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FEDERAL RESERVE'S SECOND MONETARY POLICY REPORT FOR 2009

HEARING

BEFORE THE

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

ONE HUNDRED ELEVENTH CONGRESS

FIRST SESSION

ON

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

JULY 22, 2009

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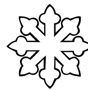

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FEDERAL RESERVE'S SECOND MONETARY POLICY REPORT FOR 2009

WEDNESDAY, JULY 22, 2009

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

The Committee met at 10:07 a.m., in room SD–106, Dirksen Senate Office Building, Senator Christopher J. Dodd (Chairman of the Committee) presiding.

OPENING STATEMENT OF CHAIRMAN CHRISTOPHER J. DODD

Chairman DODD. The Committee will come to order, and let me welcome the Chairman of the Federal Reserve. Chairman Bernanke, we are delighted to have you with us and thank you. And we have, as you see, a rather full complement of Senate Banking Committee Members here this morning, so there is a lot of interest, obviously, in having a good conversation with you this morning about the issues before our Nation.

I am going to begin with some brief opening comments, turn to Senator Shelby, and I am going to beg the indulgence of my colleagues to reserve their opening comments for the question period.

You had the opportunity to testify yesterday before the House Financial Services Committee, and I suspect you are not going to dramatically change your testimony from yesterday to today. And so I think the most important part may be the question period where we have a chance to engage with you, and the sooner we get to that, I think the better off we will be as a Committee. So I respectfully urge my colleagues will accept that structure here, and we will move forward.

Good morning and I thank all of you for being here this morning. We are dealing with the semiannual Monetary Policy Report to the U.S. Congress by the Chairman of the Federal Reserve. I would like to welcome Chairman Bernanke who has worked hard, let me point out at the outset, to address the enormous challenges during this very difficult time in our Nation's history. And let me just say to you, Chairman Bernanke, that concerns that I will raise here this morning more go to the institutional issue of the Federal Reserve as distinguished from your leadership over the last several years in grappling with these many complicated issues. You have got to go back literally to the mid-part or early part of the last century to confront a time as challenging as this one has been. And so I am very supportive of the efforts you have been trying to make as the Chairman of the Federal Reserve, but I have some serious

issues about the institutional response to all of this as we go forward, as we have talked about. So I appreciate your testimony.

If the success of our Government's attempts to get our economy back on track were to be measured by executive compensation or large financial institutions' bottom lines, then perhaps today would be a day to celebrate the success of all that has happened over the last number of months. After all, leading economists believe that these indicators are signs that we have averted utter catastrophe and suggest that a recovery may be imminent. But while this recession may have begun on Wall Street, the recovery will not be real until, of course, and unless it is felt on Main Street.

And so today is a day to ask fundamental questions: When will working families in our respective States, reflected in the Committee Members here, as well as our colleagues who are not on this Committee, when will they start to feel the effects of our work to restore the economy? After all, today we meet to receive the semiannual Monetary Policy Report mandated by the 1978 Humphrey-Hawkins Full Employment Act. And if the goal is full employment, then obviously the news today is rather grim. Unemployment in June was 9.5 percent, the highest level in 26 years. Most economists and the Fed itself believe that it could top 10 percent before the end of this year.

Meanwhile, Americans who have lost or who are worried about losing their jobs, their homes, and their retirement security have watched as others reap the benefits of our Government's response. They hear about a stock market rally and wonder if it will ever be enough to make up the retirement savings that have been wiped out, in some cases almost within minutes. They hear about million-dollar bonuses going to CEOs whose firms caused the meltdown in the first place while rank-and-file workers across the Nation are laid off or forced to accept pay cuts.

They hear about large financial institutions and large banks bailed out with billions of taxpayer dollars and Government-backed credit and now reporting billions of dollars in profits, but they still cannot get a loan themselves. Or as a small business or a commercial enterprise, they cannot find institutions willing to lend those resources so they can begin to grow again. Families worry about whether they can borrow the money necessary to send a child to college or buy that new automobile that is critical as well for economic recovery. They are still getting slammed by these very same institutions where they have seen fees and credit card rates, as we have all witnessed. And despite hearing from everyone in Washington that stabilizing the housing market is key to stabilizing our economy, they are still having trouble modifying their mortgages, even as 10,000 families a day are hit with foreclosure notices.

Mr. Chairman, I appreciate the work that you have done, as I said at the outset of these comments, on the monetary policy side of the equation and the positive indicators that we have seen in recent weeks. But these positive indicators seem to be stuck at the top in the process. It is not insignificant, the accomplishment. Stabilizing the economy, stabilizing these institutions is a critical component if we are going to find our economy recovering. And we on this Committee, I think, as well as all of us in this room, certainly

the Chairman, all work for the same people—that is, the American taxpayer.

But when can we expect the recovery that they have funded? And when will we start seeing working families see the rally, their pay raises, their jobs being stabilized? What are we doing as the holding company supervisor—or are you doing as the holding company supervisor of these recipients of TARP funds, another extraordinary Government assistance, to ensure that we are serving the interests of the American people?

These struggling people, as we all know, are not ready for an exit strategy for economic recovery efforts. First, the recovery must reach them. And as we move forward, we need to make sure that we lay a strong foundation for economic recovery that will reach every corner of our Nation. Part of that foundation will entail reforming financial regulations so that the mistakes that got us into this mess are not repeated. And as you know, many of us here have called for and the administration has proposed an independent Consumer Financial Protection Agency as part of that mission. But the administration has also proposed expanding the Fed's powers over systemically important companies.

I have a number of concerns about this proposal, as many of my colleagues do on this Committee, not the least of which is: Why does the Fed deserve more authority when institutionally it seemed to have failed to prevent the current crisis?

Now, Mr. Chairman, all of us understand the importance of the work you are doing, and that is not just a platitude or a generous comment. And we all look forward to continuing to partner with you in this effort. But the financiers who engineered this crisis are not the reason we are here. It is the millions of families who are still struggling and falling further and further behind. And I hope that they can be the focus of our attention today as we talk about what needs to be done to get our Nation back on its feet.

So the basic questions I have for you are: When will this recovery, when will this effort that we are making, reach those families who are facing foreclosure, people who have lost their jobs, worried about their savings, worried about their long-term retirement security? What are we doing as the Fed to help see to it that they are going to reap the benefits of this effort?

And then, second, as we talk about these large institutions with the powers that already exist within the Fed over bank holding companies, we come up here and jawbone and ask these institutions to make a difference, but the Fed actually has the authority to make that difference. And many are asking the question why that authority is not being exercised to convince these institutions that they need to be moving more aggressively when it comes to bank lending.

So, with those in mind, let me turn to Senator Shelby for opening comments, and then we will get directly to your testimony and engage in this conversation of how we not only deal from the top, which is critically important, but also those who depend upon these institutions, recognizing the value of what consumers and small businesses need, why we need to do more to assist that side of the equation as well.

Senator Shelby.

STATEMENT OF SENATOR RICHARD C. SHELBY

Senator SHELBY. Thank you, Mr. Chairman. Welcome back to the Committee, Chairman Bernanke.

The purpose of today's hearing is to oversee the Federal Open Market Committee's conduct of monetary policy. There is no doubt that we are in a very challenging economic environment. The economy is extremely weak, bank lending remains sluggish, and unemployment is rising rapidly. The unemployment rate stands at a 26-year high and is expected to increase.

