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FEDERAL RESERVE'S FIRST MONETARY POLICY REPORT FOR 2012

HEARING

BEFORE THE

COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS UNITED STATES SENATE

ONE HUNDRED TWELFTH CONGRESS

SECOND SESSION

ON

OVERSIGHT ON THE MONETARY POLICY REPORT TO CONGRESS PURSUANT TO THE FULL EMPLOYMENT AND BALANCED GROWTH ACT OF 1978

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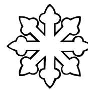

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FEDERAL RESERVE'S FIRST MONETARY POLICY REPORT FOR 2012

THURSDAY, MARCH 1, 2012

U.S. SENATE,
COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS,
Washington, DC.

The Committee met at 10:04 a.m., in room SD–538, Dirksen Senate Office Building, Hon. Tim Johnson, Chairman of the Committee, presiding.

OPENING STATEMENT OF CHAIRMAN TIM JOHNSON

Chairman JOHNSON. I call this hearing to order.

Today I welcome Chairman Bernanke back to this Committee to deliver the Federal Reserve's semiannual Monetary Report to Congress.

There are reasons to be optimistic about our Nation's economic recovery. The U.S. economy has expanded for 10 straight quarters, and private sector employment has increased for 23 straight months. Private employers added 2.1 million jobs last year, the most since 2005.

But there are also reasons to be concerned, such as the European debt crisis and the continuing drag of the housing market on the broader economy. This Committee has paid close attention to these two issues and held numerous hearings. While I remain hopeful that we are moving in the right direction, we must continue to monitor the situation in Europe closely. On housing, there is a variety of policy proposals—some that do not require an act of Congress—that should be considered to improve the housing market. I want to thank Governor Duke for her thoughtful testimony on

Tuesday before this Committee on the Federal Reserve's white paper on options to improve the housing market.

An additional challenge, the sharp increase in oil prices, has the potential to impede the economic recovery. Americans continue to grapple with higher fuel costs when they fill up their cars or heat their homes. It is important that oil markets are closely monitored for signs of manipulation or supply disruption, and I look forward to hearing the Fed's views on how rising oil prices may affect consumer spending and economic growth.

I appreciate all the Fed has done to ensure continued economic recovery. Chairman Bernanke, I look forward to hearing more from you on the Fed's recent actions and possible future actions to protect our economy.

Congress also has an important role in making sure the economy continues to grow and more Americans continue to find the jobs

they need. This week, the full Senate continues to consider the transportation bill. This bill includes the bipartisan effort of this Committee to update our Nation's public transit infrastructure and create jobs. I am also hopeful that the Senate can find consensus on capital formation initiatives, the topic of another hearing next week before this Committee, to promote job creation while protecting investors.

With so many Americans in search of work, it is not too late for bipartisan action to create jobs and promote sustainable growth. I look forward to your views, Chairman Bernanke, on these and other steps Congress can take to improve our Nation's economy.

To preserve time for questions, opening statements will be limited to the Chair and Ranking Member. However, I would like to remind my colleagues that the record will be open for the next 7 days for additional statements and other materials.

I will now turn to Ranking Member Shelby.

STATEMENT OF SENATOR RICHARD C. SHELBY

Senator SHELBY. Thank you, Mr. Chairman. Welcome again, Mr. Chairman.

Since the Federal Reserve took unprecedented actions in response to the financial crisis, there has been a growing recognition that the Fed needs to become more transparent. There was a time when central bankers met behind closed doors and stubbornly refused to inform the public of their decisions. Those days are clearly over.

The public now rightly demands that policy makers not only explain their decisions but also be accountable for their actions. This is especially true of the Federal Reserve, which, thanks to Dodd-Frank, now exercises even greater authority over the American economy and the lives of every American.

To his credit, Chairman Bernanke has long recognized the need to modernize the Fed. In his first confirmation hearing before this Committee, he stated that he believed making the Fed more transparent would, and I will quote his words, "increase democratic accountability, promote constructive dialog between policy makers and informed outsiders, and reduce uncertainty in financial markets and help anchor the public's expectations of long-run inflation."

During Chairman Bernanke's last Humphrey-Hawkins appearance, I noted that he has taken some important steps to improve the transparency of the FOMC, including holding press conferences to discuss monetary policy. Since then, the FOMC has taken another step to improve transparency by adopting an explicit inflation goal of 2 percent. This is a significant event in the history of the Federal Reserve.

As Chairman Bernanke himself has stated, an explicit inflation target could reduce the public's uncertainty about monetary policy and more effectively anchor inflation expectations. Yet it remains uncertain if the Fed's recently announced inflation goal will achieve these objectives.

While the Fed was establishing its inflation goal, it was at the same time communicating contradictory signals about his commitment to that inflation target. The FOMC minutes reveal that

Chairman Bernanke indicated that he believed the inflation goal would not represent a change in the FOMC's policy. In addition, the FOMC has stated that it believes economic conditions are "likely to warrant exceptionally low levels for the Federal funds rate at least through late 2014." In other words, the Fed is signaling to market participants that it expects to continue its near zero interest rate policy for at least 3 more years.

I believe that begs the question: Is the FOMC focused on targeting low interest rates or its new inflation goal? If the inflation goal conflicts with keeping interest rates near zero, which target will prevail? In other words, why should market participants have confidence that the Fed is actually committed to achieving its inflation goal? And if the Fed is not serious about achieving its inflation goal, how will the Fed's credibility suffer when inflation rises above 2 percent?

Accordingly, today I hope that Chairman Bernanke can give the Committee more insight into how the FOMC's inflation goal will work in practice. I would also like to hear whether he believes Congress should hold the FOMC accountable for meeting its inflation goal. And while the Chairman has taken steps to improve the transparency of the FOMC, the transparency of the Board of Governors appears to be getting worse.

A recent Wall Street Journal article noted that the Board has held 47—yes, 47—separate votes on financial regulations since Dodd-Frank became law, yet they have held only two public meetings, Mr. Chairman. The article noted that there has been a steady reduction in the number of open meetings by the Board since the early 1980s when the Board had more than 30 open meetings. As a result, the Fed is making sweeping financial regulatory policy decisions behind closed doors. This is inconsistent with, Mr. Chairman, your professed goal of making the Fed more transparent.

In another troubling new development, the Fed recently decided to enter into the debate on housing policy. On January 4th, the Fed issued a white paper entitled "The U.S. Housing Market: Current Conditions and Policy Considerations." The stated goal of the paper was not to provide a blueprint but, rather, to outline issues and tradeoffs that policy makers might consider. However, subsequent actions by Fed officials suggest that the Fed has views about the policies Congress should enact.

Just 2 days after the white paper was released, Fed Governor Elizabeth Duke gave a speech in which she advocated for specific housing policies and effectively asked the GSE conservator to ignore his statutory mandate to conserve and preserve assets of the GSEs. That same day, Mr. Chairman, New York Fed President William Dudley gave a speech in which he argued that it would, in his words, "make sense" for Fannie and Freddie to "routinely reduce principal on delinquent mortgages using taxpayer dollars."

These statements suggest to many that the Fed does, in fact, have a blueprint there for housing market policy. That blueprint appears to involve using the taxpayer-supported GSEs as a piggy bank.

In weighing in on housing policy, certain Fed Governors have begun to take sides in what should be a congressional policy debate, I believe. The Fed's independence for monetary policy has al-

ways been premised on its remaining nonpartisan and not advocating for specific legislative measures. The Fed has been and should, I believe, continue to be a useful resource for information and analysis on the housing market. I believe it should not become an active participant in the legislative debate over the future of housing finance. I hope that the Fed's recent foray into housing policy will not become common practice.

Mr. Chairman, I believe when you say that you believe the Fed is most effective when it is nonpartisan, transparent, and accountable, I believe that is right. I am interested in hearing from you today, Mr. Chairman, on how you intend to continue to improve the Fed's performance on all three objectives.

Thank you.

Chairman JOHNSON. Thank you, Senator Shelby. Welcome, Chairman Bernanke.

Dr. Ben Bernanke is currently serving his second term as Chairman of the Board of Governors of the Federal Reserve System. His first term began under President Bush in 2006. Dr. Bernanke was Chairman of the Council of Economic Advisers during the Bush administration from June 2005 to January 2006. Prior to that, Dr. Bernanke served as a member of the Board of Governors of the Federal Reserve System from 2002 to 2005.

Chairman Bernanke, please begin your testimony.

STATEMENT OF BEN S. BERNANKE, CHAIRMAN, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

Mr. BERNANKE. Thank you. Chairman Johnson, Ranking Member Shelby, and other Members of the Committee, I am pleased to present the Federal Reserve's Semiannual Monetary Policy Report to the Congress. I will begin with a discussion of current economic conditions and the outlook and then turn to monetary policy.

The recovery of the U.S. economy continues, but the pace of the expansion has been uneven and modest by historical standards. After minimal gains in the first half of last year, real GDP increased at a 2¼-percent annual rate in the second half. The limited information available for 2012 is consistent with growth proceeding, in coming quarters, at a pace close to or somewhat above the pace that was registered during the second half of last year.

We have seen some positive developments in the labor market. Private payroll employment has increased by 165,000 jobs per month on average since the middle of last year, and nearly 260,000 new private sector jobs were added in January. The job gains in recent months have been relatively widespread across industries. In the public sector, by contrast, layoffs by State and local governments have continued. The unemployment rate hovered around 9 percent for much of last year but has moved down appreciably since September, reaching 8.3 percent in January. New claims for unemployment insurance benefits have also moderated.

The decline in the unemployment rate over the past year has been somewhat more rapid than might have been expected, given that the economy appears to have been growing during that timeframe at or below its longer-term trend; continued improvement in the job market is likely to require stronger growth in final demand and production. Notwithstanding the better recent data, the job

market remains far from normal: The unemployment rate remains elevated, long-term unemployment is still near record levels, and the number of persons working part time for economic reasons is very high.

Household spending advanced moderately in the second half of last year, boosted by a fourth-quarter surge in motor vehicle purchases that was facilitated by an easing of constraints on supply related to the earthquake in Japan. However, the fundamentals that support spending continue to be weak: Real household income and wealth were flat in 2011, and access to credit remained restricted for many potential borrowers. Consumer sentiment, which dropped sharply last summer, has since rebounded but remains relatively low.

In the housing sector, affordability has increased dramatically as a result of the decline in house prices and historically low interest rates on conventional mortgages. Unfortunately, many potential buyers lack the down payment and credit history required to qualify for loans; others are reluctant to buy a house now because of concerns about their income, employment prospects, and the future path of home prices. On the supply side of the market, about 30 percent of recent home sales have consisted of foreclosed or distressed properties, and home vacancy rates remain high, putting downward pressure on house prices. More positive signs include a pickup in construction in the multifamily sector and recent increases in homebuilder sentiment.

Manufacturing production has increased 15 percent since the trough of the recession and has posted solid gains since the middle of last year, supported by the recovery in motor vehicle supply chains and ongoing increases in business investment and exports. Real business spending for equipment and software rose at an annual rate of about 12 percent over the second half of 2011, a bit faster than in the first half of the year. But real export growth, while remaining solid, slowed somewhat over the same period as foreign economic activity decelerated, particularly in Europe.

The members of the Board and the presidents of the Federal Reserve Banks recently projected that economic activity in 2012 will expand at or somewhat above the pace registered in the second half of last year. Specifically, their projections for growth in real GDP this year, provided in conjunction with the January meeting of the FOMC, have a central tendency of 2.2 to 2.7 percent. These forecasts were considerably lower than the projections they made last June. A number of factors have played a role in this reassessment. First, the annual revisions to the national income and product accounts released last summer indicated that the recovery had been somewhat slower than previously estimated. In addition, fiscal and financial strains in Europe have weighed on financial conditions and global economic growth, and problems in U.S. housing and mortgage markets have continued to hold down not only construction and related industries, but also household wealth and confidence. Looking beyond 2012, FOMC participants expect that economic activity will pick up gradually as these headwinds fade, supported by a continuation of the highly accommodative stance for monetary policy.

With output growth in 2012 projected to remain close to its longer-run trend, participants did not anticipate further substantial declines in the unemployment rate over the course of this year. Looking beyond this year, FOMC participants expect the unemployment rate to continue to edge down only slowly toward levels consistent with the Committee's statutory mandate. In light of the somewhat different signals received recently from the labor market than from indicators of final demand and production, however, it will be especially important to evaluate incoming information to assess the underlying pace of the economic recovery.

At our January meeting, participants agreed that strains in global financial markets posed significant downside risks to the economic outlook. Investors' concerns about fiscal deficits and the levels of Government debt in a number of European countries have led to substantial increases in sovereign borrowing costs, stresses in the European banking system, and associated reductions in the availability of credit and economic activity in the euro area. To help prevent strains in Europe from spilling over to the U.S. economy, the Federal Reserve in November agreed to extend and to modify the terms of its swap lines with other major central banks, and it continues to monitor the European exposures of U.S. financial institutions.

A number of constructive policy actions have been taken of late in Europe, including the European Central Bank's program to extend 3-year collateralized loans to European financial institutions. Most recently, European policy makers agreed on a new package of measures for Greece, which combines additional official sector loans with a sizable reduction of Greek debt held by the private sector. However, critical fiscal and financial challenges remain for the euro zone, the resolution of which will require concerted action on the part of the European authorities. Further steps will also be required to boost growth and competitiveness in a number of countries. We are in frequent contact with our counterparts in Europe and will continue to follow the situation closely.

As I discussed in my July testimony, inflation picked up during the early part of 2011. A surge in the prices of oil and other commodities, along with supply disruptions associated with the disaster in Japan that put upward pressure on motor vehicle prices, pushed overall inflation to an annual rate of more than 3 percent over the first half of last year. As we had expected, however, these factors proved transitory, and inflation moderated to an annual rate of 1½ percent during the second half of the year—close to its average pace in the preceding 2 years. In the projections made in January, the Committee anticipated that, over coming quarters, inflation will run at or below the 2-percent level we judge most consistent with our statutory mandate. Specifically, the central tendency of participants' forecasts for inflation in 2012 ranged from 1.4 to 1.8 percent, about unchanged from the projections made last June. Looking farther ahead, participants expected the subdued level of inflation to persist beyond this year. Since these projections were made, gasoline prices have moved up, primarily reflecting higher global oil prices—a development that is likely to push up inflation temporarily while reducing consumers' purchasing power. We will continue to monitor energy markets carefully. Longer-term

inflation expectations, as measured by surveys and financial market indicators, appear consistent with the view that inflation will remain subdued.

Against this backdrop of restrained growth, persistent downside risks to the outlook for real activity, and moderating inflation, the Committee took several steps to provide additional monetary accommodation during the second half of 2011 and early 2012. These steps included changes to the forward rate guidance included in the Committee's postmeeting statements and adjustments to the Federal Reserve's holdings of Treasury and agency securities.

The target range for the Federal funds rate remains at 0 to ¼ percent, and the forward guidance language in the FOMC policy statement provides an indication of how long the Committee expects that target range to be appropriate. In August, the Committee clarified the forward guidance language, noting that economic conditions—including low rates of resource utilization and a subdued outlook for inflation over the medium run—were likely to warrant exceptionally low levels for the Federal funds rate at least through the middle of 2013. By providing a longer time horizon than had previously been expected by the public, the statement tended to put downward pressure on longer-term interest rates. At the January 2012 FOMC meeting, the Committee amended the forward guidance further, extending the horizon over which it expects economic conditions to warrant exceptionally low levels of the Federal funds rate to at least through late 2014.

In addition to the adjustments made to the forward guidance, the Committee modified its policies regarding the Federal Reserve's holdings of securities. In September, the Committee put in place a maturity extension program that combines purchases of longer-term Treasury securities with sales of shorter-term Treasury securities. The objective of this program is to lengthen the average maturity of our securities holdings without generating a significant change in the size of our balance sheet. Removing longer-term securities from the market should put downward pressure on longer-term interest rates and help make financial market conditions more supportive of economic growth than they otherwise would have been. To help support conditions in mortgage markets, the Committee also decided at its September meeting to reinvest principal received from its holdings of agency debt and agency mortgage-backed securities back into agency MBS, rather than continuing to reinvest those proceeds in longer-term Treasury securities as had been the practice since August 2010. The Committee reviews the size and composition of its securities holdings regularly and is prepared to adjust those holdings as appropriate to promote a stronger economic recovery in the context of price stability.

Before concluding, I would like to say just a few words about the statement of longer-run goals and policy strategy that the FOMC issued at the conclusion of its January meeting. The statement reaffirms our commitment to our statutory objectives, given to us by the Congress, of price stability and maximum employment. Its purpose is to provide additional transparency and increase the effectiveness of monetary policy. The statement does not imply a change in how the Committee conducts policy.

Transparency is enhanced by providing greater specificity about our objectives. Because the inflation rate over the longer run is determined primarily by monetary policy, it is feasible and appropriate for the Committee to set a numerical goal for that key variable. The FOMC judges that an inflation rate of 2 percent, as measured by the annual change in the price index for personal consumption expenditures, is most consistent over the longer run with its statutory mandate. While maximum employment stands on an equal footing with price stability as an objective of monetary policy, the maximum level of employment in the economy is largely determined by nonmonetary factors that affect the structure and dynamics of the labor market; it is, therefore, not feasible for any central bank to specify a fixed goal for the longer-run level of employment. However, the Committee can estimate the level of maximum employment and use that estimate to inform policy decisions. In our most recent projections in January, for example, FOMC participants' estimates of the longer-run, normal rate of unemployment had a central tendency of 5.2 to 6.0 percent. As I noted a moment ago, the level of maximum employment in an economy is subject to change; for instance, it can be affected by shifts in the structure of the economy and by a range of economic policies. If at some stage the Committee estimated that the maximum level of employment had increased, for example, we would adjust monetary policy accordingly.

The dual objectives of price stability and maximum employment are generally complementary. Indeed, at present, with the unemployment rate elevated and the inflation outlook subdued, the Committee judges that sustaining a highly accommodative stance for monetary policy is consistent with promoting both objectives. However, in cases where these objectives are not complementary, the Committee follows a balanced approach in promoting them, taking into account the magnitudes of the deviations of inflation and employment from levels judged to be consistent with the dual mandate, as well as the potentially different time horizons over which employment and inflation are projected to return to such levels.

Thank you. And, of course, I am pleased to take your questions.

Chairman JOHNSON. Thank you for your testimony.

We will now begin the questioning of our witness. Will the clerk please put 5 minutes on the clock for each Member for their questions?

Dr. Bernanke, what are the reasons for the modest pace of the current expansion? Is the economy recovering as you would expect following a major financial crisis? Or has the Great Recession led to any permanent adjustments in either output or unemployment levels?

Mr. BERNANKE. Mr. Chairman, normally when an economy suffers a severe recession, the recovery is comparatively stronger. So a sharp decline tends to have a stronger expansion subsequently. However, our economy has been hit by two unusual shocks. One is the housing boom and bust, and we know from history—and recent Fed research supports this—that housing busts tend to take some time to be offset, in particular since housing is an important part of the recovery process in most expansions.

Additionally, we have had a severe financial crisis which has left still many stresses in the banking system and on the financial system, and, again, research, notably by Ken Rogoff and Carmen Reinhart, has pointed out that historically recoveries following financial crises also tend to be somewhat slower than they otherwise would be. So having been hit by both of these factors and with housing problems still being important, as you noted, and as financial conditions, including some of the stresses coming from Europe, still being a drag to some extent on economic activity, we have had a slower recovery than we otherwise would have anticipated.

Nevertheless, of course, we have now had growth since mid-2009 and unemployment has come down, but, of course, the growth is not as strong and the improvement in the unemployment rate is not as quick as obviously we would like.

Chairman JOHNSON. U.S. consumers are deleveraging to reduce high debt levels, credit is still tight for U.S. companies and households, and fiscal policy has begun to tighten. As we consider economic growth in the near and long term, should Congress enact drastic spending cuts and balance the budget this year? Or would a plan to curb deficits and address structural issues over a longer time horizon make more sense economically? Also, what sectors of our economy could provide sustainable growth over the long term?

Mr. BERNANKE. Well, Mr. Chairman, first of all, as Senator Shelby correctly pointed out, the Federal Reserve does not make recommendations on specific fiscal policy decisions. But in the broad context, let me make two points.

The first is that, as I have said on a number of occasions, including in front of this Committee, the United States is on an unsustainable fiscal path looking out over the next couple of decades. If we continue along that path, eventually we will face a fiscal and financial crisis that would be very bad for growth and for stability. So, therefore, whatever we do, it is very important that we be planning now for a long-term improvement in our situation in terms of long-term fiscal sustainability.

At the same time, I think it is important that we keep in mind that the recovery is not yet complete. Unemployment remains high. The rate of growth is modest. And under current law, as you know, on January 1st of 2013, there will be a major shift in the fiscal position of the United States, including the expiration of a number of tax cuts and other tax provisions, together with the sequestration and other provisions that would together create a very sharp shift in the fiscal stance of the Federal Government.

I think that we could achieve the very desirable long-run fiscal consolidation that we definitely need and we need to do soon, but we can do that in a way that does not provide such a major shock to the recovery in the near term. And so I am sure that Congress will be debating the details of this over the next year and trying to take into account both the need for protecting the recovery, at the same ensuring that we do achieve fiscal sustainability in the long term.

On the second part of your question, Mr. Chairman, we are seeing that manufacturing and industrial production in general have been leading the recovery. Housing, which normally does lead the recovery, of course is lagging. But, generally, it is—and auto-

mobiles, of course, being one part of manufacturing. But, generally, it is hard to predict, of course, what sectors—will have the greatest growth in the longer term.

You asked me earlier in the first question about potential growth. We do not see at this point that the very severe recession has permanently affected the growth potential of the U.S. economy, although, of course, we continue to monitor productivity gains and the like. But one concern we do have, of course, is the fact that more than 40 percent of the unemployed have been unemployed for 6 months or more. Those folks are either leaving the labor force or having their skills eroded, and although we have not seen much sign of it yet, if that situation persists for much longer, then that will reduce the human capital that is part of our growth process going forward.

Chairman JOHNSON. I have been working with my colleagues in the Senate to move forward a set of proposals to update securities laws and make it easier for startups and small businesses to raise capital while maintaining critical investor protections. Do you generally agree that these types of proposals will help create jobs and strengthen our economic recovery?

Mr. BERNANKE. Well, Mr. Chairman, I do not know the specific proposals, but it is certainly true that startup companies, companies under 5 years old, create a very substantial part of the jobs that are added in our economy. And, of course, if there is anything that can be done to encourage startups and entrepreneurship, whether it is reducing burdensome regulation or providing other kinds of assistance—of course, Congress makes all the decisions about the specifics, but, again, promoting startups is, I think, an important direction for job creation. And, in particular, the fact that startups and business creation has been quite weak during the expansion is one of the reasons that job creation has lagged behind the usual recovery pattern.

Chairman JOHNSON. Senator Shelby.

Senator SHELBY. Thank you.

Chairman Bernanke, at our last hearing right here in the Committee on the European debt crisis, I asked the Federal Reserve witness about the exposure of our largest banks to the European financial system. The Fed has yet to respond to my request for this information. Will you provide the Committee with this information regarding the individual exposures of our largest banks to Europe?

Mr. BERNANKE. Of course, supervisory information has legal protections, but we would be happy to work with the Committee to provide you with the information——

Senator SHELBY. Well, we need to know what is going on as far as our exposure of our banks to Europe.

Mr. BERNANKE. Yes. We want to make sure you understand the situation and have all the information you need to make good decisions. I just wanted to add that the SEC, working with other agencies, has provided now some guidance and templates to banks to provide public information on a quarterly basis about their exposures and their hedges. But, yes, we certainly can work with you to help you understand everything you need to know to make good decisions.

Senator SHELBY. Are you concerned with some exposure of our largest banks to Europe?

Mr. BERNANKE. Well, we are concerned in the sense that we are paying a lot of attention to it. Our sense is, having done a lot of work on this, including asking banks to stress their European positions in their current capital stress tests that they are doing now, our sense is that the direct exposures of U.S. bank to sovereign debt in Europe, particularly that of the weaker countries, is quite limited and is well hedged, and that those hedges in turn are pretty good hedges, that is, the counterparties are diversified and financially strong.

So if you look more broadly, of course, our banks are exposed to European companies and banks, inevitably their major trading partners and major financial partners. Again, they have been working hard to provide adequate hedges, but let me just say I think it is very important to note that if there is a major financial problem in Europe, there will be so many different channels that would affect the stability of our financial system that I would not want to take too much comfort from that.

Senator SHELBY. Could you explain to the Committee, to this Member, too, the situation as far as credit default swaps and why they are not deemed to—certain Nations have defaulted—to trigger the action on that? What is going on here? Is this a Government intervention in the market? Or what is it?

Mr. BERNANKE. No, sir. There is a private body, the ISDA, which makes determinations as to whether a credit event has occurred——

Senator SHELBY. When a default happens?

Mr. BERNANKE. When default occurred, that is right. And in the case of Greece, which is the relevant issue, thus far there has been a so-called private sector involvement, purportedly voluntary agreement with the private sector bond holders. And there has also been an exchange of bonds by ECB and other Government agencies with Greece that essentially give some protection to the ECB for its Greek debt holdings.

The news this morning, I believe, was that the ISDA had determined that those two events did not constitute a credit event for the purpose of a CDS activation. However——

Senator SHELBY. And why did it not create the dynamic there? Why did it not cause voluntary——

Mr. BERNANKE. Well, I guess their view is that so far the negotiations have been voluntary. Now, the possibility exists—the Greek Government has retroactively created so-called collective action clauses which it could use in the future to force other private sector investors to take losses even if they have not agreed to this voluntary deal. And in that case, the ISDA would look at it again. and perhaps in that case it would declare a default had occurred. But that has not occurred yet.

Senator SHELBY. I want to go into one other thing. The Dodd-Frank Act created a new position of Vice Chairman for Supervision at the Fed, which is subject to Senate confirmation. It is almost 2 years later. That was 2 years ago. The President has still not nominated anyone for this position.

Who is currently fulfilling those duties as Vice Chairman of Supervision would have at the Fed, if they are being done?

Mr. BERNANKE. They are, of course, being done, and the duties are distributed across the Governors and the staff. But I would say that the point person, as you know, is Governor Tarullo, who is the head of the Bank Supervision Committee and has on many occasions testified before this

Committee on regulatory matters.

Senator SHELBY. Do you believe that that position should be filled, nominated and filled?

Mr. BERNANKE. Well, Congress created that position, and, yes, I would like to see it filled, and I would also like to see the Board filled as well.

Senator SHELBY. And my last question has to do with the balance sheet of the Fed, which is approximately, to my understanding, about $2.9 trillion. How are you going to shrink that? I know you are not going to shrink it now, but do you have a plan? I am sure you have talked about it. We have talked about it a little bit at times, but that is a huge balance sheet to start shrinking, and it probably is not the time to shrink it now. I do not have any information on that, but how are you going to do that?

Mr. BERNANKE. Senator, we have provided on numerous occasions an exit plan. For example, in the minutes, I think sometime ago, we provided an agreement of the Committee about how we would proceed. In the very short term, we can both, of course, allow securities to run off, which we have not been—we have been reinvesting them at this point. And we can reduce the impact of those securities on the economy, both through various sterilization measures and by raising the interest rate we pay on reserves to keep those reserves locked up at the Fed.

Over a longer period of time, of course, we are going to have to sell some of the securities and, of course, we will. Our goal is to get back to—eventually, at the appropriate time, our goal is to get back to a more normal size balance sheet consisting only of Treasury securities.

Senator SHELBY. Thank you.

Thank you, Mr. Chairman.

Chairman JOHNSON. Senator Reed.

Senator REED. Well, thank you very much, Mr. Chairman, and thank you, Chairman Bernanke. And let me just say I thought that the Federal Reserve's white paper on housing was very thoughtful, very analytical, and nonprescriptive, which is appropriate. I think also, thinking back, such an analytical paper might have been extremely useful to us in 2005 or 2006 or 2007 to alert policy makers to develop it into a housing market that proved to be catastrophic. And the final point, I think, is that it is fully consistent with the enhanced responsibilities under the FSOC that the Federal Reserve must display. So on all those points, I think it was appropriate.

One of the issues that was raised in the paper, which you might elaborate on, is that there are short-term programs that might in the long term produce more returns, enhanced value to the Government and taxpayers. But if they are not pursued, even if there is an up-front cost, ironically we could have even a further deteriora-

tion in the profit, the profitability, assets of these GSEs. Can you elaborate on that, Mr. Chairman?

Mr. BERNANKE. Certainly, and I would like just quickly to mention to Senator Shelby, who asked about this, that the speeches given by Governors Duke and President Dudley are their own recognizance. They do not represent official Fed positions, and, of course, as you know, Fed members often give their views, their own individual views.

Sorry, Senator Reed. One point that we make is that in a typical negotiation between a borrower and a lender, a modification or some other arrangement like a short sale or a deed in lieu, for example, or other activities like REO-to-rental are typically taken on a narrow economic basis, the benefits of the lender and the borrower, which makes sense in a free market economy. But in the current situation, I think it is important at least to recognize that the problems in the housing sector, including massive numbers of foreclosures, uncertainty about the number of houses coming on the market, whole neighborhoods with many empty houses, all of those things have implications not only for the borrower and the lender but also for the neighborhood, for the community, and, of course, for the national economy because the weaknesses in the housing market, again, as I mentioned earlier, are slowing the pace of the recovery, and from the Federal Reserve's point of view are probably muting, to some extent, the impact of our low interest rate policy because low mortgage rates do not help if people cannot get mortgage credit.

So some of the benefits of actions to improve conditions in the housing market go beyond just those of the lender and the borrower and accrue to the broader society as well.

Senator REED. And one other point you might comment upon is that we have several challenges facing us economically, as you have illustrated. One is the housing market. The other is potential energy spikes. Relatively speaking, it seems to me that we have much more ability to influence effectively and correctly housing policy here than international energy prices, and as a result, it would be, I think, a good investment of our time and effort to do so. Is that a fair comment?

Mr. BERNANKE. Well, I think if there was a goal of the white paper, it was simply to encourage Congress to look at these issues, which represent, I think, one of the directions whereby we could be doing something on a policy basis that might help the recovery be stronger.

Senator REED. Let me turn to the issue of the Volcker Rule, which is pending. The European Governments are urging that their sovereign equities be sort of treated preferentially in the rule, even though, as I understand it—and you might correct me—that under the Basel rules there is a zero risk weighting to sovereign debt. Is that correct?

Mr. BERNANKE. There is a zero risk weighting yes.

Senator REED. So the Greek debt has no risk?

Mr. BERNANKE. Well, the way that it has been handled by the European banking authorities at the moment is to force the banks to write down their sovereign debt, and that in turn affects the amount of capital that they can claim.

Senator REED. And in addition, too, the level of capital and resulting liquidity for European banks is rather substantial relative to ours in terms of the kind of liquidity ratios they can bear under Basel. Is that also accurate?

Mr. BERNANKE. That it is lower?

Senator REED. No, that they can have much higher liquidity than we can or a much higher ratio of debt to equity.

Mr. BERNANKE. Oh, I see. At the moment there are several issues. In principle, we are all agreeing to the same set of rules, the Basel III rules. But there are at least two questions. One has to do with the fact that the ratio of risk-weighted assets to total assets is lower in Europe than the United States, and the question, therefore, is: Are European supervisors in some way allowing lower risk weights being put on comparable assets? The Basel Committee takes this very seriously and has a process underway to try to verify that the two continents are operating comparably.

The other issue is that the Basel rules have not yet been implemented in Europe or, of course, in the United States either. There is a European Union directive in process which we are looking at carefully. It does not in our view completely—it is not completely consistent with the Basel III agreements, but it is not a final document. But we want to be sure that the capital rules in Europe do, in fact, adhere to the agreement that we all signed on to.

Senator REED. Just a final, quick point, Mr. Chairman. In the context of the Volcker Rule, you are still looking very, very closely at these differentials between European treatment of their sovereign debt and ultimately the way the Volcker Rule will treat it.

Mr. BERNANKE. Well, the issue that the Europeans and the Canadians and the Japanese and others have raised is that because there is an exemption for U.S. Treasurys but not for foreign sovereigns in the Volcker Rule, they believe they are being discriminated against and that the Volcker Rule might affect the liquidity and effectiveness of their sovereign debt markets. We take this very seriously. We are in close discussions with those counterparts, and, of course, we will be looking carefully to see if changes are needed, and we will do what is necessary.

Senator REED. Thank you, Mr. Chairman.

Chairman JOHNSON. Senator Crapo.

Senator CRAPO. Thank you, Mr. Chairman. And, Chairman Bernanke, I want to follow up on the Volcker Rule. I read with interest your comments yesterday, and, frankly, candid comments, that the regulators will not be ready to issue the rule by the deadline of July, which I think is becoming more and more self-evident. I assume the reason for that is that because you have 17,000 comments, you have the issues that were just raised by Senator Reed with regard to the reaction of other markets in the world to what we may do with that rule, and the need to conduct a cost/benefit analysis, which is likely not to happen by the time we hit the statutory deadline in July. Is that correct?

Mr. BERNANKE. Yes, and in addition, it is a multiagency rule, and that requires coordination. But I do want to say that, of course, we will be working as quickly and as effectively as we can to get it done.

Senator CRAPO. Well, I appreciate that. The question I have is: As I read the statute, there is a deadline in July for the agencies to act, but if the agencies do not act, the rule, whatever it is, goes into effect. And the market participants are, understandably, I believe, concerned about what they should do on July 21st if the agencies have not been able to coordinate effectively and promulgate a rule.

The question I have to you is: Wouldn't it be helpful if Congress were to correct that aspect of the statute and make it clear that on July 21st we are not going to have a Volcker Rule go into effect that does not have the clarification and cost/benefit analysis and fine-tuning that the agencies are now trying to give it?

Mr. BERNANKE. Well, Senator, we certainly do not expect people to obey a rule that does not exist. There is a 2-year conformance period built into the statute that allows 2 years from July of this year before they have to conform to the rule, and we will certainly make sure that firms have all the time they need to respond. And I think 2 years will probably be adequate in that respect.

Senator CRAPO. Well, thank you. I would like to shift during the remainder of my questions to the topic of a question that the Chairman asked you about whether it is time for us to begin more aggressively controlling the spend-out rate in Congress' spending habits or whether we need to continue to hold off because of the impact on the economy. And I believe, as I understood your response, you indicated that in January we are going to see tax cuts expire, and we are going to see the sequestration impact and a number of other things will happen. I believe your answer was that soon we need to take some action, and I want to pursue that with you a little more in this context.

We have been having this debate in Congress now for a number of years, but I want to go back to the Bowles-Simpson Commission, which issued its report 2-plus years ago now. In that report it was recognized that there needed to be an easing into the aggressive control of spending in Washington, and immediately following that, we had the debate over the $800 billion stimulus bill where the argument was made, you know, it is not time to control Federal spending yet, we need another year or two before we start getting into the serious control of spending. And between then and now, we have basically put about another $5 trillion on the national debt, not to count the trillions of dollars that have been used to help sustain economic activity, whether we agree with them or not from the Fed's actions. And we still see the argument being made that it is not time yet for us to become aggressively engaged in controlling the spending excesses in Washington, even though we have over 40 cents of every dollar borrowed today, and the budgets that are being proposed continue that trend for the next decade.

I know you do not get heavily engaged in fiscal policy, but you have already tiptoed a little bit into those waters, and I would like to ask you: When will it be time? I believe it is past time. But when will it be time if it is not time now for us to start aggressively dealing with the fiscal structure of our country on the spending side of the equation?

Mr. BERNANKE. Just a word on the Fed. The Fed's purchase of securities actually reduced the deficit because of the interest that comes back to the Treasury.

The two things are not incompatible. You know, you can moderate the very near term impact at the same time that you make strong and decisive actions to put us on a path—I mean, you have not done—you have not taken any actions, you have not passed the laws that will bring us on a glidepath into sustainability over the next decade or so. And I would add that I think one concern there, as I mentioned yesterday, is that the 10-year budget window may artificially constrain some of the things that Congress should be thinking about because many of the issues that we face in terms of not only entitlements but other issues as well are multidecade issues. And I think you could take strong actions that would be taking place over time. I think about the early 1980s Social Security reform that phased in a whole bunch of things, including the later retirement age, which is still happening today 30 years later. So you could take those actions, lock them in, you could get the benefit of the confidence there, but it would not have necessarily quite as big an impact as the very big shock that would otherwise occur next January 1st.

I am not saying that you cannot do it and take serious action. I just think you should balance those objectives.

Senator CRAPO. Well, thank you. I take it that you are saying that we need to adopt a long-term plan to deal with this crisis.

Mr. BERNANKE. Absolutely.

Senator CRAPO. And I would just observe that at this point the budgets that are being proposed simply go the other direction. Other than some others, like the Bowles-Simpson Commission and others, we still have not got proposals on the table here in Congress to deal with that long-term plan, and I personally think it is time we get at it.

Chairman JOHNSON. Senator Menendez.

Senator MENENDEZ. Well, thank you, Mr. Chairman. Thank you, Chairman Bernanke, for your service.

I read your statement, and, you know, obviously creating jobs is the single most important issue in our country for families, for our collective economy. When such a large part of our GDP is consumer demand, obviously, without income, there is not the opportunity to make that demand.

How would you describe—how are the latest programs of quantitative easing and Operation Twist helping us get to a more robust growth and creating those opportunities?

Mr. BERNANKE. Well, of course, it is very difficult to figure out exactly how to attribute the progress that we have made to monetary policy, to fiscal policy, to other sources of growth. But if you look at the record, for example, if you look back at the Quantitative Easing 2, so-called, in November 2010, the concerns at the time were that it would be highly inflationary, it would hurt the dollar, that it would not have much effect on growth, *et cetera.* But since November 2010, where we have had since then the QE2 and the so-called Operation Twist, we have had about 2.5 million jobs created. We have seen big gains in stock prices, improvements in credit markets. The dollar is about flat. Commodity prices *ex* oil are not

much changed. Inflation is doing well in the sense that we are looking at about a 2-percent inflation rate for this year.

So I think that one other point is that in November 2010 we had some concerns about deflation, and I think we have sort of gotten rid of those and brought ourselves back to a more stable inflation environment as well.

So I think that the record is positive, again, acknowledging you cannot necessarily disentangle all the different factors. But it is a constructive tool, but obviously monetary policy cannot do it all. We need to have good policies across the board, including housing, including fiscal policy and so on. But looking back, I think that those actions played a constructive role.

Senator MENENDEZ. Well, let me go to that point you just made on other elements, housing as one of them. Mr. Dudley, who is the president of the Federal Reserve Bank of New York, in a recent speech in my home State of New Jersey talked about those borrowers who are underwater, and he said, in part, without a significant turnaround in home prices and employment, a substantial portion of those loans that are deeply underwater will ultimately default absent an earned principal reduction program. Do you agree with his analysis?

Mr. BERNANKE. No, I want to be clear, the Federal Reserve does not have an official position on principal reduction, and I think it is a complicated issue. It depends on what your objectives are. In terms of avoiding delinquency, there is, I think, a reasonable debate in the literature about whether reducing principal or reducing payments is more important. So that is one issue.

In terms of issues like mobility for example, ability to sell your home and move elsewhere, there are also alternatives to principal reduction, including things like deed in lieu and short sales.

So I think it is a complicated issue. There are certainly circumstances where principal reduction would be constructive and would be cost-effective in terms of reducing default risk and improving the economy, but I do not think there is a blanket statement that you can make on that.

Senator MENENDEZ. Well, let me ask you a broader question. Right now, Fannie Mae and Freddie Mac currently own or guarantee 60 percent of the mortgage market in the country. Do you think that their regulator at the FHFA has been aggressive enough in using their market power to stabilize the housing market?

Mr. BERNANKE. Well, he has to make judgments about the effect of those policies on the balance sheet of the GSEs and whether or not they meet the conservatorship requirements, and he has made judgments about that. I guess what I would just suggest is that a variety of different tools can be tried, that you can make a mix of different things, and that you can be experimental. And the GSEs look to be doing that to some extent. We are seeing the experimental REO-to-rental program, for example. They have done HARP II. So they have been taking steps in that direction, and I think there is a big element here of trying to figure out what works best per dollar of cost. And FHFA and the GSEs, we may not all agree exactly on their particular actions, but I think they are trying some things, and we will see what benefits accrue from.

