purchase agency-insured mortgage-backed securities and agency debt. And, of course, last week this program was expanded substantially. In addition, the FOMC took the very significant step of launching a new program to purchase large quantities of longer-term Treasury debt. Purchases of such longer-term assets have the potential to stimulate aggregate demand through a number of channels, most obviously by reducing the yields on those securities included in the program. Indeed, last week's announcement resulted in an immediate and sharp decline in interest rates on both Treasury securities and agency-backed MBS. Similar effects on interest rates were felt in the United Kingdom after the Bank of England announced a program to buy long-term government debt there.

There are good reasons to expect that the Fed's longer-term asset purchases will also spill over broadly to other credit markets because many types of long-term debt are substitutes for Treasuries and agency MBS in private portfolios. Not surprisingly, corporate borrowing rates also declined last Wednesday in tandem with the rates on Treasuries and agency MBS. Lower interest rates should raise the demand for consumer durables, housing, and business investment. Moreover, lower rates should boost asset valuations, such as equity and house prices, providing additional impetus to consumer spending through wealth effects. A reduction in mortgage rates, at the same time that the Administration has loosened loan-to-value requirements to refinance conforming mortgages, may spur many households to refinance in the coming months, which would raise their disposable income and support more spending. But while it's easy to enumerate the relevant channels, the sizes of the impacts through them are highly uncertain. We are using new policy tools and we simply don't have the experience needed to pin down the magnitude of the impacts. In light of these uncertainties, I fully support our diversified approach of using a variety to strategies and programs to spur the provision of credit in a wide range of markets.

However, the wisdom of this diversified program is the subject of considerable debate. Critics of the current Fed strategy argue that monetary policy should address only overall credit conditions and should avoid influencing the allocation of credit across particular markets. The joint Treasury-Fed TALF initiative—and even the Fed's purchases of agency debt and mortgage-backed securities—are controversial because arguably they do affect credit allocation.

A second concern is that close policy coordination between the legislative and executive branches of government may compromise the independence of the Fed, and its credibility and commitment to fulfill its dual mandate of price stability and full employment. For example, at some point, monetary policy goals might require a less accommodative stance of policy, even though credit markets might not be fully healed. The Fed might then face political pressure to keep supplying credit to certain markets.[3]

Another concern that I hear expressed with increasing frequency is that the huge expansion of Fed lending will trigger a surge in inflation. The worry seems to be that the Fed has financed its credit programs by increasing the excess reserves of commercial banks, and these reserves could eventually fuel an inflationary surge. The Fed is therefore seen as needing a well-defined exit strategy from its current highly accommodative policy stance.

I understand these concerns, but I don't believe they warrant a retreat from our current broad approach. In fact, I believe that the seriousness of our current economic problems argues for using all available tools, including the purchase of Treasuries, agency debt, and agency-backed securities, along with lending programs—some joint with Treasury—to support a range of private credit markets. The Fed's role in these joint programs is to lend against satisfactory collateral while avoiding credit risk. The programs are necessitated by today's extreme or, in the words of the Federal Reserve Act, "unusual and exigent" circumstances, and are designed to improve private credit conditions broadly, rather than to benefit narrowly defined sectors and classes of borrowers.

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[3] Marvin Goodfriend, "Why We Need an 'Accord' for Federal Reserve Credit Policy: A Note," Federal Reserve Bank of Richmond *Economic Quarterly*, Winter (2001). See also Jeffrey Lacker, "Government Lending and Monetary Policy," (remarks, National Association for Business Economics, 2009 Washington Economic Policy Conference, Alexandria, VA, March 2, 2009); and Charles I. Plosser, "Ensuring Sound Monetary Policy in the Aftermath of Crisis," (speech, U.S. Monetary Policy Forum, The Initiative on Global Markets, University of Chicago Booth School of Business, February 27, 2009).

The principle that a central bank, charged with controlling inflation, should be independent from the government is unassailable. It may also be true that it's easier for the central bank to guard its independence from political pressure when it mainly holds government securities. I believe that we should return to such a balance sheet structure once the financial markets and the economy are back to normal. However, as I said, I also am convinced that, in the current crisis, we must employ all available tools, and that includes bolstering private credit markets. In fact, actions to increase the supply of credit can be expected to have especially large effects in reducing interest rates in dysfunctional private markets, like the ones targeted by the Fed's commercial paper program and the TALF. I therefore support the joint statement issued by the Treasury and the Fed earlier this week that, "As long as unusual and exigent circumstances persist, the Federal Reserve will continue to use all its tools working closely and cooperatively with the Treasury and other agencies … to foster stabilization and repair of the financial system."

With regard to inflation, I think fears that inflation will jump once the economy begins to recover are overdone for several reasons. First, and most important, the Fed is fully committed to maintaining price stability within its dual mandate. The recent Treasury-Fed joint statement codifies the key principle that actions resulting in an expansion of the Fed's balance sheet "must not constrain the exercise of monetary policy as needed to foster maximum sustainable employment and price stability." As the economy recovers, the Fed will eventually have to reduce the quantity of excess reserves. To some extent, this will occur naturally as markets heal and some programs consequently shrink. It can also be accomplished, in part, through outright asset sales. And finally, several exit strategies may be available that would allow the Fed to tighten monetary policy even as it maintains a large balance sheet to support credit markets.

Indeed, the joint Treasury-Fed statement indicated that legislation will be sought to provide such tools. One possibility is that Congress could give the Fed the authority to issue interest-bearing debt in addition to currency and bank reserves. Issuing such debt would reduce the volume of reserves in the financial system and push up the funds rate without shrinking the total size of our balance sheet.

Second, for some time to come, disinflation, and even deflation, will represent greater risks than inflation. With economic activity weakening, economic slack is likely to be substantial for several more years. We need to be sure that we avoid the kind of deflation that Japan experienced during its lost decade. While I don't think such an outcome is likely, it should be on our list of concerns.

In sum, we face serious challenges as we try to right the economy, and the resumption of growth that we expect by the end of 2009 is far from assured. The best hope for recovery lies in a diversified array of effective fiscal and monetary policy programs. I am heartened by the fact that the federal government and the central bank have both reacted with creativity and vigor in carrying out their responsibilities. And I'm convinced that this is no time to relax our efforts. Thank you very much.