Although the Fed has gone to great lengths to inject liquidity into our economy, its efforts are largely designed, I believe, to assist banks, especially large money center financial institutions. Many small businesses, however, are desperately seeking capital from the financial sector and have not been able to secure it. I have heard that from a number of my companies in Alabama that have been virtually abandoned by all of their traditional funding providers for years and years.

While it is important to bring stability to the financial sector, if the part of our economy most responsible for job creation—that is, small business—cannot obtain funding, Mr. Chairman, such stability I believe would be short-lived. Going forward, the measure of success will have to include whether Main Street businesses are retaining or even adding jobs.

While I understand that the FOMC cannot by itself solve all of our economic problems, the effective conduct of monetary policy is a necessary condition for economic recovery. Therefore, today I hope to hear from Chairman Bernanke whether the FOMC will need to take additional steps to revive our economy and, if so, where. Because interest rates remain at record lows, I am interested to hear what other specific actions the FOMC can and is prepared to take if additional easing becomes necessary. In addition, I would like to know what Chairman Bernanke believes can be done to spur lending to small- and medium-size businesses.

While monetary policy is the central focus of this hearing today, I believe we must also examine the Fed's performance as a bank regulator as well as its participation in bailouts over the past year. I do not believe that the Board or the regional banks have handled their regulatory responsibilities very well. Many of the large financial companies that have been the focus of the Fed's bailout efforts were also subject to the Fed's regulatory oversight. And while they were regulated by the Fed, these firms were allowed to take great risks, both on and off their balance sheets. When the housing bubble burst, those risky positions were exposed and firms had to scramble to shore up their finances, and the credit crunch quickly followed.

I am not aware of any effort on the part of the Fed prior to the crisis to question or require such firms to take any actions to address the significant risks that they were taking. In fact, the only effort of which I am aware is an effort to modernize bank capital standards. This effort could have resulted in a significant reduction in overall bank capital levels.

I wonder where we would be today if the Fed had been able to act on its desire to eliminate the leverage ratio. I cannot imagine a scenario where banks would fare better with less capital during

a period of financial stress such as the one we are currently experiencing.

If the Fed had conducted its regulator oversight with greater diligence, I do not think the financial crisis would have achieved the depth and scope that it did. In the end, it was the failure, I believe, of the Fed to adequately supervise our largest financial institutions that required the deployment of its monetary policy resources to stave off financial disaster.

In light of the Fed's record of failure as a bank regulator, it should come as no surprise that Congress is taking a closer look at the Fed and reconsidering its regulatory mandate.

Thank you, Mr. Chairman.

Chairman DODD. Thank you very much, Senator Shelby.

Chairman Bernanke, again, welcome to the Committee.

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

Mr. BERNANKE. Thank you. Chairman Dodd, 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.

Aggressive policy actions taken around the world last fall may well have averted the collapse of the global financial system, an event that would have had extremely adverse and protracted consequences for the world economy. Even so, the financial shocks that hit the global economy in September and October were the worst since the 1930s, and they helped push the global economy into the deepest recession since World War II.

The U.S. economy contracted sharply in the fourth quarter of last year and the first quarter of this year. More recently, the pace of decline appears to have slowed significantly, and final demand and production have shown tentative signs of stabilization. The labor market, however, has continued to weaken. Consumer price inflation, which fell to low levels late last year, remained subdued in the first 6 months of 2009.

To promote economic recovery and foster price stability, the Federal Open Market Committee last year brought its target for the Federal funds rate to a historically low range of 0 to ¼ percent, where it remains today. The FOMC anticipates that economic conditions are likely to warrant maintaining the Federal funds rate at exceptionally low levels for an extended period.

At the time of our February report, financial markets at home and abroad were under intense strains, with equity prices at multiyear lows, risk spreads for private borrowers at very elevated levels, and some important financial markets essentially shut. Today, financial conditions remain stressed, and many households and businesses are finding credit difficult to obtain. Nevertheless, on net, the past few months have seen some notable improvements. For example, interest rate spreads in short-term money markets, such as the interbank market and the commercial paper market, have continued to narrow. The extreme risk aversion of last fall has eased somewhat, and investors are returning to private credit markets. Reflecting this greater investor receptivity, corporate bond issuance has been strong. Many markets are functioning more

normally, with increased liquidity and lower bid-asked spreads. Equity prices, which hit a low point in March, have recovered to roughly their levels at the end of last year, and banks have raised a significant amount of new capital.

Many of the improvements in financial conditions can be traced, in part, to policy actions taken by the Federal Reserve to encourage the flow of credit. For example, the decline in interbank lending rates and spreads was facilitated by the actions of the Federal Reserve and other central banks to ensure that financial institutions have access to adequate amounts of short-term liquidity, which in turn has increased the stability of the banking system and the ability of banks to lend. Interest rates and spreads on commercial paper dropped significantly as a result of the backstop liquidity facilities that the Federal Reserve introduced last fall for that market. Our purchases of agency mortgage-backed securities and other longer-term assets have helped lower conforming fixed mortgage rates. And the Term Asset-Backed Securities Loan Facility, or TALF, which was implemented this year, has helped to restart the securitization markets for various classes of consumer and small business credit.

Earlier this year, the Federal Reserve and other Federal banking regulatory agencies undertook the Supervisory Capital Assessment Program, popularly known as the "stress test," to determine the capital needs of the largest financial institutions. The results of the SCAP were reported in May, and they appeared to increase investor confidence in the U.S. banking system. Subsequently, the great majority of institutions that underwent the assessment have raised equity in public markets. And, on June 17, 10 of the largest U.S. bank holding companies—all but one of which participated in the SCAP—repaid a total of nearly $70 billion to the Treasury.

Better conditions in financial markets have been accompanied by some improvement in economic prospects. Consumer spending has been relatively stable so far this year, and the decline in housing activity appears to have moderated. Businesses have continued to cut capital spending and liquidate inventories, but the likely slowdown in the pace of inventory liquidation in coming quarters represents another factor that may support a turnaround in activity. Although the recession in the rest of the world led to a steep drop in the demand for U.S. exports, this drag on our economy also appears to be waning, as many of our trading partners are also seeing signs of stabilization.

Despite these positive signs, the rate of job loss remains high and the unemployment rate has continued its steep rise. Job insecurity, together with declines in home values and tight credit, is likely to limit gains in consumer spending. The possibility that the recent stabilization in household spending will prove transient is an important downside risk to the outlook.

In conjunction with the June FOMC meeting, Board members and Reserve Bank presidents prepared economic projections covering the years 2009 through 2011. FOMC participants generally expect that, after declining in the first half of this year, output will increase slightly over the remainder of 2009. The recovery is expected to be gradual in 2010, with some acceleration in activity in 2011. Although the unemployment rate is projected to peak at the

end of this year, the projected declines in 2010 and 2011 would still leave unemployment well above FOMC participants' views of the longer-run sustainable rate. All participants expect that inflation will be somewhat lower this year than in recent years, and most expect it to remain subdued over the next 2 years.