Senator MENENDEZ. Well, let me just make a final note that there are two ways of preserving, you know, the corpus of your interest. One is through foreclosure; the other one is through looking at the whole process of refinancing and, where appropriate, the private sector has taken about 20 percent of its portfolio in the banks and said it makes sense to do, you know, reductions in principal. So I just worry that our whole focus seems to be in those entities, preserving the corpus through foreclosure, which at the end of the day has a whole other destabilizing element in the marketplace.

Mr. BERNANKE. Senator, I would just like to agree with you on that. Foreclosure is very costly not only for the borrower and the lender but for the community and for the country. And what I was discussing was not whether foreclosure is a good thing. I was talking about what are the best ways to address the foreclosure issue.

Senator MENENDEZ. Thank you, Mr. Chairman.

Chairman JOHNSON. Senator Corker.

Senator CORKER. Thank you, Mr. Chairman. And thank you, Mr. Chairman, for being here. I know we alternate between the House and Senate going first. This is sort of a postgame interview, but we thank you for being here today.

I want to home in a little bit on the Volcker Rule since there has been a lot of testimony about the economy and quantitative easing and all those things related to how that affects prices and savers and all of that over the last day and a half.

Let me just ask you, with the Volcker Rule—and I think most of us are in a place where we are just trying to make it work now. We understand that it is passed. Why were Treasurys and mortgage-backed securities excluded from the Volcker Rule in the first place? It is quite odd that those would be the only two instruments that it did not apply to?

Mr. BERNANKE. Well, of course, Congress made that decision, and I assume it had to do with a desire to maintain the depth and liquidity of the Treasury market.

Senator CORKER. And so by that statement you just made, we have taken away the depth of liquidity in all other instruments, and thus we have had an outcry from foreign Governments and just middle American companies that realize they are not going to have the depth of liquidity. And I know you focus on economic issues. You are a renowned economist. Is that something that is good for our country to lose liquidity with those other instruments? Or would we be better off putting Treasurys and mortgage-backed securities on the same basis and maybe moving them into the Volcker arrangement?

Mr. BERNANKE. Well, there is certainly a tradeoff. There is going to be at least some marginal effect from Volcker on markets. In principle, there is a market-making exemption, as you know, and we are going to try and do our best to clarify the distinction between proprietary trading and market making.

Senator CORKER. And you think market making is a good thing for our country and by these regulated entities, by virtue of that statement. Is that correct?

Mr. BERNANKE. I do, and it is exempted from the Volcker Rule, but, of course, we have got to draw that line in a way that does not inhibit good market making.

Senator CORKER. Yes. You know, I have talked with some of the folks who are advocates for the Volcker Rule, and we have tried to come up with a one-sentence solution to allow appropriate market making to take place by the regulated entities. And some of the people, at least the people we have talked to, actually want to see the Volcker Rule used as a way to get to Glass-Steagall through the back door.

By virtue of what you have just said, I think you would believe that to be not a good thing for our country. Is that correct, or at least as it relates to market making?

Mr. BERNANKE. Well, I have not been an advocate of Glass-Steagall because I think if you look back at the crisis, the separation of commercial and investment banking was not particularly helpful. Investment banks obviously were a big source of the problem by themselves, separately.

Senator CORKER. Right.

Mr. BERNANKE. But, again, you know, as I was saying before, there are tradeoffs. The goal of the Volcker Rule is to reduce risk taking by institutions, and we are trying to do that in a way that will permit hedging and market making.

Senator CORKER. Well, when you have a rule that, you know, people describe like in many ways pornography—in other words, you know it when you see it. It is hard, I know, to make a rule. And would it be helpful if Congress clarified the fact that market making is not intended to be overturned by virtue of the Volcker Rule, that market making is a very valid and appropriate process for these regulated entities to be involved in? And do you think that might help—you know, you have had all these comments, you have got all these regulators that are trying to come to a conclusion, each with—being pushed, by the way, by various constituencies in Congress and outside. Would it be helpful to you if we clarified that we as a Congress do believe that market making should not be negatively impacted by the Volcker Rule.

Mr. BERNANKE. Well, Senator, of course, the Federal Reserve pushed for these exemptions, and I think the statute is clear that market making is exempt, and we want to do our best to make that operational.

I understand your intent, I hear your intent, that market making and hedging should be excluded from proprietary trading—or distinguished from proprietary trading.

Senator CORKER. So I think we are, generally speaking, on the same page as it relates to the Volcker Rule, and we do not want it to do damage to the depth of liquidity unnecessarily for lending activities in this country. Is that correct?

Mr. BERNANKE. That is correct.

Senator CORKER. And I think we are on the same page that it is probably a legitimate concern for other sovereign Governments, like Canada, like Japan, like other ones, to say, look, this is incredibly unfair for the largest economy in the world to place a tremendous bias on liquidity of Treasurys and mortgage-backed securities, unbelievably, but not our own sovereign debt. Would you agree that that is a little bit of a problem?

Mr. BERNANKE. Well, there is an issue. We are certainly in conversations with our partners there. Of course, there is one dif-

ference, which is that the primary markets for, say, Japanese debt are in Japan and, of course, therefore are not broadly affected by the Volcker Rule, except to the extent that U.S. banks are doing it.

Senator CORKER. Right.

Mr. BERNANKE. But, yes, I agree that we want to make sure that we are not doing unnecessary damage to those markets.

Senator CORKER. OK. Do you agree that the zero weighting that we place on sovereign debt, especially in this world and especially in light of the fact that we are our own worst enemy in this country and we still have not been able to, as Senator Crapo was alluding to, deal with our longer-term issues with the Basel rules that are in place? Should there be a zero risk weighting for Treasurys or any other kind of sovereign debt? We have seen some big risk out there.

Mr. BERNANKE. Well, none of those securities is completely riskless. That is true. We have in the case of non-U.S.—we have approached this in various ways. In the case of non-U.S. sovereign debt, as I mentioned before, the Europeans have asked the banks to write down the value of that debt so in some sense it is subtracted from capital one for one. And in the United States, we have been making banks—we are not just relying on the capital ratio. We are making banks do stress tests and look at their European holdings and their hedges and so on to make sure that they are safe and sound. So we are not ignoring that by any means.

In the case of U.S. Treasurys, our assumption is that the biggest source of risk is interest rate risk as opposed to default risk. Under a default, I think the whole Fiscal Commission would be in enormous trouble.

Senator CORKER. Right.

Mr. BERNANKE. But we do ask banks to stress test their interest rate risk, including their risk of holdings of Treasurys and municipalities and so on.

Senator CORKER. Mr. Chairman, I thank you, and I know you have received some criticism over the housing white paper, and I know we had a brief conversation about it, and I know you shared that those were not your ideas necessarily. I do hope that in your core area, since the Fed has been pretty active in giving advice in outside their core areas, I would love to see a white paper on the effect of the financial regulation that we just passed on our country. I do not know if that would be forthcoming, but I would just suggest, especially since it is in your core area, it would be very useful to us as we try to work through these details.

Thank you for your testimony, and thank you, Mr. Chairman.

Chairman JOHNSON. Senator Akaka.

Senator AKAKA. Thank you, Mr. Chairman.

Chairman Bernanke, this is a question which is a follow-up on your discussion with Chairman Johnson and Senator Crapo. In your testimony you note there has been some modestly encouraging data recently, including slightly better performance in the labor market, improved consumer sentiment, and some increases in manufacturing. But these signs of economic recovery are not necessarily reflected yet in the experiences of our workers and their families in the communities.

Putting aside a crash in the euro zone, what possible setbacks concern you the most with respect to risks and our economic recovery? For instance, could action to cut critical investments too quickly send the economy back into a slowdown?

Mr. BERNANKE. Well, let me just say first that one of the points that I talked about in my remarks was that there still is a little bit of a contradiction between the improvement in the labor market and the speed of the overall recovery in terms of growth. In particular, I mentioned that income had been flat for consumers in 2011. The revised data from yesterday actually says it was a little bit better than flat but still less than 1 percent, so you have still got consumption spending growing relatively weakly. You have got the fiscal issues that are hanging over our heads. So in order to make this a really sustainable, strong recovery, we need to have both declines in unemployment and strong growth in demand in production, and I think that is something we have to watch very carefully.

In terms of the risks to that, I do have to mention Europe because I think that is important. Another is the oil prices. We have seen a number of movements up and down in energy prices. To some extent, a little bit of the movement in commodity prices is essentially inevitable because if the economy is growing and the world economy is growing, the demand for commodities goes up, and that is going to create some tendency toward higher commodity prices. But when you have shocks to commodity prices arising from geopolitical events and the like, those are unambiguously negative and are bad for both households and for the broader economy.

Housing I think remains a very difficult area. We are hoping for price stabilization. We think once people have gotten a sense that the housing markets have stabilized, they will be much more willing to buy and that banks will be more willing to lend. But right now there is still uncertainty about where the housing market is going, which I think is troubling. And finally, I would mention fiscal policy, which both in the short term, in terms of the uncertainty about where fiscal policy is going to go over the next year, and in the long term, in terms of whether or not Congress and the administration will work together to have a sustainable fiscal path, I think both of those things are creating some uncertainty and concern that do pose some risks to the economy.

So there are a number of different things, but overall, of course, there has been some good news, and, of course, that is welcome.

Senator AKAKA. Thank you for that response.

Chairman Bernanke, as you know, I am most concerned with the well-being of consumers. In the current economic climate, consumers are confronted with difficult financial decisions, and this is the case in Hawaii where many homeowners face possible foreclosure, and the average credit card debt of a resident is the second highest in the country.

We know that by saving, individuals can help protect themselves during economic downturns and unforeseen life events. We also know that our slow economic recovery is partially due to low consumption or consumer spending.

My question to you relates to the intersection of these two factors. How can we continue our efforts to promote economic recovery

and at the same time encourage responsible consumer behavior and financial decision making?

Mr. BERNANKE. Well, that is a very good question. Part of the problem now is that the demand, the total demand in the economy is not adequate to fully utilize the resources of the economy, and that is why we talk about the need for greater consumer spending and greater investment and so on.

Of course, we want consumers to be responsible as well, and they have, in fact, raised their savings rates and have reduced their leverage, and all that is positive.

I think there are two answers to your question. One is that demand comes from places other than consumer spending. It can come from capital investment, for example; it can come from net exports. Those are some areas where unambiguously higher investment creates more capital and more potential growth in the future. Greater exports reduces our trade deficit, increases our foreign earnings, makes us more competitive internationally. So those are alternatives to consumer spending to provide growth.

But then there is also the bit of a paradox that consumer spending collectively, if it generates more activity, more hiring, more wage income, actually can in the end lead to sounder consumer finances than the alternative because if the economy is growing strongly and jobs are being created, income is being created, then consumers will actually be better off.

So confidence is really important. If people are confident about their job prospects and about their income prospects, it can be a self-fulfilling prophecy as they go out and they become more confident in their purchasing habits.

Of course, this all relates, as you have often mentioned, to financial literacy and the ability to make good decisions. We obviously want people to make decisions that are appropriate for their own needs, for their stage in the life cycle, for their family responsibilities, for their retirement, and all those things. And that remains an important goal even, you know, as we worry about trying to get the economy back to full employment.

Chairman JOHNSON. Senator DeMint.

Senator AKAKA. Thank you very much, Mr. Chairman.

Senator DEMINT. Thank you, Mr. Chairman.

Mr. Chairman, thank you for being here. You have mentioned several times the need for us to have a plan for a sustainable fiscal policy. Would a plan that balanced our Federal budget within a 10-year window be what you consider a reasonable transition toward good fiscal policy?

Mr. BERNANKE. I would go for—at a minimum I would aim for—in the next 10 to 15 years, I would aim for eliminating the so-called primary deficit, that is, everything except interest payments, because once you eliminate the primary deficit so that current spending and current revenues are equal, that means that the ratio of your debt to your GDP will stabilize. And then as you go beyond that, you start to bring the debt-to-GDP ratio down.

You mentioned 10 years. The other thing I would say, as I mentioned earlier, is, of course, that many of the things that are going to be problems are kicking in after 10 years, and so I hope Con-

gress will take, at least for planning purposes, a longer-term horizon than that.

Senator DEMINT. In my conversations with some of your Governors and some of the central bankers around the world, there seems to be a broad consensus that there is not the political will here, Europe, and many other places to actually get control of fiscal policy, and that much of our monetary policy here and around the world is really driven by trying to clean up the mess that policy makers make. And you may not want to comment on that, but quantitative easing, for instance, is dealing with the tremendous we have created as policy makers, and what we see in Europe happening today, again, dealing with debt but from a monetary policy rather than fiscal policy.

My concern now—and I know you meet with central bankers all over the world regularly, and as I see what appears to be a coordinated increase in money supplies here, Europe, and other places, it may not be formal coordination, I do not know. But there appears to be an effort to keep relative values of currencies the same as we increase our monetary supply, others are doing it. And I would just love to have some insight beyond just the individual policies here as to what degree you feel like you can be honest with us as the ones who primarily create the problems. Is it at least within the—is it true that a lot of monetary policy is now driven by irresponsible fiscal policy from policy makers? And is there an effort for central banks around the world to work together to deal with that?

Mr. BERNANKE. I would say no to both questions. Our monetary policy is aimed at our dual mandate, which is maximum employment and price stability. We are trying to set monetary policy at a setting that will help the economy recover in the context of price stability. I think it is interesting that other countries are following our basic approach. It is not because we have coordinated in any way. It is because they face similar situations—weak recoveries, low inflation, and the fact that interest rates are close to zero, and so some of these quantitative easing type policies are the main alternative once you have got interest rates close to zero.

So, no, this is not an attempt to cover up or clean up fiscal policy. On the other hand, I think the concerns that people express both about the United States and other countries about the political will and the ability of the political system to deliver better fiscal results over the long term, I think that is an issue that a lot of people are concerned about. I have noted on previous occasions that the reason S&P downgraded U.S. Treasurys last August was not because of the size of the debt but because they took the view that our political system was not adequately progressing on making long-term sustainable fiscal plans.

I hope we can prove them wrong. I think that this January 1st event where so many things, if left unchanged, will be happening that would be I think on net contractionary, I hope that will be sort of a trigger point to sort of force Congress to say, well, how are we going to solve this problem? And so, of course, I realize how difficult it is politically, but I encourage you to make every effort to help restore fiscal sustainability in the United States.

Senator DEMINT. Well, my concern is that I really do believe obviously we would not have $16 trillion in debt going on 25 or whatever the projections are if we had not been irresponsible as policy makers over many years. I am not blaming that on any President or party, but it is clearly a problem.

But as has been pointed out by the Wall Street Journal today and in other articles in financial magazines, the loose monetary policy is compounding the potential problems in the future. And I think as Senator Shelby talked about, the need for transparency, the need to understand where we are headed with this is pretty important to us as policy makers, first for you to be brutally honest, and maybe even more than you have been today, that we are on an unsustainable path. It hurts me to hear you say in 10 or 20 years we need to bring it under control when the analysis I have seen of worldwide available credit suggests that a 5-year window may be tough for us on our current pace as far as borrowing the money.

But we seem to have a compounding and growing problem and not a sense of urgency that one would expect given where we are from a political side and now a monetary system around the world that seems to be potentially making that much worse. I will just let you comment, and then I will yield back.

Mr. BERNANKE. Well, I would only say that I do not mean that no actions should be taken until 10 or 20 years. I mean that the plan needs to be a long-run plan because our problems are long-run problems, and that looking only at 2013 is not going to be helpful. We need to look at the whole horizon.

Chairman JOHNSON. Senator Bennet.

Senator BENNET. Thank you, Mr. Chairman. And thank you, Mr. Chairman, for being here today.

I wanted to focus my questions on the economy with you since you actually know what you are talking about. But before I do that, I wanted to go back to an answer that you made earlier on interest rates. You had said that you thought the risk of default was not a serious one— obviously, it would be catastrophic if it happened— but that the risk that you are worrying about is interest rate risk for our financial institutions and economy. Could you talk a little bit more about that, what would cause that interest rate risk and what the effects would be of a more normalized interest rate than the one we have today?

Mr. BERNANKE. Well——

Senator BENNET. Which is at a historic low, isn't it?

Mr. BERNANKE. Right. So both short-term and long-term interest rates are quite low. You know, our current expectation, as we have said in our statement, is that the short-run rate will stay low for a good bit more time. But eventually at some point, the economy will strengthen, inflation may begin to rise, and the Fed will have to begin to raise short-term interest rates. At the same time, stronger economic conditions here and globally will cause longer-term rates to begin to rise, and that is a good thing. That is a normal, healthy thing as the economy returns to normal. But, of course, depending on how your portfolio is structured, you could have the risk of losing money on holdings of bonds. And we just want to make sure that banks understand their risks and that they

are well protected and hedged against whatever course interest rates might take in the future. I mean, eventually they will begin to rise. We just do not know when.

Senator BENNET. Senator Akaka made the point earlier that we have seen some economic growth, but it has not yet hit home in many ways. I have a chart that is not useful for this because it is so small, but I will carve it in the air for you. The top line is GDP growth, and what we see is that our GDP is actually higher than it was before we went into this recession, which surprises a lot of people when they hear that our economic output is higher today than it was when the recession started. It has gone up since the early 1990s. Productivity has risen mightily over that same period of time because—think of our response to competition from abroad and the use of technology and then the recession itself, which drove the productivity index straight up because firms were trying to figure out how to get through with fewer people.

As you observed, median family income has actually fallen over the decade, and we are producing that economic output with 23 or 24 million people that are either unemployed or underemployed in this economy. So we are in a sense stuck with a gap of economic output and productivity here and wages and jobs here.

As a learned economist, can you help me think about the kinds of things that would begin to lift that median income curve in the right direction, that job curve in the right direction? And I would encourage you to think broadly about that so education and immigration and whatever it is you think will——

Mr. BERNANKE. Well, sure——

Senator BENNET. ——because that, unlike the political stuff we are all talking about in Washington that actually does not make any sense to people at home, that is the issue that they are confronting, is what I just described.

Mr. BERNANKE. Of course. Well, let us not belittle the impact of getting back to full employment. That would obviously be very helpful, and that is what the Fed is trying to do with our monetary policy.

But more generally, there are a couple of interesting things. One is that the profit share of GDP is unusually high, the share of income going to wage earners is lower than normal, and that is a bit of a puzzle. It may have to do with globalization, it may have to do with the fact that a lot of profits are earned overseas rather than domestically and so on. So that is one question.

But I think more generally, there is a whole raft of issues associated with globalization, including trade competition, including the fact that low-skilled workers are now effectively competing with low-skilled workers around the world, advent of new technologies provides a lot of benefits to people with greater education and greater training and creates discrepancies between them and people with less training and education.

So from that there are not a lot of good answers, but certainly the most basic thing is training and skills because those are highly rewarded in our society still, but the low-skilled workers are effectively competing with low-skilled workers globally, and it is very difficult for them to earn a high income.

Senator BENNET. I am out of time, Mr. Chairman. I realize that. I just would say that the worst the unemployment rate got for people in this recession with a college degree was 4.5 percent, and there is a lot, I think, that we can learn from that.

I will submit my other questions for the record. Thank you for being here today.

Mr. BERNANKE. Thank you.

Chairman JOHNSON. Senator Vitter.

Senator VITTER. Thank you, Mr. Chairman. And thank you, Mr. Chairman, for being here.

I am concerned about some of the negatives, which could clearly grow over time, about the zero interest rate policy. What would you consider the list of present or potential negatives? And how do you go about sort of monitoring those to always determine whether this continues to make sense in your mind?

Mr. BERNANKE. Well, a number of issues have been raised. One that is often raised is the return to savers—with low interest rates, that we not penalize savers. We are aware of that. We take that into account in our discussions. But as I mentioned yesterday, of total household wealth, something only less than 10 percent, according to the Survey of Consumer Finances, is in fixed income instruments like CDs or bonds and so on. Most household wealth is in other forms—equity, small business ownership, real estate, *et cetera*. And our efforts to strengthen the economy will increase the returns and value of those assets, and so on net our activities are raising household wealth overall even if they are reducing the interest rate you can receive on fixed income assets. And, of course, keeping inflation low also helps in that respect.

The second issue that we hear a lot about is pension and insurance that low interest rates increase the contributions that those companies have to make. Again, we have had many conversations with those folks about these issues. I would say that it is a serious issue and one that we look at. There, again, are countervailing factors. If you look, for example, at compensation to workers, which includes pension contributions, it remains quite low, like 2 percent a year growing. So these pension contributions are significant but not massive. And on the other side of the balance sheet, of course, pension funds and insurance companies have to invest in the economy. And, once again, a stronger economy produces higher returns in equity markets, real estate markets, and the like.

The third issue, which is very tricky, has to do with possibly creating financial bubbles of various kinds. People have different views about that. Our view is basically that the first line of defense against bubbles should be what is called macroprudential supervision. There should be supervisory approaches looking at what is happening in the system and making sure that financial institutions are as strong as possible through capital, for example, and we have greatly upgraded our ability to monitor the financial system since the crisis, and we are both trying to identify potential problems but also making sure the institutions are sufficiently strong that if there is a problem, they will be able to withstand it.

If those things do not seem to be working, then we are prepared, I think, to take that into account in monetary policy. But those are some issues, and we are aware of them.

Senator VITTER. One thing that might have been first on my list is commodity prices, a weak dollar pushing investment toward commodities, pushing up commodity prices. And, of course, now the most obvious example of that is gasoline prices.

Briefly, how would you analyze that? And when does that start becoming such a negative that you rethink this?

Mr. BERNANKE. So I think there are two ways in which low interest rate policies realistically would affect commodity prices. First would be through weakening the dollar, but the dollar has been pretty stable. It really has not moved much since, for example, November 2010 when we introduced QE2. The second is by creating growth both here and perhaps to some extent internationally. Higher growth increases demand for commodities. That raises prices. That is kind of inevitable. If you want to have a growing economy, that is going to put more pressure on oil prices and so on.

So those two things I think have not been a big problem. I think particularly if you look at commodities, the one commodity that has been particularly troublesome has been oil, and currently, I mean, it is quite obvious that there are a number of factors affecting the supply of oil, including concerns about Iran and supply issues in Africa and so on that are contributing to that increase.

Senator VITTER. Most of the quantitative easing announcements have more or less coincided with increases in oil prices. Are you saying that is largely a coincidence or not?

Mr. BERNANKE. No, it is not entirely a coincidence. First of all, if you look over longer periods, it is not quite as close a correlation as you might think. But I think part of the reason, again, that there is a coincidence is because to the extent that monetary policy is structured in a way to increase growth expectations, that feeds into commodity prices through the demand channel. So that is one link that I do agree exists.

Senator VITTER. And if I can just wrap up, Mr. Chairman, at what point, particularly with regard to oil, at what point would that factor driving up prices be a sufficient negative in terms of economic growth that you would pause in terms of this 2014 zero interest rate policy?

Mr. BERNANKE. Well, we will always keep looking at it, but our analysis suggests that the other benefits of low interest rates through a whole range of asset prices, through increased consumption and investment spending and so on, outweighs reasonable estimates of the effects of that on commodity prices in terms of growth. And, again, I think the reason we have seen these sharp movements has more to do with the international situation than with U.S. monetary policy. But, obviously, it is a negative and something we want to keep monitoring.

Senator VITTER. Thank you, Mr. Chairman.

Chairman JOHNSON. Chairman Bernanke, I would like to thank you for your testimony today. There is a vote going on which requires my attention, and I will turn over the gavel to Senator Schumer for a few last questions.

Senator SCHUMER [presiding]. Well, I would like to recognize Senator Schumer to ask 5 minutes of questions. Thank you, Mr. Chairman.

The first question is about the highway bill, the surface transportation bill that is on the floor. It will, according to its sponsors, create or save 2 million jobs, has broad bipartisan support. APTA, the Public Transportation Association, estimates that every $1 billion of Federal investments in highways creates 36,000 jobs.

What impact would passing long-term transportation reauthorization legislation have on the pace of economic growth?

Mr. BERNANKE. I do not know enough about the details of that bill to give you any kind of estimate. I just would like to make one observation, which is the jobs part is important. That is part of helping the recovery. But I think when you think about long-term infrastructure investments, you also want to think about whether these are good investments in terms of the returns.

President Eisenhower's investment, as you know, in the interstate system produced tremendous dividends in terms of reduced transportation costs and integration of our economy. So I would urge you—and I know you are doing this—as you approve projects that you take very seriously that you want to do the ones that are going to be more productive.

Senator SCHUMER. That goes to the quality of the project, but at this point in time, that kind of stimulus in a sense would serve the economy well and would be needed.

Mr. BERNANKE. Well, there are different ways to provide stimulus——

Senator SCHUMER. Assume it would be spent decently well.

Mr. BERNANKE. Well, Senator, you know, there are different ways to provide stimulus. Infrastructure, if it is well designed and has a good return, I think is often a good approach. But you understand that I do not want to——

Senator SCHUMER. Endorse a specific bill.

Mr. BERNANKE. ——endorse a specific bill.

Senator SCHUMER. No, I did not ask you that because you made the caveat it may not have good projects. But I am just making the point that at this time when you have said the economy is moving forward but at a slow pace, taking away infrastructure money might hurt the economy, adding infrastructure money would certainly help the economy. And, of course, you want to do it as well as possible so there are other long-term benefits. Is that a fair recapitulation?

Mr. BERNANKE. Yes, although, again——

Senator SCHUMER. Say no more.

Mr. BERNANKE. ——there are various alternatives.

Senator SCHUMER. OK. Yes, but those alternatives are not—this is a yes-or-no situation for us now. Money market funds. We all remember the dark days of the fall of 2008, the panic that ensued when a large money market fund broke the buck and there was a run on the funds. The SEC instituted some reforms, as you know, in 2010 to address the problems that led to the run in 2008.

However, Chairman Schapiro and FSOC, you remember, have made it clear they believe more should be done, so in their recent reports they have discussed a few options—this was in the newspaper—including a requirement that would lock up a portion of investors' money and a proposal to require funds to abandon the stable $1-a-share net asset value. The proposals have the potential to

fundamentally change the nature of the product. Some would say it would drive it out of existence. We would not have money market funds. Obviously, they play an important role in short-term financing of many different types of businesses.

What are the risks to the economy and financial system if we were to fundamentally alter the nature of the money market funds? What do you think of the two different proposals made to strengthen them? I am particularly interested—I have heard that if investors have to keep 3 percent or a certain percentage aside, you know, and cannot pull it out right away, it is not worth an investment to them anymore—it is not worth investing in a money market fund to them anymore.

Mr. BERNANKE. Well, first, as you pointed out, the SEC has already done some constructive things in terms of, for example, improving liquidity requirements. I think, though, the Federal Reserve in general and I personally would have to agree that there are still some risks in the money market mutual funds. In particular, they still could be subject to runs, and one of the implications of Dodd-Frank is that some of the tools that we used in 2008 to arrest the run on the funds are no longer available. As you know, the Treasury can no longer provide the *ad hoc* insurance it provided. The Fed's ability to lend to money market mutual funds is greatly restricted because of the fact that we would have to take a hair cut on their assets, and that is not going to work with their economics.

So we support the SEC's attempts to look at alternatives, and you mentioned some different things, but I believe their idea is to put out a number of alternative strategies. One would be to go away from the fixed net asset value approach. I think that the industry will reject that pretty categorically, and so then the question is what else could be done.

One approach would be essentially to create some more capital. They have very limited capital at this point, and there might be ways maybe over time to build up the capital base. So that is one possible approach. And then either complementing that or as a separate approach would be something that involved not allowing the investors to draw out 100 percent immediately.

Senator SCHUMER. Right.

Mr. BERNANKE. If you think about that, what that really does is that it makes it unattractive to be the first person to be to withdraw your money and, therefore, it reduces the risk of runs considerably. It also has an investor protection benefit, which is that if you are "a slow investor" and you are not monitoring the situation moment by moment and so you are the last guy to take your money out, you are still protected because there is this 3 percent, or whatever——

Senator SCHUMER. But I have heard from some investors and from some funds that, given the low margin that money market funds pay, it would just end the business more or less. Or certainly I have heard from investors that they would not put money in if they knew they had to keep 2 or 3 percent in there. Does that worry you?

Mr. BERNANKE. Well, it is certainly a difficult time because interest rates are very low and, therefore, their attractiveness is less.

I do not know. I think you would have to have some kind of discussion here because part of the reason that investors invest in money market mutual funds is because they think they are absolutely 100 percent safe and there is no way to lose money. And that is not true.

Senator SCHUMER. We learned that the hard way.

Mr. BERNANKE. If that is not true, then we have to make sure that investors are aware and that we take whatever actions are necessary to protect their investment.

Senator SCHUMER. Do you think money market funds play a useful role, though, in the economy and we should try to keep them going?

Mr. BERNANKE. Well, generally speaking, they do, and they are a useful source of short-run money. And, again, please do not overread this, but Europe does not have any, and they have a financial system—there are different ways of structuring——

Senator SCHUMER. And they are in great shape.

Mr. BERNANKE. They are in great shape, yes. There are many ways to structure your financial system, but, again, I envision that money market mutual funds will be part of the future of the U.S. financial system.

Senator SCHUMER. Thank you, Mr. Chairman. I appreciate it.

Senator REED [presiding]. There are no more questions. Thank you, Mr. Chairman. On behalf of the Chairman, unless I am instructed otherwise, I will adjourn the hearing.

Mr. BERNANKE. Thank you.

[Whereupon, at 11:45 a.m., the hearing was adjourned.]

[Prepared statements, responses to written questions, and additional material supplied for the record follow:]

PREPARED STATEMENT OF CHAIRMAN TIM JOHNSON

Today I welcome Chairman Bernanke back to this Committee to deliver the Federal Reserve's Semiannual Monetary Report to Congress.

There are reasons to be optimistic about our Nation's economic recovery. The U.S. economy has expanded for 10 straight quarters, and private sector employment has increased for 23 straight months. Private employers added 2.1 million jobs last year, the most since 2005.

But there are also reasons to be concerned, such as the European debt crisis and the continuing drag of the housing market on the broader economy. This Committee has paid close attention to these two issues and held numerous hearings. While I remain hopeful that we are moving in the right direction, we must continue to monitor the situation in Europe closely. On housing, there is a variety of policy proposals—some that do not require an act of Congress—that should be considered to improve the housing market. I want to thank Governor Duke for her thoughtful testimony on Tuesday before this Committee on the Federal Reserve's white paper on options to improve the housing market.

An additional challenge, the sharp increase in oil prices, has the potential to impede the economic recovery. Americans continue to grapple with higher fuel costs when they fill up their cars or heat their homes. It is important that oil markets are closely monitored for signs of manipulation or supply disruption, and I look forward to hearing the Fed's views on how rising oil prices may affect consumer spending and economic growth.

I appreciate all the Fed has done to ensure continued economic recovery. Chairman Bernanke, I look forward to hearing more from you on the Fed's recent actions and possible future actions to protect our economy.

Congress also has an important role in making sure the economy continues to grow, and more Americans continue to find the jobs they need. This week, the full Senate continues to consider the Transportation bill. This bill includes the bipartisan effort of this Committee to update our Nation's public transit infrastructure and create jobs. I am also hopeful that the Senate can find consensus on capital formation initiatives, the topic of another hearing next week before this Committee, to promote job creation while protecting investors.

With so many Americans in search of work, it is not too late for bipartisan action to create jobs and promote sustainable growth. I look forward to your views, Chairman Bernanke, on these and other steps Congress can take to improve our Nation's economy.

PREPARED STATEMENT OF BEN S. BERNANKE

CHAIRMAN, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

MARCH 1, 2012

Chairman Johnson, Ranking Member Shelby, and other Members of the Committee, I am pleased to present the Federal Reserve's semiannual *Monetary Policy Report to the Congress.* I will begin with a discussion of current economic conditions and the outlook and then turn to monetary policy.

The Economic Outlook

The recovery of the U.S. economy continues, but the pace of expansion has been uneven and modest by historical standards. After minimal gains in the first half of last year, real gross domestic product (GDP) increased at a 2¼ percent annual rate in the second half.[1] The limited information available for 2012 is consistent with growth proceeding, in coming quarters, at a pace close to or somewhat above the pace that was registered during the second half of last year.

We have seen some positive developments in the labor market. Private payroll employment has increased by 165,000 jobs per month on average since the middle of last year, and nearly 260,000 new private-sector jobs were added in January. The job gains in recent months have been relatively widespread across industries. In the public sector, by contrast, layoffs by State and local governments have continued. The unemployment rate hovered around 9 percent for much of last year but has moved down appreciably since September, reaching 8.3 percent in January. New claims for unemployment insurance benefits have also moderated.

[1] Data for the fourth quarter of 2011 from the national income and product accounts reflect the advance estimate released on January 27, 2012.

The decline in the unemployment rate over the past year has been somewhat more rapid than might have been expected, given that the economy appears to have been growing during that time frame at or below its longer-term trend; continued improvement in the job market is likely to require stronger growth in final demand and production. Notwithstanding the better recent data, the job market remains far from normal: The unemployment rate remains elevated, long-term unemployment is still near record levels, and the number of persons working part time for economic reasons is very high.[2]

Household spending advanced moderately in the second half of last year, boosted by a fourth-quarter surge in motor vehicle purchases that was facilitated by an easing of constraints on supply related to the earthquake in Japan. However, the fundamentals that support spending continue to be weak: Real household income and wealth were flat in 2011, and access to credit remained restricted for many potential borrowers. Consumer sentiment, which dropped sharply last summer, has since rebounded but remains relatively low.

In the housing sector, affordability has increased dramatically as a result of the decline in house prices and historically low interest rates on conventional mortgages. Unfortunately, many potential buyers lack the down payment and credit history required to qualify for loans; others are reluctant to buy a house now because of concerns about their income, employment prospects, and the future path of home prices. On the supply side of the market, about 30 percent of recent home sales have consisted of foreclosed or distressed properties, and home vacancy rates remain high, putting downward pressure on house prices. More-positive signs include a pickup in construction in the multifamily sector and recent increases in homebuilder sentiment.

Manufacturing production has increased 15 percent since the trough of the recession and has posted solid gains since the middle of last year, supported by the recovery in motor vehicle supply chains and ongoing increases in business investment and exports. Real business spending for equipment and software rose at an annual rate of about 12 percent over the second half of 2011, a bit faster than in the first half of the year. But real export growth, while remaining solid, slowed somewhat over the same period as foreign economic activity decelerated, particularly in Europe.

The members of the Board and the presidents of the Federal Reserve Banks recently projected that economic activity in 2012 will expand at or somewhat above the pace registered in the second half of last year. Specifically, their projections for growth in real GDP this year, provided in conjunction with the January meeting of the Federal Open Market Committee (FOMC), have a central tendency of 2.2 to 2.7 percent.[3] These forecasts were considerably lower than the projections they made last June.[4] A number of factors have played a role in this reassessment. First, the annual revisions to the national income and product accounts released last summer indicated that the recovery had been somewhat slower than previously estimated. In addition, fiscal and financial strains in Europe have weighed on financial conditions and global economic growth, and problems in U.S. housing and mortgage markets have continued to hold down not only construction and related industries, but also household wealth and confidence. Looking beyond 2012, FOMC participants expect that economic activity will pick up gradually as these headwinds fade, supported by a continuation of the highly accommodative stance for monetary policy.

With output growth in 2012 projected to remain close to its longer-run trend, participants did not anticipate further substantial declines in the unemployment rate over the course of this year. Looking beyond this year, FOMC participants expect the unemployment rate to continue to edge down only slowly toward levels consistent with the Committee's statutory mandate. In light of the somewhat different signals received recently from the labor market than from indicators of final demand and production, however, it will be especially important to evaluate incoming information to assess the underlying pace of economic recovery.

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[2] In January, 5½ million persons among those counted as unemployed—about 43 percent of the total—had been out of work for more than 6 months, and 8¼ million persons were working part time for economic reasons.

[3] *See,* table 1, "Economic Projections of Federal Reserve Board Members and Federal Reserve Bank Presidents, January 2012", of the Summary of Economic Projections available at Board of Governors of the Federal Reserve System (2012), "Federal Reserve Board and Federal Open Market Committee Release Economic Projections From the January 24–25 FOMC Meeting", press release, January 25, *www.federalreserve.gov/newsevents/press/monetary/20120125b.htm;* also available in Part 4 of the February 2012 Monetary Policy Report to the Congress.

[4] Ben S. Bernanke (2011), "Semiannual Monetary Policy Report to the Congress", statement before the Committee on Financial Services, U.S. House of Representatives, July 13, *www.federalreserve.gov/newsevents/testimony/bernanke20110713a.htm*.

At our January meeting, participants agreed that strains in global financial markets posed significant downside risks to the economic outlook. Investors' concerns about fiscal deficits and the levels of Government debt in a number of European countries have led to substantial increases in sovereign borrowing costs, stresses in the European banking system, and associated reductions in the availability of credit and economic activity in the euro area. To help prevent strains in Europe from spilling over to the U.S. economy, the Federal Reserve in November agreed to extend and to modify the terms of its swap lines with other major central banks, and it continues to monitor the European exposures of U.S. financial institutions.

A number of constructive policy actions have been taken of late in Europe, including the European Central Bank's program to extend 3-year collateralized loans to European financial institutions. Most recently, European policy makers agreed on a new package of measures for Greece, which combines additional official-sector loans with a sizable reduction of Greek debt held by the private sector. However, critical fiscal and financial challenges remain for the euro zone, the resolution of which will require concerted action on the part of European authorities. Further steps will also be required to boost growth and competitiveness in a number of countries. We are in frequent contact with our counterparts in Europe and will continue to follow the situation closely.

As I discussed in my July testimony, inflation picked up during the early part of 2011.[5] A surge in the prices of oil and other commodities, along with supply disruptions associated with the disaster in Japan that put upward pressure on motor vehicle prices, pushed overall inflation to an annual rate of more than 3 percent over the first half of last year.[6] As we had expected, however, these factors proved transitory, and inflation moderated to an annual rate of 1½ percent during the second half of the year—close to its average pace in the preceding 2 years. In the projections made in January, the Committee anticipated that, over coming quarters, inflation will run at or below the 2 percent level we judge most consistent with our statutory mandate. Specifically, the central tendency of participants' forecasts for inflation in 2012 ranged from 1.4 to 1.8 percent, about unchanged from the projections made last June.[7] Looking farther ahead, participants expected the subdued level of inflation to persist beyond this year. Since these projections were made, gasoline prices have moved up, primarily reflecting higher global oil prices—a development that is likely to push up inflation temporarily while reducing consumers' purchasing power. We will continue to monitor energy markets carefully. Longer-term inflation expectations, as measured by surveys and financial market indicators, appear consistent with the view that inflation will remain subdued.

Monetary Policy

Against this backdrop of restrained growth, persistent downside risks to the outlook for real activity, and moderating inflation, the Committee took several steps to provide additional monetary accommodation during the second half of 2011 and early 2012. These steps included changes to the forward rate guidance included in the Committee's postmeeting statements and adjustments to the Federal Reserve's holdings of Treasury and agency securities.

The target range for the Federal funds rate remains at 0 to ¼ percent, and the forward guidance language in the FOMC policy statement provides an indication of how long the Committee expects that target range to be appropriate. In August, the Committee clarified the forward guidance language, noting that economic conditions—including low rates of resource utilization and a subdued outlook for inflation over the medium run—were likely to warrant exceptionally low levels for the Federal funds rate at least through the middle of 2013. By providing a longer time horizon than had previously been expected by the public, the statement tended to put downward pressure on longer-term interest rates. At the January 2012 FOMC meeting, the Committee amended the forward guidance further, extending the horizon over which it expects economic conditions to warrant exceptionally low levels of the Federal funds rate to at least through late 2014.