In light of the substantial economic slack and limited inflation pressures, monetary policy remains focused on fostering economic recovery. Accordingly, as I mentioned earlier, the FOMC believes that a highly accommodative stance of monetary policy will be appropriate for an extended period. However, we also believe that it is important to assure the public and the markets that the extraordinary policy measures we have taken in response to the financial crisis and the recession can be withdrawn in a smooth and timely manner as needed, thereby avoiding the risk that policy stimulus could lead to a future rise in inflation. The FOMC has been devoting considerable attention to issues relating to its exit strategy, and we are confident that we have the necessary tools to implement that strategy when appropriate.

To some extent, our policy measures will unwind automatically as the economy recovers and financial strains ease, because most of our extraordinary liquidity facilities are priced at a premium over normal interest rate spreads. Indeed, total Federal Reserve credit extended to banks and other market participants has declined from roughly $1.5 trillion at the end of 2008 to less than $600 billion, reflecting the improvement in financial conditions that has already occurred. In addition, bank reserves held at the Fed will decline as the longer-term assets that we own are maturing or are prepaid. Nevertheless, should economic conditions warrant a tightening of monetary policy before this process of unwinding is complete, we have a number of tools that will enable us to raise market interest rates as needed.

Perhaps the most important such tool is the authority that the Congress granted the Federal Reserve last fall to pay interest on balances held at the Fed by depository institutions. Raising the rate of interest paid on reserve balances will give us substantial leverage over the Federal funds rate and other short-term market interest rates, because banks generally will not supply funds to the market at an interest rate significantly lower than they can earn risk free by holding balances at the Federal Reserve. Indeed, many foreign central banks use the ability to pay interest on reserves to help set a floor on market interest rates. The attractiveness to banks of leaving their excess reserve balances with the Federal Reserve can be further increased by offering banks a choice of maturities for their deposits.

But interest on reserves is by no means the only tool we have to influence market interest rates. For example, we can drain liquidity from the system by conducting reverse repurchase agreements, in which we sell securities from our portfolio with an agreement to buy them back at a later date. Reverse repurchase agreements, which can be executed with primary dealers, Government-sponsored enterprises, and a range of other counterparties, are a traditional and well-understood method of managing the level of bank reserves. If necessary, another means of tightening policy is outright sales of our holdings of longer-term securities. Not only

would such sales drain reserves and raise short-term interest rates, but they also could put upward pressure on longer-term interest rates by expanding the supply of longer-term assets. In sum, we are confident that we have the tools to raise interest rates when that becomes necessary to achieve our objectives of maximum employment and price stability.

Our economy and financial markets have faced extraordinary near-term challenges, and strong and timely actions to respond to those challenges have been necessary and appropriate. I have discussed some of the measures taken by the Federal Reserve to promote economic growth and financial stability. The Congress also has taken substantial actions, including the passage of a fiscal stimulus package. Nevertheless, even as important steps have been taken to address the recession and the intense threats to financial stability, maintaining the confidence of the public and financial markets requires that policy makers begin planning now for the restoration of fiscal balance. Prompt attention to questions of fiscal sustainability is particularly critical because of the coming budgetary and economic challenges associated with the retirement of the baby-boom generation and the continued increases in the costs of Medicare and Medicaid. Addressing the country's fiscal problems will require difficult choices, but postponing those choices will only make them more difficult. Moreover, agreeing on a sustainable long-run fiscal path now could yield considerable near-term economic benefits in the form of lower long-term interest rates and increased consumer and business confidence. Unless we demonstrate a strong commitment to fiscal sustainability, we risk having neither financial stability nor durable economic growth.

A clear lesson of the recent financial turmoil is that we must make our system of financial supervision and regulation more effective, both in the United States and abroad. In my view, comprehensive reform should include at least the following key elements:

A prudential approach that focuses on the stability of the financial system as a whole, not just the safety and soundness of individual institutions, and that includes formal mechanisms for identifying and dealing with emerging systemic risks;

Stronger capital and liquidity standards for financial firms, with more stringent standards for large, complex, and financially interconnected firms;

The extension and enhancement of supervisory oversight, including effective consolidated supervision, to all financial organizations that could pose a significant risk to the overall financial system;

An enhanced bankruptcy or resolution regime, modeled on the current system for depository institutions, that would allow financially troubled, systemically important nonbank financial institutions to be wound down without broad disruption to the financial system and the economy;

Enhanced protections for consumers and investors in their financial dealings;

Measures to ensure that critical payment, clearing, and settlement arrangements are resilient to financial shocks, and that practices related to the trading and clearing of derivatives and other fi-

nancial instruments do not pose risks to the financial system as a whole;

And, finally, improved coordination across countries in the development of regulations and in the supervision of internationally active firms.

The Federal Reserve has taken and will continue to take important steps to strengthen supervision, improve the resiliency of the financial system, and to increase the macroprudential orientation of our oversight. For example, we are expanding our use of horizontal reviews of financial firms to provide a more comprehensive understanding of practices and risks in the financial system.

The Federal Reserve also remains strongly committed to effectively carrying out our responsibilities for consumer protection. Over the past 3 years, the Federal Reserve has written rules providing strong protections for mortgage borrowers and credit card users, among many other substantive actions. Later this week, the Board will issue a proposal using our authority under the Truth in Lending Act, which will include new, consumer-tested disclosures as well as rule changes applying to mortgages and home equity lines of credit; in addition, the proposal includes new rules governing the compensation of mortgage originators. We are expanding our supervisory activities to include risk-focused reviews of consumer compliance in nonbank subsidiaries of holding companies. Our community affairs and research areas have provided support and assistance for organizations specializing in foreclosure mitigation, and we have worked with nonprofit groups on strategies for neighborhood stabilization. The Federal Reserve's combination of expertise in financial markets, payment systems, and supervision positions us well to protect the interests of consumers in their financial transactions. We look forward to discussing with the Congress ways to further formalize our institution's strong commitment to consumer protection.

Finally, the Congress and the American people have a right to know how the Federal Reserve is carrying out its responsibilities and how we are using taxpayers' resources. The Federal Reserve is committed to transparency and accountability in its operations. We report on our activities in a variety of ways, including reports like the one I am presenting to the Congress today, other testimonies, and speeches. The FOMC releases a statement immediately after each regularly scheduled meeting and detailed minutes of each meeting on a timely basis. We have increased the frequency and scope of the published economic forecasts of FOMC participants. We provide the public with detailed annual reports on the financial activities of the Federal Reserve System that are audited by an independent public accounting firm, and we publish a complete balance sheet each week.

We have recently taken additional steps to better inform the public about the programs we have instituted to combat the financial crisis. We expanded our Web site this year to bring together already available information as well as considerable new information on our policy programs and financial activities. In June, we initiated a monthly report to the Congress that provides even more information on Federal Reserve liquidity programs, including breakdowns of our lending, the associated collateral, and other fac-

ets of programs established to address the financial crisis. These steps should help the public understand the efforts that we have taken to protect the taxpayer as we supply liquidity to the financial system and support the functioning of key credit markets.

The Congress has recently discussed proposals to expand the audit authority of the GAO over the Federal Reserve. As you know, the Federal Reserve is already subject to frequent reviews by the GAO. The GAO has broad authority to audit our operations and functions.

The Congress recently granted the GAO new authority to conduct audits of the credit facilities extended by the Federal Reserve to "single and specific" companies under the authority provided by section 13(3) of the Federal Reserve Act, including the loan facilities provided to, or created for, AIG and Bear Stearns. The GAO and the Special Inspector General have the right to audit our TALF program, which uses funds from the Troubled Assets Relief Program.