In addition to the adjustments made to the forward guidance, the Committee modified its policies regarding the Federal Reserve's holdings of securities. In September, the Committee put in place a maturity extension program that combines purchases of longer-term Treasury securities with sales of shorter-term Treasury securities. The objective of this program is to lengthen the average maturity of our securities holdings without generating a significant change in the size of our balance

[5] Bernanke, "Semiannual Monetary Policy Report to the Congress" (*see,* n. 4).
[6] Inflation is measured using the price index for personal consumption expenditures.
[7] *See,* table 1 available at Board of Governors, "Federal Reserve Board and Federal Open Market Committee Release Economic Projections" (*see,* n. 3).

sheet. Removing longer-term securities from the market should put downward pressure on longer-term interest rates and help make financial market conditions more supportive of economic growth than they otherwise would have been. To help support conditions in mortgage markets, the Committee also decided at its September meeting to reinvest principal received from its holdings of agency debt and agency mortgage-backed securities (MBS) in agency MBS, rather than continuing to reinvest those proceeds in longer-term Treasury securities as had been the practice since August 2010. The Committee reviews the size and composition of its securities holdings regularly and is prepared to adjust those holdings as appropriate to promote a stronger economic recovery in the context of price stability.

Before concluding, I would like to say a few words about the statement of longer-run goals and policy strategy that the FOMC issued at the conclusion of its January meeting. The statement reaffirms our commitment to our statutory objectives, given to us by the Congress, of price stability and maximum employment. Its purpose is to provide additional transparency and increase the effectiveness of monetary policy. The statement does not imply a change in how the Committee conducts policy.

Transparency is enhanced by providing greater specificity about our objectives. Because the inflation rate over the longer run is determined primarily by monetary policy, it is feasible and appropriate for the Committee to set a numerical goal for that key variable. The FOMC judges that an inflation rate of 2 percent, as measured by the annual change in the price index for personal consumption expenditures, is most consistent over the longer run with its statutory mandate. While maximum employment stands on an equal footing with price stability as an objective of monetary policy, the maximum level of employment in an economy is largely determined by nonmonetary factors that affect the structure and dynamics of the labor market; it is therefore not feasible for any central bank to specify a fixed goal for the longer-run level of employment. However, the Committee can estimate the level of maximum employment and use that estimate to inform policy decisions. In our most recent projections in January, for example, FOMC participants' estimates of the longer-run, normal rate of unemployment had a central tendency of 5.2 to 6.0 percent.[8] As I noted a moment ago, the level of maximum employment in an economy is subject to change; for instance, it can be affected by shifts in the structure of the economy and by a range of economic policies. If at some stage the Committee estimated that the maximum level of employment had increased, for example, we would adjust monetary policy accordingly.

The dual objectives of price stability and maximum employment are generally complementary. Indeed, at present, with the unemployment rate elevated and the inflation outlook subdued, the Committee judges that sustaining a highly accommodative stance for monetary policy is consistent with promoting both objectives. However, in cases where these objectives are not complementary, the Committee follows a balanced approach in promoting them, taking into account the magnitudes of the deviations of inflation and employment from levels judged to be consistent with the dual mandate, as well as the potentially different time horizons over which employment and inflation are projected to return to such levels.

Thank you. I would be pleased to take your questions.

[8] *See,* table 1 available at Board of Governors, "Federal Reserve Board and Federal Open Market Committee Release Economic Projections" (*see,* n. 3).

RESPONSES TO WRITTEN QUESTIONS OF CHAIRMAN JOHNSON FROM BEN S. BERNANKE

Q.1. Before the House Financial Services Committee on February 29th, in a response to Representative Velazquez, you said that "There are some reasons why lending has fallen, which no doubt will improve over time. But I think it's still the case that we're a little bit too far on this side of the—the pendulum has swung a little bit too far." To strengthen the economic recovery, I think it is important to find the right balance between safe and sound lending and making loans to credit worthy borrowers. What steps has the Fed taken to ensure the pendulum is swinging in the right direction? Is there anything else the Fed can do?

A.1. A critically important step taken by the Federal Reserve to support the economic recovery and improve the pace of lending has been to ease the stance of monetary policy. The easing has taken three main forms: First, we aggressively reduced the interest rate that we traditionally have relied on as our main policy tool. Since late 2008, that rate—known as the Federal funds rate—has been essentially at its zero lower bound. Second, we have provided participants in financial markets much greater clarity about where we see the Federal funds going in the future. In the statement released after its September meeting, the Federal Open Market Committee stated that "exceptionally low levels for the Federal funds rate are likely to be warranted at least through mid-2015." Third, we have purchased longer-term Treasury and agency securities, with the goal of bringing down longer-term interest rates and improving conditions in markets in which many households and businesses borrow, including mortgage markets. In our judgment, these steps have caused financial and economic conditions to be much better than they otherwise would have been.

The Federal Reserve has also taken several actions using its supervisory authority to promote lending to creditworthy households and businesses:

- In conjunction with other Federal banking regulators, we issued interagency policy statements to reinforce our position that, while maintaining appropriately prudent standards, lenders should do all they can to meet the legitimate needs of creditworthy borrowers (Interagency Statement on Meeting the Needs of Creditworthy Borrowers, November 12, 2008; Interagency Statement on Meeting the Credit Needs of Creditworthy Small Business Borrowers, February 5, 2010). We also issued guidance that encourages banks to work constructively with borrowers experiencing financial distress and provides specific examples of ways in which banks can prudently restructure commercial real estate transactions to the benefit of both banks and their borrowers (Supervision and Regulation Letter 09-4, "Prudent Commercial Real Estate Loan Workouts," October 30, 2009).
- To support these statements, we have held training sessions for lenders in order to promote awareness about both the credit environment and available lending guidance and resources (Addressing the Financing Needs of Small Businesses, July 12, 2010). And we have continued to train bank examiners to use

a balanced approach to reviewing banks' credit policies and practices with respect to lending.

- Along with the other Federal banking agencies, the Federal Reserve assisted the Treasury Department in implementing its Small Business Lending Fund program (SBLF), which was established by the Small Business Jobs Act of 2010. The SBLF is intended to facilitate new lending to creditworthy small business borrowers by providing affordable capital support to community banks.
- We have also looked into specific concerns raised about the examination process and its effect on banks' willingness to lend. For example, during 2011, we reviewed commercial real estate loan classification practices to assess whether examiners were properly implementing the interagency policy statement on workouts of commercial real estate loans. We analyzed documentation for more than 300 loans with identified weaknesses in six Federal Reserve Districts. We found that Federal Reserve examiners were appropriately implementing the guidance and were consistently taking a balanced approach in determining loan classifications. Moreover, the documentation we reviewed indicated that examiners were carefully considering the full range of information provided by bankers, including relevant mitigating factors, in determining the regulatory treatment for the loans. More recently, we investigated reports from some banks that examiners were inappropriately criticizing performing commercial loans. We found no evidence that Federal Reserve examiners were deviating from well-established supervisory practices and rules for classifying commercial loans.
- During 2012, we issued guidance to examiners stressing the importance of promptly upgrading a bank's supervisory rating when warranted by a sustainable improvement in its condition and risk management (Supervision and Regulation Letter 12-4, "Upgrades of Supervisory Ratings for Banking Organizations with $10 Billion or Less in Total Assets," March 1, 2012); Some analysis has indicated that, all else being equal, banks with lower supervisory ratings tend to lend less; prompt upgrades by supervisors when such upgrades are appropriate may thus ease an unnecessary constraint on lending.

The Federal Reserve continues to evaluate options to improve credit conditions and is committed to taking additional steps as needed to facilitate a balanced lending climate that ensures access to loans for credit worthy borrowers.

Q.2. I have heard some concerns about the liquidity coverage ratios promulgated under the Basel III Committee and specifically the exclusion of agency debt from Level 1 assets. Some suggest that this might encourage U.S. financial institutions to bulk-up on Treasuries and cash. Also, there are concerns that small financial institutions will have to hold and buy Treasuries at much higher levels than they currently do, further impacting their ability to lend. What do you think about these concerns? And would this exclusion put U.S. institutions at a disadvantage to their European counterparts?

A.2. The Board, in conjunction with the other U.S. Federal banking agencies, anticipates undertaking a domestic rulemaking in the United States based on the international liquidity standards established by the Basel Committee on Banking Supervision (BCBS) in 2010 (Basel III liquidity framework). The Basel III liquidity framework, like BCBS capital standards, applies to "internationally active" institutions. In the U.S., these are banking organizations with $250 billion or more in consolidated assets or $10 billion or more in foreign exposure. The Board has not determined that it is appropriate to apply the Basel III liquidity framework to community banking organizations.

The Board, along with the other U.S. Federal banking agencies, carefully considers the appropriate scope of application when implementing any Basel standard or other prudential standard in the United States, including the impact of such standard on institutions of various sizes and complexity. In addition, the particular characteristics of U.S. markets and the U.S. banking system and the impact of new prudential standards on relevant markets, including competitive factors, are important concerns the Board takes into account when developing a rulemaking. In this respect, the Board would carefully consider the appropriate categorization of assets when implementing the Basel III liquidity framework.

Any proposal the Board puts forth to implement the Basel III liquidity standards would be subject to a notice and comment process. We will carefully consider your comments and any others we receive regarding these proposals.

Q.3. As regulators implement the Wall Street Reform Act—which I believe is critical to returning our economy to sustainable growth—I've heard a wide range of concerns about the proposed Volcker Rule. Specifically, once the rule is finalized, which agency will take the lead to interpret, supervise, and ultimately enforce the final rule?

A.3. Section 619(b)(2) of the Dodd-Frank Act itself divides authority for developing and adopting regulations to implement its prohibitions and restrictions between the Federal Reserve, the OCC, FDIC, SEC, and CFTC based on the type of entities for which each agency is explicitly charged or is the primary financial regulatory agency. The statute also requires these agencies, in developing and issuing implementing rules, to consult and coordinate with each other for the purposes of assuring that such rules are comparable and to provide for consistent application and implementation. Under the statutory framework, the CFTC is the primary Federal regulatory agency with respect to a swap dealer and the SEC is the primary financial regulatory agency with respect to a security-based swap dealer; the Federal Reserve is explicitly charged with issuing regulations with respect to companies that control an insured depository institution, including bank holding companies. The OCC, Federal Reserve, and FDIC must jointly issue rules to implement section 619 with respect to insured depository institutions.

To enhance uniformity in both rules that implement section 619 and administration of the requirements of section 619, the Federal Reserve, OCC, FDIC, SEC, and CFTC have been regularly con-

sulting with each other in the development of rules and policies that implement section 619. The rule proposed by the agencies to implement section 619 contemplates that firms will develop and adopt a single, enterprise-wide compliance program and that the agencies would strive for uniform enforcement of section 619.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR MENENDEZ FROM BEN S. BERNANKE

Q.1. There has been some speculation in the press about the Federal Reserve and OCC's thoughts on whether borrowers should be required to waive their legal rights as a condition of compensation under the foreclosure review being conducted under the consent orders.

Does the Federal Reserve agree that homeowners should not be required to waive their legal rights in order to receive relief under the consent order process? Does the OCC agree with you on this issue?

A.1. The Board and OCC publicly stated their position on waivers in guidance issued by the agencies on June 21, 2012. In that guidance, the agencies stated that servicers may not ask borrowers to release any claims in order to receive remediation payments under the consent orders issued by the agencies. The guidance can be found on the Board's Web site at *http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20 120621b1.pdf*, item 34.

Q.2. During the past year or so, while the private sector has added about 2 million jobs, state and local governments continue to shed jobs. One estimate says that there have been 500,000 public sector job losses since the start of the recession.

First, Chairman Bernanke, are you concerned about the level of public sector job losses, and can you comment on their effect on our economic recovery? Do you see a continued loss of public sector jobs to be a downside risk in our economic recovery?

From the Federal fiscal policy perspective, is there anything Congress can be doing to mitigate against these public sector job losses?

A.2. The recent recession and the relatively sluggish pace of the subsequent recovery have placed significant fiscal strains on state and local governments. State and local tax revenues declined in the wake of the recession, and revenue gains since then have been relatively moderate, reflecting the slow recovery. As a result, state and local government spending has been under intense pressure. In particular, State and local governments have reduced the number of their employees by about 500,000 since the beginning of the recession, which represents 2½ percent of their workforce. (By comparison, private-sector employment remains around 4 million- or 3¾ percent-below its level at the start of the recession, even though there have been private job gains since early 2010.) The decline in state and local employment has contributed importantly to the overall contraction in purchases of goods and services by these governments over the past 2½ years, which has been a notable headwind for the economy as a whole. For example, the decline in inflation-adjusted state and local purchases subtracted ¼ percent-

age point, on average, from the rate of real GDP growth over the past four quarters. As the pace of the economic recovery picks up and state and local finances continue to improve, net hiring by these governments is anticipated to eventually turn positive.

The most helpful thing that the Congress could do to improve the fiscal conditions of State and local governments would be to help ensure that the economic recovery becomes stronger. As I have stated on many occasions, the primary task for Federal fiscal policymakers should be to put in place a credible medium-term budget plan that would put fiscal policy on a sustainable trajectory while also avoiding undue risk to the pace of the recovery in the near term. Doing so earlier rather than later would assist the current recovery by reducing uncertainty, holding down long-term interest rates, and maintaining the U.S. government's credibility in financial markets.

Q.3. Since your last testimony on the economy, oil prices have spiked, rising about 15 percent.

I'm curious to probe what you think the causes are of this increase in oil prices. To what extent are the price increases due to tensions with Iran or instability in Europe? And to what extent are prices rising simply because people hope that the economy is recovering, and therefore oil demand might increase? Finally, to what extent do speculators continue to drive up the price of oil?

Does the increase in oil prices at all change the Fed's view that inflation will remain at or below your 2 percent goal over the medium term?

A.3. Oil prices have been volatile since the beginning of the year with the spot price of Brent crude oil, a widely regarded benchmark for global oil prices, exhibiting a long swing up over the first 3 months of the year only to fall back sharply moving into the early summer. In recent weeks, oil prices have turned up once again and have recently returned to a level close to that which prevailed late last year. Along with other developments, we think that both geopolitical risk and uncertainty regarding the prospects for global growth—owing, in part, to developments in Europe—likely played a significant role in shaping oil price dynamics over this period.

The Brent spot price averaged just under $110 per barrel in December of last year, supported by the loss of a significant amount of production due to the civil war in Libya. Rising geopolitical tensions stemming from the announcement of a new round of sanctions on Iran pushed oil prices steadily higher over the first three months of this year, with the spot price of Brent rising to an average of just under $125 per barrel in March. However, beginning in late March the intensification of the European debt crisis as well as data pointing to a slowdown in growth in both China and the United States began to raise concerns regarding the strength of global growth. Moreover, geopolitical tensions eased owing to increased diplomacy with Iran, while near-record high production from Saudi Arabia helped to assuage concerns regarding the ability of producers to offset any Iranian production lost as a result of the sanctions. Spot Brent prices subsequently declined over the next 3 months to touch just over $95 per barrel in June. Tensions with Iran have ratcheted up in recent weeks, and the geopolitical risk

premium appears to have pushed spot Brent prices back up to the $110 per barrel range that prevailed late last year.

There is little compelling evidence to support the claim that speculators were a significant factor in driving up the oil price early this year. If speculation drove oil prices well above levels consistent with physical supply and demand, then we would have expected inventories to rise as high prices both encouraged additional production and, at the same time, discouraged consumption. In fact, available measures of crude oil inventories were low relative to historic norms earlier this year and remained at relatively low levels until only recently. This was particularly true in both Europe and Asia, where crude oil inventories only slowly recovered from the loss of Libyan oil production last summer. In contrast, crude oil inventories have been elevated in the United States, particularly in Cushing Oklahoma, the delivery point for the benchmark West Texas Intermediate (WTI) contract. However, rather than speculation the buildup of inventories at Cushing likely reflects a rapid increase in crude oil supply in the Midwest, particularly from North Dakota, and the lack of sufficient infrastructure to integrate the region with the GUlf Coast and global markets. A consequence of the increase in inventories in the Midwest has been the emergence of a large price discount for WTI relative to similar grades of crude oil.

The recent run up in oil prices is likely to be largely temporary. This view is supported by the oil futures curves, which are currently downward sloping, suggesting that financial market participants expect oil prices to decline. To the degree that an increase in oil prices is temporary in nature, it has a muted impact on underlying core inflation. As such, despite the run up in oil prices, our view that inflation will remain at or below 2 percent over the medium term is not materially altered. That said, going forward we will continue to closely monitor developments in commodity markets and the Fed stands ready to act if broader inflationary pressures materialize.

Q.4. Last September you called the unemployment situation a "national crisis," noting in particular the plight of the long-term unemployed. You said "This has never happened in the post-war period in the United States. They [the long-term unemployed] are losing the skills they had, they are losing their connections, their attachment to the labor force."

In light of recent studies that show America falling behind in our commitment to providing workers the opportunities to train for skills needed in the 21st century economy, can you comment on your view of the magnitude of this challenge for the long-term unemployed?

Do you believe that business focused training, that is partnerships between businesses and colleges where unemployed and underemployed are provided the opportunity to train in the skills needed by employers in the region, can be an effective way to meet this challenge both for our current recovery and America's long-term competitiveness?

A.4. Long-term unemployment presents a serious challenge. Unemployment creates enormous financial hardship for families, and

workers who lose their jobs and remain unemployed for some time often experience sharp declines in earnings that may last for many years, even after they find new work. There is evidence that unemployment takes a toll on people's health as well. And unemployment strains public finances because of both lost tax revenue and the payment of unemployment benefits and other types of income support. The high rates of unemployment and long-term unemployment, and the prospect that these could remain elevated for some time, are important reasons why the Federal Reserve has pursued a highly accommodative monetary policy over the past several years.

People unemployed for a long time have historically found jobs less easily than those experiencing shorter spells of unemployment, perhaps because their skills erode, they lose relationships within the workforce, or they acquire a stigma that deters firms from hiring them. I have frequently spoken about the importance of lifelong learning, including continuing education for adults, and well-designed programs to assist the unemployed can play a valuable role in that regard. In particular, many in the business and academic communities believe that business-focused training, of the sort you describe, has been effective in many cases where it has been tried. Such approaches may be a fruitful avenue to explore, in concert with general improvements in our educational system and broader actions to address our current macroeconomic situation.

Q.5. Safeguarding the U.S. financial systems from proliferation financing, terror financing, money laundering and other criminal acts is crucial to the long term health of the U.S. economy and the security of our Nation. I believe the Federal Reserve has a central role in ensuring all U.S. based financial institutions maintain robust risk management and compliance programs to address these threats.

Can you describe the efforts of the Federal Reserve to ensure the U.S. financial system is not abused to aid the financing of terrorism and weapons proliferation, and money laundering, particularly when it comes to Iran?

A.5. The Federal Reserve, in coordination with the Department of the Treasury and the other U.S. Federal financial regulatory agencies, seeks to ensure that financial institutions maintain appropriate risk management and compliance programs related to money laundering, financing of terrorism, and sanctions administered by the Office of Foreign Assets Control (OFAC), including the extensive sanctions against Iran.

While the Department of the Treasury maintains primary responsibility for issuing and enforcing regulations to implement the Bank Secrecy Act (BSA), the comprehensive Federal antimoney laundering (AML) and counter-terrorism financing (CFT) statute, it has delegated to the Federal banking agencies responsibility for monitoring banks' compliance with the BSA. During bank examinations, Federal Reserve examiners review and assess an institution's compliance with relevant BSA and OFAC sanctions requirements, following a risk-based approach.

The Federal Reserve has coordinated extensively with OFAC on its efforts under the Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010 (CISADA). This law builds upon the U.S. Government's role in protecting its domestic financial system from exposure to Iran's illicit and deceptive financial practices by strengthening existing U.S. sanctions. The Federal Reserve regularly shares examination findings and enforcement proceedings with OFAC under the 2006 interagency memorandum of understanding.

The Federal Reserve actively participates in a number of coordination initiatives related to money laundering, terrorism financing, and sanctions. These include the Treasury-led BSA Advisory Group, which includes representatives of regulatory agencies, law enforcement, and the financial services industry and the FFIEC BSA/ AML working group, a monthly forum for the discussion of pending BSA policy and regulatory matters. In addition to the Federal banking agencies, the BSA/AML working group includes FinCEN and, on a quarterly basis, the Securities and Exchange Commission, the Commodity Futures Trading Commission, the Internal Revenue Service, and OFAC in order to share and discuss information on policy issues and general trends more broadly.

In the international context, the Federal Reserve is a member of the U.S. delegation to the intergovernmental Financial Action Task Force (FATF) and its working groups, contributing a banking supervisory perspective to the formulation of international standards on these matters. Recently, the Federal Reserve provided input and review of ongoing work to revise the FATF Recommendations in order to ensure that they continue to provide a comprehensive and current framework for combating money laundering and terrorist financing. The Federal Reserve also participates in ongoing work of the Basel Committee that focuses on AML/counterterrorism financing issues.

Q.6. A few months ago, I met with many of the OMWI directors at the Federal Reserve about the steps you are taking on diversity, particularly in the procurement area. I was not particularly happy with the meeting, as I did not feel that sufficient progress was being made when it comes to contracting with Hispanic-owned businesses. One of the responses we heard echoed by the Directors was that Hispanic diversity has been an ongoing challenge, although I was not able to get specifics.

Therefore, I am asking now what barriers you have identified for women- and minority-owned firms to compete. What barriers are unique to Hispanic-owned firms? What are you doing to overcome those barriers?

A.6. *What barriers have been identified for women- and minority-owned firms to compete?*

The following challenges have been identified:

- Lack of knowledge by businesses on how to do business with the Federal Reserve Board
- Lack of knowledge by businesses on the goods and services procured by the Board

- Ability to identify and track women- and minority-owned businesses and the products and services they offer in order to match to the products and services contracted by the Board
- Lack of networking opportunities between prime contractors and women- and minority-owned firms interested in subcontracting opportunities

What barriers are unique to Hispanic-owned firms?

There are no unique barriers and/or challenges for Hispanic-owned firms to compete in relation to those identified for women- and minority-owned firms.

What is being done to overcome barriers?

The Board has hired a Supplier Diversity Specialist to focus on the inclusion of minority- and women-owned businesses in the business practices of the Board. A public Web site is also being developed that will enable companies to register, identify their business classification, and include information regarding their products and services. The Web site will also enable the Board to search for companies that provide goods or services called for in specific solicitations. The Web site is in final testing and is projected to be available the fourth quarter of 2012.

The Board has instituted a number of initiatives to communicate how to do business with the Board. For example, the Board continues to host an annual business fair to attract diverse pools of vendors. These annual fairs provide an opportunity for businesses that provide the products and services the Board procures to discuss their companies with specific Board purchasing departments. Participants also attend a workshop on how to compete for business contracts at the Board. The most recent business fair, held in May 2012, included information about the projected Board's 2012–2013 acquisition forecast. In April 2012, the Board hosted a business forum for minority- and women-owned firms which provided information on building business capacity to compete for Federal contracts. This forum is projected to be yearly. The Supplier Diversity Specialist also meets with prospective suppliers to prequalify and offer technical assistance to minority- and women-owned businesses that are interested in and/or responding to open solicitations. The Board continues to operate under its Small Disadvantaged Business Acquisition policy, consistent with applicable law, to ensure small and socially and economically disadvantaged businesses have an equitable opportunity to compete in the Board's procurement activities. The Boards general contract provisions include standard language that requires contractors to confirm their commitment to ensuring fair inclusion of women and minorities in employment and contracting. During the contract solicitation phase, prospective vendors can submit a subcontracting plan with their proposal that supports this requirement.

The Board's external strategies focus on developing partnerships with minority- and women-owned business advocacy, community and industry groups to further cultivate relationships. We are applying for membership in local and national associations focusing on minority- and women-owned business such as Women Business Enterprise National Council (WBENC), National Minority Supplier Development Council (NMSDC), and the Greater Washington His-

panic Chamber of Commerce (GWHCC). The Board has significantly strengthened its relationship with Hispanic advocacy groups, by forging relationships through collaboration. The Board regularly submits pertinent information regarding upcoming solicitations to the GWHCC for their members to participate in the Board's acquisition process. We also participated in the GWHCC Business Expo to meet with Hispanic firms to discuss future opportunities as well. Through our partnership with the GWHCC, we have identified over 20 Hispanic firms to participate in our 2012–2013 acquisition process. The Board also exhibits at various conferences to promote our contracting opportunities. We continue to participate at the national business conferences such as National 8 (a) Association Conference, WBENC, NMSDC, and continue to work with chambers of commerce including the U.S. Hispanic Chamber of Commerce. The Board's Procurement staff met with Hispanic firms during the U.S. Hispanic Chamber of Commerce Legislative Summit to discuss their capabilities both for current and future acquisitions.

The OMWI Director also has participated on panels at conferences discussing minority-and women-owned firms doing business with the Federal government which included the 2011 Minority Economic Conference hosted by the Florida Minority Community Reinvestment Coalition.

The Board has had a continued commitment to the inclusion of minority- and women-owned businesses in its procurement practices. The OMWI and Procurement offices, which have the primary responsibility for ensuring current and proposed policies and practices affecting inclusion of minority- and women-owned businesses, will meet on a regular basis to assess results of supplier diversity objectives and activities and to determine whether additional efforts would be helpful in assisting minority- and women-owned firms to compete successfully in the Board's acquisition process.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR HAGAN FROM BEN S. BERNANKE

Q.1. *Section 1:* Chairman Bernanke, in your testimony you noted that in September of last year the Federal Open Market Committee determined that it would reinvest principal received from holdings of agency MBS and agency debt in agency MBS.

What is the impact of a dollar of principal that is reinvested in a Treasury security relative to a dollar of principal invested in agency MBS?

A.1. The Federal Reserve's purchases of longer-term assets are intended to put downward pressure on longer-term interest rates and ease financial conditions more generally. The effect of a dollar invested in a Treasury security relative to a dollar invested in an agency MBS depends on many factors, including the remaining maturity of the securities. In general, longer-term securities would be thought to have a somewhat more powerful effect. Both Treasury securities and agency MBS purchases have the effect of easing broad financial conditions and putting downward pressure on longer-term interest rates. In principle, MBS purchases should also improve conditions in mortgage markets and so help support the

housing sector and thereby contribute to a stronger economic recovery.

Q.2. Is reinvested principal going into new or seasoned or new issues of Agency MBS?

A.2. The Open Market Desk (the Desk) at the Federal Reserve Bank of New York purchases agency MBS that are concentrated in newly-issued agency MBS in the To-Be-Announced market, although the Desk may purchase other fixed-rate agency MBS securities guaranteed by Fannie Mae, Freddie Mac, and Ginnie Mae if market conditions warrant. The eligible assets include, but are not limited to, 30-year and 15-year securities of these issuers. A summary of agency MBS purchases is reported on the Federal Reserve Bank of New York's (*http://www.newyorkfed.org/markets/ambs*).

Additional information on the Desk's agency MBS purchases can be found at the following link: *http://www.newyorkfed.org/markets/ambs/ambs_faq.html.*

Q.3. As borrowers take advantage of historically low rates to refinance, is the Fed seeing an acceleration in principal payments?

A.3. Principal payments of agency mortgage-backed securities (MBS) tend to increase when mortgage rates decline. Since the summer of 2011, mortgage rates have fallen to very low levels and principal payments have increased. The Federal Reserve has seen an acceleration in principal payments on its agency MBS holdings, with principal payments averaging about $25 billion per month since October 2011, roughly double the level seen during the summer of 2011. A number of other factors also influence the speed of principal payments. Currently, tight underwriting standards and low levels of housing equity are likely damping mortgage refinancing activity and, hence, holding down prepayments.

Q.4. *Section 2:* Section 619 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank) seeks to prohibit federally insured depository institutions and their affiliates from engaging in short-term proprietary trading and to limit certain relationships with hedge funds and private equity funds.

Specifically, Section 619 added a new Section 13 to the Bank Holding Company Act of 1956 (BHC Act), that prohibits a "banking entity" from acquiring or retaining an ownership interest in or sponsoring a "hedge fund" or "private equity fund," subject to certain exceptions.

I want to applaud the Federal Reserve, with its expertise as the primary regulator of bank holding companies, for acknowledging the importance of traditional asset management services and for attempting to propose a rule that does not unduly constrain the ability of U.S. banking entities to provide those services.

It is clear from the statute and the congressional record that Congress intended to cover only those funds that "engage in activities or have characteristics of a traditional private equity fund or hedge fund."

Generally speaking, does the Federal Reserve see non-U.S. funds that are publicly offered by U.S. banking entities as posing the same risks as traditional hedge funds and private equity funds?

A.4. The joint proposal issued by the Federal Reserve, OCC, FDIC, and SEC requested comment on a wide variety of issues, including regarding how section 619 applies to non-U.S. funds, as well as the scope of the statutory exemption for certain hedge fund and private equity fund activity and investment that occurs "solely outside of the United States." See 12 U.S.C. 1851(d)(l)(l). The agencies' proposal invited comment on whether non-U.S. funds posed the same risks to U.S. banking entities as U.S. funds. The agencies received a significant amount of comment on the joint proposal and the Federal Reserve is carefully reviewing and considering these comments as we work to finalize implementing rules.

Q.5. Would the Federal Reserve be willing to work to craft a "covered fund" definition that would treat analogous U.S. and non-U.S. funds similarly, as was the intent of the statute?

A.5. The joint proposal issued by the Federal Reserve, OCC, FDIC, and SEC applies to activities by U.S. banking entities involving non-U.S. funds in the same way it applies to activities by those entities in U.S. funds to the extent that the non-U.S. fund would be covered by the statute were it a U.S. fund. The joint agency proposal also invited public comment on whether the proposed rule effectively and correctly implemented the statutory definition of hedge fund and private equity fund and treatment of non-U.S. funds for purposes of section 619. The agencies received a significant amount of comment on the joint proposal and the Federal Reserve is carefully reviewing and considering these comments as we work to finalize implementing rules.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR CRAPO FROM BEN S. BERNANKE

Q.1. Following up on your Volcker comments, I agree with you that "we certainly don't expect people to obey a rule that doesn't exist" and welcome your comment that the Agencies "will certainly make sure that firms have all the time they need to respond." And yet, while Dodd-Frank provides a two-year conformance period, the preamble to the proposed rule states that the Agencies expect full compliance "as soon as practicable" after the effective date (July 21, 2012). In addition, commenters are concerned that the proposed rule would effectively require firms to have sophisticated reporting and recordkeeping systems and procedures in place on the effective date, notwithstanding the 2-year conformance period. This is because, as drafted, the proposed rule conditions the availability of key statutory exemptions (e.g., market making and hedging) on the existence of these systems and procedures. How do you intend to resolve this discrepancy?

A.1. Section 619 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd–Frank Act) required the Federal Reserve to adopt rules governing the conformance periods for activities and investments restricted by section 619, which the Federal Reserve did on February 9, 2011 (Conformance Rule). In its Conformance Rule, the Federal Reserve explained that it would revisit the conformance period rule, as necessary, in light of the requirements of the final rule implementing the substantive provisions of

the Volcker Rule. Subsequently, the Federal Reserve received a number of requests for clarification of the manner in which this conformance period would apply and how the prohibitions would be enforced. On April 19, 2012, the Federal Reserve issued a statement clarifying that an entity covered by section 619 has the full 2-year period provided by statute to fully conform its activities and investments to the requirements of section 619 and any implementing rules adopted in final under that section, unless the Board extends that conformance period. The other agencies charged with enforcing section 619 simultaneously announced that they would enforce section 619 in accordance with the Federal Reserve's statements regarding the conformance period.

Additionally, the Federal Reserve, the OCC, the FDIC, SEC, and CFTC have proposed rules to implement section 619; as part of those proposals, the agencies met with many interested representatives of the public, including banking firms, trade associations and consumer advocates, and provided an extended period of time for the public to submit comments to the agencies. The agencies have received over 19,000 comments addressing a wide variety of aspects of the proposal, including the exemptions for market making-related activities, risk-mitigating hedging activities, the use of metrics, and the reporting proposals. The agencies are carefully reviewing those comments and considering the suggestions and issues they raise in light of the statutory restrictions and provisions. We will carefully consider the issues you note as we continue to review all comments submitted in crafting a final rule to implement section 619.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR TOOMEY FROM BEN S. BERNANKE

Q.1. Chairman Bernanke, I would like to ask you about the Federal Reserve's supervisory authority over thrift holding companies, which is new authority granted to the Federal Reserve as part of the Dodd-Frank Act. Some of these thrift holding companies are, or own, life insurers. It is my understanding that the Federal Reserve, in exercising this new authority, has placed supervisors on site at some of these thrift holding companies.

Can you discuss the Fed's efforts to supervise thrift holding companies as well as what the Fed is doing to increase its expertise and knowledge base with regard to insurers?

A.1. As of December 31, 2011, there were 417 top tier Savings and Loan Holding Companies (SLHCs) with estimated total consolidated assets of $3 trillion. These SLHCs include approximately 48 companies engaged primarily in nonbanking activities, such as insurance underwriting (approximately 26 SLHCs), commercial activities (approximately 11 SLHCs), and securities brokerage (11 SLHCs). Since the transfer of SLHC supervision to the Federal Reserve on July 21, 2011, 114 SLHCs have been issued indicative rat-

ings,[1] 50 discovery reviews[2] have been completed, and an additional 34 discovery reviews, 27 inspections and 21 offsite reviews have been initiated.

A dedicated SLHC section in the Board's Division of Banking Supervision and Regulation has been staffed and is working to continue the supervisory and policy oversight of the SLHCs. Regarding the 26 SLHCs that are primarily engaged in insurance activities, the Federal Reserve is using the first cycle of SLHC inspections to learn more about the particular operations of each insurance SLHC (ISLHC), as explained in SR letter 11-11 (July 21, 2011)[3] Supervisory assessments are currently being conducted at each ISLHC and its subsidiaries to more fully understand the activity make up of each ISLHC and to determine if any activities pose safety and soundness concerns. The Board's consolidated supervisory program is applied to ISLHCs in a risk-focused manner and supervisory activities (such as, continuous monitoring, discovery reviews, and testing) vary across the portfolios of institutions based on size, complexity, and risk. Board and Reserve Bank staffs are working to create supervisory plans that address the risks associated with the activities of ISLHCs. For example, pilot ISLHC inspection procedures have been developed and are currently being used by examiners in the inspection of ISLHCs. Staff will revise and finalize these procedures based on feedback received from examiners.

To foster consistency and assist examiners in developing their knowledge of the unique aspects of ISLHCs, the following activities also have been instituted:

- Four conferences for Board and Reserve Bank staff supervising ISLHCs have been held since the transfer of SLHC supervision to the Federal Reserve. (August 2012, D.C.; June .2012, D.C.; November 2011, D.C.; and August 2011, Chicago).
- Ongoing System-wide calls are held and have included training sessions conducted by outside vendors on insurance related issues and discussions on ISLHC supervision. Participants include Reserve Bank and Board staff. Internal insurance training courses also are under development.
- Regular communication with the National Association of Insurance Commissioners (NAIC)[4] along with Reserve Bank and Board attendance at NAIC conferences.
- Regular communication with the Federal Insurance Office and the Financial Stability Oversight Council.

Q.2. Previously, when asked, Mr. Volcker was unable to give a clear definition of "proprietary trading" but essentially said that he knew it when he saw it.

As the regulators draft the Volcker Rule, which is focused on proprietary trading, what is your definition of the term?

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[1] An "indicative rating" indicates to the SLHC how it would be rated if the RFI rating system was formally applied.

[2] A discovery review is an inspection activity designed to improve the Federal Reserve's understanding of a particular business activity or control process.

[3] SR letter 11-11, "Supervision of Savings and Loan Holding Companies" (July 21, 2011), describes the supervisory approach to be used for the first cycle of supervision of SLHCs (*www.federalreserve.gov/bankinforeg/srletters/sr1111.htm*).

[4] NAIC is an organization formed by State insurance regulators and has no regulatory authority.

Is this the exact definition used in the proposed rule?

If not, how does the definition in the proposed rule differ?

A.2. Section 619 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) generally prohibits banking entities from engaging in proprietary trading. Section 619(h)(4) of that Act defines "proprietary trading" to mean "engaging as principal for the trading account in any transaction to purchase or sell, or otherwise acquire or dispose of specified financial instruments. See 12 U.S.C. 1851(h)(4). Another part of section 619 defines "trading account" as any account used to engage in proprietary trading for the purposes of profiting from short-term price movements. See 12 U.S.C. 1851(h)(6). The statute also provides a number of exemptions from the prohibition on proprietary trading, such as exemptions for market making-related activity or risk-mitigating hedging activity. See U.S.C. 1851(d)(l)(B) and (C). The proposal to implement section 619 of the Dodd-Frank Act by the Federal Reserve, OCC, FDIC, SEC, and CFTC (the "Agencies") requested public comment on a definition of "proprietary trading" that restates the statutory definition.

The Agencies received over 19,000 comments regarding the proposed implementing rules, including comments that specifically addressed the issues of proprietary trading and related definitions. The Agencies are currently considering these comments as we work to finalize implementing rules.

Q.3. Apparently, the definition of state and municipal securities in the Dodd-Frank Act does not conform with the earlier Securities Exchange Act definitions, subjecting these securities to the Volcker Rule.

What will the additional costs be to State and local governments in issuing bonds?

A.3. Section 619(d)(l)(A) of the Dodd-Frank Act provides an exemption for proprietary trading in obligations of the United States or any agency thereof, obligations, participations, or other instruments of or issued by certain Government sponsored entities, and obligations of any State or of any political subdivision thereof. See 12 U.S.C. 1851(d)(l)(A). A number of Securities Exchange Act provisions apply to obligations and instruments of any agency of a State or political subdivision thereof, as well as to obligations of the State of a political subdivision itself. The Dodd-Frank Act, however, did not by its terms extend its exemption to proprietary trading in obligations of an agency of any State or political subdivision thereof. The Agencies proposed an exemption for municipal securities that mirrored the words of the Dodd-Frank Act. The Agencies also requested public comment on whether the exemption should be extended to include the broader definition of "municipal security" used in the Securities Exchange Act.

The Agencies received over 19,000 comments regarding the proposed implementing rules, including comments that specifically addressed the exemption for government obligations and the definition of municipal security. The Agencies are currently considering these comments as we work to finalize implementing rules.

Q.4. Do you believe that, as proposed, the Volcker Rule has the potential to raise the cost of capital for nonfinancial small and midsize businesses?

Has any analysis been performed on this issue in relation to the proposed Volcker Rule?

Has any analysis been performed on the potential impact on access to capital for nonfinancial small- and mid-sized businesses that may be created by the confluence of the Volcker Rule, the implementation of Basel III, and the SEC's impending money market regulations?

Will you please provide my office with copies of any such analysis or assessments?

A.4. As part of the proposed rules to implement section 619 of the Dodd-Frank Act, the Agencies proposed a multifaceted regulatory framework to implement the statute in accordance with its terms. In the proposal, the Agencies recognized that there are economic impacts that may arise from the proposed rule, and invited comments on potential economic impacts. The Agencies also encouraged commenters to provide quantitative information about the impact of the proposal not only on entities subject to section 619, but also their clients, customers, and counterparties, specific markets or asset classes, and any other entities potentially affected by the proposed rule, including nonfinancial small and mid-size businesses. The Agencies received over 19,000 comments regarding the proposed implementing rules, including comments regarding potential costs and benefits. The Agencies are currently considering these comments as we work to finalize implementing rules and will take account of the potential costs and benefits of any implementing rules as the agencies develop a final rule consistent with the requirements of the statute.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR WICKER FROM BEN S. BERNANKE

Q.1. The unemployment rate's drop in recent months to 8.3 percent may have overshadowed a troublesome trend, which is the fact fewer Americans are looking for work. For example, the latest jobs report showed that the share of working-age people in the labor force had declined to the lowest level in 29 years. Furthermore, while unemployment has fallen 1.4 percentage points over the past 24 months, the participation rate has dropped 1.1 percentage points. The share of Americans with jobs, known as the employment-to-population ratio, hasn't budged—posting the same number last month (58.5) as in January 2010. This information combined with the fact we have seen record numbers of long-term unemployed is very concerning. Chairman Bernanke, is the recent trend of lower labor force participation a significant indicator of the strength of the U.S. economic recovery? Should U.S. policy makers be concerned about this trend?

A.1. Several factors account for the decline in labor force participation that we have seen. Part of the decline reflects longer-term demographics that are largely distinct from the weak economic situation. In particular, as the baby boom cohort ages, larger numbers of individuals have been reaching ages at which, typically, labor

force participation is lower. But demographics probably cannot fully explain the relatively low participation rate that we have seen. The fact that the labor market remains weak, with relatively few jobs available, has likely led many individuals to remain out of the labor force. On the other hand, the loss of housing and stock-market wealth associated with the housing collapse and the recession no doubt induced many others to stay in the labor force for longer than they otherwise might have. Quantifying these various forces is difficult, but to the extent that the slowing in participation does reflect cyclical factors, then as the economy strengthens, participation may be expected to increase, or at least to decline by less than the underlying demographic trend would suggest.

A downward trend in labor force participation that represents natural demographics may not be a cause for concern. However, there are some potentially concerning aspects to the decline. The effect of a declining workforce on public finances is one potential issue. Another concern stems from the large rise in disability rolls, and the possibility that part of that rise represents individuals who could and would work if more jobs were available. Moreover, participation rates for teens and young adults have declined. To some extent, this decline for young people reflects increased schooling, which is likely for the good; but if the lower participation implies that young people are not gaining valuable work experience, it would be a cause for concern.

Q.2. Chairman Bernanke, you noted in your testimony that the job market has seen some improvement but that "continued improvement in the job market is likely to require stronger growth in final demand and production . . . The unemployment rate remains elevated, long-term unemployment is still near record levels, and the number of persons working part time for economic reasons is very high." What type of "stronger growth" is necessary to tackle the problem of anemic job creation?

A.2. In the latter part of 2011 and early this year, job growth picked up and the unemployment rate declined even though GDP was rising at only a modest rate. Normally, when GDP rises at its longer run "potential" rate associated with normal growth of the labor force and productivity, the unemployment rate will remain stable; a declining unemployment rate generally requires GDP to rise at a rate faster than potential. A number of factors might help account for the decline in the unemployment rate despite only modest GDP growth, but part of the story could be that last year's decline in unemployment represented a "catch up" from the deepest part of the recession, when employers were cutting payrolls even more sharply than would have been predicted given the declines in demand that they were facing, perhaps because they feared that an even sharper contraction might be in the offing. Such a period of catch up eventually will come to an end, and indeed, since early this year the unemployment rate has been about flat at 8¼ percent, while GDP growth has slowed only a little. Thus, to achieve further declines in unemployment, we will likely need to see GDP growth rising more rapidly than we have seen over the past year.

ADDITIONAL MATERIAL SUPPLIED FOR THE RECORD

For use at 10:00 a.m., EST
February 29, 2012

Monetary Policy Report to the Congress

February 29, 2012

Board of Governors of the Federal Reserve System

Monetary Policy Report to the Congress

Submitted pursuant to section 2B of the Federal Reserve Act

February 29, 2012

Board of Governors of the Federal Reserve System

Letter of Transmittal

BOARD OF GOVERNORS OF THE
FEDERAL RESERVE SYSTEM

Washington, D.C., February 29, 2012

THE PRESIDENT OF THE SENATE
THE SPEAKER OF THE HOUSE OF REPRESENTATIVES

The Board of Governors is pleased to submit its *Monetary Policy Report to the Congress* pursuant to section 2B of the Federal Reserve Act.

Sincerely,

Ben Bernanke, Chairman

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Part 1
Overview:
Monetary Policy and the Economic Outlook

Economic activity in the United States expanded at a moderate rate in the second half of 2011 following an anemic gain in the first half, and the moderate pace of expansion appears to have continued into the opening months of 2012. Activity was held down in the first half of 2011 by temporary factors, particularly supply chain disruptions stemming from the earthquake in Japan and the damping effect of higher energy prices on consumer spending. As the effects of these factors waned over the second half of the year, economic activity picked up. Conditions in the labor market have improved since last summer, with an increase in the pace of job gains and a noticeable reduction in the unemployment rate. Meanwhile, consumer price inflation has stepped down from the temporarily high levels observed over the first half of 2011, as commodity and import prices retreated and as longer-term inflation expectations remained stable. Looking ahead, growth is likely to be modest during the coming year, as several factors appear likely to continue to restrain activity, including restricted access to credit for many households and small businesses, the still-depressed housing market, tight fiscal policy at all levels of government, and some slowing in global economic growth.

In light of these conditions, the Federal Open Market Committee (FOMC) took a number of steps during the second half of 2011 and early 2012 to provide additional monetary policy accommodation and thereby support a stronger economic recovery in the context of price stability. These steps included modifying the forward rate guidance included in postmeeting statements, increasing the average maturity of the Federal Reserve's securities holdings, and shifting the reinvestment of principal payments on agency securities from Treasury securities to agency-guaranteed mortgage-backed securities (MBS).

Throughout the second half of 2011 and early 2012, participants in financial markets focused on the fiscal and banking crisis in Europe. Concerns regarding the potential for spillovers to the U.S. economy and financial markets weighed on investor sentiment, contributing to significant volatility in a wide range of asset prices and at times prompting sharp pullbacks from risk-taking. Strains eased somewhat in a number of financial markets in late 2011 and early this year as investors seemed to become more confident that European policymakers would take the steps necessary to address the crisis. The more positive market sentiment was bolstered by recent U.S. data releases, which pointed to greater strength, on balance, than investors had expected. Nonetheless, market participants reportedly remain cautious about risks in the financial system, and credit default swap spreads for U.S. financial institutions have widened, on net, since early last summer.

After rising at an annual rate of just ¾ percent in the first half of 2011, real gross domestic product (GDP) is estimated to have increased at a 2¼ percent rate in the second half.[1] The growth rate of real consumer spending also firmed a bit in the second half of the year, although the fundamental determinants of household spending improved little: Real household income and wealth stagnated, and access to credit remained tight for many potential borrowers. Consumer sentiment has rebounded from the summer's depressed levels but remains low by historical standards. Meanwhile, real investment in equipment and software and exports posted solid gains over the second half of the year. In contrast, the housing market remains depressed, weighed down by the large inventory of vacant houses for sale, the substantial volume of distressed sales, and homebuyers' concerns about the strength of the recovery and the potential for further declines in house prices. In the government sector, real purchases of goods and services continued to decline over the second half of the year.

Labor market conditions have improved. The unemployment rate moved down from around 9 percent over the first eight months of 2011 to 8¼ percent in January 2012. However, even with this improvement, the jobless rate remains quite elevated. Furthermore, the share of the unemployed who have been jobless for more than six months, although down slightly from its peak, was still above 40 percent in January—roughly double the fraction that prevailed during the economic expansion of the previous decade. Meanwhile, private

1. The numbers in this report are based on the Bureau of Economic Analysis's (BEA) advance estimate of fourth-quarter GDP, which was released on January 27, 2012. The BEA will release a revised estimate on February 29, 2012.

payroll employment gains averaged 165,000 jobs per month in the second half of 2011, a bit slower than the pace in the first half of the year, but gains in December and January were more robust, averaging almost 240,000 per month.

Consumer price inflation stepped down in the second half of 2011. After rising at an annual rate of 3½ percent in the first half of the year, prices for personal consumption expenditures (PCE) rose just 1½ percent in the second half. PCE prices excluding food and energy also decelerated, rising at an annual rate of roughly 1½ percent in the second half of 2011, compared with about 2 percent in the first half. The decline in inflation was largely in response to decreases in global commodity prices following their surge early in 2011, as well as a restoration of supply chains for motor vehicle production that had been disrupted after the earthquake in Japan and some deceleration in the prices of imported goods other than raw commodities.

The European fiscal and banking crisis intensified in the second half of the year. During the summer, the governments of Italy and Spain came under significant financial pressure and borrowing costs increased for many euro-area governments and banks. In early August, the European Central Bank (ECB) responded by resuming purchases of marketable debt securities. Although yields on the government debt of Italy and Spain temporarily moved lower, market conditions deteriorated in the fall and funding pressures for some governments and banks increased further. Over the second half of the year, European leaders worked toward bolstering the financial backstop for euro-area governments, reinforcing the fiscal discipline of those governments, and strengthening the capital and liquidity positions of banks. Additionally, the ECB made a significant injection of euro liquidity via its first three-year refinancing operation, and central banks agreed to reduce the price of U.S. dollar liquidity based on swap lines with the Federal Reserve. Since December, following these actions, yields on the debt of vulnerable European governments declined to some extent and funding pressures on European banks eased.

A number of sources of investor anxiety—including the European crisis, concerns about the sustainability of U.S. fiscal policy, and a slowdown in global growth—weighed on U.S. financial markets early in the second half of 2011. More recently, these concerns eased somewhat, reflecting actions taken by global central banks as well as U.S. data releases that pointed to greater strength, on balance, than market participants had anticipated. Broad equity prices fell notably in August but subsequently retraced, and they are now little changed, on net, since early July. Corporate bond spreads remain elevated. Partly as a result of the forward guidance and ongoing maturity extension program provided by the Federal Reserve, market participants expect the target federal funds rate to remain low for a longer period than they thought early last July, and Treasury yields have moved down significantly. Meanwhile, measures of inflation compensation over the next five years derived from yields on nominal and inflation-indexed Treasury securities are little changed, on balance, though the forward measure 5-to-10 years ahead remains below its level in the middle of last year.

Among nonfinancial corporations, larger and higher-credit-quality firms with access to capital markets took advantage of generally attractive financing conditions to raise funds in the second half of 2011. On the other hand, for smaller firms without access to credit markets and those with less-solid financial situations, borrowing conditions remained more challenging. Reflecting these developments, investment-grade nonfinancial corporations continued to issue debt at a robust pace while speculative-grade issuance declined, as investors' appetite for riskier assets diminished. Similar issuance patterns were evident in the market for syndicated loans, where investment-grade issuance continued to be strong while that of higher-yielding leveraged loans fell back. In addition, commercial and industrial (C&I) loans on banks' books expanded strongly, particularly for larger domestic banks that are most likely to lend to big firms. According to the January Senior Loan Officer Opinion Survey on Bank Lending Practices (SLOOS), domestic banks eased terms on C&I loans and experienced increased loan demand during the fourth quarter of the year, the latter development in part reflecting a shift in some borrowing away from European banks.[2] By contrast, although credit supply conditions for smaller firms appear to have eased somewhat in the last several months, they remained tighter relative to historical norms than for larger firms. Commercial mortgage debt continued to decline through the third quarter of 2011, albeit at a more moderate pace than in 2010.

Household debt appears to have declined at a slightly slower pace in the second half of 2011 than in the first half, with the continued contraction in mortgage debt partially offset by growth in consumer credit. Even though mortgage rates continued to be near historically low levels, the volume of new mortgage loans remained muted. The smaller quantity of new mortgage origination reflects potential buyers' lack of either the down payment or credit history required to qualify

2. The SLOOS is available on the Federal Reserve Board's website at www.federalreserve.gov/boarddocs/SnLoanSurvey.

for these loans, and many appear reluctant to buy a house now because of concerns about their income prospects and employment status, as well as the risk of further declines in house prices. Delinquency rates on most categories of residential mortgages edged lower but stayed near recent highs, and the number of properties in the foreclosure process remained elevated. Issuance of consumer asset-backed securities in the second half of 2011 ran at about the same rate as it had over the previous 18 months. A modest net fraction of SLOOS respondents to both the October and January surveys indicated that they had eased their standards on all categories of consumer loans.

Measures of the profitability of the U.S. banking industry have edged up, on net, since mid-2011, as indicators of credit quality continued to show signs of improvement and banks trimmed noninterest expenses. Meanwhile, banks' regulatory capital ratios remained at historically high levels, as authorities continued to take steps to enhance their regulation of financial institutions. Nonetheless, conditions in unsecured interbank funding markets deteriorated. Strains were particularly evident for European financial institutions, with funding costs increasing and maturities shortening, on balance, as investors focused on counterparty credit risk amid growing anxiety about the ongoing crisis in Europe. Given solid deposit growth and modest expansion in bank credit across the industry, most domestic banks reportedly had limited need for unsecured funding.

Concerns about the condition of financial institutions gave rise to heightened investor anxiety regarding counterparty exposures during the second half of 2011. Responses to the December Senior Credit Officer Opinion Survey on Dealer Financing Terms, or SCOOS, indicated that dealers devoted increased time and attention to the management of concentrated credit exposures to other financial intermediaries over the previous three months, and 80 percent of dealers reported reducing credit limits for some specific counterparties.[3] Respondents also reported a broad but moderate tightening of credit terms applicable to important classes of counterparties over the previous three months, importantly reflecting a worsening in general market liquidity and functioning as well as a reduced willingness to take on risk.

In order to support a stronger economic recovery and help ensure that inflation, over time, is at levels consistent with its dual mandate, the FOMC provided additional monetary policy accommodation during the second half of 2011 and early 2012. In August, the Committee modified its forward rate guidance, noting that economic conditions were likely to warrant exceptionally low levels for the federal funds rate at least through mid-2013. The FOMC decided at its September meeting to extend the average maturity of its Treasury holdings, and to reinvest principal payments from its holdings of agency debt and agency MBS in agency MBS rather than in Treasury securities.[4] Finally, at the Committee's January 2012 meeting, the FOMC modified its forward guidance to indicate that it expected economic conditions to warrant exceptionally low levels for the federal funds rate at least through late 2014. The Committee noted that it would regularly review the size and composition of its securities holdings and is prepared to adjust those holdings as appropriate to promote a stronger economic recovery in the context of price stability.

In addition to these policy actions, the Federal Reserve took further steps to improve communications regarding its monetary policy decisions and deliberations. At the Committee's January 2012 meeting, the FOMC released a statement of its longer-run goals and policy strategy in an effort to enhance the transparency, accountability, and effectiveness of monetary policy and to facilitate well-informed decisionmaking by households and businesses. The statement emphasizes the Federal Reserve's firm commitment to pursue its congressional mandate to promote maximum employment, stable prices, and moderate long-term interest rates. To clarify how it seeks to achieve these objectives, the FOMC stated that inflation at the rate of 2 percent, as measured by the annual change in the PCE price index, is most consistent over the longer run with the Federal Reserve's statutory mandate. While noting that the Committee's assessments of the maximum level of employment are necessarily uncertain and subject to revision, the statement indicated that the central tendency of FOMC participants' current estimates of the longer-run normal rate of unemployment is between 5.2 and 6.0 percent. It stressed that the Federal Reserve's statutory objectives are generally complementary, but when they are not, the Committee will follow a balanced approach in its efforts to return both inflation and employment to levels consistent with its mandate.

In addition, the January Summary of Economic Projections (SEP) provided information for the first time about FOMC participants' individual assessments

3. The SCOOS is available on the Federal Reserve Board's website at www.federalreserve.gov/econresdata/releases/scoos.htm.

4. Between the August 2010 and September 2011 FOMC meetings, principal payments from securities held on the Federal Reserve balance sheet had been reinvested in longer-term Treasury securities.

of the appropriate timing of the first increase in the target federal funds rate given their view of the economic situation and outlook, as well as participants' assessments of the appropriate level of the target federal funds rate in the fourth quarter of each year through 2014 and over the longer run. The SEP also included qualitative information regarding individual participants' expectations for the Federal Reserve's balance sheet under appropriate monetary policy.

The economic projections in the January SEP (presented in Part 4 of this report) indicated that FOMC participants (the members of the Board of Governors and the presidents of the 12 Federal Reserve Banks) generally anticipated aggregate output to increase at a somewhat faster pace in 2012 than in 2011. Although the participants marked down their GDP growth projections slightly compared with those prepared in November, they stated that the economic information received since that time showed continued gradual improvement in the pace of economic activity during the second half of 2011, as the influence of the temporary factors that damped activity in the first half of the year subsided. However, a number of additional factors, including ongoing weakness in the housing sector, modest growth in real disposable income, and the restraining effects of fiscal consolidation, suggested that the pace of the recovery would be modest in coming quarters. Participants also read the information on economic activity abroad, particularly in Europe, as pointing to weaker demand for U.S. exports. As these factors wane, FOMC participants anticipated that the pace of the economic expansion will gradually strengthen over the 2013–14 period, pushing the rate of increase in real GDP above their estimates of the longer-run rate of output growth. With real GDP expected to increase at a modest rate in 2012, the unemployment rate was projected to decline only a little this year. Participants expected further gradual improvement in labor market conditions over 2013 and 2014 as the pace of output growth picks up. They also noted that inflation expectations had remained stable over the past year despite fluctuations in headline inflation. Most participants anticipated that both headline and core inflation would remain subdued over the 2012–14 period at rates at or below the FOMC's longer-run objective of 2 percent.

With the unemployment rate projected to remain elevated over the projection period and inflation expected to be subdued, most participants expected that the federal funds rate would remain extraordinarily low for some time. Six participants anticipated that, under appropriate monetary policy, the first increase in the target federal funds rate would occur after 2014, and five expected policy firming to commence during 2014. The remaining six participants judged that raising the federal funds rate sooner would be required to forestall inflationary pressures or avoid distortions in the financial system. All of the individual assessments of the appropriate target federal funds rate over the next few years were below the participants' estimates of the longer-run level of the federal funds rate. Eleven of the 17 participants placed the target federal funds rate at 1 percent or lower at the end of 2014, while 5 saw the appropriate rate as 2 percent or higher.

A sizable majority of participants continued to judge the level of uncertainty associated with their projections for real activity and the unemployment rate as exceeding the average of the past 20 years. Many also attached a greater-than-normal level of uncertainty to their forecasts for inflation. As in November, many participants saw downside risks attending their forecasts of real GDP growth and upside risks to their forecasts of the unemployment rate; most participants viewed the risks to their inflation projections as broadly balanced. Participants also reported their assessments of the values to which key macroeconomic variables would be expected to converge over the longer term under appropriate monetary policy and in the absence of further shocks to the economy. The central tendencies of these longer-run projections were 2.3 to 2.6 percent for real GDP growth and 5.2 to 6.0 percent for the unemployment rate. In light of the 2 percent inflation that is the objective included in the statement of longer-run goals and policy strategy adopted at the January meeting, the range and central tendency of participants' projections of longer-run inflation were all equal to 2 percent.

Part 2
Recent Economic and Financial Developments

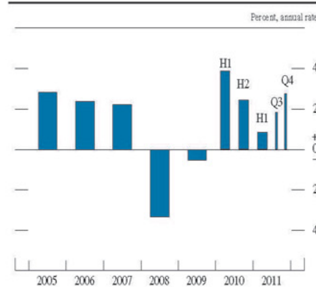
Real gross domestic product (GDP) increased at an annual rate of 2¼ percent in the second half of 2011, according to the advance estimate prepared by the Bureau of Economic Analysis, following growth of less than 1 percent in the first half (figure 1). Activity was held down in the first half of the year by temporary factors, particularly supply chain disruptions stemming from the earthquake in Japan and the damping effect of higher energy prices on consumer spending. As the effects of these factors waned over the second half of the year, the pace of economic activity picked up. But growth remained quite modest compared with previous economic expansions, and a number of factors appear likely to continue to restrain the pace of activity into 2012; these factors include restricted access to credit for many households and small businesses, the depressed housing market, tight fiscal policy, and the spillover effects of the fiscal and financial difficulties in Europe.

Conditions in the labor market have improved since last summer. The pace of private job gains has increased, and the unemployment rate has moved lower. Nonetheless, at 8¼ percent, the jobless rate is still quite elevated. Meanwhile, consumer price inflation stepped down from the higher levels observed over the first half of last year, as commodity and import prices retreated while longer-term inflation expectations remained stable (figure 2).

The fiscal and banking crisis in Europe was a primary focus of financial markets over the course of the second half of 2011 and early 2012. Growing concerns regarding the potential for spillovers to the U.S. economy and financial markets weighed on investor sentiment, contributing to significant volatility in a wide range of asset prices. Nonetheless, developments in financial markets have been mixed, on balance, since July. Unsecured dollar funding markets became significantly strained, particularly for European institutions, though U.S. institutions generally did not appear to face substantial funding difficulties. Risk spreads on corporate debt stayed elevated, on net, but yields on corporate bonds generally moved lower. Broad equity prices, which declined significantly in July and August, subsequently returned to levels near those seen in early July. Credit conditions for most large nonfinancial firms were accommodative and corporate profit growth remained strong.

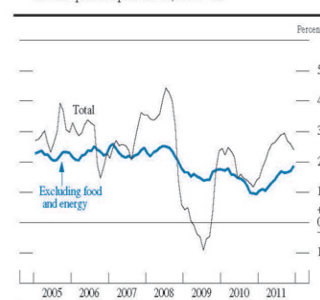
In response to a pace of economic growth that was somewhat slower than expected, the Federal Reserve provided additional monetary policy accommodation during the second half of 2011 and early 2012. Partly as a result, Treasury yields moved down significantly, and market participants pushed out the date at which they expect the federal funds rate to move above its current target range of 0 to ¼ percent and built in

1. Change in real gross domestic product, 2005–11



Note: Here and in subsequent figures, except as noted, change for a given period is measured to its final quarter from the final quarter of the preceding period.
Source: Department of Commerce, Bureau of Economic Analysis.

2. Change in the chain-type price index for personal consumption expenditures, 2005–11



Note: The data are monthly and extend through December 2011; changes are from one year earlier.
Source: Department of Commerce, Bureau of Economic Analysis.

expectations of a more gradual pace of increase in the federal funds rate after liftoff.

Domestic Developments

The Household Sector

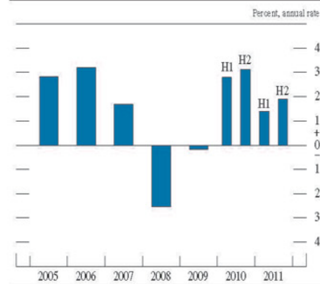
Consumer Spending and Household Finance

Real personal consumption expenditures (PCE) rose at an annual rate of about 2 percent in the second half of 2011, following a rise of just 1½ percent in the first half of the year (figure 3). Part of the spending gain was attributable to a fourth-quarter surge in purchases of motor vehicles following very weak spending last spring and summer stemming from the damping effects of the earthquake in Japan on motor vehicle supply. Even with the step-up, however, PCE growth was modest compared with previous business cycle recoveries. This subpar performance reflects the continued weakness in the underlying determinants of consumption, including sluggish income growth, sentiment that remains relatively low despite recent improvements, the lingering effects of the earlier declines in household wealth, and tight access to credit for many potential borrowers. With consumer spending subdued, the saving rate, although down from its recent high point, remained above levels that prevailed prior to the recession (figure 4).

Real income growth is currently estimated to have been very weak in 2011. After rising 2 percent in 2010, aggregate real disposable personal income (DPI)—personal income less personal taxes, adjusted for price changes—was essentially flat in 2011 (figure 5). The wage and salary component of real DPI, which reflects both the number of hours worked and average hourly wages adjusted for inflation, rose at an annual rate of 1 percent in 2011. The increase in real wage and salary income reflected the continued, though tepid, recoveries in both employment and hours worked; in contrast, hourly pay was little changed in real terms.

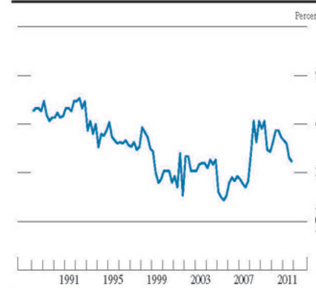
The ratio of household net worth to DPI dropped back a little in the second half of 2011, reflecting further declines in house prices and equity values (figure 6). The wealth-to-income ratio has hovered close to 5 in recent years, roughly the level that prevailed prior to the late 1990s, but well below the highs recorded during the boom in house prices in the mid-2000s. Consumer sentiment, which dropped sharply last summer, has rebounded since then; nevertheless,

3. Change in real personal consumption expenditures, 2005–11



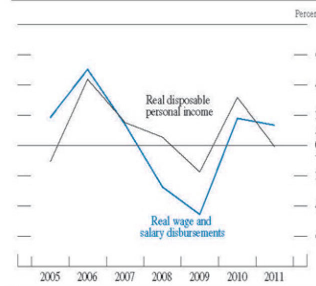
NOTE: The data are quarterly and extend through 2011:Q4.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

4. Personal saving rate, 1988–2011



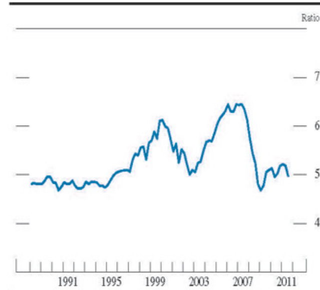
NOTE: The data are quarterly and extend through 2011:Q4.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

5. Change in real disposable personal income and in real wage and salary disbursements, 2005–11



NOTE: Change is from December to December. The real wage and salary disbursements series is nominal wage and salary disbursements deflated by the personal consumption expenditures deflator.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

6. Wealth-to-income ratio, 1988–2011



NOTE: The data are quarterly and extend through 2011:Q3. The wealth-to-income ratio is the ratio of household net worth to disposable personal income.
SOURCE: For net worth, Federal Reserve Board, flow of funds data; for income, Department of Commerce, Bureau of Economic Analysis.

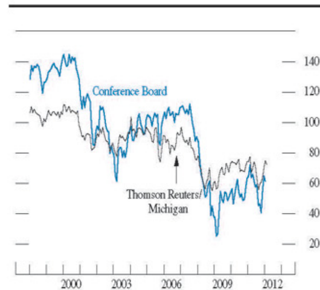
these gains only moved sentiment back to near the top of the range that has prevailed since late 2009 (figure 7).

Household debt—the sum of both mortgage and consumer debt—continued to move lower in the second half of 2011. Since peaking in 2008, household debt has fallen a total of 5 percent. The drop in debt in the second half of 2011 reflected a continued contraction in mortgage debt that was only partially offset by a modest expansion in consumer credit. Largely due to the reduction in overall household debt levels in 2011, the debt service ratio—the aggregate required principal and interest payment on existing mortgages and consumer debt relative to income—also decreased further and now is at a level last seen in 1994 and 1995 (figure 8).

The moderate expansion in consumer credit in the second half of 2011, at an annual rate of about 4½ percent, has been driven primarily by an increase in nonrevolving credit, which accounts for about two-thirds of total consumer credit and is composed mainly of auto and student loans. Revolving consumer credit (primarily credit card lending), while continuing to lag, appeared to pick up somewhat toward the end of the year. The increase in consumer credit is consistent with recent responses to the Senior Loan Officer Opinion Survey on Bank Lending Practices (SLOOS). Indeed, modest net fractions of banks in both the October and January surveys reported that they had eased standards on all major categories of consumer loans, and that demand had strengthened for auto and credit cards loans on balance. However, data on credit card solicitations suggest that lenders in that area are primarily interested in pursuing higher-quality borrowers.

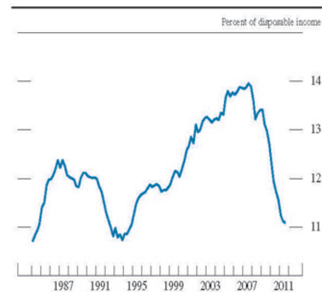
Indicators of consumer credit quality generally improved. Delinquency rates on credit card loans moved down in the second half of 2011 to the low end of the range observed in recent decades. Delinquencies and charge-offs on nonrevolving consumer loans also generally improved. Moreover, a majority of respondents to the January SLOOS reported that they expect further improvement in the quality of credit card and other consumer loans this year.

7. Consumer sentiment indexes, 1998–2012



NOTE: The Conference Board data are monthly and extend through January 2012; the series is indexed to equal 100 in 1985. The Thomson Reuters/University of Michigan data are monthly and extend through February 2012; the series is indexed to equal 100 in 1966.
SOURCE: The Conference Board and Thomson Reuters/University of Michigan Surveys of Consumers.

8. Household debt service, 1984–2011



NOTE: The data are quarterly and extend through 2011:Q3. Debt service payments consist of estimated required payments on outstanding mortgage and consumer debt.
SOURCE: Federal Reserve Board, "Household Debt Service and Financial Obligations Ratios," statistical release.

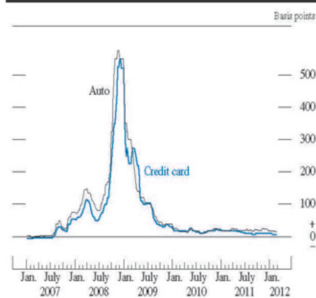
Interest rates on consumer loans held fairly steady, on net, in the second half of 2011 and into 2012. Interest rates on new-auto loans continued to be quite low, while rates on credit card loans remained stubbornly high. Indeed, spreads of credit card interest rates to the two-year Treasury yield are very elevated.

Consumer asset-backed securities (ABS) issuance in the second half of 2011 was in line with that of the previous 18 months. Securities backed by auto loans continued to dominate the market, while issuance of credit card ABS remained weak, as growth of credit card loans has remained subdued and most major banks have chosen to fund such loans on their balance sheets. Yields on ABS and their spreads over comparable-maturity swap rates were little changed, on net, over the second half of 2011 and early 2012 and remained in the low range that has prevailed since early 2010 (figure 9).

Housing Activity and Finance

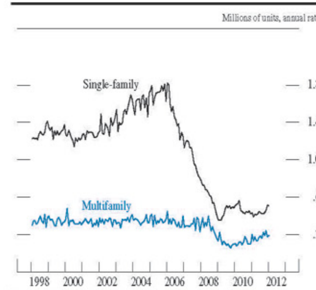
Activity in the housing sector remains depressed by historical standards (figure 10). Although affordability has been boosted by declines in house prices and historically low interest rates for conventional mortgages, many potential buyers either lack the down payment and credit history to qualify for loans or are discouraged by ongoing concerns about future income, employment, and the potential for further declines in house prices. Yet other potential buyers—even those with sufficiently good credit records to qualify for a mortgage insured by one of the housing government-sponsored enterprises (GSEs)—continue to face difficulty in obtaining mortgage financing. Moreover, much of the demand that does exist has been channeled to the abundant stock of relatively inexpensive, vacant single-family houses, thereby limiting the need for new construction activity. Given the magnitude of the pipeline of delinquent and foreclosed homes, this factor seems likely to continue to weigh on activity for some time.

9. Spreads of asset-backed securities yields over rates on comparable-maturity interest rate swaps, 2007–12



NOTE: The data are weekly and extend through February 23, 2012. The spreads shown are the yields on two-year fixed-rate asset-backed securities less rates on two-year interest rate swaps.
SOURCE: JPMorgan Chase & Co.

10. Private housing starts, 1998–2012

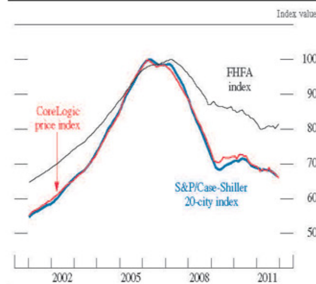


NOTE: The data are monthly and extend through January 2012.
SOURCE: Department of Commerce, Bureau of the Census.

Nonetheless, recent indicators of housing construction activity have been slightly more encouraging. In particular, from July 2011 to January 2012, new single-family homes were started at an average annual rate of about 455,000 units, up a bit from the pace in the first half of 2011. In the multifamily market, demand for apartments appears to be increasing and vacancy rates have fallen, as families who are unable or unwilling to purchase homes are renting properties instead. As a result, starts in the multifamily sector averaged about 200,000 units at an annual rate in the second half of 2011, still below the 300,000-unit rate that had prevailed for much of the previous decade but well above the lows recorded in 2009 and early 2010.

House prices, as measured by several national indexes, fell further over the second half of 2011 (figure 11). One such measure with wide geographic coverage—the CoreLogic repeat-sales index—fell at an annual rate of about 6 percent in the second half of the year. House prices are being held down by the same factors that are restraining housing construction: the high number of distressed sales, the large inventory of unsold homes, tight mortgage credit conditions, and lackluster demand. The inventory of unsold homes likely will remain high for some time, given the large

11. Prices of existing single-family houses, 2001–11



NOTE: The data are monthly and extend into 2011:Q4. Each index has been normalized so that its peak is 100. Both the CoreLogic price index and the FHFA index (formerly calculated by the Office of Federal Housing Enterprise Oversight) include purchase transactions only. The S&P/Case-Shiller index reflects all arm's-length sales transactions in selected metropolitan areas.

SOURCE: For CoreLogic, CoreLogic; for FHFA, Federal Housing Finance Agency; for S&P/Case-Shiller, Standard & Poor's.

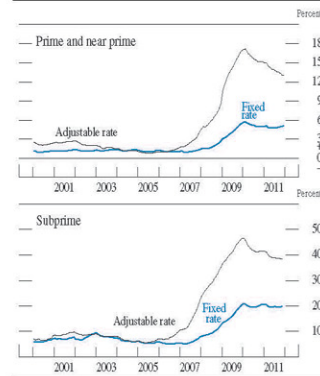
number of homes that are already in the foreclosure pipeline or could be entering the pipeline in the coming months. As a result of the cumulative decline in house prices over the past several years, roughly one in five mortgage holders owe more on their mortgages than their homes are worth.

Indicators of credit quality in the residential mortgage sector continued to reflect strains on homeowners confronting depressed home values and high unemployment. In December, serious delinquency rates on prime and near-prime loans stood at 5 percent and 13 percent for fixed- and variable-rate loans, respectively (figure 12). While delinquencies on variable-rate mortgages for both prime and subprime borrowers have moved down over the past two years, delinquencies on fixed-rate mortgages have held steady at levels near their peaks in early 2010.[5] Meanwhile, delinquency and charge-off rates on second-lien mortgages held by banks also are at elevated levels, and they have declined only slightly from their peaks.

The number of properties at some stage of the foreclosure process remained elevated in 2011. This high level partly reflected the difficulties that mortgage servicers continued to have with resolving deficiencies in their foreclosure procedures. Resolution of these issues could eventually be associated with a sustained increase in the pace of completed foreclosures as servicers work through the backlog of severely delinquent loans.

5. A mortgage is defined as seriously delinquent if the borrower is 90 days or more behind in payments or the property is in foreclosure.

12. Mortgage delinquency rates, 2000–11



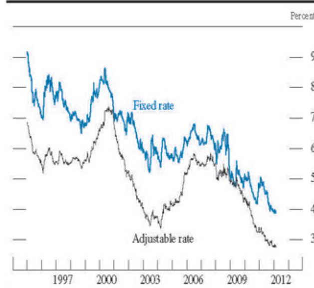
NOTE: The data are monthly and extend through December 2011 for prime and near prime and through November 2011 for subprime. Delinquency rate is the percent of loans 90 days or more past due or in foreclosure.

SOURCE: For prime and near prime, LPS Applied Analytics; for subprime, CoreLogic.

Interest rates on fixed-rate mortgages fell steadily during the second half of 2011 and in early 2012 (figure 13), though not as much as Treasury yields, leaving spreads to Treasury securities of comparable maturities wider. The ability of potential borrowers to obtain mortgage credit for purchase transactions or refinancing continued to be limited. In part, the low level of mortgage borrowing reflected characteristics of the would-be borrowers, most prominently the widespread incidence of negative equity and unemployment. In addition, credit supply conditions remained tight. Indeed, it appeared that some lenders were reluctant to extend mortgages to borrowers with less-than-pristine credit even when the resulting loans would be eligible for purchase or guarantee by GSEs.[6] One manifestation of this constriction was the fact that the distribution of credit scores among borrowers who succeed in obtaining mortgages had shifted up significantly (figure 14). As a result of these influences, the pace of mortgage applications for home purchase declined, on net, over the second half of 2011 and remains very sluggish. The same factors also appear to have limited refinancing activity, which remains subdued compared with the large number of households

6. For example, only about half of lenders reported to LoanSifter data services that they would offer a conventional fully documented mortgage with a 90 percent loan-to-value ratio for borrowers with FICO scores of 620.

13. Mortgage interest rates, 1995–2012



NOTE: The data, which are weekly and extend through February 22, 2012, are contract rates on 30-year mortgages.
SOURCE: Federal Home Loan Mortgage Corporation.

that would potentially benefit from the low rates available to high-quality borrowers.

The outstanding stock of mortgage-backed securities (MBS) guaranteed by the GSEs was little changed, on net, over the second half of 2011. The securitization market for mortgage loans not guaranteed by a housing-related GSE or the Federal Housing Administration continued to be essentially closed.

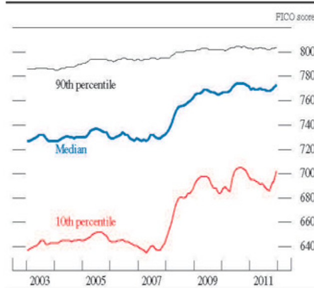
The Business Sector

Fixed Investment

Real spending by businesses for equipment and software (E&S) rose at an annual rate of about 11 percent over the second half of 2011, a pace that was a bit faster than in the first half (figure 15). Much of this strength was recorded in the third quarter. Spending growth dropped back in the fourth quarter, to 5 percent, likely reflecting—among other influences—heightened uncertainty of business owners about global economic and financial conditions. Although spending by businesses for high-tech equipment has held up reasonably well, outlays for a broad range of other E&S slowed appreciably. More recently, however, indicators of business sentiment and capital spending plans generally have improved, suggesting that firms may be in the process of becoming more willing to undertake new investments.

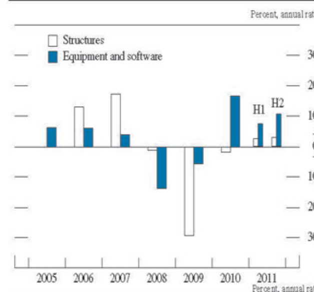
After tumbling throughout most of 2009 and 2010, real investment in nonresidential structures other than drilling and mining turned up last spring, rising at a surprisingly brisk pace in the second and third quarters of 2011. However, investment dropped back in the fourth quarter. Conditions in the sector remain difficult: Vacancy rates are still high, prices of existing structures are low, and financing conditions for builders are still tight. Spending on drilling and mining structures also dropped back in the fourth quarter, but

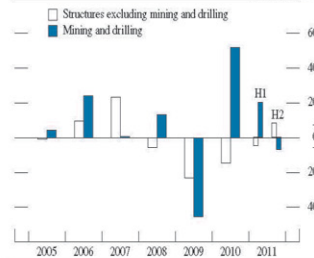
14. Credit scores on new prime mortgages, 2003–11



NOTE: The data, which include purchase mortgages only, are monthly and extend through December 2011.
SOURCE: LPS Applied Analytics.

15. Change in real business fixed investment, 2005–11





SOURCE: Department of Commerce, Bureau of Economic Analysis.

outlays in this category should continue to be supported by elevated oil prices and advances in technology for horizontal drilling and hydraulic fracturing.

Inventory Investment

Real inventory investment stepped down a bit in the second half of 2011 (figure 16). Stockbuilding outside of motor vehicles increased at a modest pace, and surveys suggest that firms are generally comfortable with their own, and their customers', current inventory positions. In the motor vehicle sector, inventories were drawn down in the second half, as the rise in sales outpaced the rebound in production following the supply disruptions associated with the earthquake in Japan last spring.

Corporate Profits and Business Finance

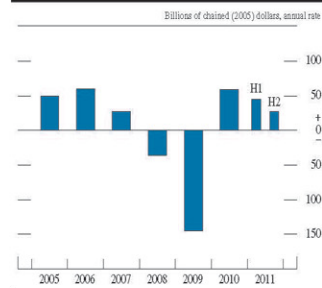
Operating earnings per share for S&P 500 firms continued to rise in the third quarter of 2011, increasing at a quarterly rate of nearly 10 percent. Fourth-quarter earnings reports by firms in the S&P 500 published through late February indicate that this measure has remained at or near its pre-crisis peaks throughout the second half of 2011.

In the corporate sector as a whole, economic profits, which had been rising rapidly since 2008, increased further in the second half of 2011. This relatively strong profit growth contributed to the continued robust credit quality of nonfinancial firms in the second half of 2011. Although the ratio of liquid assets to total assets on the balance sheets of nonfinancial corporations edged down in the third quarter, it remained at a very high level, and the aggregate ratio of debt to assets—a measure of corporate leverage—stayed low. With corporate balance sheets in generally healthy shape, credit rating upgrades once again outpaced downgrades, and the bond default rate for nonfinancial firms remained low. In addition, the delinquency rate on commercial and industrial (C&I) loans at commercial banks continued to decline and stood at around 1½ percent at year-end, a level near the low end of its historical range. Most banks responding to the January SLOOS reported that they expected further improvements in the credit quality of C&I loans in 2012.