The Congress, however, purposefully—and for good reason—excluded from the scope of potential GAO reviews some highly sensitive areas, notably monetary policy deliberations and operations, including open market and discount window operations. In doing so, the Congress carefully balanced the need for public accountability with the strong public policy benefits that flow from maintaining an appropriate degree of independence for the central bank in making and executing monetary policy. Financial markets, in particular, likely would see a grant of review authority in these areas to the GAO as a serious weakening of monetary policy independence. Because GAO reviews may be initiated at the request of Members of Congress, reviews or the threat of reviews in these areas could be seen as efforts to try to influence monetary policy decisions. A perceived loss of monetary policy independence could raise fears about future inflation, leading to higher long-term interest rates and reduced economic and financial stability. We will continue to work with the Congress to provide the information it needs to oversee our activities effectively, yet in a way that does not compromise monetary policy independence.

Thank you, Mr. Chairman.

Chairman DODD. Thank you very much, Chairman Bernanke.

I will ask the Clerk to put on 7 minutes on the clock and we will try and watch it very carefully so we don't overstep.

Let me just begin by asking you what recommendations you would make. These unemployment numbers are obviously very troubling. I mentioned the highest unemployment rates in more than a quarter of a century and indications they may actually jump up based on economists who are looking at the situation. And so what recommendations do you have as Chairman of the Federal Reserve that we might take, that you should take in order to stem this tide? What are the looming problems out there?

The commercial real estate issue is one that I know some have suggested may even dwarf the residential mortgage problems in the country. The consumer borrowing practices, the overdraft issues and so forth that still persist, consumer debt issues obviously are looming, as well. What are those problems you see coming along and what steps—for instance, are you considering extend-

ing the TALF program in the commercial real estate area, for instance, beyond the expiration—I think it is in December, if I am not mistaken—and whether or not that program will be extended to accommodate the problems in commercial real estate?

But what recommendations would you give to us to start to deal with that other side of the equation, the stability of institutions that now—and you mentioned some in your statements, but I would like you to elaborate, if you would.

Mr. BERNANKE. Certainly, Mr. Chairman. On unemployment, that is the most pressing issue and it is the most difficult aspect of the problems that we are facing. Both the Federal Reserve and the Congress have already taken very aggressive actions to try to stimulate economic activity and I am hopeful that we are seeing some stabilization in the economy.

Beyond that, I think to address unemployment more directly, the Congress has already extended UI, unemployment insurance, to help those who are without work. One particular problem which is concerning is that people without work for extended period may lose their skills and they find themselves with atrophying skills and an inability to find work once the economy has recovered. And so I would call to your attention the possibility of expanding training and other programs that would help people maintain those skills or develop new skills as needed to enter new industries. But again, I believe this is one of the most difficult and challenging parts of our task at this point.

On commercial real estate, we agree with you that this is one of the more difficult areas. During the last few years, while residential investment was declining sharply, commercial real estate was actually pretty strong. But we have seen now in the last 6 months or so that vacancy rates are rising, rents are falling, prices are falling, and financing conditions for commercial real estate have gotten a good bit more difficult.

We are working to try to improve those conditions. We are working with banks, for example. In the same way that banks should be encouraged to try to work out defaulting mortgages for residential borrowers, it is in their interest to try to make arrangements to work out problem loans in the CRE area, as well, and many banks will be facing very extensive amounts of CRE challenges going forward.

On the TALF, as you know, we have recently added to the list of assets that we are supporting both new and legacy commercial mortgage-backed securities in an attempt to open up the CMBS market, which has been an important source of financing for this area in the past. It is early yet to know how much effect it will have. We were encouraged by the effects of the TALF on some other areas, such as consumer lending and small business lending.

We currently have an expiration date of December 31 on the TALF, as you pointed out. We will certainly be monitoring the situation, and if markets continue to need support, we will be extending the final date of that program.

Chairman DODD. And you have the authority to do that? You don't need any action by Congress to do that, is that correct?

Mr. BERNANKE. We don't need action, but we do—we are using the 13(3) authority, which requires us to make a finding of unusual

and exigent circumstances. So we would have to continue to believe that financial markets were in essentially still some distance from normal operation. If they are in normal operation, then it would be more difficult for us to justify such action.

Chairman DODD. Well, I appreciate the answer on that.

Let me go back—and I appreciate the steps, again, you have taken on dealing with credit cards and dealing with the residential mortgage market and steps, so don't misunderstand what I am saying in terms of what you have responded to. Obviously, a crisis was emerging here.

But there is a history at the Fed which is deeply troubling to me when it comes to consumer protection. You go back, if you will, in 1975 with the FDC Act, which gave the authority to the Fed to deal with protecting consumers from unfair and deceptive practices. Even as late as 2001, when the FDIC and the OCC wrote to the Fed urging that there were problems out there, that they needed to step up, the Fed didn't respond to it.

We have all talked about—I listened to Jim Bunning. Even last week, we talked about the 1994 Act, the HOEPA legislation. In that, we went 14 years before the Fed, under your leadership, stepped up and responded to that situation with a series of regulations dealing with the residential mortgage market.

There seems to be a pattern of behavior by the Fed over the years that would lead us up here to be concerned about whether or not this is just a momentary response to a crisis that is in front of us, to step up, rather than the kind of consistent behavior that we would depend upon the Federal Reserve to act when it comes to consumer issues that have been hammered by the problems in the residential mortgage market as well as in some of these consumer products. Give me a reason why you think this is something I should be less concerned about, given this pattern of behavior.

Mr. BERNANKE. Mr. Chairman, I understand your concern entirely. It is not literally true the Federal Reserve was inactive. We did take steps. We did invoke HOEPA authority to broaden the scope of high-cost loans, for example. But we were not quick enough and we were not aggressive enough to address consumer issues earlier in this decade. I agree with that.

So I think what we have demonstrated in the last few years is we have the capacity. We have the ability. We have the expertise, the range of abilities, and the complementarity with our other activities to be effective when we are working in that direction.

So my recommendation to you to consider, Mr. Chairman, would be to ask whether there are steps that could be taken that would strengthen the commitment of the Federal Reserve so that it would be strongly committed to this area in the future, and a few suggestions I would make. One would be to put consumer protection in the Federal Reserve Act along with full employment and price stability as a major goal of the Fed.

The second step could be to require the Chairman to come before you or another committee at least once a year, present a report in the same way that we do for monetary policy, on our consumer protection steps. Adopt a system of hearings or sufficiency reviews that would allow the public to see what steps the Fed was taking

and provide input to make sure that actions were being adequately taken in addressing problems.

And yet another possibility would be to upgrade and strengthen the Consumer Advisory Council, which was created by Congressional action, to give it a higher, stronger status and an ability to meet with the Board on a regular basis.

So I think there are steps that could strengthen the institutional framework that would address your legitimate concern about the long-term commitment of the Fed to this particular area.

Chairman DODD. Let me quickly jump last to this issue involving the power the Fed presently has over the bank holding companies. And again, all of us here, we go back to our respective States and we get an earful on a daily—hourly—basis about the unwillingness of these lending institutions to provide the necessary credit at a critical time, when businesses are out there asking for it and demanding it and there just seems to be no response at all.

Now, we can jawbone on the issue, but the Fed has the power here to really exercise some greater influence. Why is that not happening? Why aren't we getting more support in order to demand that these institutions start being far more responsive to the demands of industry and business out there that are relying on these institutions to expand and grow and help recover?

Mr. BERNANKE. Well, Mr. Chairman, I think the first order of business last fall was to avert essentially the collapse of the system, and that was a very important step and we did achieve that and the system now appears to be much more stable. It is still very challenged. Banks—some banks are still short of capital. Other banks are concerned about future losses. They are concerned about the weakness in the economy and the weakness of potential borrowers. So there are legitimate concerns that banks have.

That being said, the Fed and the other bank regulators have been very clear that banks should be making loans to creditworthy borrowers, that it is in their interest, the banks' interest, as well as in the interest of the economy, and we are working with banks to make sure they do that.

I think that we are seeing improvement over time. We are seeing some stabilization in the terms and standards that banks are applying to borrowers. And I suspect we will see some continued improvement. But we understand that issue and we are trying as best we can to support bank lending through measures such as the TALF, which we already discussed.

Chairman DODD. I thank you. And I would hope, by the way, on the TALF decision, you might make that earlier rather than waiting until late fall on that. If you are going to extend the TALF, I think that it would be helpful for the institutions to know whether or not that is going to happen earlier rather than later.

Senator Shelby.

Senator SHELBY. Thank you, Chairman Dodd.

Chairman Bernanke, I believe myself that monetary police decisions by the Fed should be kept outside of political considerations, independently. That said, it often seems that the Fed holds a very expansive view of its activities that it considers to be monetary policy actions. I assume this is done in an effort to expand the range of things subject to limited Congressional oversight.

Would you support an independent review, perhaps by the GAO, so that we can establish a clear line as to what must be kept independent and what should get more scrutiny?

Mr. BERNANKE. Our general view is that the Congress should have the ability to oversee all aspects of our operations, including whether or not we have the appropriate financial controls, whether we are lending on a good basis of collateral, and so on, and so we would be willing to work with you on that. We do think that the Congress has the right to see how we are using taxpayer money. Where we are concerned is that the Congress would be intervening in our specific policy decisions relating to monetary policy in the economy. So——

Senator SHELBY. And I understand that.

Mr. BERNANKE. So yes, we are quite willing to work with Congress to try to figure out exactly where the line should be. And outside the area of policy determination, we are quite open to working with you and the GAO to determine appropriate scope of oversight.

Senator SHELBY. Mr. Chairman, your monetary policy report notes rather casually that, quote, "nontraditional monetary policy actions employed by the Federal Reserve since the onset of the current episode of financial turmoil have resulted in a considerable expansion of the Federal Reserve's balance sheet," end quote, from $918 billion at the end of 2007 to over $2 trillion last week.

By categorizing these as, quote, "nontraditional monetary policy actions"—good choice of words—are you suggesting that actions by the Fed that have more than doubled the size of the Fed balance sheet are beyond Congressional scrutiny?

Mr. BERNANKE. I think that all——

Senator SHELBY. You see where we are coming from.

Mr. BERNANKE. Yes, I see, Senator Shelby. So we have already—the GAO has already been given access to the rescues. The GAO already has access to the TALF, which is a major program. And I think it would be—we would be willing to extend GAO access to any extraordinary program with the focus being on our operational integrity and making sure we are protecting the taxpayers' money. Where we are nervous is when the GAO begins to second-guess our monetary policy decisions *per se.* But in terms of safeguarding the taxpayers' money, in terms of making sure that the operations are well maintained, all those things, I think, are appropriate for Congress to oversee.

Senator SHELBY. I would like to get into something you have talked about on the House side on a number of occasions, but I don't believe over here yet. That is the Bank of America–Merrill Lynch merger. What really went on between you, former Secretary Paulson, and Mr. Lewis, the former—I guess he is still currently the CEO of Bank of America? There has been a lot said, a lot of charges both ways, some that you and Secretary Paulson threatened Mr. Lewis. I think you basically said that you didn't. But I would like to hear in your own words what went on there, because that controversy has not gone away yet.

Mr. BERNANKE. Well, Chairman Frank yesterday said he saw no villains in the story and I don't think there is anybody who—in that story who did not behave appropriately and in their appropriate role.

You should remember that the way this became even an interest of Congress was the report from Attorney General Cuomo that Mr. Lewis had said that we had—we, the Secretary and I—had urged him not to disclose material which he was supposed to disclose under SEC rules. He later clarified under oath that no one had done that, that there had been no such urging not to do appropriate disclosures and that he had been solely in control of his own disclosure decisions. So that eliminated the only issue that had any legal consequences, as far as I can see.

Nevertheless, the Committee proceeded to collect e-mails and materials and to look for whatever possible problems they could find. In fact, as I have said in my testimony, we were dealing with a very difficult situation where we, on the one hand, we wanted to make sure that we respected the rights of Mr. Lewis and his shareholders. On the other hand, we wanted to make sure that the financial system was stabilized and protected.

I think that we achieved that. We did that in a way that was fully legal and fully ethical and in which Mr. Lewis also performed his necessary fiduciary responsibilities with respect to his company and the outcome has been very successful, I think, that both companies have been stabilized. There has been—Merrill Lynch has been contributing to the profits of Bank of America. The overall financial system has been stabilized, and so I think the outcome was successful and I don't think that there is anyone who violated any law or broke any ethical code, as far as I can see.

Senator SHELBY. You think the conduct of Secretary Paulson, your conduct, and Mr. Lewis was all above board?

Mr. BERNANKE. Yes, sir, and all in good intentions.

Senator SHELBY. Thank you, Mr. Chairman.

Chairman DODD. Thank you, Senator Shelby.

Senator Johnson.

Senator JOHNSON. Welcome, Chairman Bernanke. As you know, this Committee recently heard testimony regarding the possible creation of a new Federal agency with the specific purpose of consumer protection from dangerous financial products. The creation of this agency would take consumer protection off of the Fed's plate, allowing the Fed to concentrate on other areas of responsibility. Do you feel that the Fed has been effective in protecting consumers, and would this agency be more effective?

Mr. BERNANKE. Senator, as I indicated, I think the Federal Reserve in the last 3 years or so has demonstrated that it can be very effective. We have a lot of expertise which bears on consumer protection. We have been very committed. We have used consumer testing and other novel approaches to develop really good approaches to solving these issues. So I defend the record of the Federal Reserve in recent years and I reiterate what I said to the Chairman, that I think with some additional steps to strengthen the commitment of the Federal Reserve to this area that we could maintain that commitment going forward.

I also don't think that the consumer protection function is in any way detracting from our other activities. I think it is complementary, for example, to our bank examination activities. When we go in and look at a bank, we do one exam, both for compliance, consumer compliance, and also for safety and soundness oversight, and

many things that we look at, such as underwriting standards, have bearing both on safety and soundness and on consumer protection.

That being said, I understand. I agree with Chairman Dodd that the Federal Reserve did not do all it should have at certain times in the past and I understand why some would want to see a new agency that would be fully committed to this area, and I am not criticizing that. I am simply saying that from the Federal Reserve's perspective, we believe that we can continue to do good work in this area.

Senator JOHNSON. In your view, does the President's proposal allocate cost fairly between large and small financial institutions given that most community banks and credit unions had little role in the creation of the crisis?