Borrowing by nonfinancial corporations continued at a reasonably robust pace through the second half of 2011, particularly for larger, higher-credit-quality firms (figure 17). Issuance of investment-grade bonds progressed at a strong pace, similar to that observed in the first half of the year, buoyed by good corporate credit quality, attractive financing conditions, and an improving economic outlook. In contrast to higher-grade bonds, issuance of speculative-grade bonds dropped in the second half of the year as investors' appetite for riskier assets waned. In the market for syndicated loans, investment-grade issuance moved up in the second half of 2011 from its already strong first-half pace, while issuance of higher-yielding syndicated leveraged loans weakened (figure 18).

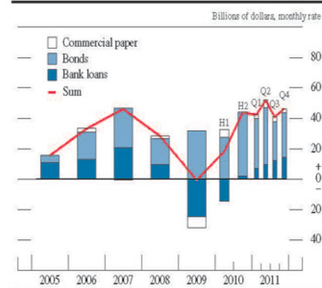
C&I loans on banks' books grew steadily over the second half of 2011. Banks reportedly competed aggressively for higher-rated credits in the syndicated leveraged loan market, and some nonfinancial firms reportedly substituted away from bond financing because of volatility in bond spreads. In addition, according to the SLOOS, some domestic banks gained

16. Change in real business inventories, 2005–11



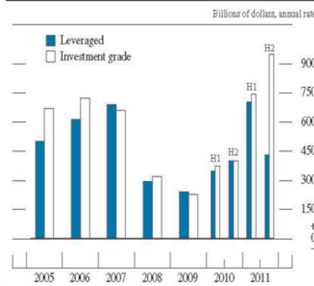
Source: Department of Commerce, Bureau of Economic Analysis.

17. Selected components of net financing for nonfinancial businesses, 2005–11



Note: The data for the components except bonds are seasonally adjusted.
Source: Federal Reserve Board, flow of funds data.

18. Syndicated loan issuance, by credit quality, 2005–11

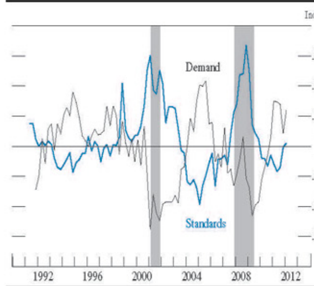


NOTE: Leveraged loans are loans rated BB+ or lower, or unrated loans with interest rates that have a significant spread to the London interbank offered rate, or LIBOR. The level of the spread required for a loan to be labeled a leveraged loan varies according to market conditions and is currently 225 basis points.

SOURCE: Thomson Reuters LPC—LoanConnector.

business from customers that shifted away from European banks. Although domestic banks reported little change, on net, in lending standards for C&I loans (figure 19), they reduced the spreads on these loans as well as the costs of credit lines. Banks that reported having eased their credit standards or terms for C&I loans over the second half of 2011 unanimously cited increased competition from other banks or nonbank sources of funds as a factor.

19. Change in standards and demand for commercial and industrial loans, 1991–2012



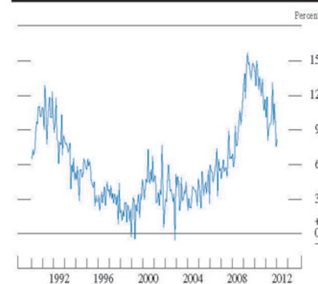
NOTE: The data are drawn from a survey generally conducted four times per year; the last observation is from the January 2012 survey, which covers 2011:Q4. Each series is a composite index that represents the net percentage of commercial and industrial loans on domestic respondents' balance sheets for which banks reported tighter lending standards or stronger loan demand over the past three months, with weights based on Call Report data. The shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research.

SOURCE: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices, and Call Reports.

Borrowing conditions for smaller businesses continued to be tighter than those for larger firms, and their demand for credit remained relatively weak. However, some signs of easing began to emerge. Surveys conducted by the National Federation of Independent Business showed that the net fraction of small businesses reporting that credit had become more difficult to obtain relative to the previous three months declined, on balance, during the second half of 2011 (figure 20). Moreover, the January 2012 SLOOS found that terms for smaller borrowers had continued to ease, and about 15 percent of banks, on net, reported that demand for C&I loans from smaller firms had increased, the highest reading since 2005. Indeed, C&I loans held by regional and community banks—those not in the 25 largest banks and likely to lend mostly to middle-market and small firms—advanced at about a 6 percent annual rate in the second half of 2011, up from a 2½ percent pace in the first half.

Commercial mortgage debt has continued to decline, albeit at a more moderate pace than during 2010. Commercial real estate (CRE) loans held on banks' books contracted further in the second half of 2011 and early 2012, though the runoff appeared to ebb somewhat in 2011. That slowing is more or less consistent with recent SLOOS responses, in which moderate net fractions of domestic banks reported that demand for such loans had strengthened. In the January survey, banks also reported that, for the first time since 2007, they had raised the maximum loan size and trimmed

20. Net percentage of small businesses that reported more difficulty in obtaining credit, 1990–2012



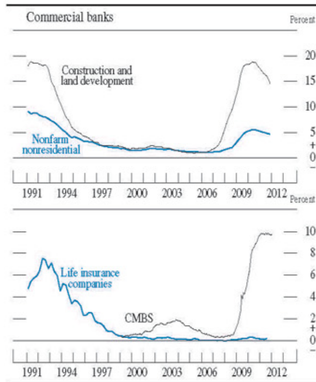
NOTE: The data are drawn from a survey conducted monthly and are seasonally adjusted; the last observation is from the January 2012 survey, which covers December 2011. The data represent the proportion of borrowers who sought credit in the past three months that reported more difficulty in obtaining credit less the proportion that reported more ease in obtaining credit.

SOURCE: National Federation of Independent Business.

spreads of rates on CRE loans over their cost of funds during the past 12 months. By contrast, life insurance companies reportedly increased their holdings of CRE loans, especially of loans issued to higher-quality borrowers. Although delinquency rates on CRE loans at commercial banks edged down further in the fourth quarter, they remained at high levels, especially on loans for construction and land development; delinquencies on loans held by life insurance companies remained extraordinarily low, as they have done for more than a decade (figure 21). Vacancy rates for most types of commercial properties are still elevated, exerting downward pressure on property prices and impairing the performance of CRE loans.

Conditions in the market for commercial mortgage-backed securities (CMBS) worsened somewhat in the second half of the year. Risk spreads on highly rated tranches of CMBS moved up, on balance, and about half of the respondents to the December Senior Credit Officer Opinion Survey on Dealer Financing Terms (SCOOS) indicated that liquidity conditions in the markets for such securities had deteriorated somewhat. Issuance of CMBS slowed further, but did not halt completely. Delinquency rates on CRE loans in CMBS pools held steady just below 10 percent.

21. Delinquency rates on commercial real estate loans, 1991–2012



NOTE: The data for commercial banks and life insurance companies are quarterly and extend through 2011:Q4 and 2011:Q3, respectively. The data for commercial mortgage-backed securities (CMBS) are monthly and extend through January 2012. The delinquency rates for commercial banks and CMBS are the percent of loans 30 days or more past due or not accruing interest. The delinquency rate for life insurance companies is the percent of loans 60 days or more past due or not accruing interest.

SOURCE: For commercial banks, Federal Financial Institutions Examination Council, Consolidated Reports of Condition and Income (Call Report); for life insurance companies, American Council of Life Insurers; for CMBS, Citigroup.

In the corporate equity market, gross issuance dropped significantly in the third quarter amid substantial equity market volatility, but it retraced a part of that decline in the fourth quarter as some previously withdrawn issues were brought back to the market. Net equity issuance continued to decline in the third quarter, reflecting the continued strength of cash-financed mergers and share repurchases (figure 22).

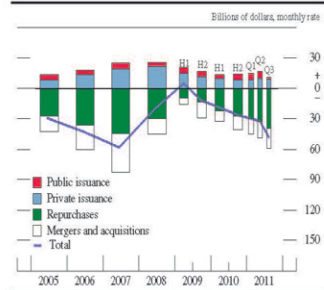
The Government Sector

Federal Government

The deficit in the federal unified budget remains very wide. The budget deficit for fiscal year 2011 was \$1.3 trillion, or 8½ percent of nominal GDP—a level comparable with deficits recorded in 2009 and 2010 but sharply higher than the deficits recorded prior to the onset of the financial crisis and recession. The budget deficit continued to be boosted by spending that was committed by the American Recovery and Reinvestment Act of 2009 (ARRA) and other stimulus policy actions as well as by the weakness of the economy, which has reduced tax revenues and increased payments for income support.

Tax receipts rose 6½ percent in fiscal 2011. However, the level of receipts remained very low; indeed, at around 15½ percent of GDP, the ratio of receipts to national income is only slightly above the 60-year lows

22. Components of net equity issuance, 2005–11



NOTE: Net equity issuance is the difference between equity issued by domestic companies in public or private markets and equity retired through share repurchases, domestic cash-financed mergers, or foreign takeovers of U.S. firms. Equity issuance includes funds invested by private equity partnerships and stock option proceeds.

SOURCE: Thomson Financial, Investment Benchmark Report; Money Tree Report by PricewaterhouseCoopers, National Venture Capital Association, and Venture Economics.

recorded in 2009 and 2010 (figure 23). The rise in revenues in fiscal 2011 was the result of a robust increase of more than 20 percent in individual income tax payments that reflected strong final payments on 2010 income. Social insurance tax receipts fell about 5 percent in fiscal 2011, held down by the temporary 2 percentage point reduction in payroll taxes enacted in 2010. Corporate taxes also fell around 5 percent in 2011, with the decline largely the result of legislation providing more-favorable tax treatment for some business investment. In the first four months of fiscal 2012, total tax receipts increased 4 percent relative to the comparable year-earlier period.

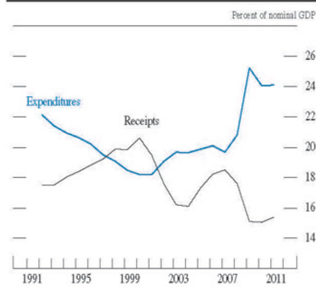
Total federal outlays rose 4 percent in fiscal 2011. Much of the increase relative to last year is attributable to the earlier unwinding of the effects of financial transactions, such as the repayments to the Treasury of obligations for the Troubled Asset Relief Program, which temporarily lowered measured outlays in fiscal 2010. Excluding these transactions, outlays were up about 2 percent in 2011. This small increase reflects reductions in both ARRA spending and unemployment insurance payments as well as a subdued pace of defense and Medicaid spending. By contrast, net interest payments rose sharply, reflecting the increase in federal debt. Spending has remained restrained in the current fiscal year, with outlays (adjusted to exclude financial transactions) down about 5 percent in the first four months of fiscal 2012 relative to the comparable year-earlier period.

As measured in the national income and product accounts (NIPA), real federal expenditures on consumption and gross investment—the part of federal spending that is a direct component of GDP—decreased at an annual rate of about 3 percent in the second half of 2011, a little less rapidly than in the first half of the year (figure 24). Defense spending fell at an annual rate of about 4 percent in the second half of the year, a somewhat sharper pace of decline than in the first half, while nondefense purchases were unchanged over this period.

Federal debt surged in the second half of 2011, after the debt ceiling was raised in early August by the Budget Control Act of 2011.[7] Standard and Poor's (S&P), which had put the U.S. long-term sovereign credit rating on credit watch negative in June, downgraded that rating from AAA to AA+ following the passage of the act, citing the risks of a continued rise in federal government debt ratios over the medium term and declining confidence that timely fiscal measures necessary to place U.S. public finances on a sustainable path would be forthcoming. Other credit rating agencies subsequently posted a negative outlook on their rating of U.S. sovereign debt, on similar grounds, but did not change their credit ratings. These actions do not appear to have affected participation in Treasury auctions, which continued to be well subscribed. Demand for Treasury securities was supported by market participants' preference for the relative safety and liquidity

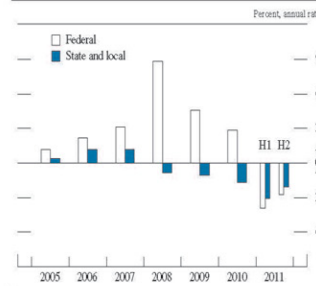
7. On May 16, the federal debt reached the $14.294 trillion limit, and the Secretary of the Treasury declared a "debt issuance suspension period" for the Civil Service Retirement and Disability Fund, permitting the Treasury to redeem a portion of existing Treasury securities held by that fund as investments and to suspend issuance of new Treasury securities to that fund as investments. The Treasury also began suspending some of its daily reinvestment of Treasury securities held as investments by the Government Securities Investment Fund of the Federal Employees' Retirement System Thrift Savings Plan.

23. Federal receipts and expenditures, 1991–2011



NOTE: The receipts and expenditures data are on a unified-budget basis and are for fiscal years (October through September); gross domestic product (GDP) is for the four quarters ending in Q3.
SOURCE: Office of Management and Budget.

24. Change in real government expenditures on consumption and investment, 2005–11



SOURCE: Department of Commerce, Bureau of Economic Analysis.

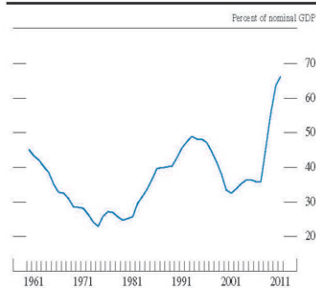
of such securities. Bid-to-cover ratios were within historical ranges, and indicators of foreign participation remained near their recent levels. Federal debt held by the public, as a percentage of GDP, continued to rise in the third quarter, reaching about 68 percent (figure 25).

State and Local Government

State and local governments remain under significant fiscal strain. Since July, employment in the sector has declined by an average of 15,000 jobs per month, just slightly under the pace of job losses recorded for the first half of 2011. Meanwhile, reductions in real construction expenditures abated after a precipitous drop in the first half of 2011. As measured in the NIPA, real state and local expenditures on consumption and gross investment decreased at an annual rate of about 2 percent in the second half of 2011, a somewhat slower pace of decline than in the first half of the year (figure 24).

State and local government revenues appear to have increased modestly in 2011. Notably, at the state level, third-quarter tax revenues rose 5½ percent over the year-earlier period, with the majority of the states experiencing gains. However, this increase in tax revenues was partly offset by a reduction in federal stimulus grants. Tax collections have been less robust at the local level. Property tax receipts have been roughly flat, on net, since the start of 2010 (based on data through the third quarter of 2011), reflecting the downturn in home prices. Furthermore, many localities have experienced a decrease in grants-in-aid from their state government.

25. Federal government debt held by the public, 1960–2011



NOTE: The data for debt are as of year-end; the observation for 2011 is an estimate. The corresponding values for gross domestic product (GDP) are for Q4 at an annual rate. Excludes securities held as investments of federal government accounts.

SOURCE: Federal Reserve Board, flow of funds data.

Issuance of long-term securities by state and local governments moved up in the second half of 2011 to a pace similar to that seen in 2009 and 2010. Issuance had been subdued during the first half of the year, in part because the expiration of the Build America Bonds program led to some shifting of financing from 2011 into late 2010.

Yields on state and local government securities declined in the second half of 2011 and into 2012, reaching levels near the lower end of their range over the past decade, but they fell to a lesser degree than yields on comparable-maturity Treasury securities. The increase in the ratio of municipal bond yields to Treasury yields likely reflected, in part, continued concern regarding the financial health of state and local governments. Indeed, credit default swap (CDS) indexes for municipal bonds rose, on balance, over the second half of 2011 but have narrowed somewhat in early 2012. Credit rating downgrades outpaced upgrades in the second half of 2011, particularly in December, following the downgrade of a municipal bond guarantor.[8]

The External Sector

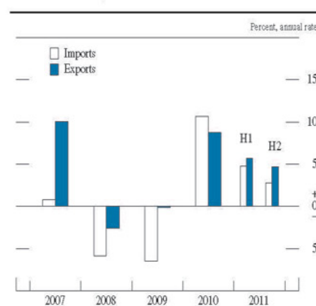
Real exports of goods and services rose at an annual rate of 4¾ percent in the second half of 2011, boosted by continued growth in overall foreign economic activity and the lagged effect of declines in the foreign exchange value of the dollar earlier in the year (figure 26). Exports of aircraft and consumer goods registered some of the largest gains. The increase in export demand was concentrated in the emerging market economies (EMEs), while exports to the euro area declined toward the end of the year.

With growth of economic activity in the United States moderate during the second half of 2011, real imports of goods and services rose at only about a 3 percent annual rate, down from about 5 percent in the first half. Import growth was weak across most trading partners in the second half of last year, with the notable exception of imports from Japan, which grew significantly after dropping sharply in the wake of the March earthquake.

Altogether, net exports contributed about ¼ percentage point to real GDP growth in the second half of

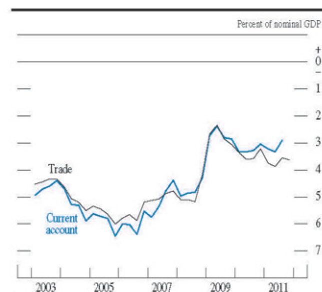
8. Downgrades to bond guarantors can affect the ratings of all municipal securities guaranteed by those firms, as the rating of a security is the higher of either the published underlying security rating or the rating of the entity providing the guarantee.

26. Change in real imports and exports of goods and services, 2007–11



Source: Department of Commerce, Bureau of Economic Analysis.

27. U.S. trade and current account balances, 2003–11



Note: The data are quarterly. For the trade account, the data extend through 2011:Q4; for the current account, they extend through 2011:Q3. GDP is gross domestic product.

Source: Department of Commerce, Bureau of Economic Analysis.

2011, as export growth outpaced import growth. At an annual rate, the current account deficit in the third quarter of 2011 (the latest available data) was $441 billion, or about 3 percent of nominal GDP, a touch narrower than the $470 billion deficit recorded in 2010 (figure 27).

Oil prices moved down, on net, over the second half of last year. The spot price of West Texas Intermediate (WTI) crude oil, which jumped to $110 per barrel last April after a near-complete shutdown of Libyan oil production, subsequently reversed course and declined sharply to an average of just under $86 per barrel in September. The prices of other major benchmark crude oils also fell over this period, although by less than the spot price of WTI (figure 28). The drop in oil prices through September likely was prompted by the winding down of the conflict in Libya as well as growing concern about the strength of global growth as the European sovereign debt crisis intensified, particularly toward the end of summer. From September to January of this year, the price of oil from the North Sea (the Brent benchmark) was essentially flat as the potential implications of increased geopolitical tensions—most notably with Iran—have offset ongoing concern over the strength of global demand and a faster-than-expected rebound in Libyan oil production. In February, the price of Brent moved higher, both with increasing optimism regarding the outlook for global growth as well as a further heightening of tensions with Iran. The spot price of WTI crude oil also increased in February, though by less than Brent, following a relatively rapid rise over the final three months of last year.[9]

After peaking early in 2011, prices of many non-oil commodities also moved lower during the remainder of 2011. Despite moving up recently, copper prices remain well below their early 2011 level. In agricultural markets, corn and wheat prices ended 2011 down about 20 percent from their relatively high levels at the end of August as global production reached record levels. In early 2012, however, corn prices edged up on worries about dry growing conditions in South America.

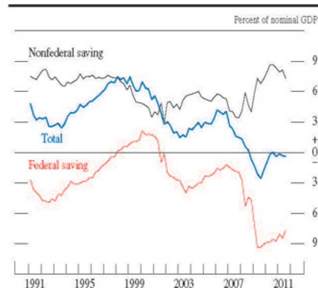
After increasing at an annual rate of 6½ percent in the first half of 2011, prices of non-oil imported goods were flat in the second half. Fluctuations in prices of imported finished goods (such as consumer goods and capital goods) were moderate.

9. The more rapid rise of WTI than other grades of crude oil at the end of 2011 reflects the narrowing of a discount that had opened up between WTI and other grades earlier in the year. Throughout most of 2011, continued increases in the supply of oil, primarily from Canada and North Dakota, available to flow into Cushing, Oklahoma (the delivery point for the WTI crude oil), and the lack of transportation infrastructure to pass the supplies on to global markets, depressed the price of WTI relative to other grades of crude oil. In mid-November, however, plans were announced to reverse the flow of a key pipeline that currently transports crude oil from the Gulf Coast into Cushing. By raising the possibility of alleviating the supply glut of crude oil in the Midwest, the announcement of this flow reversal has led spot WTI prices to rise to a level that is more in line with the price of other grades of crude oil.

28. Prices of oil and nonfuel commodities, 2007–12

NOTE: The data are monthly. The oil price is the spot price of Brent crude oil, and the last observation is the average for February 1–24, 2012. The price of nonfuel commodities is an index of 45 primary-commodity prices and extends through January 2012.
SOURCE: For oil, the Commodity Research Bureau; for nonfuel commodities, International Monetary Fund.

29. Net saving, 1991–2011



NOTE: The data are quarterly and extend through 2011:Q3. Nonfederal saving is the sum of personal and net business saving and the net saving of state and local governments. GDP is gross domestic product.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

National Saving

Total U.S. net national saving—that is, the saving of U.S. households, businesses, and governments, net of depreciation charges—remains extremely low by historical standards (figure 29). After having reached 4 percent of nominal GDP in 2006, net national saving dropped over the subsequent three years, reaching a low of negative 2½ percent in 2009. Since then, the national saving rate has increased on balance: In the third quarter of 2011 (the latest quarter for which data are available), net national saving was negative ½ percent of nominal GDP. The recent contour of the saving rate importantly reflects the pattern of federal budget deficits, which widened sharply in 2008 and 2009, but have edged down as a share of GDP since then. National saving will likely remain relatively low this year in light of the continuing large federal budget deficit. If low levels of national saving persist over the longer run, they will likely be associated with both low rates of capital formation and heavy borrowing from abroad, limiting the rise in the standard of living of U.S. residents over time.

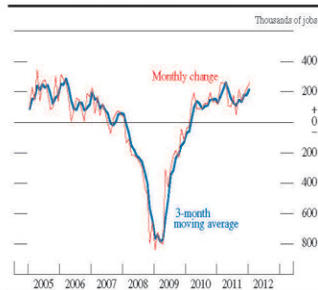
The Labor Market

Employment and Unemployment

Conditions in the labor market have improved some of late. Private payroll employment gains averaged 165,000 jobs per month in the second half of 2011, a bit slower than the pace in the first half of the year, but gains in December and January were more robust, averaging almost 240,000 per month (figure 30). The unemployment rate, which hovered around 9 percent for much of last year, is estimated to have moved down noticeably since September, reaching 8¼ percent in January, the lowest reading in almost three years (figure 31).

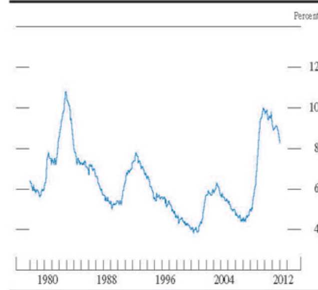
Although the recent decline in the jobless rate is encouraging, the level of unemployment remains very elevated. In addition, long-duration joblessness continues to account for an especially large share of the total. Indeed, in January, 5½ million persons among those counted as unemployed—about 43 percent of the total—had been out of work for more than six months,

30. Net change in private payroll employment, 2005–12



NOTE: The data are monthly and extend through January 2012.
SOURCE: Department of Labor, Bureau of Labor Statistics.

31. Civilian unemployment rate, 1978–2012



NOTE: The data are monthly and extend through January 2012.
SOURCE: Department of Labor, Bureau of Labor Statistics.

figures that were only a little below record levels (figure 32). Moreover, the number of individuals who are working part time for economic reasons—another indicator of the underutilization of labor—remained roughly twice its pre-recession value.

Productivity and Labor Compensation

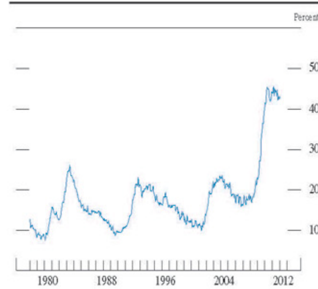
Labor productivity growth slowed last year. Productivity had risen rapidly in 2009 and 2010 as firms strove to cut costs in an environment of severe economic stress. In 2011, however, with operations leaner and workforces stretched thin, firms needed to add labor inputs to achieve the desired output gains, and output per hour in the nonfarm business sector rose only ½ percent (figure 33).

Increases in hourly compensation remained subdued in 2011, restrained by the wide margin of labor market slack (figure 34). The employment cost index, which measures both wages and the cost to employers of providing benefits, for private industry rose just 2¼ percent in nominal terms in 2011. Nominal compensation per hour in the nonfarm business sector—derived from the labor compensation data in the NIPA—is estimated to have increased only 1¾ percent in 2011, well below the average gain of about 4 percent in the years before the recession. Adjusted for the rise in consumer prices, hourly compensation was roughly unchanged in 2011. Unit labor costs rose 1¼ percent in 2011, as the rise in nominal hourly compensation outpaced that of labor productivity in the nonfarm business sector. In 2010, unit labor costs fell almost 1 percent.

Prices

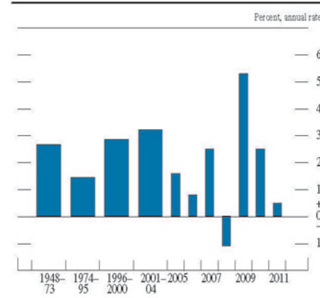
Consumer price inflation stepped down in the second half of 2011. After rising at an annual rate of 3½ percent in the first half of the year, the overall PCE chain-type price index increased just 1½ percent in the second half (figure 35). PCE prices excluding food and energy also decelerated in the second half of 2011, rising at an annual rate of about 1½ percent, compared with roughly 2 percent in the first half. The recent contour of consumer price inflation has reflected movements in global commodity prices, which rose sharply

32. Long-term unemployed, 1978–2012



NOTE: The data are monthly and extend through January 2012. The series shown is the percentage of total unemployed persons who have been unemployed for 27 weeks or more.
SOURCE: Department of Labor, Bureau of Labor Statistics.

33. Change in output per hour, 1948–2011



NOTE: Nonfarm business sector. Change for each multiyear period is measured to the fourth quarter of the final year of the period from the fourth quarter of the year immediately preceding the period.
SOURCE: Department of Labor, Bureau of Labor Statistics.

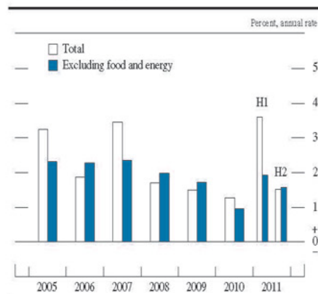
34. Measures of change in hourly compensation, 2001–11

NOTE: The data are quarterly and extend through 2011:Q4. For nonfarm business compensation, change is over four quarters; for the employment cost index (ECI), change is over the 12 months ending in the last month of each quarter. The nonfarm business sector excludes farms, government, nonprofit institutions, and households. The sector covered by the ECI used here is the nonfarm business sector plus nonprofit institutions.
SOURCE: Department of Labor, Bureau of Labor Statistics.

early in 2011 but have moved lower during the second half of the year. Information from the consumer price index and other sources suggests that inflation remained subdued through January 2012, although energy prices have turned up more recently.

The index of consumer energy prices, which surged in the first half of 2011, fell back in the second half of the year. The contour mainly reflected the rise and subsequent reversal in the price of crude oil; however, gasoline prices started to rise again in February following a recent upturn in crude oil prices. Consumer natural gas prices also fell at the end of 2011, as unseasonably mild temperatures and increases in supply from new domestic wells helped boost inventories above typical levels. All told, the overall index of consumer energy prices edged lower during the second half of 2011, compared with an increase of almost 30 percent in the first half of the year.

35. Change in the chain-type price index for personal consumption expenditures, 2005–11



SOURCE: Department of Commerce, Bureau of Economic Analysis.

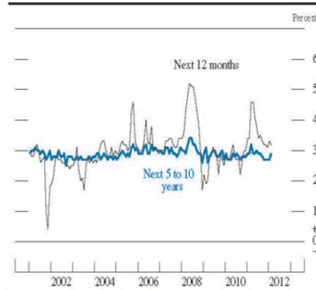
Consumer prices for food and beverages exhibited a similar pattern as that of energy prices. Prices for farm commodities rose briskly early last year, reflecting the combination of poor harvests in several countries that are major producers along with the emerging recovery in the global economy. These commodity price increases fed through to higher consumer prices for meats and a wide range of other more-processed foods. With the downturn in farm commodity prices late in the summer, the index of consumer food prices rose at an annual rate of just 3¾ percent in the second half of 2011 after increasing 6½ percent in the first half.

Prices for consumer goods and services other than energy and food have also slowed, on net, in recent months. Core PCE prices had been boosted in the spring and summer of 2011 by a number of transitory factors, including the pass-through of the first-half surge in prices of raw commodities and other imported goods and a boost to motor vehicle prices that stemmed from supply shortages following the earthquake in Japan. As the impulse from these factors faded, core PCE price inflation stepped down so that, for 2011 as a whole, core PCE price inflation was just 1¾ percent.

Survey-based measures of near-term inflation expectations are down since the middle of 2011. Median year-ahead inflation expectations as reported in the Thomson Reuters/University of Michigan Surveys of Consumers (Michigan survey), which had risen sharply earlier in the year reflecting the run-up in energy and food prices, subsequently fell back as those prices decelerated (figure 36). Longer-term expectations have remained generally stable. In the Michigan survey, the inflation rate expected over the next 5 to 10 years was 2.9 percent in February, within the range that has prevailed over the past 10 years; in the Survey of Professional Forecasters, conducted by the Federal Reserve Bank of Philadelphia, expectations for the increase in the price index for PCE over the next 10 years remained at 2¼ percent, in the middle of its recent range.

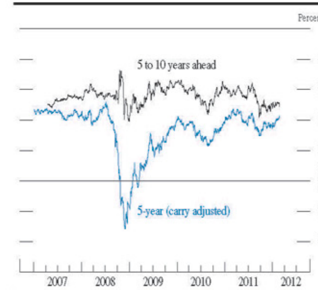
Measures of inflation compensation derived from yields on nominal and inflation-indexed Treasury securities declined early in the second half of 2011 at both medium-term and longer-term horizons, likely reflecting a worsening in the economic outlook and the

36. Median inflation expectations, 2001–12



NOTE: The data are monthly and extend through January 2012.
SOURCE: Thomson Reuters/University of Michigan Surveys of Consumers.

37. Inflation compensation, 2006–12



NOTE: The data are daily and extend through February 24, 2012. Inflation compensation is the difference between yields on nominal Treasury securities and Treasury inflation-protected securities (TIPS) of comparable maturities, based on yield curves fitted by Federal Reserve staff to off-the-run nominal Treasury securities and on- and off-the-run TIPS. The 5-year measure is adjusted for the effect of indexation lags.
SOURCE: Federal Reserve Bank of New York; Barclays; Federal Reserve Board staff estimates.

intensification of the European fiscal crisis. More recently, inflation compensation estimates over the next five years have edged back up, apparently reflecting investors' more optimistic economic outlook, and is about unchanged, on net, for the period. However, the forward measure of five-year inflation compensation five years ahead remains about 55 basis points below its level in the middle of last year (figure 37).

Financial Developments

In light of the disappointing pace of progress toward meeting its statutory mandate to promote maximum employment and price stability, the Federal Open Market Committee (FOMC) took a number of steps to provide additional monetary policy accommodation during the second half of 2011 and early 2012. These steps included increasing the average maturity of the Federal Reserve's securities holdings, shifting the reinvestment of principal payments on agency securities from Treasury securities to agency-guaranteed MBS, and strengthening the forward rate guidance included in postmeeting statements.

Financial markets were buffeted over the second half of 2011 and in early 2012 by changes in investors' assessments of the ongoing European crisis as well as in their evaluation of the U.S. economic outlook. As a result, developments in financial market conditions have been mixed since July. Unsecured dollar funding markets, particularly for European institutions, became significantly strained, though domestic financial firms generally maintained ready access to short-term unsecured funding. Corporate bond spreads remained elevated, on net, while broad equity prices were little changed, although they exhibited unusually high volatility. Partially reflecting additional monetary policy accommodation, Treasury yields moved down significantly. Similarly, investors pushed out the date at which they expect the federal funds rate to rise above its current target range, and they are currently anticipating a more gradual pace of increase in the funds rate following liftoff than they did last July.

Monetary Policy Expectations and Treasury Rates

In response to the steps taken by the FOMC to strengthen its forward guidance and provide additional support to the economic recovery, market participants pushed out further the date when they expect the federal funds rate to first rise above its current target range of 0 to ¼ percent and scaled back their expectations of the pace at which monetary policy accommodation will be removed. On balance, quotes on overnight index swap (OIS) contracts, as of late February, imply that investors anticipate the federal funds rate will rise above its current target range in the fourth quarter of 2013, about four quarters later than the date implied in July. Investors expect, on average, that the effective federal funds rate will be about 70 basis

points by late 2014, roughly 165 basis points lower than anticipated in mid-2011.[10]

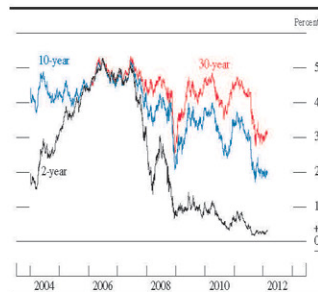
Yields on nominal Treasury securities declined significantly over the second half of 2011 (figure 38). The bulk of this decline occurred in late July and August, in part reflecting weaker-than-anticipated U.S. economic data and increased investor demand for the relative safety and liquidity of Treasury securities amid an intensification of concerns about the situation in Europe. Following the FOMC announcement of the maturity extension program (MEP) at its September meeting, yields on longer-dated Treasury securities declined further, while yields on shorter-dated securities held steady at very low levels.[11] On net, yields on 2-, 5-, and 10-year Treasury notes have declined roughly 10, 65, and 110 basis points from their levels in mid-2011, respectively. The yield on the 30-year bond has dropped about 120 basis points. Though liquidity and functioning in money markets deteriorated notably for several days at the height of the debt ceiling debate last summer, neither the downgrade of the U.S. long-term sovereign credit rating by S&P in August nor the failure of the Joint Select Committee on Deficit Reduction to reach an agreement in November appeared to leave a permanent imprint on the Treasury market. Uncertainty about longer-term interest rates, as measured by the implied volatility on 10-year Treasury securities, moved sideways through most of the second half of 2011 and then declined late in the year and into 2012, reflecting improved sentiment in financial markets following a number of policy actions by central banks and some signs of strengthening in the pace of economic recovery.

Measures of market functioning suggest that the Treasury market has continued to operate smoothly since mid-2011 despite the S&P downgrade in August. Bid–asked spreads for most Treasury securities were roughly unchanged, though they have widened a bit, on net, for the 30-year bond since August. Dealer transaction volumes have remained within historically normal ranges.

10. When interest rates are close to zero, determining the point at which financial market quotes indicate that the federal funds rate will move above its current range can be complicated. The path described in the text is the mean of a distribution calculated from OIS rates. Alternatively, one can use similar derivatives to calculate the most likely, or "modal," path of the federal funds rate, a measure that tends to be more stable. This alternative measure has also moved down, on net, since the middle of 2011, but it suggests a flatter overall trajectory for the target federal funds rate, according to which the effective rate does not rise above its current target range through the end of 2015.

11. As of February 24, the Open Market Desk had sold $223 billion in shorter-term Treasury securities and purchased $211 billion in longer-term Treasury securities.

38. Interest rates on Treasury securities at selected maturities, 2004–12



Note: The data are daily and extend through February 24, 2012.
Source: Department of the Treasury.

Short-Term Funding Markets

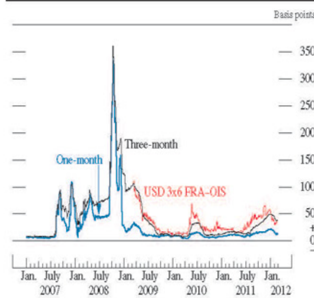
Conditions in unsecured short-term dollar funding markets deteriorated, on net, over the second half of 2011 and in early 2012 amid elevated anxiety about the crisis in Europe and its implications for European firms and their counterparties. Funding costs increased and tenors shortened dramatically for European institutions throughout the third and into the fourth quarter. Funding pressures eased somewhat late in the year following the European Central Bank's (ECB) first injection of euro liquidity via a three-year refinancing operation and the reduction of the price of U.S. dollar liquidity offered by the ECB and other central banks; they subsequently eased further following the passage of year-end. On balance, spreads of London interbank offered rates (LIBOR) over comparable-maturity OIS rates—a measure of stress in short-term bank funding markets—have widened considerably since July, particularly for tenors beyond one month, though they have moved down since late last year. Indeed, throughout much of the third and fourth quarters, many European institutions were reportedly unable to obtain unsecured dollar funding at tenors beyond one week. Additionally, more-forward-looking measures of interbank funding costs—such as the spread between a three-month forward rate agreement and the rate on an OIS contract three to six months ahead—moved up considerably in the second half of 2011 and have only partially retraced in 2012 (figure 39). Despite the pressures faced by European financial institutions, U.S. firms generally maintained ready access to short-term

unsecured funding markets. Against a backdrop of solid deposit growth and modest expansion in bank credit across the industry, most domestic banks reportedly had limited need for unsecured funding.

Pressures were also evident in the commercial paper (CP) market. Issuance in the United States of unsecured financial CP and negotiable certificates of deposit by entities with European parents declined significantly in the second half of 2011. By contrast, the pace of issuance by U.S. firms edged down only slightly, on net, over the period. On balance, spreads of rates on unsecured A2/P2 commercial paper over equivalent maturity AA-rated nonfinancial CP rose a bit for both overnight and 30-day tenors. AA-rated asset-backed CP spreads increased more notably over the second half of 2011 but largely retraced following year-end (figure 40).

In contrast to unsecured dollar funding markets, signs of stress were largely absent in secured short-term dollar funding markets. For example, in the market for repurchase agreements (repos), bid–asked spreads for most collateral types were little changed. In addition, despite a seasonal dip around year-end, volumes in the triparty repo market were largely stable on balance. That said, the composition of collateral pledged in the repo market moved further away from equities and fixed-income collateral that is not eligible for open market operations, shifting even more heavily toward Treasury and agency securities as counterparty

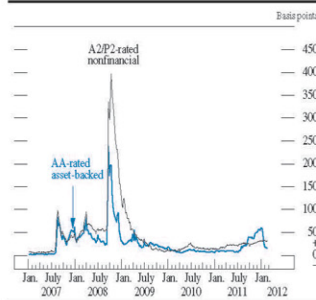
39. LIBOR minus overnight index swap rate, 2007–12



NOTE: The data are daily and extend through February 24, 2012. An overnight index swap (OIS) is an interest rate swap with the floating rate tied to an index of daily overnight rates, in this case the effective federal funds rate. At maturity, the two parties to the swap agreement exchange, on the basis of the agreed notional amount, the difference between interest accrued at the fixed rate and interest accrued by averaging the floating, or index, rate. The U.S. dollar (USD) spread is calculated from a London interbank offered rate (LIBOR) forward rate agreement (FRA) three to six months in the future and the implied forward OIS rate for the same period.

SOURCE: Bloomberg.

40. Commercial paper spreads, 2007–12



NOTE: The data are weekly and extend through February 22, 2012. Commercial paper yield spreads are for an overnight maturity and are expressed relative to the AA nonfinancial rate.

SOURCE: Depository Trust and Clearing Corporation.

concerns became more evident. Respondents to the SCOOS in both September and December noted a continued increase in demand for funding across collateral types but reported a general tightening in credit terms under which several securities types are financed. In addition, market participants reportedly became somewhat less willing to fund riskier collateral types at longer tenors as year-end approached. However, year-end pressures remained muted overall, with few signs of dislocations in either secured or unsecured short-term markets, and conditions in term funding markets have improved in early 2012.