Mr. BERNANKE. If you are referring, Senator, to the fund or the cost of resolving failing financially systemically critical firms, my understanding of the proposal is that assessments would be based on noninsured liabilities. So in principle, any bank holding company or almost any financial company might be subject to assessments to help pay for an intervention when a large systemically critical firm is failing.

However, small banks, small community banks, most of their liabilities are insured, their deposits, for example. And so the portion of their liabilities which would be subject to an assessment would be relatively small. So I would imagine that the bulk of the costs would be borne by larger banks, and indeed, you could make the costs progressive and put a heavier weight on the assets or liabilities of larger firms.

So I do think that is an important issue and I do think it would be appropriate for larger more systemically critical firms to bear their fair share, obviously, of the costs of resolving any systemically critical firm.

Senator JOHNSON. There has been speculation in recent weeks about the effectiveness of the economic stimulus package that was enacted in February and if enough has been done at the Federal level to bolster our economy. In your judgment, is the stimulus package mitigating some of the effects of the economic crisis, and are there additional fiscal policy responses that Congress can take to help the current economic situation?

Mr. BERNANKE. Well, based on our economic analysis, which draws heavily on previous experiences, we would infer that, for example, income provided to workers and seniors and veterans would affect their consumer spending, to some extent. Likewise, money flowing to States and localities should relieve, to some extent, their budget pressures and allow them to spend more on services than they otherwise would be. And so the economic presumption is that there would be some effect on activity and spending from a fiscal package.

That being said, at this point, less than a quarter of the monies have been disbursed and probably fewer than that have been actually put into action, spent. And so I think it is somewhat premature to make a strong case one way or the other in terms of the impact of this program, and I also think it is premature to consider an additional package at this time.

With respect to strengthening the economy, I do think, although the impact is indirect, I do think that financial regulatory reform should be a very high priority and I know that this Committee will be spending a lot of time on making sure that our financial system is stable and able to provide credit to the economy in the future.

Senator JOHNSON. Finally, we have repeatedly heard testimony in this Committee that families and investors will continue to be wary of the housing market until a bottom can be found. Has the mortgage market finally hit bottom?

Mr. BERNANKE. It is difficult to know, and we have had false dawns before, but the recent data have been mildly encouraging. We have seen demand fairly stable now for some months in terms of housing. We have seen some increase, actually, in construction and permits. The data on house prices, there are a number of different series, and they don't always agree, but there seems to be, at least for the moment, there seems to be some leveling off in house prices. And, of course, in part because of the Federal Reserve's actions, mortgage rates are a good bit lower than they were last fall, and indeed housing affordability right now is the highest it has been in many, many years. So there are some positive indicators on the housing front.

That being said, we still also have problems of foreclosures coming on the market which will put downward pressure on prices, and so we can't get guarantee by any means that the price declines are over, but we are seeing a few positive indicators in the housing market.

Senator JOHNSON. Thank you, Chairman Bernanke.

Mr. BERNANKE. Thank you.

Chairman DODD. Thank you very much, Senator Johnson.

Senator Bennett.

Senator BENNETT. Thank you, Mr. Chairman.

Welcome, Chairman Bernanke. I appreciate your service in a time of great stress and difficulty. I appreciate your willingness to hang in there and try to remain as calm and serene as you can.

When we were having these discussions a year ago, and we have heard you now first with Bear Stearns, and we thought that was over, and then we had additional problems all the way through, through it all, the one overriding principle that motivated me was if we are going to get stability in the market in these very difficult times, we have to inject public capital, or sovereign capital, if you will, into the market to produce stability. And then, as quickly as we can, we want to remove that sovereign capital so that private capital can come in and fill that vacuum, and that is the 50,000-foot view of what it is we have been trying to do.

Now, you talked about the difficulty with commercial real estate and the potential that it could be as bad as the housing difficulty. I have heard that there is currently as much as $450 billion of private capital waiting to be invested in financial institutions, and that is a substantial amount of money. My question is, why is this private capital waiting on the sidelines? Do you have any sense of that?

Mr. BERNANKE. Well, Senator, we have had some recent success in this area, as you know. The Federal Reserve led an interagency evaluation of 19 large banks simultaneously, which was an enor-

mous effort, I must say, in the so-called stress tests, and what that did apparently was give the markets some more confidence about what the eventual losses would be and what these firms' needs for capital would be in the future. And as a direct result of those stress test, virtually every one of the 19 firms was able to go out and raise private capital. And, of course, about $70 billion of Government capital is repaid.

So I think that what the private capital is waiting for is greater clarity and assurances both about the state of the banks, their potential losses, but also there is a lot of uncertainty in the economy, and as the economy has looked a bit better and stabilized somewhat, the credit markets in general have improved and I think that that will lead to more confidence in the banking sector, as well.

So I am not sure what steps we can take other than to try to provide as much clarity as we can to the markets so they will understand both our policies and also the state of the balance sheets of the banks and that would give them every opportunity to inject capital.

Senator BENNETT. Well, obviously they are waiting for the bottom, waiting for a sense of, OK, this has now stabilized. The concern about commercial real estate suggests that it has not stabilized. Now, wouldn't it be true that a concern, OK, if we are not at bottom, public money will still come in, that there is still money to come from the Fed or recycling TARP money will still come in, so we will wait on the sidelines in addition? Wouldn't it be a further signal to the public money, the time to come in, if statements could be made that this is the end of the public money that would be available?

Mr. BERNANKE. Well, the stress test did that, to some extent. We did a 2-year, forward-looking analysis and we included commercial real estate, all different categories of assets, and tried to project loss rates, and we concluded for the banks that, quote, "passed the test," we concluded that without new public money and with these heavy losses still to come, that they would at the end of 2 years still be well capitalized. And so that was essentially as much of an endorsement as we could give.

I don't think we can unequivocally say that no public money will come in under any circumstances because there could be situations of systemically critical firms which, you know, for one reason or another are on the verge of failure and we need to consider whether or not the cost to the broad system of allowing a disorderly failure outweighs the cost of putting more Government capital in. So I don't think it would be reassuring to the market to say that there is no more capital under any circumstances. But what we are trying to do is point out that there are institutions which seem to be in a situation where they are unlikely to need any further Government assistance.

Senator BENNETT. Looking at the economy as a whole, getting into is this a "V" shape, a "U" shape, a "W" shape, or an "L" shape kind of thing, we have seen inventory liquidations, and that was inevitable. When the whole world economy fell off the cliff, there were a lot of people who had excess inventory and they liquidated it and thereby did not help stimulate the economy. Now the liq-

uidation seems to be over in many areas in the world, so new manufacturing, new products have to be produced to meet the demand.

My sense is that in the contracted world we are facing, the demand is not at the level that it was before and that argues for more of an "L" shaped kind of circumstance. Yes, we have hit bottom, but what signs do we see that we are going to come back up, particularly if the American consumer, which is the driving force really for the whole world, because the economic model of the Chinese and the Indians and the Koreans and so on and Japanese are following, let us produce to sell to America. If the Americans can't afford to do it or the Americans aren't willing to do it at the same levels they were before, the whole world economy remains in kind of an "L" shaped circumstance.

Could you respond to all that and give us your sense of where we are with respect to inventory liquidation and further manufacturing and consumption?