Money market funds, a major provider of funds to short-term funding markets such as those for CP and for repo, experienced significant outflows across fund categories in July, as investors' focus turned to the deteriorating situation in Europe and to the debt ceiling debate in the United States. Those outflows largely shifted to bank deposits, resulting in significant pressure on the regulatory leverage ratios of a few large banks. However, investments in money market funds rose, on net, over the remainder of 2011, with the composition of those increases reflecting the general tone of increased risk aversion, as government-only funds faced notable inflows while prime funds experienced steady outflows.

Financial Institutions

Market sentiment toward the banking industry declined rapidly early in the second half of 2011 as

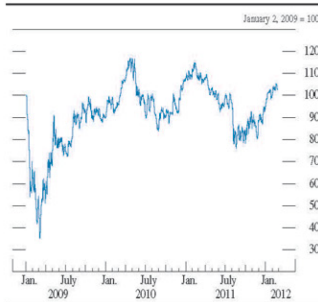
investors turned their focus on exposures to European sovereigns and financial institutions and on the possible spillover effects of the European crisis. Some large U.S. institutions also remained significantly exposed to legal risks stemming from their mortgage banking operations and foreclosure practices.[12] More recently, however, investor sentiment has improved somewhat following the actions of central banks and incoming data suggesting a somewhat better economic outlook in the United States. On balance, equity prices for banking organizations (figure 41) have completely retraced their declines from last summer, while CDS spreads (figure 42)—which reflect investors' assessments of and willingness to bear the risk that these institutions will default on their debt obligations—have declined from their peaks reached in the fall, but not all the way back to mid-2011 levels.

Measures of bank profitability edged up, on net, in recent quarters but remained well below the levels that prevailed before the financial crisis began (figure 43). Although profits at the largest institutions were supported over that period by reductions in noninterest expenses, net interest margins remained very low, capital markets revenues were subdued, loan loss provisions are still somewhat elevated relative to pre-crisis norms, and a few banks booked large reserves for litigation risks associated with their mortgage portfolios.

Indicators of credit quality at commercial banks continued to show signs of improvement. Aggregate delinquency and charge-off rates moved down, though they remained quite elevated on residential mortgages and both residential and commercial construction loans. Loss provisioning has leveled out in recent quarters near the upper end of its pre-crisis range. Nonetheless, in the January SLOOS, a large fraction of the respondents indicated that they expect credit quality to improve over the next 12 months for most major loan

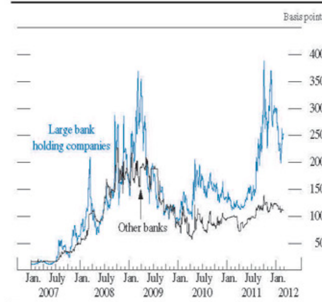
12. On February 9, it was announced that the federal government and 49 state attorneys general had reached a $25 billion agreement with the nation's five largest mortgage servicers to address mortgage loan servicing and foreclosure abuses. The agreement does not prevent state and federal authorities from pursuing criminal enforcement actions related to this or other conduct by the servicers or from punishing wrongful securitization conduct; it also does not prevent any action by individual borrowers who wish to bring their own lawsuits.

41. Equity price index for banks, 2009–12



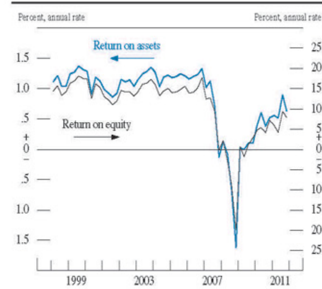
NOTE: The data are daily and extend through February 24, 2012.
SOURCE: Standard & Poor's.

42. Spreads on credit default swaps for selected U.S. banking organizations, 2007–12



NOTE: The data are daily and extend through February 24, 2012. Median spreads for six bank holding companies and nine other banks.
SOURCE: Markit.

43. Profitability of bank holding companies, 1998–2011



NOTE: The data are quarterly and extend through 2011:Q4.
SOURCE: Federal Reserve Board, FR Y-9C, Consolidated Financial Statements for Bank Holding Companies.

Financial Stability at the Federal Reserve

The Federal Reserve's responsibility for promoting financial stability stems from its role in supervising and regulating banks, operating the nation's payments system, and serving as the lender of last resort. In the decades prior to the financial crisis, financial stability policy tended to be overshadowed by monetary policy, which had come to be viewed as the principal function of central banks. However, in the aftermath of the financial crisis, financial stability policy has taken on greater prominence and is now generally considered an equally critical responsibility of central banks. As such, the Federal Reserve has made significant organizational changes and taken other actions to improve its ability to understand and address systemic risk. In addition, its statutory role in maintaining financial stability has been expanded by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank Act).

One key feature of the Dodd-Frank Act is its macroprudential orientation, as reflected in many of the provisions to be implemented by the Federal Reserve and other financial regulators. The macroprudential approach to regulation and supervision still pays close attention to the safety and soundness of individual financial institutions, but it also takes into account the linkages among those entities and the condition of the financial system as a whole. To implement the macroprudential approach, the Dodd-Frank Act established the multiagency Financial Stability Oversight Council (FSOC), which is tasked with promoting a more comprehensive approach to monitoring and mitigating systemic risk. The Federal Reserve is one of 10 voting members of the FSOC.

A significant aspect of the macroprudential approach is the heightened focus on entities whose failure or financial distress could result in outsized destabilizing effects on the rest of the system. Under the Dodd-Frank Act, the Federal Reserve is responsible for the supervision of all systemically important financial institutions (SIFIs), which include both large bank holding companies and nonbank financial firms designated by the FSOC as systemically important. Even before the Dodd-Frank Act was enacted, the Federal Reserve was making organizational changes to facilitate the incorporation of systemic risk considerations into the supervisory process. Notably, it created the Large Institution Supervision Coordinating Committee (LISCC) to bring an interdisciplinary and cross-firm perspective to the supervision of large, complex financial institutions; the LISCC acts to ensure that the financial positions of these large institutions are strong enough to withstand adverse shocks. A similar body has been set up to help in the oversight of systemically important financial market utilities.

The Federal Reserve has also established the Office of Financial Stability Policy and Research (OFS) to help the Federal Reserve more effectively monitor the financial system and develop policies for mitigating systemic risks. The OFS's function is to coordinate and analyze information bearing on financial stability from a wide range of perspectives and to place the supervision of individual institutions within a broader macroeconomic and financial context. In addition, the Federal Reserve works with other U.S. agencies and international bodies on a range of issues to strengthen the financial system.

categories if economic activity progresses in line with consensus forecasts.

Credit provided by domestic banks—the sum of loans and securities—increased moderately in the second half of 2011, its first such rise since the first half of 2008. Bank credit grew as holdings of agency MBS expanded steadily and most major loan categories exhibited improvement in the second half of the year. The expansion was consistent with recent SLOOS responses indicating that lending standards and loan terms eased somewhat and that demand for loans from businesses and households increased, on net, in the second half of 2011. In particular, C&I loans showed persistent and considerable strength over the second half of 2011 and into early 2012. Loans to nonbank financial institutions, a category that tends to be volatile, also grew rapidly over that period as did holdings of agency MBS. Consumer loans held by banks edged up in the third and fourth quarters. Those increases offset ongoing declines in commercial real estate and home equity loans, both of which remained very weak.

Regulators continued to take steps to strengthen their oversight of the financial industry. In particular, a variety of measures mandated by the Dodd–Frank Wall Street Reform and Consumer Protection Act of 2010 are being, or are soon to be, implemented, including enhanced capital and liquidity requirements for large banking organizations, annual stress testing, additional risk-management requirements, and the development of early remediation plans (see the box "Financial Stability at the Federal Reserve"). As part of those efforts, the Federal Reserve began annual

Systemic financial risks can take several forms. Some risks can be described as structural in nature because they are associated with structural features of financial markets and thus are largely independent of economic conditions; these include, for example, the risk posed by a SIFI whose failure can have outsized effects on the financial system or the degree to which money market mutual funds are susceptible to liquidity pressures. Other risks can be described as cyclical in nature and include, for example, elevated asset valuations and excessive credit growth that arise in buoyant economic times but can unwind in destabilizing ways should conditions change. Attentiveness to both types of risk is critical in the monitoring of systemic risk and the formulation of appropriate macroprudential policy responses.

The Federal Reserve has taken steps to identify structural vulnerabilities in the financial system and to devise policies to mitigate the associated risks. For example, in December 2011, the Board released a proposal to strengthen the regulation and supervision of large bank holding companies and systemically important nonbank financial firms. The proposal comprises a wide range of measures, including risk-based capital and leverage requirements, liquidity requirements, stress tests, single-counterparty credit limits, and early remediation requirements. In addition, in October 2011, the Board approved a final rule to implement the resolution plan (living will) requirement of the Dodd-Frank Act, which is intended to reduce the likelihood that the failure of a SIFI—should it occur—would cause serious damage to the financial system. In all of its rulemaking responsibilities, the Federal Reserve is attentive to the international dimension of financial regulation. It is also working with its regulatory counterparts to improve the quality and timeliness of financial data.

The Federal Reserve is likewise moving forward to address cyclical systemic risks. To identify such risks, it routinely monitors a number of items—including, for example, measures of leverage and maturity mismatch at financial intermediaries—and looks for signs of a credit-induced buildup of systemic risk. In addition, it conducts regular stress tests of the nation's largest banking firms; these tests are based on detailed confidential data about the balance sheets of the firms and provide a comprehensive, rigorous assessment of how the firms' financial conditions would likely evolve over a multiyear period under adverse economic and financial scenarios. Meanwhile, efforts are under way to evaluate and develop new macroprudential tools that could help limit future buildups of cyclical systemic risk.

In summary, the Federal Reserve has taken a series of actions to implement the relevant provisions of the Dodd-Frank Act and to meet its broader financial stability responsibilities in a timely way. The Federal Reserve has made important changes to its organizational structure to support a macroprudential approach to supervision and regulation, and it has instituted processes for identifying and responding to sources of systemic risk.

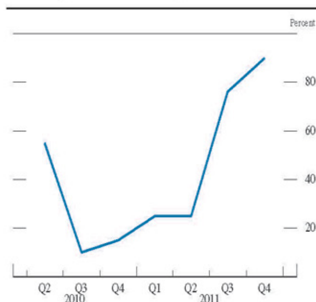
reviews of the capital plans for U.S. bank holding companies with total consolidated assets of $50 billion or more under its Comprehensive Capital Analysis and Review program. Going into those reviews, reported regulatory capital ratios of U.S. banking institutions generally remained at historically high levels over the second half of 2011.

Concerns about the condition of European financial institutions, coupled with periods of heightened attention paid to U.S. securities dealers, raised investor anxiety regarding counterparty exposure to dealers during the second half of 2011. Indeed, responses to the December SCOOS suggested that dealers devoted increased time and attention to the management of concentrated credit exposures to dealers and other financial intermediaries over the previous three months (figure 44).[13] In addition, survey respondents reported that they had reduced aggregate credit limits for certain specific institutions. Investors appeared to be particularly concerned about the stability of funding in the event of financial market stress because most dealer firms are highly reliant on short-term secured funding.

Respondents to the December SCOOS reported a broad but moderate tightening of credit terms applicable to important classes of counterparties over the previous three months. This tightening was especially evident for hedge fund clients and trading real estate

13. Following the failure of a primary dealer, the Federal Reserve Bank of New York implemented a risk-management program that required primary dealers to post margin on forward-settling agency MBS transactions.

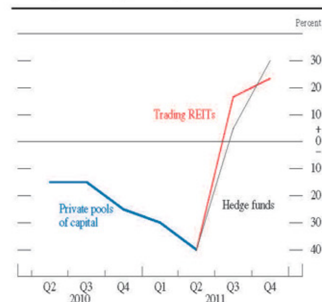
44. Net percentage of dealers reporting increased attention to exposure to other dealers, 2010–11



NOTE: The data are drawn from a survey conducted four times per year; the last observation is from the December 2011 survey, which covers 2011:Q4. Net percentage equals the percentage of institutions that reported increasing attention ("increased considerably" or "increased somewhat") minus the percentage of institutions that reported decreasing attention ("decreased considerably" or "decreased somewhat").

SOURCE: Federal Reserve Board, Senior Credit Officer Opinion Survey on Dealer Financing Terms.

45. Net percentage of dealers reporting a tightening of price terms, by counterparties, 2010–11



NOTE: The data are drawn from a survey conducted four times per year; the last observation is from the December 2011 survey, which covers 2011:Q4. Prior to the September 2011 survey, hedge funds and trading real estate investment trusts (REITs) were grouped together with private equity firms and others as private pools of capital. Net percentage equals the percentage of institutions that reported tightening terms ("tightened considerably" or "tightened somewhat") minus the percentage of institutions that reported easing terms ("eased considerably" or "eased somewhat").

SOURCE: Federal Reserve Board, Senior Credit Officer Opinion Survey on Dealer Financing Terms.

investment trusts (figure 45).[14] The institutions that reported having tightened credit terms pointed to a worsening in general market liquidity and functioning and a reduced willingness to take on risk as the most important reasons for doing so. Indeed, for each type of collateral covered in the survey, notable net fractions of respondents reported that liquidity and functioning in the underlying asset market had deteriorated over the previous three months. Dealers reported that the demand for funding most types of securities continued to increase over the previous three months, particularly the demand for term funding with a maturity greater than 30 days, which increased for all security types.

Net investment flows to hedge funds in the third and fourth quarters were reportedly significantly smaller than in the first half of the year as hedge funds markedly underperformed the broader market in 2011. Information from a variety of sources suggests that the use of dealer-intermediated leverage has declined, on balance, since mid-2011. Indeed, while the use of dealer-intermediated leverage was roughly unchanged for most types of counterparties according to September and December SCOOS respondents, about half of those surveyed indicated that hedge funds' use of financial leverage, considering the entire range of transactions with such clients, had decreased somewhat.

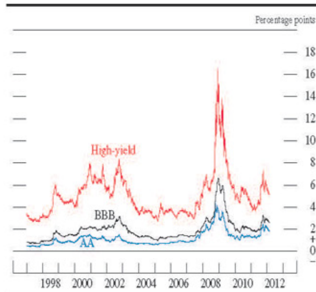
14. Trading real estate investment trusts invest in assets backed by real estate rather than directly in real estate.

Corporate Debt and Equity Markets

On net since July of last year, yields on investment-grade corporate bonds have declined notably, while those on speculative-grade corporate debt posted mixed changes. However, reflecting a decline in investor risk-taking amid concerns about the European situation and heightened volatility in financial markets, spreads of these yields to those on comparable-maturity Treasury securities widened notably in the third quarter and have only partly retraced since that time (figure 46). In the secondary market for leveraged loans, the average bid price dropped in line with the prices of other risk assets in August but has recovered since then, as institutional investors—which include collateralized loan obligations, pension funds, insurance companies and other funds investing in fixed-income instruments—have reportedly continued to exhibit strong appetites for higher-yielding leveraged loans against a backdrop of little new supply of such loans (figure 47). Liquidity in that market has recovered recently after a sharp deterioration during the summer.

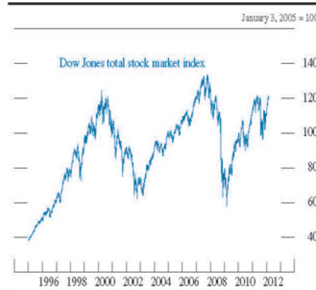
Broad equity prices are about unchanged, on balance, since mid-2011 but exhibited an unusually high level of volatility (figure 48). Equity markets fell

46. Spreads of corporate bond yields over comparable off-the-run Treasury yields, by securities rating, 1997–2012



NOTE: The data are daily and extend through February 24, 2012. The spreads shown are the yields on 10-year bonds less the 10-year Treasury yield.
SOURCE: Derived from smoothed corporate yield curves using Merrill Lynch bond data.

48. Stock price index, 1995–2012



NOTE: The data are daily and extend through February 24, 2012.
SOURCE: Dow Jones Indexes.

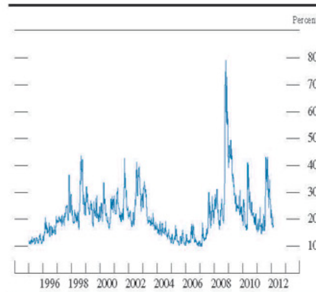
sharply in late July and early August in response to concerns about the European crisis, the U.S. debt ceiling debate, and a possible slowdown in global growth. Equity prices roughly retraced these losses during the fourth quarter of 2011 and early 2012, reflecting somewhat better-than-expected economic data in the United States as well as actions taken by major central banks to mitigate the financial strains in Europe. Nonetheless, equity prices have remained highly sensitive to news regarding developments in Europe. Implied volatility for the S&P 500 index, calculated from option prices, ramped up in the third quarter of 2011 but has since reversed much of that rise (figure 49).

Amid heightened stock market volatility over the course of the second half of 2011, equity mutual funds experienced sizable outflows. Loan funds, which invest primarily in LIBOR-based syndicated leveraged loans, also experienced outflows as retail investors responded to loan price changes following indications that the Federal Reserve would keep interest rates lower for longer than previously anticipated. With declining yields on fixed-income securities boosting the performance of bond mutual funds, these funds, including speculative-grade and municipal bond funds, attracted net inflows (figure 50).

47. Secondary-market bid prices for syndicated loans, 2007–12

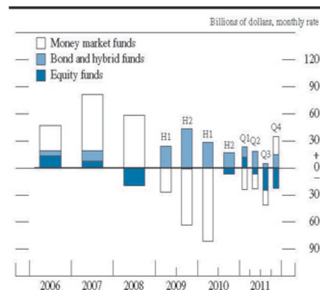
NOTE: The data are daily and extend through February 24, 2012.
SOURCE: LSTA/Thomson Reuters Mark-to-Market Pricing.

49. Implied S&P 500 volatility, 1995–2012



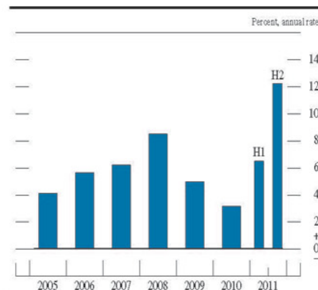
NOTE: The data are weekly and extend through the week ending February 24, 2012. The series shown—the VIX—is the implied 30-day volatility of the S&P 500 stock price index as calculated from a weighted average of options prices.
SOURCE: Chicago Board Options Exchange.

50. Net flows into mutual funds, 2006–11



NOTE: The data exclude reinvested dividends and are not seasonally adjusted.
SOURCE: Investment Company Institute.

51. M2 growth rate, 2005–11



NOTE: For definition of M2, see text note 15.
SOURCE: Federal Reserve Board, Statistical Release H.6, "Money Stock Measures."

Monetary Aggregates and the Federal Reserve's Balance Sheet

The M2 monetary aggregate expanded at an annual rate of about 12 percent over the second half of 2011 (figure 51).[15] The rapid growth in M2 appears to be the result of increased demand for safe and liquid assets due to concerns about the European situation, combined with a very low level of interest rates on alternative short-term investments. In addition, a number of regulatory changes have likely boosted M2 of late. In particular, unlimited insurance by the Federal Deposit Insurance Corporation (FDIC) of onshore non-interest-bearing deposits has made these deposits increasingly attractive at times of heightened volatility and uncertainty in financial markets. In addition, the change in the FDIC assessment base in April 2011 added deposits in domestic banks' offshore offices, eliminating some of the benefits to banks of booking deposits abroad and apparently leading, in some cases, to a decision to rebook some of these deposits onshore. Indeed, liquid deposits, the single largest component of M2, grew at an annual rate of 20 percent in the second half of 2011.[16] The currency component of the money stock grew at an annual rate of 7 percent over the second half of 2011, a bit faster than the historical average but a slower pace than in the first half of the year. The monetary base—which is equal to the sum of currency in circulation and the reserve balances of depository institutions held at the Federal Reserve—expanded at an annual rate of 3¾ percent in the second half of the year, as the rise in currency more than offset a slight decrease in reserve balances.[17]

The size of the Federal Reserve's balance sheet remained at a historically high level throughout the second half of 2011 and into early 2012, and stood at about $2.9 trillion as of February 22. The small rise of about $61 billion since July largely reflected increases in temporary U.S. dollar liquidity swap balances with the ECB, which were partially offset by a decline in securities holdings (table 1). Holdings of U.S. Treasury securities grew $32 billion over the second half of 2011, as the proceeds from paydowns of agency debt and agency MBS were reinvested in longer-term Treasury securities until the FOMC decision in September to switch the reinvestment of those proceeds to agency MBS; total holdings of MBS declined into the fall. The subsequent small increase in MBS holdings reflects the

15. M2 consists of (1) currency outside the U.S. Treasury, Federal Reserve Banks, and the vaults of depository institutions; (2) traveler's checks of nonbank issuers; (3) demand deposits at commercial banks (excluding those amounts held by depository institutions, the U.S. government, and foreign banks and official institutions) less cash items in the process of collection and Federal Reserve float; (4) other checkable deposits (negotiable order of withdrawal, or NOW, accounts and automatic transfer service accounts at depository institutions; credit union share draft accounts; and demand deposits at thrift institutions); (5) savings deposits (including money market deposit accounts); (6) small-denomination time deposits (time deposits issued in amounts of less than $100,000) less individual retirement account (IRA) and Keogh balances at depository institutions; and (7) balances in retail money market funds less IRA and Keogh balances at money market funds.

16. Regulation Q, which had prohibited the payment of interest on demand deposits, was repealed by the Board on July 14. This repeal may have also contributed, in a small way, to the growth in M2.

17. The MEP that was announced at the September FOMC meeting was designed to increase the average maturity of the Federal Reserve's securities holdings while leaving the quantity of reserve balances roughly unchanged.

1. Selected components of the Federal Reserve balance sheet, 2010–12

Millions of dollars

Balance sheet item	Dec. 29, 2010	July 6, 2011	Feb. 22, 2012
Total assets	**2,423,457**	**2,874,049**	**2,935,149**
Selected assets			
Credit extended to depository institutions and dealers			
Primary credit	58	5	3
Central bank liquidity swaps	75	0	107,959
Credit extended to other market participants			
Term Asset-Backed Securities Loan Facility (TALF)	24,704	12,488	7,629
Net portfolio holdings of TALF LLC	665	757	825
Support of critical institutions			
Net portfolio holdings of Maiden Lane LLC, Maiden Lane II LLC, and Maiden Lane III LLC[1]	66,312	59,637	30,822
Credit extended to American International Group, Inc.	20,282	...	...
Preferred interests in AIA Aurora LLC and ALICO Holdings LLC	26,057	...	...
Securities held outright			
U.S. Treasury securities	1,016,102	1,624,515	1,656,581
Agency debt securities	147,460	115,070	100,817
Agency mortgage-backed securities (MBS)[2]	992,141	908,853	853,045
Total liabilities	**2,366,855**	**2,822,382**	**2,880,556**
Selected liabilities			
Federal Reserve notes in circulation	943,749	990,861	1,048,004
Reverse repurchase agreements	59,246	67,527	89,824
Deposits held by depository institutions	1,025,839	1,663,022	1,622,800
Of which: Term deposits	5,113	0	0
U.S. Treasury, general account	88,905	67,270	36,033
U.S. Treasury, Supplementary Financing Account	199,963	5,000	0
Total capital	**56,602**	**51,667**	**54,594**

NOTE: LLC is a limited liability company.

1. The Federal Reserve has extended credit to several LLCs in conjunction with efforts to support critical institutions. Maiden Lane LLC was formed to acquire certain assets of The Bear Stearns Companies, Inc. Maiden Lane II LLC was formed to purchase residential mortgage-backed securities from the U.S. securities lending reinvestment portfolio of subsidiaries of American International Group, Inc. (AIG). Maiden Lane III LLC was formed to purchase multisector collateralized debt obligations on which the Financial Products group of AIG has written credit default swap contracts.

2. Includes only MBS purchases that have already settled.

... Not applicable.

SOURCE: Federal Reserve Board, Statistical Release H.4.1, "Factors Affecting Reserve Balances of Depository Institutions and Condition Statement of Federal Reserve Banks."

reinvestment of maturing agency debt into MBS. Agency debt declined about $14 billion over the entire period. The composition of Treasury holdings also changed over this period as a result of the implementation of the MEP. As of February 24, 2012, the Open Market Desk at the Federal Reserve Bank of New York (FRBNY) had purchased $211 billion in Treasury securities with remaining maturities of 6 to 30 years and sold $223 billion in Treasury securities with maturities of 3 years or less.

In the second half of 2011 and early 2012, the Federal Reserve reduced some of its exposure to lending facilities established during the financial crisis to support specific institutions. The portfolio holdings of Maiden Lane LLC, Maiden Lane II LLC, and Maiden Lane III LLC—entities that were created during the crisis to acquire certain assets from the Bear Stearns Companies, Inc., and American International Group, Inc., or AIG, to avoid the disorderly failures of those institutions—declined, on net, primarily as a result of asset sales and principal payments. Of note, the FRBNY sold assets with a face amount of $13 billion from the Maiden Lane II portfolio in early 2012 through two competitive processes conducted by the FRBNY's investment manager.[18]

Use of regular discount window lending facilities, such as the primary credit facility, continued to be minimal. Loans outstanding under the Term Asset-Backed Securities Loan Facility declined and stood just below $8 billion in late February.

On November 30, 2011, in order to ease strains in global financial markets and thereby mitigate the effects of such strains on the supply of credit to U.S. households and businesses, the Federal Reserve announced coordinated actions with other central banks to enhance their capacity to provide liquidity

18. On January 19, 2012, the FRBNY announced the sale of assets with a face amount of $7.0 billion from the Maiden Lane II LLC portfolio through a competitive process. On February 8, 2012, the FRBNY announced the sale of additional assets with a face amount of $6.2 billion from the Maiden Lane II LLC portfolio, also through a competitive process. Proceeds from these two transactions will enable the repayment of the entire remaining outstanding balance of the senior loan from the FRBNY to Maiden Lane II LLC.

support to the global financial system.[19] The FOMC authorized an extension of the existing temporary U.S. dollar liquidity swap arrangements through February 1, 2013, and the rate on these swap arrangements was reduced from the U.S. dollar OIS rate plus 100 basis points to the OIS rate plus 50 basis points. The lower cost spurred increased use of those swap lines; the outstanding amount of dollars provided through the swap lines rose from zero in July to roughly $108 billion in late February.

On the liability side of the Federal Reserve's balance sheet, reserve balances held by depository institutions declined roughly $40 billion in the second half of 2011 and early 2012 while Federal Reserve notes in circulation increased roughly $57 billion. The Federal Reserve conducted a series of small-scale reverse repurchase transactions involving all eligible collateral types and its expanded list of counterparties. The Federal Reserve also continued to offer small-value term deposits through the Term Deposit Facility. In July of last year, the Treasury reduced the balance of its Supplementary Financing Account at the Federal Reserve from $5 billion to zero.

International Developments

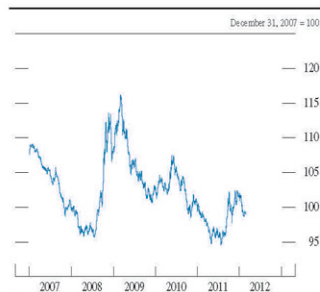
In the second half of the year, financial market developments abroad were heavily influenced by concerns about the heightened fiscal stresses in Europe and the resultant risks to the global economic outlook. Foreign real GDP growth stepped up in the third quarter, as Japan rebounded from the effects of its March earthquake and tsunami, leading to an easing of supply chain disruptions. In contrast, recent data indicate that foreign economic growth slowed in the fourth quarter, as activity in the euro area appears to have contracted and as flooding in Thailand weighed on growth in several economies in Asia.

International Financial Markets

The foreign exchange value of the dollar has risen since July about 3½ percent on a trade-weighted basis against a broad set of currencies (figure 52). Most of the appreciation occurred in September as market participants became increasingly pessimistic about the situation in Europe. Safe-haven flows buoyed the yen and the Swiss franc, and in response, the Bank of Japan and the Swiss National Bank separately intervened to counter further appreciation of their currencies (figure 53).

On net in the second half of the year, government bond yields for Canada, Germany, and the United Kingdom fell over 100 basis points to record lows,

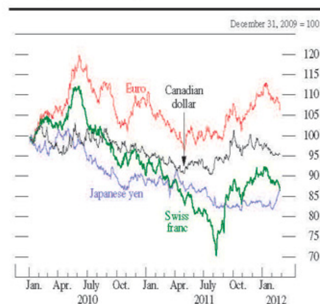
52. U.S. dollar nominal exchange rate, broad index, 2007–12



Note: The data, which are in foreign currency units per dollar, are daily. The last observation for the series is February 24, 2012. The broad index is a weighted average of the foreign exchange values of the U.S. dollar against the currencies of a large group of the most important U.S. trading partners. The index weights, which change over time, are derived from U.S. export shares and from U.S. and foreign import shares.

Source: Federal Reserve Board, Statistical Release H.10, "Foreign Exchange Rates."

53. U.S. dollar exchange rate against selected major currencies, 2010–12

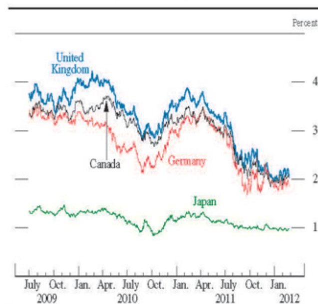


Note: The data, which are in foreign currency units per dollar, are daily. The last observation for each series is February 24, 2012.

Source: Federal Reserve Board, Statistical Release H.10, "Foreign Exchange Rates."

19. The Bank of Canada, the Bank of England, the Bank of Japan, the European Central Bank, the Federal Reserve, and the Swiss National Bank coordinated this action. In addition, as a contingency measure, the FOMC agreed to establish similar temporary swap arrangements with these five central banks to provide liquidity in any of their currencies if necessary.

54. Yields on benchmark government bonds in selected advanced foreign economies, 2009–12

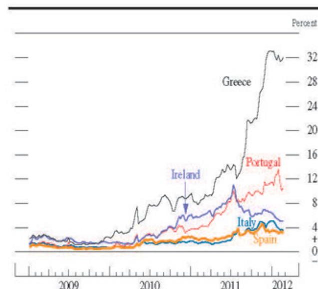


Note: The data, which are for 10-year bonds, are daily. The last observation for each series is February 24, 2012.
Source: Bloomberg.

driven by safe-haven flows as well as a deteriorating global outlook (figure 54). By contrast, sovereign bond spreads for Greece rose steeply, and Spanish and Italian sovereign spreads over German bunds also increased (figure 55). Prices of other risky assets were very volatile over the period as market participants reacted to news about the crisis. (See the box "An Update on the European Fiscal Crisis.")

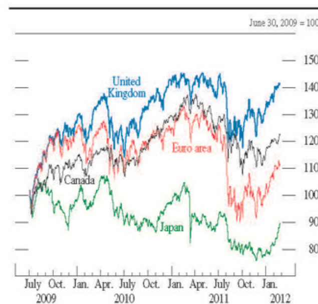
As sovereign funding pressures spread to Italy and Spain in July and August and as concerns also mounted regarding U.S. fiscal policy and the durability of the global recovery, equity prices in the advanced foreign economies (AFEs) generally plunged

55. Government debt spreads for peripheral European economies, 2009–12



Note: The data are weekly. The last observation for each series is February 24, 2012. The spreads shown are the yields on 10-year bonds less the 10-year German bond yield.
Source: Bloomberg.

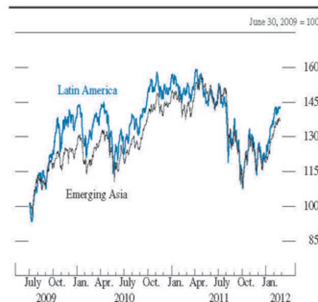
56. Equity indexes in selected advanced foreign economies, 2009–12



Note: The data are daily. The last observation for each series is February 24, 2012.
Source: For Canada, Toronto Stock Exchange 300 Composite Index; for euro area, Dow Jones Euro STOXX Index; for Japan, Tokyo Stock Exchange (TOPIX); and, for the United Kingdom, London Stock Exchange (FTSE 350); all via Bloomberg.

(figure 56). Those equity markets remained quite volatile but largely depressed through early December, when market sentiment seemed to take a more concerted turn for the better. Although most AFE equity indexes remain below their mid-summer levels, they have risen markedly in the past two months. Emerging markets equity prices followed a path similar to those in the AFEs (figure 57). Emerging markets bond and equity funds experienced large outflows during periods

57. Aggregate equity indexes for emerging market economies, 2009–12



Note: The data are daily. The last observation for each series is February 24, 2012. The Latin American economies are Argentina, Brazil, Chile, Colombia, Mexico, and Peru; the emerging Asian economies are China, India, Indonesia, Malaysia, Pakistan, the Philippines, South Korea, Taiwan, and Thailand.
Source: Bloomberg.

An Update on the European Fiscal Crisis

The European fiscal crisis intensified in the second half of 2011, as concerns over fiscal sustainability spread to additional euro-area economies amid weakening economic growth prospects and missed fiscal targets. European financial institutions also faced sharply reduced access to funds, given their large exposures to vulnerable sovereigns. In response, policymakers took steps to improve fiscal balances, bolster the region's financial backstop, and address liquidity shortages for banks. On balance, market conditions have improved somewhat since December, but concerns about a possible Greek default and the adequacy of the financial backstop for other vulnerable economies have kept yields on sovereign debt elevated and funding for European financial institutions limited.

The crisis began in smaller euro-area countries with high fiscal deficits or debt and vulnerable banking systems. In 2010 and the first half of 2011, governments in Greece, Ireland, and Portugal suffered reduced access to market funding and required financial assistance from the European Union (EU) and the International Monetary Fund (IMF). Last July, sovereign spreads over German bunds rose markedly for Italy and Spain, as economic growth disappointed, doubts increased over political commitment to fiscal consolidation, and calls for the restructuring of Greek sovereign debt rattled investor confidence. The deterioration of financial conditions led to heightened political tensions in vulnerable economies, contributing to leadership changes in Greece, Italy, and Spain later in the fall.

Financial stresses spread quickly to European banks with large exposures to Italy, Spain, and the other vulnerable economies, and access to funding became limited for all but the shortest maturities and strongest institutions. In turn, concerns over the potential fiscal burdens for governments, should they need to recapitalize financial institutions, caused sovereign yields to rise sharply in the fall for other euro-area countries, including Austria, Belgium, and France.

European leaders responded to these developments with a number of policy measures. In July, amid the growing realization that Greece would need further financial assistance, EU and IMF officials announced plans for a second rescue package, including a call for limited reduction in the value of the debt held by private creditors. In February 2012, in response to Greece's faltering fiscal performance and plunging output, the Greek government and its creditors agreed on an enhanced rescue package, including a larger reduction in private creditors' claims. The Greek government and its creditors are now working to put in place the private-sector debt exchange and the new official-sector support program before a large debt amortization payment comes due in mid-March.

In recent months, European authorities have also made progress on plans to improve fiscal governance within the region. EU members (excluding the United Kingdom and Czech Republic) have agreed on the text of a new fiscal compact treaty designed to strengthen fiscal rules, surveillance, and enforcement. Among other measures, this treaty will require countries to legislate national fiscal rules, which should generally limit structural fiscal deficits to ½ percent of gross domestic product. The treaty is expected to be signed in March, after which national parliaments must ratify it and implement the required legislation.

Leaders also took a number of steps to increase the size of the financial backstop for the euro area. The flexibility, scope, and effective lending capacity of the €440 billion European Financial Stability Facility (EFSF), designed to support vulnerable governments, were increased. Authorities also moved up the introduction of the European Stability Mechanism (ESM), a permanent €500 billion lend-

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of heightened concerns about the European crisis, but inflows have resumed more recently.

Euro-area bank stock prices underperformed the broader market, as concerns about the health of European banks intensified over the second half of 2011. The CDS premiums on the debt of many large banks in Europe rose substantially, reflecting market views of increased risk of default (figure 58). Quarterly earnings for many banks were reduced by write-downs on Greek debt. Although only eight banks failed the European Banking Authority (EBA) European Union–wide stress test in July, concerns about the capital adequacy of large European banks persisted. Partly in response to these concerns, the EBA announced in October that banks would be required to put in place a temporary extraordinary capital buffer by June 2012, boosting their core Tier 1 risk-based capital ratio to 9 percent. As market sentiment about European banks deteriorated over the period, their access to unsecured dollar funding diminished, particularly at tenors beyond one week. (See the box "U.S. Dollar Funding Pressures and Dollar Liquidity Swap Arrangements.") European banks also faced pressure in euro funding markets. As banks' willingness to lend excess liquidity

ing facility, to July 2012, about a year earlier than originally planned. This March, euro-area leaders will consider lifting the €500 billion ceiling on the combined lending of the EFSF and the ESM. In addition, European officials called for an expansion of the IMF's lending capacity and pledged a joint contribution of €150 billion toward that goal. Finally, to improve the functioning of sovereign debt markets, the European Central Bank (ECB) resumed purchases of euro-area marketable debt in August, reportedly including the debt of Italy and Spain.

Policymakers also took steps to support financial markets and institutions affected by the sovereign crisis. To improve transparency and bolster the ability of European banks to withstand losses on sovereign holdings, the European Banking Authority (EBA) conducted a second stress test of large EU financial institutions, the results of which were released in mid-July, along with detailed information about banks' exposures to borrowers in EU countries. Market concerns about bank capital persisted, however, and in October, the EBA announced that large banks would be required to build up "exceptional and temporary" capital buffers to meet a core Tier 1 capital ratio of 9 percent and cover the cost of marking sovereign exposures to market by the end of June 2012. In December, the EBA disclosed that the aggregate required capital buffer for large banks would be €115 billion if risk-weighted assets were to remain at the levels they had reached at the end of September 2011. The banks submitted their capital plans to their national supervisors for approval, and the EBA has now summarized these plans. Excluding the Greek banks and three other institutions that will be recapitalized separately by national authorities, the remaining 62 banks intend to create capital buffers equivalent to €98 billion, about 25 percent larger than their required buffers, and they plan to use direct capital measures (such as retaining earnings, issuing new shares, and converting hybrid instruments to common equity) to achieve €75 billion of their buffer. The remainder of the buffer will be generated by measures that reduce risk-weighted assets—primarily selling assets and switching from the standardized to the advanced approach to measure risk weights. These measures will be subject to supervisory agreement.

To address spillovers to U.S. dollar funding markets from stresses in Europe, in late November the Federal Reserve, the ECB, and four other major central banks agreed to reduce the fee on draws on their dollar liquidity swap lines and extend the duration of such facilities. In early December, the ECB announced a reduction in its policy interest rate and its reserve requirement, an easing of rules on collateral for ECB refinancing operations, and the provision of three-year refinancing to banks to improve their funding situation. Banks borrowed €489 billion at the new facility in December, raising the total amount of outstanding ECB refinancing operations by roughly €200 billion. A second three-year liquidity operation is scheduled for the end of February.

The improved availability of dollar and euro funds late in the year, against the background of the other policies being employed to address the crisis, appears to have partly allayed market concerns about banks as well as governments in vulnerable euro-area countries. Over the past two months, European banks have seen improvements in their access to funding, and in vulnerable economies, credit spreads on the banks and spreads on government bonds have generally declined. Nevertheless, significant risks remain as Europeans struggle to implement the new Greek program and debt exchange, meet targets for budgets and bank capital, and expand the financial backstop. Over the longer term, the region must meet the difficult challenges of achieving sustained fiscal consolidation, stimulating growth, and improving competitiveness.

to one another decreased, the cost of obtaining funding in the market rose, and banks relied more heavily on the ECB for funding. The first three-year refinancing operation, held by the ECB on December 21, led to a significant injection of new liquidity, and funding conditions in Europe seemed to improve gradually in the weeks that followed. Short-term euro interbank rates declined, euro-area shorter-duration sovereign bond yields fell sharply, and both governments and banks were able to raise funds more easily.

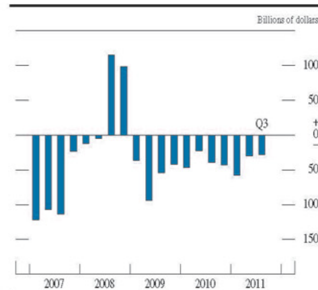
The Financial Account

Financial flows in the second half of 2011 reflected heightened concerns about risk and the pressures in currency markets resulting from the European crisis. Based on data for the third quarter and monthly indicators for the fourth quarter (not shown), foreign private investors flocked to U.S. Treasury securities as a safe-haven investment while selling U.S. corporate securities, especially in months when appetite for risk

58. Credit default swap premiums for banks in selected European countries, 2011–12

NOTE: The data are daily. The last observation for each series is February 24, 2012. Credit default swaps are on bank senior debt and weighted by bank total assets.
SOURCE: Markit; Bloomberg; Federal Reserve Board staff calculations.

60. Net U.S. purchases of foreign securities, 2007–11



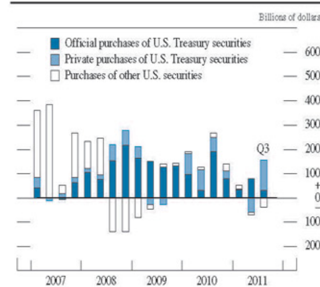
NOTE: Negative numbers indicate a balance of payments outflow associated with positive U.S. purchases of foreign securities.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

was particularly weak (figure 59). U.S. investors also pulled back from investments in Europe, significantly reducing deposits with European banks and selling securities from euro-area countries. Overall, U.S. purchases of foreign securities edged down in the third quarter (figure 60).

The large purchases of Treasury securities dominated total private financial flows in the third quarter, a pattern that likely continued in the fourth quarter. Net flows by banks located in the United States were small, but these flows masked large offsetting movements by foreign- and U.S.-owned banks. U.S. branches of European banks brought in substantial funds from affiliates abroad over the course of 2011, building reserve balances in the first half of the year and covering persistent declines in U.S. funding sources. In contrast, U.S. banks, subject to less-severe market stress, sent funds abroad to meet strong dollar demand.

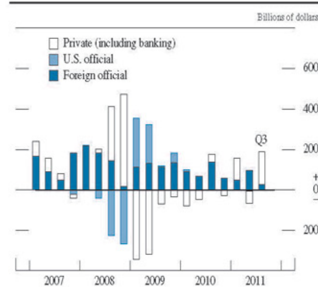
Inflows from foreign official institutions slowed notably in the second half of 2011 (figure 61). A number of advanced countries acquired some U.S. assets, seeking to counteract upward pressure on their currencies by purchasing U.S. dollars in foreign exchange markets. However, inflows from official institutions in the EMEs trended down significantly in 2011, especially in the third and fourth quarters when the

59. Net foreign purchases of U.S. securities, 2007–11



NOTE: Other U.S. securities include corporate equities and bonds, agency bonds, and municipal bonds.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

61. U.S. net financial inflows, 2007–11



NOTE: U.S. official flows include the foreign currency acquired when foreign central banks draw on their swap lines with the Federal Reserve.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

strength of the dollar led to reductions in their intervention activity.

Advanced Foreign Economies

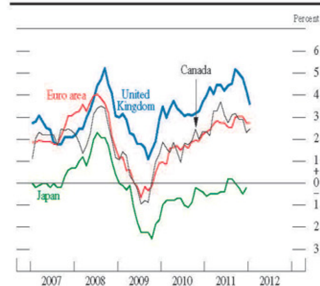
The intensification of the euro-area sovereign debt crisis was accompanied by a widespread slowing of economic activity in the AFEs. In the euro area, financial tensions increased despite the various measures announced by European leaders to combat the crisis. Real GDP contracted in the euro area at the end of last year according to preliminary estimates, and spillovers from the euro area likely contributed to the fourth-quarter GDP decline in the United Kingdom. In Japan, economic activity rebounded rapidly from the disruptions of the March earthquake and tsunami but dipped again in the last quarter of 2011 as exports slumped. In Canada, elevated commodity prices and a resilient labor market have supported economic activity, but the export sector is showing signs of weakening.

Survey indicators suggest that conditions improved somewhat around the turn of the year, with widespread upticks in different countries' purchasing managers indexes. However, uncertainty about the resolution of the euro-area crisis continues to affect investors' sentiment, while trade and financial spillovers weigh on activity for all of the AFEs.

Twelve-month headline inflation remained elevated in most of the AFEs through the end of 2011, largely reflecting the run-up in commodity prices earlier last year and, in some countries, currency depreciation and increases in taxes (figure 62). However, underlying inflation pressures remained contained and, in recent months, inflation rates have begun to turn down, reflecting weaker economic activity and, as in the United States, declines in commodity prices since last spring. As with output, inflation performance differs significantly across countries. Twelve-month headline inflation currently ranges from 3.6 percent in the United Kingdom, partly due to hikes in utility prices, to slightly negative in Japan, where deflation resumed toward the end of 2011 as energy price inflation moderated.

Several foreign central banks in the AFEs eased monetary policy in the second half of last year (figure 63). The ECB cut its policy rate 50 basis points in the fourth quarter, bringing the main refinancing rate back to 1 percent, where it was at the beginning of the year. At its December meeting, the ECB also expanded its provision of liquidity to the banking sector by introducing two three-year longer-term refinancing operations, reducing its reserve ratio requirement from 2 percent to 1 percent, and easing its collateral requirements. The Bank of England has held the Bank Rate at 0.5 percent but announced a £75 billion expansion of its asset purchase facility in October and a further £50 billion increase in February that will bring total asset holdings to £325 billion upon its completion in May 2012. The Bank of Japan also expanded its asset purchase program, raising it from

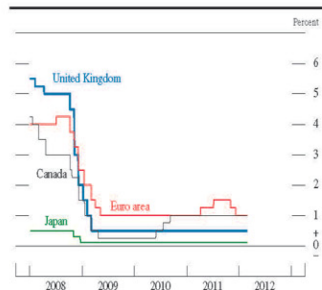
62. Change in consumer prices for major foreign economies, 2007–12



Note: The data are monthly and extend through January 2012 for Canada, the euro area, and the United Kingdom and through December 2011 for Japan; the percent change is from one year earlier.

Source: For the euro area, the European Central Bank; for the United Kingdom, the U.K. Office for National Statistics; for Japan, the Japan Statistics Bureau; and, for Canada, Statistics Canada; all via Haver Analytics.

63. Official or targeted interest rates in selected advanced foreign economies, 2008–12



Note: The data are daily and extend through February 24, 2012. The data shown are, for Canada, the target for the overnight rate; for the euro area, the minimum bid rate on main refinancing operations; for Japan, the target for the call rate; and, for the United Kingdom, the official Bank Rate.

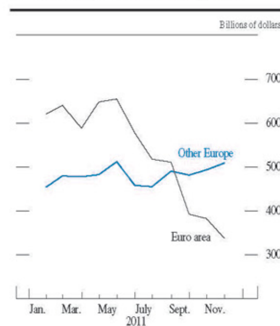
Source: The central bank of each area or country shown.

U.S. Dollar Funding Pressures and Dollar Liquidity Swap Arrangements

As the euro-area crisis intensified, European banks faced greater dollar funding pressures. Many European banks were especially vulnerable to changes in investor sentiment through their reliance on short-term dollar-denominated funding. As market sentiment deteriorated, European banks' access to medium- and long-term dollar funding markets diminished markedly, with many unable to obtain unsecured dollar funding at maturities exceeding one week. The pullback of U.S. money market funds (MMFs) from liabilities of euro-area banks beginning in mid-2011 (figure A) was an important part of the run-off of short-term dollar funds, although MMFs were not the only investors to reduce their exposures to European banks. As a result, many European banks faced higher dollar funding costs. For example, the cost for euro-area banks to obtain three-month dollar funding through the foreign exchange (FX) swap market rose as financial pressures increased. The cost of dollar funding through this market (the black line in figure B), as banks borrow euros at the euro London interbank offered rate (LIBOR) and swap into dollars in the FX swap market, rose from 40 basis points early last summer to about 200 basis points in late November.

Although the effects of these dollar funding strains are difficult to gauge, they pose substantial risks for the U.S. economy. Large European banks borrow heavily in dollars partly because they are active in U.S. markets, purchasing government and corporate securities as well as making loans to U.S. households and businesses. A possible response to dollar funding strains, along with heightened capital requirements, might be for European banks to sell their dollar assets or refrain from further dollar lending, which could in turn result in a reduction of the credit they supply to U.S. firms and households while also reducing credit to European and other foreign firms involved in trade with the United States. Therefore, further stresses on European banks could spill over to the United States by weighing on business and consumer activity, restraining our exports, and adding to pressures on U.S. financial markets and institutions.

A. U.S. money market fund holdings, 2011



NOTE: The data are monthly and extend through November 2011. Other Europe consists of Denmark, Liechtenstein, Norway, Sweden, Switzerland, and the United Kingdom.

SOURCE: Securities and Exchange Commission, form N-MFP, Monthly Schedule of Portfolio Holdings of Money Market Funds.

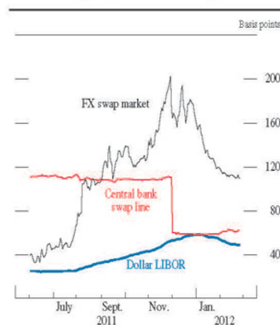
¥15 trillion to ¥20 trillion in October and then to ¥30 trillion in February.

Emerging Market Economies

Many EMEs experienced a slowdown in economic growth in the third quarter of last year relative to the pace seen in the first half. Both earlier policy tightening, undertaken amid concerns about overheating, and weakening external demand weighed on growth. However, third-quarter growth in China and Mexico remained strong, supported by robust domestic demand. Recent data indicate that the slowdown continued and broadened in the fourth quarter, as the financial crisis in Europe softened external demand and the floods in Thailand impeded supply chains. In the second half of last year, concerns about the global economy prompted EME authorities either to put monetary policy tightening on hold or, in several cases—such as Brazil, China, Indonesia, and Thailand—to loosen monetary policy.

In China, real GDP growth stepped down to an annual rate of about 8 percent in the fourth quarter. Retail sales and fixed-asset investment slowed a touch but continued to grow briskly, reflecting solid domestic demand. But net exports exerted a small drag on growth, as weak external demand damped exports. Twelve-month headline inflation moderated to about 4½ percent in January, as food prices retreated from earlier sharp rises. With growth slowing and inflation on the decline, Chinese authorities reversed the course

B. Costs of three-month dollar funding through the foreign exchange swap market, the central bank swap line, and dollar LIBOR, 2011–12



NOTE: The data are daily. The last observation for each series is February 24, 2012. Three-month dollar funding through the foreign exchange (FX) swap market assumes that banks first pay euro LIBOR (London interbank offered rate) to obtain euro funding.
SOURCE: Bloomberg.

To address strains in dollar funding markets, the Federal Reserve, the European Central Bank (ECB), and the central banks of Canada, Japan, Switzerland, and the United Kingdom announced an agreement on November 30 to revise, extend, and expand the U.S. dollar swap lines. The revised agreement lowered the price of dollar funding provided through the swaps (the red line in figure B) to a rate of 50 basis points over the dollar overnight index swap rate, a reduction of 50 basis points in the rate at which the foreign central banks had been providing dollar loans since May 2010.

The reduction in dollar funding costs due to the revised pricing of the central bank swap lines helped strengthen the liquidity positions of European and other foreign banks, thereby benefiting the United States by supporting the continued supply of credit to U.S. households and businesses while mitigating other channels of risk. Draws on the swap lines, especially from the ECB, have been significant. On December 7, at the first three-month dollar tender under the new pricing scheme, the ECB allocated about $51 billion, a substantial increase over previous operations. As of February 24, the ECB, the Bank of Japan, and the Swiss National Bank had about $89 billion, $18 billion, and $0.5 billion outstanding, respectively, from their dollar swap line allotments, for a total of about $108 billion. In an indication that the swap lines have been effective at reducing overall dollar funding pressure, the cost of obtaining dollars in the FX swap market has dropped substantially since November 30. Dollar LIBOR, which measures dollar funding costs in the interbank market for U.S. and foreign institutions, has also declined over the past two months.

of monetary policy toward easing by lowering the reserve requirement for large banks 100 basis points, to 20.5 percent. In 2011, the Chinese renminbi appreciated 4½ percent against the dollar and about 6 percent on a real trade-weighted basis; the latter measure gauges the renminbi's value against the currencies of China's major trading partners and adjusts for differences in inflation rates.

In Mexico, economic activity accelerated in the second and third quarters as domestic demand expanded robustly. However, incoming indicators, such as tepid growth of exports to the United States, point to a slowdown in the fourth quarter. Mexican consumer price inflation rose sharply in the second half of the year, driven largely by rising food prices and the removal of electrical energy subsidies. In Brazil, in contrast to most EMEs, GDP contracted slightly in the third quarter, but incoming indicators point to a return to growth in the fourth quarter, partly as a result of several rounds of monetary policy easing that began in August. As the direction of capital flows turned to a net outflow, Brazilian authorities loosened capital controls that had been introduced earlier in the face of massive inflows and associated fears of overheating.

Part 3
Monetary Policy: Recent Developments and Outlook

Monetary Policy over the Second Half of 2011 and Early 2012

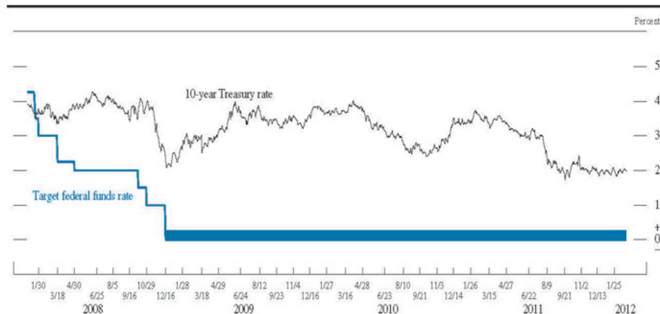
To promote the Federal Open Market Committee's (FOMC) objectives of maximum employment and price stability, the Committee maintained a target range for the federal funds rate of 0 to ¼ percent throughout the second half of 2011 and into 2012 (figure 64). With the incoming data suggesting a somewhat slower pace of economic recovery than the Committee had anticipated, and with inflation seen as settling at levels at or below those consistent with its statutory mandate, the Committee took steps during the second half of 2011 and in early 2012 to provide additional monetary accommodation in order to support a stronger economic recovery and to help ensure that inflation, over time, runs at levels consistent with its mandate. These steps included strengthening its forward rate guidance regarding the Committee's expectations for the period over which economic conditions will warrant exceptionally low levels for the federal funds rate, increasing the average maturity of the Federal Reserve's securities holdings through a program of purchases and sales, and reinvesting principal payments on agency securities in agency-guaranteed mortgage-backed securities (MBS) rather than Treasury securities.

On August 1, the Committee met by videoconference to discuss issues associated with contingencies in the event that the Treasury was temporarily unable to meet its obligations because the statutory federal debt limit was not raised or in the event of a downgrade of the U.S. sovereign credit rating. Participants generally anticipated that there would be no need to make changes to existing bank regulations, the operation of the discount window, or the conduct of open market operations.[20] With respect to potential policy actions, participants agreed that the appropriate response would depend importantly on the actual conditions in markets and should generally consist of standard operations.

The information reviewed at the regularly scheduled FOMC meeting on August 9 indicated that the pace of

20. *Members* of the FOMC consist of the members of the Board of Governors of the Federal Reserve System plus the president of the Federal Reserve Bank of New York and 4 of the remaining 11 Reserve Bank presidents, who serve one-year terms on a rotating basis. *Participants* at FOMC meetings consist of the members of the Board of Governors of the Federal Reserve System and all 12 Reserve Bank presidents.

64. Selected interest rates, 2008–12



Note: The data are daily and extend through February 24, 2012. The 10-year Treasury rate is the constant-maturity yield based on the most actively traded securities. The dates on the horizontal axis are those of regularly scheduled Federal Open Market Committee meetings.

Source: Department of the Treasury and the Federal Reserve.

the economic recovery had remained slow in recent months and that labor market conditions continued to be weak. In addition, revised data for 2008 through 2010 from the Bureau of Economic Analysis indicated that the recent recession had been deeper than previously thought and that the level of real gross domestic product (GDP) had not yet regained its pre-recession peak by the second quarter of 2011. Moreover, downward revisions to first-quarter GDP growth and the slow growth reported for the second quarter indicated that the recovery had been quite sluggish in the first half of 2011. Private nonfarm payroll employment rose at a considerably slower pace in June and July than earlier in the year, and participants noted a deterioration in labor market conditions, slower household spending, a drop in consumer and business confidence, and continued weakness in the housing sector. Inflation, which had picked up earlier in the year as a result of higher prices for some commodities and imported goods as well as supply chain disruptions resulting from the natural disaster in Japan, moderated more recently as prices of energy and some commodities fell back from their earlier peaks. Longer-term inflation expectations remained stable. U.S. financial markets were strongly influenced by developments regarding the fiscal situations in the United States and in Europe and by generally weaker-than-expected readings on economic activity, as foreign economic growth appeared to have slowed significantly. Yields on nominal Treasury securities fell notably, on net, while yields on both investment- and speculative-grade corporate bonds fell a little less than those on comparable-maturity Treasury securities, leaving risk spreads wider. Broad U.S. stock price indexes declined significantly.

Most members agreed that the economic outlook had deteriorated by enough to warrant a Committee response at the August meeting. Those viewing a shift toward more accommodative policy as appropriate generally agreed that a strengthening of the Committee's forward guidance regarding the federal funds rate, by being more explicit about the period over which the Committee expected the federal funds rate to remain exceptionally low, would be a measured response to the deterioration in the outlook over the intermeeting period. The Committee agreed to keep the target range for the federal funds rate at 0 to ¼ percent and to state that economic conditions—including low rates of resource utilization and a subdued outlook for inflation over the medium run—are likely to warrant exceptionally low levels for the federal funds rate at least through mid-2013. That anticipated path for the federal funds rate was viewed as appropriate in light of most members' outlook for the economy.

The data in hand at the September 20–21 FOMC meeting indicated that economic activity continued to expand at a slow pace and that labor market conditions remained weak. Consumer price inflation appeared to have moderated since earlier in the year as prices of energy and some commodities declined from their peaks, but it had not yet come down as much as participants had expected at previous meetings. Industrial production expanded in July and August, real business spending on equipment and software appeared to expand further, and real consumer spending posted a solid gain in July. However, private nonfarm employment rose only slightly in August, and the unemployment rate remained high. Consumer sentiment deteriorated significantly further in August and stayed downbeat in early September. Activity in the housing sector continued to be depressed by weak demand, uncertainty about future home prices, tight credit conditions for mortgages and construction loans, and a substantial inventory of foreclosed and distressed properties. Financial markets were volatile over the intermeeting period as investors responded to somewhat disappointing news, on balance, regarding economic activity in the United States and abroad. Weak economic data contributed to rising expectations among market participants of additional monetary accommodation; those expectations and increasing concerns about the financial situation in Europe led to an appreciable decline in intermediate- and longer-term nominal Treasury yields. Fluctuations in investors' level of concern about European fiscal and financial prospects also contributed to market volatility, particularly in equity markets, and spreads of yields on investment- and speculative-grade corporate bonds over those on comparable-maturity Treasury securities rose significantly over the intermeeting period, reaching levels last registered in late 2009.

In the discussion of monetary policy, most members agreed that the outlook had deteriorated somewhat, and that there were significant downside risks to the economic outlook, including strains in global financial markets. As a result, the Committee decided that providing additional monetary accommodation would be appropriate to support a stronger recovery and to help ensure that inflation, over time, was at a level consistent with the Committee's dual mandate. Those viewing greater policy accommodation as appropriate at this meeting generally supported a maturity extension program that would combine asset purchases and sales to extend the average maturity of securities held in the System Open Market Account without generating a substantial expansion of the Federal Reserve's balance sheet or reserve balances. Specifically, those members

supported a program under which the Committee would announce its intention to purchase, by the end of June 2012, $400 billion of Treasury securities with remaining maturities of 6 years to 30 years and to sell an equal amount of Treasury securities with remaining maturities of 3 years or less. They expected this program to put downward pressure on longer-term interest rates and to help make broader financial conditions more accommodative. In addition, to help support conditions in mortgage markets, the Committee decided to reinvest principal received from its holdings of agency debt and agency MBS in agency MBS rather than continuing to reinvest those funds in longer-term Treasury securities as had been the Committee's practice since the August 2010 FOMC meeting. At the same time, the Committee decided to maintain its existing policy of rolling over maturing Treasury securities at auction. In its statement, the Committee noted that it would continue to regularly review the size and composition of its securities holdings and that it was prepared to adjust those holdings as appropriate. The Committee also decided to keep the target range for the federal funds rate at 0 to ¼ percent and to reaffirm its anticipation that economic conditions were likely to warrant exceptionally low levels for the federal funds rate at least through mid-2013.

The information reviewed at the November 1–2 meeting indicated that the pace of economic activity strengthened somewhat in the third quarter, reflecting in part a reversal of the temporary factors that weighed on economic growth in the first half of the year. Global supply chain disruptions associated with the natural disaster in Japan had diminished, and the prices of energy and some commodities had come down from their recent peaks, easing strains on household budgets and likely contributing to a somewhat stronger pace of consumer spending in recent months. Real equipment and software investment expanded appreciably, and real personal consumption expenditures (PCE) rose moderately in the third quarter. However, real disposable income declined in the third quarter and consumer sentiment continued to be downbeat in October. In addition, labor market conditions remained weak as the pace of private-sector job gains in the third quarter as a whole was less than it was in the first half of the year. Overall consumer price inflation was more moderate than earlier in the year, as prices of energy and some commodities declined from their recent peaks, and measures of longer-run inflation expectations remained stable. Financial markets were quite volatile and investor sentiment was strongly influenced by prospects for Europe, as market participants remained highly attuned to developments regarding possible steps to contain the fiscal and banking problems there. Longer-term Treasury yields declined appreciably, on net, over the period, and yields on investment- and speculative-grade corporate bonds moved lower, leaving their spreads to Treasury securities slightly narrower. Although equity markets were volatile, broad U.S. equity price indexes ended the intermeeting period little changed.

Most FOMC members anticipated that the pace of economic growth would remain moderate over coming quarters, with unemployment declining only gradually and inflation settling at or below levels consistent with the dual mandate. Moreover, the recovery was still seen as subject to significant downside risks, including strains in global financial markets. Accordingly, in the discussion of monetary policy, all Committee members agreed to continue the program of extending the average maturity of the Federal Reserve's holdings of securities as announced in September. The Committee decided to maintain its existing policy of reinvesting principal payments from its holdings of agency debt and agency MBS in agency MBS and of rolling over maturing Treasury securities at auction. In addition, the Committee agreed to keep the target range for the federal funds rate at 0 to ¼ percent and to reiterate its expectation that economic conditions were likely to warrant exceptionally low levels for the federal funds rate at least through mid-2013.

Over subsequent weeks, financial markets appeared to become increasingly concerned that a timely resolution of the European sovereign debt situation might not occur despite the measures that authorities there announced in October; pressures on European sovereign debt markets increased, and conditions in European funding markets deteriorated appreciably. The greater financial stress appeared likely to damp economic activity in the euro area and potentially to pose a risk to the economic recovery in the United States.

On November 28, the Committee met by videoconference to discuss a proposal to amend and augment the Federal Reserve's temporary liquidity swap arrangements with foreign central banks in light of the increased strains in global financial markets. The proposal included a six-month extension of the sunset date and a 50 basis point reduction in the pricing on the existing dollar liquidity swap arrangements with the Bank of Canada, the Bank of England, the Bank of Japan, the European Central Bank (ECB), and the Swiss National Bank. In addition, the proposal included the establishment, as a contingency measure, of swap arrangements that would allow the Federal Reserve to provide liquidity to U.S. institutions in foreign currencies should the need arise. The proposal was

aimed at helping to ease strains in financial markets and thereby to mitigate the effects of such strains on the supply of credit to U.S. households and businesses, thus supporting the economic recovery. Most participants agreed that the proposed changes to the swap arrangements would represent an important demonstration of the commitment of the Federal Reserve and the other central banks to work together to support the global financial system. At the conclusion of the discussion, almost all members agreed to support the changes to the existing swap line arrangements and the establishment of the new foreign currency swap agreements.

As of the December 13 FOMC meeting, the data indicated that U.S. economic activity had expanded moderately despite some apparent slowing in the growth of foreign economies and strains in global financial markets. Conditions in the labor market seemed to have improved somewhat, as the unemployment rate dropped in November and private nonfarm employment continued to increase moderately. In October, industrial production rose, and overall real PCE grew modestly following significant gains in the previous month. However, revised estimates indicated that households' real disposable income declined in the second and third quarters, the net wealth of households decreased, and consumer sentiment was still at a subdued level in early December. Activity in the housing market remained depressed by the substantial inventory of foreclosed and distressed properties and by weak demand that reflected tight credit conditions for mortgage loans and uncertainty about future home prices. Overall consumer price inflation continued to be more modest than earlier in the year, and measures of long-run inflation expectations had been stable. The risks associated with the fiscal and financial difficulties in Europe remained the focus of attention in financial markets over the intermeeting period and contributed to heightened volatility in a wide range of asset markets. However, stock prices and longer-term interest rates had changed little, on balance, since the November meeting.

Members viewed the information on U.S. economic activity received over the intermeeting period as suggesting that the economy would continue to expand moderately. Strains in global financial markets continued to pose significant downside risks to economic activity. Members also anticipated that inflation would settle, over coming quarters, at levels at or below those consistent with the Committee's dual mandate. In the discussion of monetary policy for the period immediately ahead, Committee members generally agreed that their overall assessments of the economic outlook had not changed greatly since their previous meeting. As a result, the Committee decided to continue the program of extending the average maturity of the Federal Reserve's holdings of securities as announced in September, to retain the existing policies regarding the reinvestment of principal payments from Federal Reserve holdings of securities, and to keep the target range for the federal funds rate at 0 to ¼ percent. While several members noted that the reference to mid-2013 in the forward rate guidance might need to be adjusted before long, and a number of them looked forward to considering possible enhancements to the Committee's communications, the Committee agreed to reiterate its anticipation that economic conditions were likely to warrant exceptionally low levels for the federal funds rate at least through mid-2013.

The information reviewed at the January 24–25 meeting indicated that U.S. economic activity continued to expand moderately, while global growth appeared to be slowing. Labor market indicators pointed to some further improvement in labor market conditions, but progress was gradual and the unemployment rate remained elevated. Household spending had continued to advance at a moderate pace despite diminished growth in real disposable income, but growth in business fixed investment had slowed. The housing sector remained depressed. Inflation had been subdued in recent months, there was little evidence of wage or cost pressures, and longer-term inflation expectations had remained stable. Meeting participants observed that financial conditions had improved and financial market stresses had eased somewhat during the intermeeting period: Equity prices were higher, volatility had declined, and bank lending conditions appeared to be improving. Participants noted that the ECB's three-year refinancing operation had apparently resulted in improved conditions in European sovereign debt markets. Nonetheless, participants expected that global financial markets would remain focused on the evolving situation in Europe and they anticipated that further policy efforts would be required to fully address the fiscal and financial problems there.

With the economy facing continuing headwinds and growth slowing in a number of U.S. export markets, members generally expected a modest pace of economic growth over coming quarters, with the unemployment rate declining only gradually. At the same time, members thought that inflation would run at levels at or below those consistent with the Committee's dual mandate. Against this backdrop, members agreed that it would be appropriate to maintain the existing highly accommodative stance of monetary policy. They agreed to keep the target range for the federal

funds rate at 0 to ¼ percent, to continue the program of extending the average maturity of the Federal Reserve's holdings of securities as announced in September, and to retain the existing policies regarding the reinvestment of principal payments from Federal Reserve holdings of securities. In light of the economic outlook, most members also agreed to indicate that the Committee expects to maintain a highly accommodative stance for monetary policy and anticipates that economic conditions are likely to warrant exceptionally low levels for the federal funds rate at least through late 2014, longer than had been indicated in recent FOMC statements. The Committee also stated that it is prepared to adjust the size and composition of its securities holdings as appropriate to promote a stronger economic recovery in a context of price stability.

FOMC Communications

Transparency is an essential principle of modern central banking because it appropriately contributes to the accountability of central banks to the government and to the public and because it can enhance the effectiveness of central banks in achieving their macroeconomic objectives. To this end, the Federal Reserve provides to the public a considerable amount of information concerning the conduct of monetary policy. Immediately following each meeting of the FOMC, the Committee releases a statement that lays out the rationale for its policy decision, and detailed minutes of each FOMC meeting are made public three weeks following the meeting. Lightly edited transcripts of FOMC meetings are released to the public with a five-year lag.[21] Moreover, since last April, the Chairman has held press conferences after regularly scheduled two-day FOMC meetings. At the press conferences, the Chairman presents the current economic projections of FOMC participants and provides additional context for its policy decisions.

The Committee continued to consider additional improvements in its communications approach in the second half of 2011 and the first part of 2012. In a discussion on external communications at the September 20–21 FOMC meeting, most participants indicated that they favored taking steps to increase further the transparency of monetary policy, including providing more information about the Committee's longer-run policy objectives and the factors that influence the Committee's policy decisions. Participants generally agreed that a clear statement of the Committee's longer-run policy objectives could be helpful; some noted that it would also be useful to clarify the linkage between these longer-run objectives and the Committee's approach to setting the stance of monetary policy in the short and medium runs. Participants generally saw the Committee's postmeeting statements as not well suited to communicate fully the Committee's thinking about its objectives and its policy framework, and they agreed that the Committee would need to use other means to communicate that information or to supplement information in the statement. A number of participants suggested that the Committee's periodic Summary of Economic Projections (SEP) could be used to provide more information about their views on the longer-run objectives and the likely evolution of monetary policy.

At the November 1–2 FOMC meeting, participants discussed alternative monetary policy strategies and potential approaches for enhancing the clarity of their public communications, though no decision was made at that meeting to change the Committee's policy strategy or communications. It was noted that many central banks around the world pursue an explicit inflation objective, maintain the flexibility to stabilize economic activity, and seek to communicate their forecasts and policy plans as clearly as possible. Many participants pointed to the merits of specifying an explicit longer-run inflation goal, but it was noted that such a step could be misperceived as placing greater weight on price stability than on maximum employment; consequently, some suggested that a numerical inflation goal would need to be set forth within a context that clearly underscored the Committee's commitment to fostering both parts of its dual mandate. Most of participants agreed that it could be beneficial to formulate and publish a statement that would elucidate the Committee's policy approach, and participants generally expressed interest in providing additional information to the public about the likely future path of the target federal funds rate. The Chairman asked the subcommittee on communications, headed by Governor Yellen, to give consideration to a possible statement of the Committee's longer-run goals and policy strategy, and he also encouraged the subcommittee to explore potential approaches for incorporating information about participants' assessments of appropriate monetary policy into the SEP.[22]

21. FOMC statements, minutes, and transcripts, as well as other related information, are available on the Federal Reserve Board's website at www.federalreserve.gov/monetarypolicy/fomc.htm.

22. The subcommittee on communications is chaired by Governor Yellen and includes Governor Raskin, and Presidents Evans and Plosser.

At the December 13 FOMC meeting, participants further considered ways in which the Committee might enhance the clarity and transparency of its public communications. The subcommittee on communications recommended an approach for incorporating information about participants' projections of appropriate future monetary policy into the SEP, which the FOMC releases four times each year. In the SEP, participants' projections for economic growth, unemployment, and inflation are conditioned on their individual assessments of the path of monetary policy that is most likely to be consistent with the Federal Reserve's statutory mandate to promote maximum employment and price stability, but information about those assessments has not been included in the SEP. Most participants agreed that adding their projections of the target federal funds rate to the economic projections already provided in the SEP would help the public better understand the Committee's monetary policy decisions and the ways in which those decisions depend on members' assessments of economic and financial conditions. At the conclusion of the discussion, participants decided to incorporate information about their projections of appropriate monetary policy into the SEP beginning in January.

Following up on the Committee's discussion of policy frameworks at its November meeting, the subcommittee on communications presented a draft statement of the Committee's longer-run goals and policy strategy. Participants generally agreed that issuing such a statement could be helpful in enhancing the transparency and accountability of monetary policy and in facilitating well-informed decisionmaking by households and businesses, and thus in enhancing the Committee's ability to promote the goals specified in its statutory mandate in the face of significant economic disturbances. However, a couple of participants expressed the concern that a statement that was sufficiently nuanced to capture the diversity of views on the Committee might not, in fact, enhance public understanding of the Committee's actions and intentions. Participants commented on the draft statement, and the Chairman encouraged the subcommittee to make adjustments to the draft and to present a revised version for the Committee's further consideration in January.

At the January 24–25 meeting, the subcommittee on communications presented a revised draft of a statement of principles regarding the FOMC's longer-run goals and monetary policy strategy. Almost all participants supported adopting and releasing the revised statement (see the box "FOMC Statement Regarding Longer-Run Goals and Monetary Policy Strategy"). It was noted that the proposed statement did not represent a change in the Committee's policy approach. Instead, the statement was intended to help enhance the transparency, accountability, and effectiveness of monetary policy.

In addition, in light of the decision made at the December meeting, the Committee provided in the January SEP information about each participant's assessments of appropriate monetary policy. Specifically, the SEP included information about participants' estimates of the appropriate level of the target federal funds rate in the fourth quarter of the current year and the next few calendar years, and over the longer run; the SEP also reported participants' current projections of the likely timing of the appropriate first increase in the target rate given their projections of future economic conditions. The accompanying narrative described the key factors underlying those assessments and provided some qualitative information regarding participants' expectations for the Federal Reserve's balance sheet. A number of participants suggested further possible enhancements to the SEP; the Chairman asked the subcommittee to explore such enhancements over coming months.

FOMC Statement Regarding Longer-Run Goals and Monetary Policy Strategy

Following careful deliberations at its recent meetings, the Federal Open Market Committee (FOMC) has reached broad agreement on the following principles regarding its longer-run goals and monetary policy strategy. The Committee intends to reaffirm these principles and to make adjustments as appropriate at its annual organizational meeting each January.

The FOMC is firmly committed to fulfilling its statutory mandate from the Congress of promoting maximum employment, stable prices, and moderate long-term interest rates. The Committee seeks to explain its monetary policy decisions to the public as clearly as possible. Such clarity facilitates well-informed decisionmaking by households and businesses, reduces economic and financial uncertainty, increases the effectiveness of monetary policy, and enhances transparency and accountability, which are essential in a democratic society.

Inflation, employment, and long-term interest rates fluctuate over time in response to economic and financial disturbances. Moreover, monetary policy actions tend to influence economic activity and prices with a lag. Therefore, the Committee's policy decisions reflect its longer-run goals, its medium-term outlook, and its assessments of the balance of risks, including risks to the financial system that could impede the attainment of the Committee's goals.

The inflation rate over the longer run is primarily determined by monetary policy, and hence the Committee has the ability to specify a longer-run goal for inflation. The Committee judges that inflation at the rate of 2 percent, as measured by the annual change in the price index for personal consumption expenditures, is most consistent over the longer run with the Federal Reserve's statutory mandate. Communicating this inflation goal clearly to the public helps keep longer-term inflation expectations firmly anchored, thereby fostering price stability and moderate long-term interest rates and enhancing the Committee's ability to promote maximum employment in the face of significant economic disturbances.

The maximum level of employment is largely determined by nonmonetary factors that affect the structure and dynamics of the labor market. These factors may change over time and may not be directly measurable. Consequently, it would not be appropriate to specify a fixed goal for employment; rather, the Committee's policy decisions must be informed by assessments of the maximum level of employment, recognizing that such assessments are necessarily uncertain and subject to revision. The Committee considers a wide range of indicators in making these assessments. Information about Committee participants' estimates of the longer-run normal rates of output growth and unemployment is published four times per year in the FOMC's Summary of Economic Projections. For example, in the most recent projections, FOMC participants' estimates of the longer-run normal rate of unemployment had a central tendency of 5.2 percent to 6.0 percent, roughly unchanged from last January but substantially higher than the corresponding interval several years earlier.

In setting monetary policy, the Committee seeks to mitigate deviations of inflation from its longer-run goal and deviations of employment from the Committee's assessments of its maximum level. These objectives are generally complementary. However, under circumstances in which the Committee judges that the objectives are not complementary, it follows a balanced approach in promoting them, taking into account the magnitude of the deviations and the potentially different time horizons over which employment and inflation are projected to return to levels judged consistent with its mandate.

Part 4
Summary of Economic Projections

The following material appeared as an addendum to the minutes of the January 24–25, 2012, meeting of the Federal Open Market Committee.

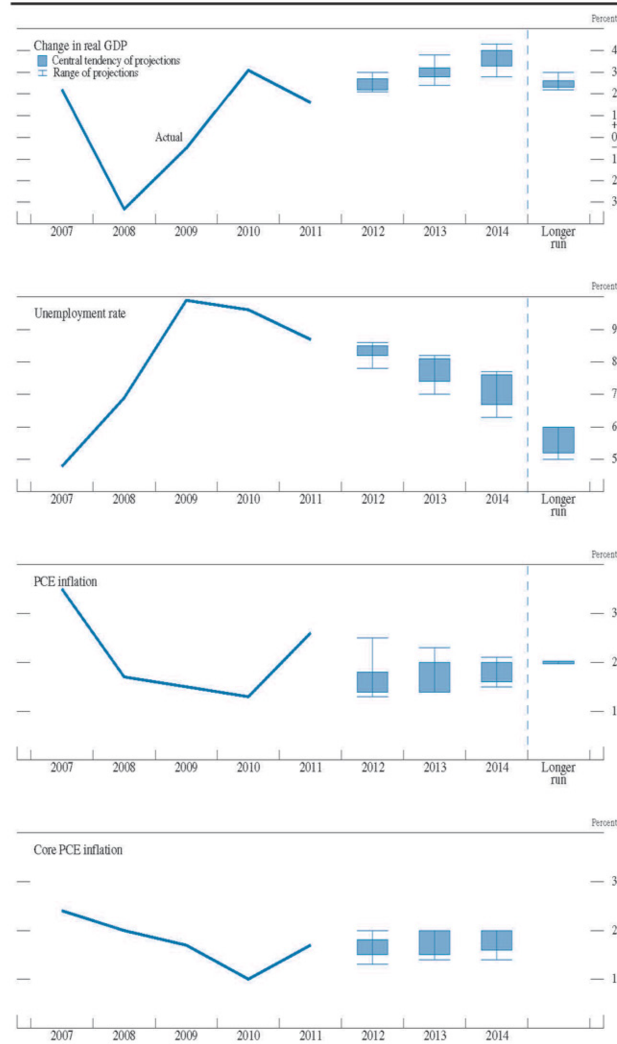
In conjunction with the January 24–25, 2012, Federal Open Market Committee (FOMC) meeting, the members of the Board of Governors and the presidents of the Federal Reserve Banks, all of whom participate in the deliberations of the FOMC, submitted projections for growth of real output, the unemployment rate, and inflation for the years 2012 to 2014 and over the longer run. The economic projections were based on information available at the time of the meeting and participants' individual assumptions about factors likely to affect economic outcomes, including their assessments of appropriate monetary policy. Starting with the January meeting, participants also submitted their assessments of the path for the target federal funds rate that they viewed as appropriate and compatible with their individual economic projections. Longer-run projections represent each participant's assessment of the rate to which each variable would be expected to converge over time under appropriate monetary policy and in the absence of further shocks. "Appropriate monetary policy" is defined as the future path of policy that participants deem most likely to foster outcomes for economic activity and inflation that best satisfy their individual interpretation of the Federal Reserve's objectives of maximum employment and stable prices.