Mr. BERNANKE. Yes, sir. You are absolutely right. Inventory liquidation is not complete yet, but it is substantially advanced, and that will be a support to production both here and perhaps even more so abroad, which will create a stronger global economy, which will be helpful indirectly.

We expect a recovery, and there is still a great deal of uncertainty, but we expect a recovery to start off relatively slow, and in part it is because of the consumer who is facing a damaged balance sheet, still has high debt on the balance sheet. Wealth has been reduced by housing and equity price declines. So we do not expect the consumer to come roaring back by any means, particularly with the labor market in the condition that it is in. So the American consumer is not going to be the source of a global boom by any means.

On that very topic we are continuing to encourage our trading partners in Asia and elsewhere to understand—and I believe that they do—that they need to substitute their own domestic spending, their own domestic demand, for American consumers as the engine of growth in their economies. And we are seeing, for example, in China, with their large fiscal package there and their attempts to strengthen their infrastructure spending, we are seeing some motion in that direction.

So our anticipation is for a recovery that will start slowly, begin to pick up speed over time, but it depends very much on to the extent consumers can get comfortable with their financial situations going forward, and also to the evolution of the labor market.

Senator BENNETT. Thank you.

Chairman DODD. Thank you very much, Senator.

Senator Jack Reed.

Senator REED. Thank you, Mr. Chairman. Thank you, Chairman Bernanke.

As Senator Dodd pointed out in his opening comments, the real measures, for most Americans, of our success are jobs that are stable and housing prices that are stabilized. You understand that. But had we not taken action, the Congress in TARP and the Federal Reserve with their programs, TALF and other programs, where do you think we would be with respect to the average American in terms of access to credit, jobs, *et cetera*?

Mr. BERNANKE. Senator, it is very hard to get credit for something that did not happen, but in September and October, I believe we faced the worst global financial crisis since the 1930s and perhaps including the 1930s. Beyond the crisis of Lehman and AIG and Merrill and Wachovia in September, in mid-October we faced a global banking crisis where not only the United States but many other industrial countries were on the verge of collapse of the banking systems.

There was a loosely coordinated effort around the world involving injection of capital, provision of guarantees, purchases of distressed assets, provision of liquidity, which succeeded in stabilizing the global banking system in mid-October, which set the basis for the slow stabilization of the financial system and recovery that we have seen since then.

By the way, there has been so much focus here, of course, on AIG and the interventions here, but there have been about a dozen similar interventions around the world. So we are not alone in that respect as other countries have also moved in to protect and avoid the collapse of systemically critical firms.

I believe that if those actions had not been taken, if the TARP had not been available to prevent that collapse, if there had not been an aggressive international policy response, I believe we would be in a very, very deep and protracted recession which might be almost like a depression, I think much, much worse than what we are seeing now.

The situation—I do not want to understate—the situation now is very poor. The unemployment rate is unacceptably high. Americans are suffering. But I do believe that we have a much better situation than we would have if we had seen a collapse of the global financial system last October.

Senator REED. Mr. Chairman, let me focus on the point that you just made about unemployment. Approximately 540,000 Americans will exhaust their unemployment benefits by the end of September; 1.5 million will run out by the end of the year. We all understand this is a central problem, maybe even a systemic risk.

Would you urge us to extend unemployment benefits?

Mr. BERNANKE. Well, I would urge you to look at the unemployment problem. I think one issue that you should at least think about is that there may be different ways to extend unemployment insurance. For example, should there be a training component, as I mentioned to Senator Dodd? But I think clearly there are a lot of people who are unemployed for significant periods of time through no fault of their own, and I do think we need to provide them some kind of support and, I hope, some way to continue to remain in touch with the labor market and developing new skills so that as the economy does begin to recover, they will be productive workers once again.

Senator REED. Mr. Chairman, we are in the midst of a very important debate on health care, but just let me ask you, if the current system persists, if there is no change—and there are many versions of change—do you see that as imperiling economic growth and prosperity going forward?

Mr. BERNANKE. We have a very significant problem, which is that medical costs have been rising at about 2.5 percent a year

faster than *per capita* income for some number of years. The Medicare trustees just assume that that difference will go down to 1 percent, and even so, even with that magical reduction in cost increases, they still see an enormous $35 trillion unfunded liability for the Federal Government.

So whether we stick with our current general system, whether we adopt a new system, I am really not qualified nor is it my place to give detailed advice on health care reform. But I do believe for the broad economy's health and for fiscal health, we do need to address the problem of increasing cost. And so any program that is undertaken should look to how we are going to get control of costs so that it will not bankrupt both our Government and eventually our economy.

Senator REED. Would you agree that action now is probably necessary with regard not just to cost but to access, to affordability, and to the whole range of issues?

Mr. BERNANKE. Well, there are multiple objectives, including access, quality, and others, and I think everyone would agree that probably a number of improvements can be made on all those fronts. And, of course, Congress is looking at that, and I encourage you to keep looking at ways to improve our health care system.

But, again, I come back to the cost issue, which I think is the one that is most relevant to the broad economy and to the fiscal stability of this country, and just urge you that, as you look at other aspects of health care reform, that you keep cost on the front burner, because it is very important to achieve.

Senator REED. Mr. Chairman, we will engage shortly in a debate about systemic regulation, and I know you are interested in not only the debate but the topic. But one of the things that, looking back, we discovered is that we did not have a coordinated mechanism to evaluate risk to the system; we did not anticipate the risk, *et cetera.*

In that complex, what would you describe as the systemic risk that we face today?

Mr. BERNANKE. Well, first let me agree with what you said, which is that our system was too siloed, too much looking at individual firms, individual markets, not enough attempt to look at the entire market, and so a more macroprudential approach I think would be very valuable.

The systemic risks today I think come from the fact that the financial markets are still unstable. We have some areas like commercial real estate, which pose concern. They could cause problems in a large number of banks. We have foreclosures and their implications for the housing market. So we have a number of pretty clear stresses. I do not think in this case that they are hidden problems. I think there are some very clear threats to the recovery, and we are, of course, trying to deal with those.

But going forward, I do think it would be a good idea to have some kind of mechanism to look broadly across the financial markets to try to establish whether there is some new systemic risk evolving and what measures should be taken to address that risk.

Senator REED. Thank you, Mr. Chairman.

Thank you, Chairman Dodd—excuse me. Chairman Johnson.

Senator JOHNSON [presiding]. Senator Bunning.

Senator BUNNING. Thank you very much, Mr. Chairman. Thank you for being here, Chairman Bernanke.

Lately, the Fed has spent a lot of effort fighting transparency in a real audit. When you were in front of this Committee beginning and begging for TARP, you promised transparency but haven't delivered. Yesterday, we learned from the IG on TARP that nearly $24 trillion—I said "trillion"—of support has been offered, including $6.8 trillion by the Federal Reserve. And in your statement today, you again said how important transparency is, but you still resist fully opening your books.

I understand you are concerned about the Fed's independence, but you are the one that threw away the independence by acting as an arm of the Treasury and engaging in fiscal policy.

Now, here are the questions:

One, would you rather have an audit of the Fed or give up all of your nonmonetary policy functions?

Mr. BERNANKE. We will work with you on an audit of the Fed. I want to respond to the SIG TARP. That number makes all kinds of assumptions which are just simply not realistic. For example——

Senator BUNNING. Well, but they are not our numbers, sir. The IG is in charge of those numbers. So whether you want to fight with the IG, that is your business. Do not fight with me about it.