As depicted in figure 1, FOMC participants projected continued economic expansion over the 2012–14 period, with real gross domestic product (GDP) rising at a modest rate this year and then strengthening further through 2014. Participants generally anticipated only a small decline in the unemployment rate this year. In 2013 and 2014, the pace of the expansion was projected to exceed participants' estimates of the longer-run sustainable rate of increase in real GDP by enough to result in a gradual further decline in the unemployment rate. However, at the end of 2014, participants generally expected that the unemployment rate would still be well above their estimates of the longer-run normal unemployment rate that they currently view as consistent with the FOMC's statutory mandate for promoting maximum employment and price stability. Participants viewed the upward pressures on inflation in 2011 from factors such as supply chain disruptions and rising commodity prices as having waned, and they anticipated that inflation would fall back in 2012. Over the projection period, most participants expected inflation, as measured by the annual change in the price index for personal consumption expenditures (PCE), to be at or below the FOMC's objective of 2 percent that was expressed in the Committee's statement of longer-run goals and policy strategy. Core inflation was projected to run at about the same rate as overall inflation.

As indicated in table 1, relative to their previous projections in November 2011, participants made small downward revisions to their expectations for the rate of increase in real GDP in 2012 and 2013, but they did not materially alter their projections for a noticeably stronger pace of expansion by 2014. With the unemployment rate having declined in recent months by more than participants had anticipated in the previous Summary of Economic Projections (SEP), they generally lowered their forecasts for the level of the unemployment rate over the next two years. Participants' expectations for both the longer-run rate of increase in real GDP and the longer-run unemployment rate were little changed from November. They did not significantly alter their forecasts for the rate of inflation over the next three years. However, in light of the 2 percent inflation that is the objective included in the statement of longer-run goals and policy strategy adopted at the January meeting, the range and central tendency of their projections of longer-run inflation were all equal to 2 percent.

As shown in figure 2, most participants judged that highly accommodative monetary policy was likely to be warranted over coming years to promote a stronger economic expansion in the context of price stability. In particular, with the unemployment rate projected to remain elevated over the projection period and inflation expected to be subdued, six participants anticipated that, under appropriate monetary policy, the first increase in the target federal funds rate would occur after 2014, and five expected policy firming to commence during 2014 (the upper panel). The remaining six participants judged that raising the federal funds rate sooner would be required to forestall inflationary pressures or avoid distortions in the financial system. As indicated in the lower panel, all of the individual

Figure 1. Central tendencies and ranges of economic projections, 2012–14 and over the longer run



NOTE: Definitions of variables are in the notes to table 1. The data for the actual values of the variables are annual. The data for the change in real GDP, PCE inflation, and core PCE inflation shown for 2011 incorporate the advance estimate of GDP for the fourth quarter of 2011, which the Bureau of Economic Analysis released on January 27, 2012. This information was not available to FOMC meeting participants at the time of their meeting.

Table 1. Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents, January 2012

Percent

Variable	Central tendency[1]				Range[2]			
	2012	2013	2014	Longer run	2012	2013	2014	Longer run
Change in real GDP	2.2 to 2.7	2.8 to 3.2	3.3 to 4.0	2.3 to 2.6	2.1 to 3.0	2.4 to 3.8	2.8 to 4.3	2.2 to 3.0
November projection	2.5 to 2.9	3.0 to 3.5	3.0 to 3.9	2.4 to 2.7	2.3 to 3.5	2.7 to 4.0	2.7 to 4.5	2.2 to 3.0
Unemployment rate	8.2 to 8.5	7.4 to 8.1	6.7 to 7.6	5.2 to 6.0	7.8 to 8.6	7.0 to 8.2	6.3 to 7.7	5.0 to 6.0
November projection	8.5 to 8.7	7.8 to 8.2	6.8 to 7.7	5.2 to 6.0	8.1 to 8.9	7.5 to 8.4	6.5 to 8.0	5.0 to 6.0
PCE inflation	1.4 to 1.8	1.4 to 2.0	1.6 to 2.0	2.0	1.3 to 2.5	1.4 to 2.3	1.5 to 2.1	2.0
November projection	1.4 to 2.0	1.5 to 2.0	1.5 to 2.0	1.7 to 2.0	1.4 to 2.8	1.4 to 2.5	1.5 to 2.4	1.5 to 2.0
Core PCE inflation[3]	1.5 to 1.8	1.5 to 2.0	1.6 to 2.0		1.3 to 2.0	1.4 to 2.0	1.4 to 2.0	
November projection	1.5 to 2.0	1.4 to 1.9	1.5 to 2.0		1.3 to 2.1	1.4 to 2.1	1.4 to 2.2	

NOTE: Projections of change in real gross domestic product (GDP) and projections for both measures of inflation are from the fourth quarter of the previous year to the fourth quarter of the year indicated. PCE inflation and core PCE inflation are the percentage rates of change in, respectively, the price index for personal consumption expenditures (PCE) and the price index for PCE excluding food and energy. Projections for the unemployment rate are for the average civilian unemployment rate in the fourth quarter of the year indicated. Each participant's projections are based on his or her assessment of appropriate monetary policy. Longer-run projections represent each participant's assessment of the rate to which each variable would be expected to converge under appropriate monetary policy and in the absence of further shocks to the economy. The November projections were made in conjunction with the meeting of the Federal Open Market Committee on November 1–2, 2011.

1. The central tendency excludes the three highest and three lowest projections for each variable in each year.
2. The range for a variable in a given year includes all participants' projections, from lowest to highest, for that variable in that year.
3. Longer-run projections for core PCE inflation are not collected.

assessments of the appropriate target federal funds rate over the next several years were below the longer-run level of the federal funds rate, and 11 participants placed the target federal funds rate at 1 percent or lower at the end of 2014. Most participants indicated that they expected that the normalization of the Federal Reserve's balance sheet should occur in a way consistent with the principles agreed on at the June 2011 meeting of the FOMC, with the timing of adjustments dependent on the expected date of the first policy tightening. A few participants judged that, given their current assessments of the economic outlook, appropriate policy would include additional asset purchases in 2012, and one assumed an early ending of the maturity extension program.

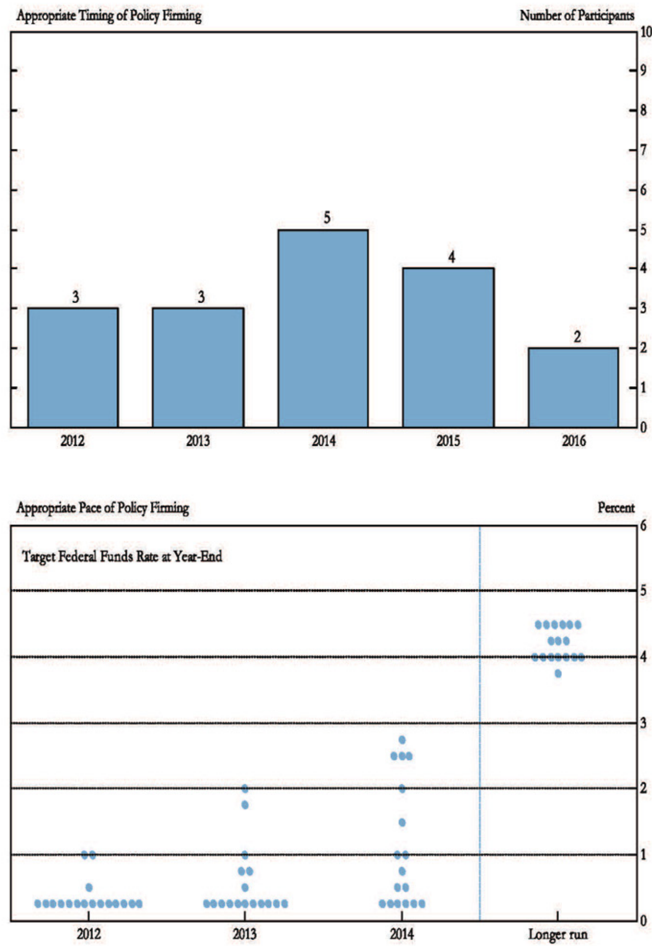
A sizable majority of participants continued to judge the level of uncertainty associated with their projections for real activity and the unemployment rate as unusually high relative to historical norms. Many also attached a greater-than-normal level of uncertainty to their forecasts for inflation, but, compared with the November SEP, two additional participants viewed uncertainty as broadly similar to longer-run norms. As in November, many participants saw downside risks attending their forecasts of real GDP growth and upside risks to their forecasts of the unemployment rate; most participants viewed the risks to their inflation projections as broadly balanced.

The Outlook for Economic Activity

The central tendency of participants' forecasts for the change in real GDP in 2012 was 2.2 to 2.7 percent. This forecast for 2012, while slightly lower than the projection prepared in November, would represent a pickup in output growth from 2011 to a rate close to its longer-run trend. Participants stated that the economic information received since November showed continued gradual improvement in the pace of economic activity during the second half of 2011, as the influence of the temporary factors that damped activity in the first half of the year subsided. Consumer spending increased at a moderate rate, exports expanded solidly, and business investment rose further. Recently, consumers and businesses appeared to become somewhat more optimistic about the outlook. Financial conditions for domestic nonfinancial businesses were generally favorable, and conditions in consumer credit markets showed signs of improvement.

However, a number of factors suggested that the pace of the expansion would continue to be restrained. Although some indicators of activity in the housing sector improved slightly at the end of 2011, new homebuilding and sales remained at depressed levels, house prices were still falling, and mortgage credit remained tight. Households' real disposable income rose only modestly through late 2011. In addition, federal spend-

Figure 2. Overview of FOMC participants' assessments of appropriate monetary policy



NOTE: In the upper panel, the height of each bar denotes the number of FOMC participants who judge that, under appropriate monetary policy and in the absence of further shocks to the economy, the first increase in the target federal funds rate from its current range of 0 to ¼ percent will occur in the specified calendar year. In the lower panel, each shaded circle indicates the value (rounded to the nearest ¼ percent) of an individual participant's judgment of the appropriate level of the target federal funds rate at the end of the specified calendar year or over the longer run.

ing contracted toward year-end, and the restraining effects of fiscal consolidation appeared likely to be greater this year than anticipated at the time of the November projections. Participants also read the information on economic activity abroad, particularly in Europe, as pointing to weaker demand for U.S. exports in coming quarters than had seemed likely when they prepared their forecasts in November.

Participants anticipated that the pace of the economic expansion would strengthen over the 2013–14 period, reaching rates of increase in real GDP above their estimates of the longer-run rates of output growth. The central tendencies of participants' forecasts for the change in real GDP were 2.8 to 3.2 percent in 2013 and 3.3 to 4.0 percent in 2014. Among the considerations supporting their forecasts, participants cited their expectation that the expansion would be supported by monetary policy accommodation, ongoing improvements in credit conditions, rising household and business confidence, and strengthening household balance sheets. Many participants judged that U.S. fiscal policy would still be a drag on economic activity in 2013, but many anticipated that progress would be made in resolving the fiscal situation in Europe and that the foreign economic outlook would be more positive. Over time and in the absence of shocks, participants expected that the rate of increase of real GDP would converge to their estimates of its longer-run rate, with a central tendency of 2.3 to 2.6 percent, little changed from their estimates in November.

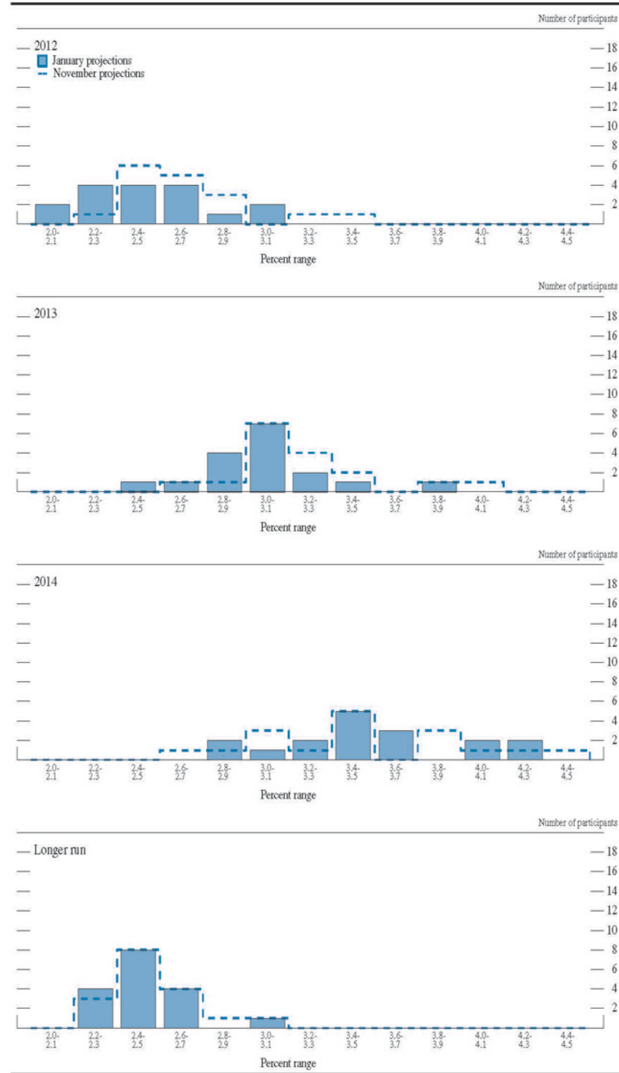
The unemployment rate improved more in late 2011 than most participants had anticipated when they prepared their November projections, falling from 9.1 to 8.7 percent between the third and fourth quarters. As a result, most participants adjusted down their projections for the unemployment rate this year. Nonetheless, with real GDP expected to increase at a modest rate in 2012, the unemployment rate was projected to decline only a little this year, with the central tendency of participants' forecasts at 8.2 to 8.5 percent at year-end. Thereafter, participants expected that the pickup in the pace of the expansion in 2013 and 2014 would be accompanied by a further gradual improvement in labor market conditions. The central tendency of participants' forecasts for the unemployment rate at the end of 2013 was 7.4 to 8.1 percent, and it was 6.7 to 7.6 percent at the end of 2014. The central tendency of participants' estimates of the longer-run normal rate of unemployment that would prevail in the absence of further shocks was 5.2 to 6.0 percent. Most participants indicated that they anticipated that five or six years would be required to close the gap between the current unemployment rate and their estimates of the longer-run rate, although some noted that more time would likely be needed.

Figures 3.A and 3.B provide details on the diversity of participants' views regarding the likely outcomes for real GDP growth and the unemployment rate over the next three years and over the longer run. The dispersion in these projections reflected differences in participants' assessments of many factors, including appropriate monetary policy and its effects on economic activity, the underlying momentum in economic activity, the effects of the European situation, the prospective path for U.S. fiscal policy, the likely evolution of credit and financial market conditions, and the extent of structural dislocations in the labor market. Compared with their November projections, the range of participants' forecasts for the change in real GDP in 2012 narrowed somewhat and shifted slightly lower, as some participants reassessed the outlook for global economic growth and for U.S. fiscal policy. Many, however, made no material change to their forecasts for growth of real GDP this year. The dispersion of participants' forecasts for output growth in 2013 and 2014 remained relatively wide. Having incorporated the data showing a lower rate of unemployment at the end of 2011 than previously expected, the distribution of participants' projections for the end of 2012 shifted noticeably down relative to the November forecasts. The ranges for the unemployment rate in 2013 and 2014 showed less pronounced shifts toward lower rates and, as was the case with the ranges for output growth, remained wide. Participants made only modest adjustments to their projections of the rates of output growth and unemployment over the longer run, and, on net, the dispersions of their projections for both were little changed from those reported in November. The dispersion of estimates for the longer-run rate of output growth is narrow, with only one participant's estimate outside of a range of 2.2 to 2.7 percent. By comparison, participants' views about the level to which the unemployment rate would converge in the long run are more diverse, reflecting, among other things, different views on the outlook for labor supply and on the extent of structural impediments in the labor market.

The Outlook for Inflation

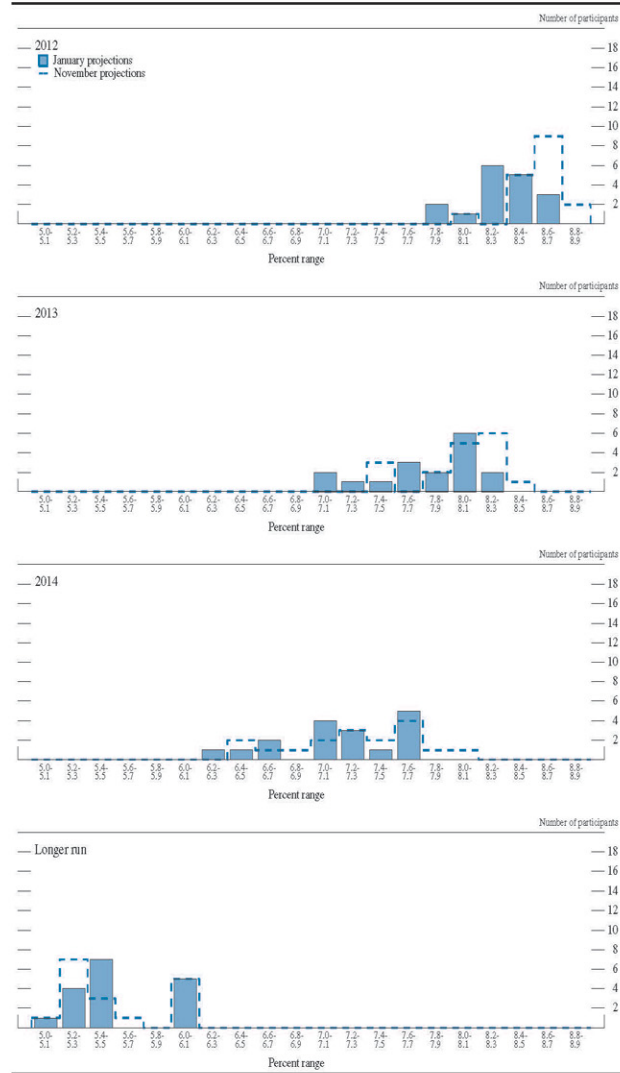
Participants generally viewed the outlook for inflation as very similar to that in November. Most indicated that, as they expected, the effects of the run-up in prices of energy and other commodities and the supply

Figure 3.A. Distribution of participants' projections for the change in real GDP, 2012–14 and over the longer run



NOTE: Definitions of variables are in the general note to table 1.

Figure 3.B. Distribution of participants' projections for the unemployment rate, 2012–14 and over the longer run



NOTE: Definitions of variables are in the general note to table 1.

disruptions that occurred in the first half of 2011 had largely waned, and that inflation had been subdued in recent months. Participants also noted that inflation expectations had remained stable over the past year despite the fluctuations in headline inflation. Assuming no further supply shocks, most participants anticipated that both headline and core inflation would remain subdued over the 2012–14 period at rates at or below the FOMC's longer-run objective of 2 percent. Specifically, the central tendency of participants' projections for the increase in inflation, as measured by the PCE price index, in 2012 was 1.4 to 1.8 percent, and it edged up to a central tendency of 1.6 to 2.0 percent in 2014; the central tendencies of the forecasts for core PCE inflation were largely the same as those for the total measure.

Figures 3.C and 3.D provide information about the diversity of participants' views about the outlook for inflation. Compared with their November projections, expectations for inflation in 2012 shifted down a bit, with some participants noting that the slowing in inflation at the end of 2011 had been greater than they anticipated. Nonetheless, the range of participants' forecasts for inflation in 2012 remained wide, and the dispersion was only slightly narrower in 2013. By 2014, the range of inflation forecasts narrowed more noticeably, as participants expected that, under appropriate monetary policy, inflation would begin to converge to the Committee's longer-run objective. In general, the dispersion of views on the outlook for inflation over the projection period represented differences in judgments regarding the degree of slack in resource utilization and the extent to which slack influences inflation and inflation expectations. In addition, participants differed in their estimates of how the stance of monetary policy would influence inflation expectations.

Appropriate Monetary Policy

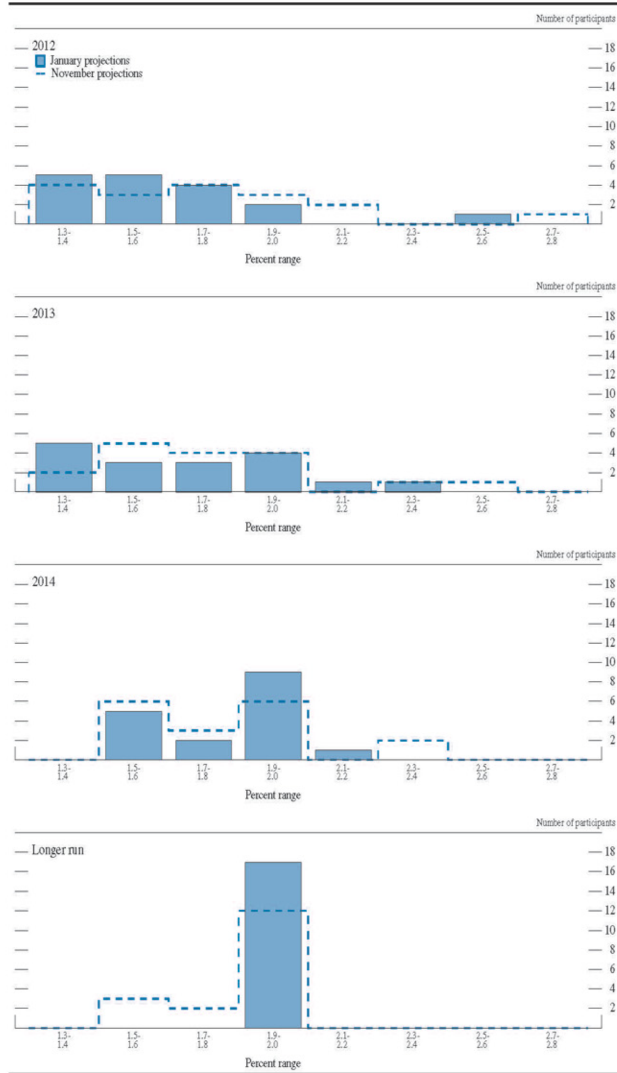
Most participants judged that the current outlook—for a moderate pace of economic recovery with the unemployment rate declining only gradually and inflation subdued—warranted exceptionally low levels of the federal funds rate at least until late 2014. In particular, five participants viewed appropriate policy firming as commencing during 2014, while six others judged that the first increase in the federal funds rate would not be warranted until 2015 or 2016. As a result, those 11 participants anticipated that the appropriate federal funds rate at the end of 2014 would be 1 percent or lower. Those who saw the first increase occurring in 2015 reported that they anticipated that the federal funds rate would be ½ percent at the end of that year. For the two participants who put the first increase in 2016, the appropriate target federal funds rate at the end of that year was 1½ and 1¾ percent. In contrast, six participants expected that an increase in the target federal funds rate would be appropriate within the next two years, and those participants anticipated that the target rate would need to be increased to around 1½ to 2¾ percent at the end of 2014.

Participants' assessments of the appropriate path for the federal funds rate reflected their judgments of the policy that would best support progress in achieving the Federal Reserve's mandate for promoting maximum employment and stable prices. Among the key factors informing participants' expectations about the appropriate setting for monetary policy were their assessments of the maximum level of employment, the Committee's longer-run inflation goal, the extent to which current conditions deviate from these mandate-consistent levels, and their projections of the likely time horizons required to return employment and inflation to such levels. Several participants commented that their assessments took into account the risks to the outlook for economic activity and inflation, and a few pointed specifically to the relevance of financial stability in their policy judgments. Participants also noted that because the appropriate stance of monetary policy depends importantly on the evolution of real activity and inflation over time, their assessments of the appropriate future path of the federal funds rate could change if economic conditions were to evolve in an unexpected manner.

All participants reported levels for the appropriate target federal funds rate at the end of 2014 that were well below their estimates of the level expected to prevail in the longer run. The longer-run nominal levels were in a range from 3¾ to 4½ percent, reflecting participants' judgments about the longer-run equilibrium level of the real federal funds rate and the Committee's inflation objective of 2 percent.

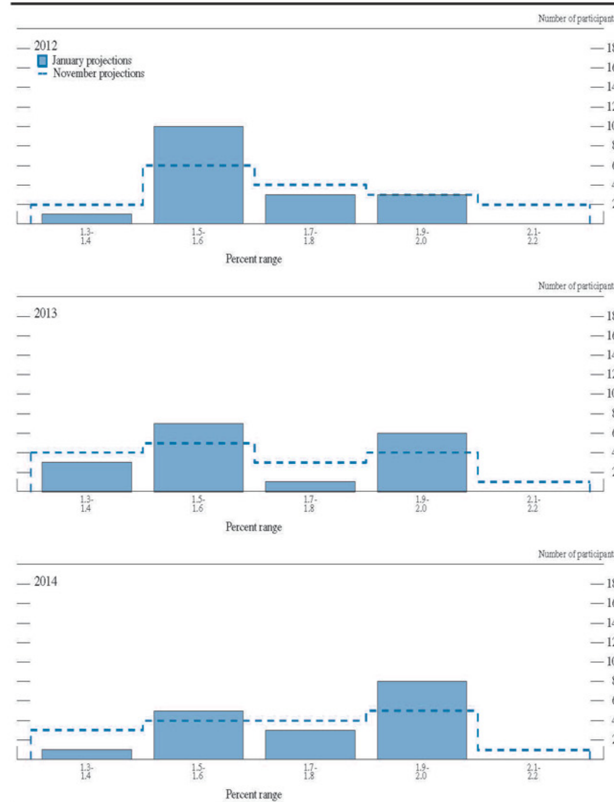
Participants also provided qualitative information on their views regarding the appropriate path of the Federal Reserve's balance sheet. A few participants' assessments of appropriate monetary policy incorporated additional purchases of longer-term securities in 2012, and a number of participants indicated that they remained open to a consideration of additional asset purchases if the economic outlook deteriorated. All but one of the participants continued to expect that the Committee would carry out the normalization of the balance sheet according to the principles approved at the June 2011 FOMC meeting. That is, prior to the

Figure 3.C. Distribution of participants' projections for PCE inflation, 2012–14 and over the longer run



NOTE: Definitions of variables are in the general note to table 1.

Figure 3.D. Distribution of participants' projections for core PCE inflation, 2012–14

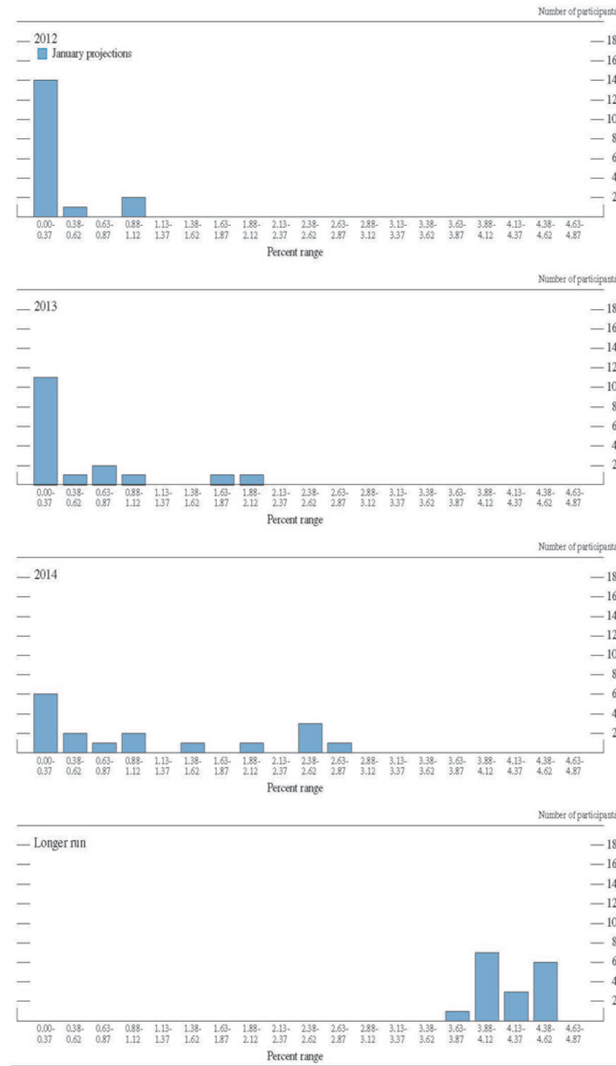


NOTE: Definitions of variables are in the general note to table 1.

first increase in the federal funds rate, the Committee would likely cease reinvesting some or all payments on the securities holdings in the System Open Market Account (SOMA), and it would likely begin sales of agency securities from the SOMA sometime after the first rate increase, aiming to eliminate the SOMA's holdings of agency securities over a period of three to five years. Indeed, most participants saw sales of agency securities starting no earlier than 2015. However, those participants anticipating an earlier increase in the federal funds rate also called for earlier adjustments to the balance sheet, and one participant assumed an early end of the maturity extension program.

Figure 3.E details the distribution of participants' judgments regarding the appropriate level of the target federal funds rate at the end of each calendar year from 2012 to 2014 and over the longer run. Most participants anticipated that economic conditions would warrant maintaining the current low level of the federal funds rate over the next two years. However, views on the appropriate level of the federal funds rate at the end of 2014 were more widely dispersed, with two-thirds of participants seeing the appropriate level of

Figure 3.E. Distribution of participants' projections for the target federal funds rate, 2012–14 and over the longer run



Note: The target funds rate is measured as the level of the target rate at the end of the calendar year or in the longer run.

the federal funds rate as 1 percent or below and five seeing the appropriate rate as 2 percent or higher. Those participants who judged that a longer period of exceptionally low levels of the federal funds rate would be appropriate generally also anticipated that the pace of the economic expansion would be moderate and that the unemployment rate would decline only gradually, remaining well above its longer-run rate at the end of 2014. Almost all of these participants expected that inflation would be relatively stable at or below the FOMC's longer-run objective of 2 percent until the time of the first increase in the federal funds rate. A number of them also mentioned their assessment that a longer period of low federal funds rates is appropriate when the federal funds rate is constrained by its effective lower bound. In contrast, the six participants who judged that policy firming should begin in 2012 or 2013 indicated that the Committee would need to act decisively to keep inflation at mandate-consistent levels and to limit the risk of undermining Federal Reserve credibility and causing a rise in inflation expectations. Several were projecting a faster pickup in economic activity, and a few stressed the risk of distortions in the financial system from an extended period of exceptionally low interest rates.

Uncertainty and Risks

Figure 4 shows that most participants continued to share the view that their projections for real GDP growth and the unemployment rate were subject to a higher level of uncertainty than was the norm during the previous 20 years.[23] Many also judged the level of uncertainty associated with their inflation forecasts to be higher than the longer-run norm, but that assessment was somewhat less prevalent among participants than was the case for uncertainty about real activity. Participants identified a number of factors that contributed to the elevated level of uncertainty about the outlook. In particular, many participants continued to cite risks related to ongoing developments in Europe. More broadly, they again noted difficulties in forecasting the path of economic recovery from a deep recession that was the result of a severe financial crisis and thus differed importantly from the experience with recoveries over the past 60 years. In that regard, participants continued to be uncertain about the pace at which credit conditions would ease and about prospects for a recovery in the housing sector. In addition, participants generally saw the outlook for fiscal and regulatory policies as still highly uncertain. Regarding the unemployment rate, several expressed uncertainty about how labor demand and supply would evolve over the forecast period. Among the sources of uncertainty about the outlook for inflation were the difficulties in assessing the current and prospective margins of slack in resource markets and the effect of such slack on prices.

A majority of participants continued to report that they saw the risks to their forecasts of real GDP growth as weighted to the downside and, accordingly, the risks to their projections for the unemployment rate as skewed to the upside. All but one of the remaining participants viewed the risks to both projections as broadly balanced, while one noted a risk that the unemployment rate might continue to decline more rapidly than expected. The most frequently cited downside risks to the projected pace of the economic expansion were the possibility of financial market and economic spillovers from the fiscal and financial issues in the euro area and the chance that some of the factors that have restrained the recovery in recent years could persist and weigh on economic activity to a greater extent than assumed in participants' baseline forecasts. In particular, some participants mentioned the downside risks to consumer spending from still-weak household balance sheets and only modest gains in real income, along with the possible effects of still-high levels of uncertainty regarding fiscal and regulatory policies that might damp businesses' willingness

Table 2. Average historical projection error ranges

Percentage points

Variable	2012	2013	2014
Change in real GDP[1]	±1.3	±1.7	±1.8
Unemployment rate[1]	±0.7	±1.4	±1.8
Total consumer prices[2]	±0.9	±1.0	±1.0

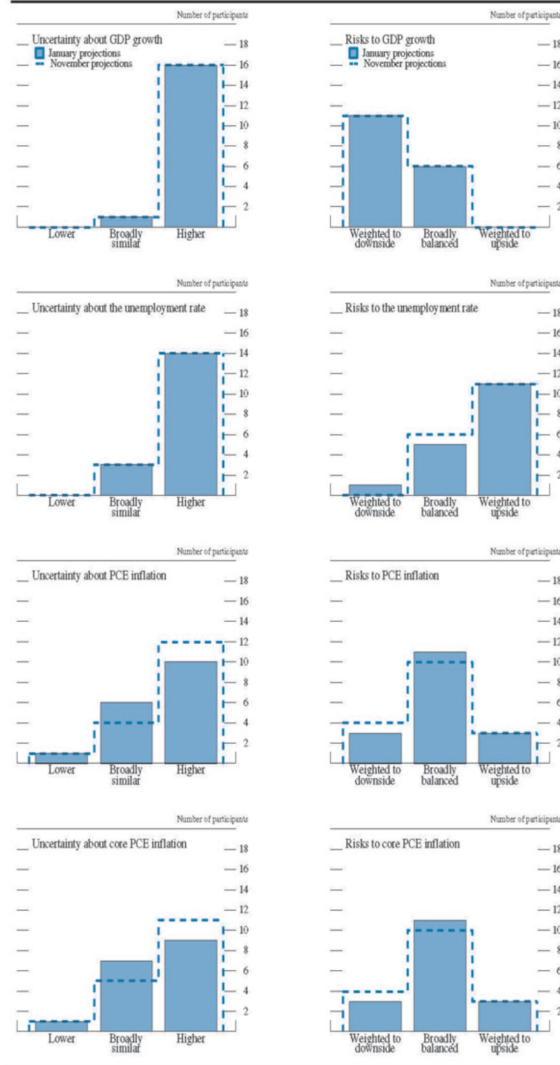
NOTE: Error ranges shown are measured as plus or minus the root mean squared error of projections for 1991 through 2010 that were released in the winter by various private and government forecasters. As described in the box "Forecast Uncertainty," under certain assumptions, there is about a 70 percent probability that actual outcomes for real GDP, unemployment, and consumer prices will be in ranges implied by the average size of projection errors made in the past. Further information is in David Reifschneider and Peter Tulip (2007), "Gauging the Uncertainty of the Economic Outlook from Historical Forecasting Errors," Finance and Economics Discussion Series 2007-60 (Washington: Board of Governors of the Federal Reserve System, November).

1. For definitions, refer to general note in table 1.

2. Measure is the overall consumer price index, the price measure that has been most widely used in government and private economic forecasts. Projection is percent change, fourth quarter of the previous year to the fourth quarter of the year indicated.

23. Table 2 provides estimates of the forecast uncertainty for the change in real GDP, the unemployment rate, and total consumer price inflation over the period from 1991 to 2010. At the end of this summary, the box "Forecast Uncertainty" discusses the sources and interpretation of uncertainty in the economic forecasts and explains the approach used to assess the uncertainty and risks attending the participants' projections.

Figure 4. Uncertainty and risks in economic projections



NOTE: For definitions of uncertainty and risks in economic projections, see the box "Forecast Uncertainty." Definitions of variables are in the general note to table 1.

Forecast Uncertainty

The economic projections provided by the members of the Board of Governors and the presidents of the Federal Reserve Banks inform discussions of monetary policy among policymakers and can aid public understanding of the basis for policy actions. Considerable uncertainty attends these projections, however. The economic and statistical models and relationships used to help produce economic forecasts are necessarily imperfect descriptions of the real world, and the future path of the economy can be affected by myriad unforeseen developments and events. Thus, in setting the stance of monetary policy, participants consider not only what appears to be the most likely economic outcome as embodied in their projections, but also the range of alternative possibilities, the likelihood of their occurring, and the potential costs to the economy should they occur.

Table 2 summarizes the average historical accuracy of a range of forecasts, including those reported in past *Monetary Policy Reports* and those prepared by the Federal Reserve Board's staff in advance of meetings of the Federal Open Market Committee. The projection error ranges shown in the table illustrate the considerable uncertainty associated with economic forecasts. For example, suppose a participant projects that real gross domestic product (GDP) and total consumer prices will rise steadily at annual rates of, respectively, 3 percent and 2 percent. If the uncertainty attending those projections is similar to that experienced in the past and the risks around the projections are broadly balanced, the numbers reported in table 2 would imply a probability of about 70 percent that actual GDP would expand within a range of 1.7 to 4.3 percent in the current year, 1.3 to 4.7 percent in the second year, and 1.2 to 4.8 in the third year. The corresponding 70 percent confidence intervals for overall inflation would be 1.1 to 2.9 percent in the current year and 1.0 to 3.0 percent in the second and third years.

Because current conditions may differ from those that prevailed, on average, over history, participants provide judgments as to whether the uncertainty attached to their projections of each variable is greater than, smaller than, or broadly similar to typical levels of forecast uncertainty in the past, as shown in table 2. Participants also provide judgments as to whether the risks to their projections are weighted to the upside, are weighted to the downside, or are broadly balanced. That is, participants judge whether each variable is more likely to be above or below their projections of the most likely outcome. These judgments about the uncertainty and the risks attending each participant's projections are distinct from the diversity of participants' views about the most likely outcomes. Forecast uncertainty is concerned with the risks associated with a particular projection rather than with divergences across a number of different projections.

As with real activity and inflation, the outlook for the future path of the federal funds rate is subject to considerable uncertainty. This uncertainty arises primarily because each participant's assessment of the appropriate stance of monetary policy depends importantly on the evolution of real activity and inflation over time. If economic conditions evolve in an unexpected manner, then assessments of the appropriate setting of the federal funds rate would change from that point forward.

to invest and hire. A number of participants noted the risk of another disruption in global oil markets that could not only boost inflation but also reduce real income and spending. The participants who judged the risks to be broadly balanced also recognized a number of these downside risks to the outlook but saw them as counterbalanced by the possibility that the resilience of economic activity in late 2011 and the recent drop in the unemployment rate might signal greater underlying momentum in economic activity.

In contrast to their outlook for economic activity, most participants judged the risks to their projections of inflation as broadly balanced. Participants generally viewed the recent decline in inflation as having been in line with their earlier forecasts, and they noted that inflation expectations remain stable. While many of these participants saw the persistence of substantial slack in resource utilization as likely to keep inflation subdued over the projection period, a few others noted the risk that elevated resource slack might put more downward pressure on inflation than expected. In contrast, some participants noted the upside risks to inflation from developments in global oil and commodity markets, and several indicated that the current highly accommodative stance of monetary policy and the substantial liquidity currently in the financial system risked a pickup in inflation to a level above the Committee's objective. A few also pointed to the risk that uncertainty about the Committee's ability to effectively remove policy accommodation when appropriate could lead to a rise in inflation expectations.

Abbreviations

ABS	asset-backed securities
AFE	advanced foreign economy
AIG	American International Group, Inc.
ARRA	American Recovery and Reinvestment Act
CDS	credit default swap
C&I	commercial and industrial
CMBS	commercial mortgage-backed securities
CP	commercial paper
CRE	commercial real estate
DPI	disposable personal income
EBA	European Banking Authority
ECB	European Central Bank
EME	emerging market economy
E&S	equipment and software
FDIC	Federal Deposit Insurance Corporation
FOMC	Federal Open Market Committee; also, the Committee
FRBNY	Federal Reserve Bank of New York
GDP	gross domestic product
GSE	government-sponsored enterprise
LIBOR	London interbank offered rate
MEP	maturity extension program
MBS	mortgage-backed securities
NIPA	national income and product accounts
OIS	overnight index swap
PCE	personal consumption expenditures
repo	repurchase agreement
SCOOS	Senior Credit Officer Opinion Survey on Dealer Financing Terms
SEP	Summary of Economic Projections
SLOOS	Senior Loan Officer Opinion Survey on Bank Lending Practices
S&P	Standard and Poor's
SOMA	System Open Market Account
WTI	West Texas Intermediate