Mr. BERNANKE. So, Senator, to answer your question, I will be more than happy to work with the Congress to give access to all of our operations relating to how we use taxpayer money, how we secure the loans, our financial controls, all those things to make sure that you are comfortable that we are protecting taxpayer money.

Where I am resisting is congressional intervention in monetary policy decision making, which I think would——

Senator BUNNING. No one is asking for that.

Mr. BERNANKE. That is what is in the law. There is no carve-out for that in the law. There would be nothing to stop you, for example, from saying, "I did not like"——

Senator BUNNING. There is no law presently.

Mr. BERNANKE. The proposed law. In the proposed bill.

Senator BUNNING. Well, then, we would carve that out and make sure that that would not be there.

Mr. BERNANKE. Then I am very open to working with Congress with that carve-out to giving access.

Senator BUNNING. Second question: Do you understand why Congress and the public think the Fed's independence has already been compromised?

Mr. BERNANKE. Well, I understand, but I think it is a misconception. The Federal Reserve has worked with the Treasury, both the Republican and the Democratic Treasury, because in a situation of financial crisis, it is very important; I think the American people want to see their financial leadership working together to protect the stability of the system.

Senator BUNNING. But your job is monetary policy, not fiscal policy.

Mr. BERNANKE. My job is also financial stability.

Senator BUNNING. So you think interfering or assisting the Treasury with fiscal policy is part of the Fed's task?

Mr. BERNANKE. Not fiscal policy. We have a joint statement with the Treasury which makes clear that the Fed should not be responsible for credit allocation or fiscal policy. We are looking at financial stability. That is our objective.

Senator BUNNING. This question is about unbiased reports of the facts, not reports with an agenda. Are you opposed to objective external review of monetary policy and other Federal functions? If so, what monetary policy information do you not want in the hands of the public?

Mr. BERNANKE. We provide a great deal of information, including the minutes and eventually the transcripts, and this meeting today was posited, was put together by the Humphrey-Hawkins bill. This is a review by the Congress of monetary policy.

Senator BUNNING. This is by law.

Mr. BERNANKE. Yes, and I think it is an appropriate way for oversight.

Senator BUNNING. How does providing factual information on the Fed's discussions and the data that goes into the Fed's decisions compromise the Fed's independence?

Mr. BERNANKE. Because it would inhibit discussion, it would inhibit the provision of information, and it would, implicitly at least, provide the sense that Congress was second-guessing or trying to overrule the FOMC's decisions.

Senator BUNNING. OK. This one includes you, but it includes the former Chairman. It has been clear to me for years—and finally it is now to just about everyone else—that the Fed's monetary policy for the last decade has been flawed. Former Chairman Greenspan's attempt to smooth normal economic cycles killed the so-called great moderation and led to bigger recessions than we would have had if he followed traditional monetary policy like the Taylor rule. The way to get the Fed back on track is to reduce your responsibilities, not increase them.

To start, we should move consumer protection and banking regulation to somewhere like the FDIC. Then we should make the Fed's sole responsibility the stability of the dollar since a stable currency would lead to a stronger economy with higher employment.

What I want to know from you is what you think the goal of monetary policy should be: stable currency or something else?

Mr. BERNANKE. The law, the Humphrey-Hawkins law, says that the goals of monetary policy should be full employment and price stability, and that is what we are looking to.

On the issue of taking away other powers, I would just like to point out that this was what was happening a few years ago in a number of countries, including, for example, the U.K.

Senator BUNNING. Please answer my question. We know what the law is. I am asking for your opinion.

Mr. BERNANKE. I think that law is appropriate, and I follow that law.

Senator BUNNING. You follow the law to the letter?

Mr. BERNANKE. To try to achieve full employment and the price stability, yes.

Senator BUNNING. OK. The last question then, since my time is running out. Yesterday, you made it clear that you think the Fed has the tools to stop the coming inflation by controlling all the new

money you have printed. You may be right, but do you have the will, as former Chairman Volcker did, to tighten even if the economy is still weak?

Mr. BERNANKE. Senator, it was in 1978 in the Humphrey-Hawkins bill that the Congress put in the exclusion for monetary policy in the GAO audit bill, and that was right before Volcker came in. And Volcker was able to take those decisions because Congress did not intervene, although there were plenty in Congress who said they should intervene.

So, yes, we will do——

Senator BUNNING. But I am asking you, would you do it?

Mr. BERNANKE. We will absolutely do it, so long as we are not forced to do something different by Congress.

Senator BUNNING. Even if the economy is still weak?

Mr. BERNANKE. We will take the necessary actions to balance off appropriately the price stability and full employment parts of our mandate.

Senator BUNNING. You know, it is a balancing act, as most Fed Chairmen have found out, including you, that if you start to pull too fast, the economy stops recovering; and if you act too quickly, you have a tendency to put the economy in a recession. So I wish you good luck.

Mr. BERNANKE. Thank you, sir.

Senator JOHNSON. Senator Schumer.

Senator SCHUMER. Thank you, Mr. Chairman. I thank you, Chairman Bernanke, for these 2 long days of hearings. This job is a very tough one, and, of course, you are subject to criticism, and that is part of it. And some of it is valid, and some of it I agree with, but I just would remind people where we were 6 months ago—worried that we might enter a Great Depression. And I think the actions that you and others have taken have avoided that. We still have a long way to go, but it is easy to take all the shots, and certainly I have my criticisms. But also we should remember where we were 6 months ago and where we are today and give you some good credit for that. So I thank you for that.

Now I would like to talk about credit cards, something I care a lot about. I know Chairman Dodd has mentioned them briefly. And the JEC hearing back in May, we had an exchange about the Federal Reserve's new credit card rules, and I was troubled by the 18-month delay. Senator Dodd and I asked you to use your emergency authority to put the new rules into effect immediately. And we talked about how consumers were suffering from an increase in predatory credit card practices, arbitrary rate increases, and you had said you would look into it.

So the first part of my question is: Have you looked into it? It looks to me as if nothing has changed; things are getting worse. Credit card issuers right now are changing fixed rates to floating rates so that they can say when the law takes effect, as the rates go up, well, we are not raising the rates. That is outrageous. That is against the whole intent of the law. They are also increasing fees for balance transfers. They are cutting credit card limits, hiking up interest rates.

So I would like to ask you: How do these new advance notification rules help consumers hit hard by this kind of behavior? Isn't

it true that consumers slammed with fee or rate hikes have no recourse other than to pay the increase and cancel the card? Canceling a credit card adds insult to injury by lowering a consumer's credit score.

So I have a question for you. I do not think we can afford to wait until our legislation goes into effect. Can the Fed take some actions now, which you have the power to do, to deal with these practices, some of which are clearly predatory?

Mr. BERNANKE. Well, Senator, I think all our focus now is on implementing the law which Congress passed, and, in particular, we put our regulations last week which will come into effect on August 20th, 3 or 4 weeks from now, and those regulations will require a credit card company to give a customer 45 days' notice before raising interest rates. And, of course, that gives the customer options to find alternatives, to opt out.

Senator SCHUMER. Then their credit rating is now lowered in many cases.

Mr. BERNANKE. Not if they choose voluntarily to move to another credit card. I do not think so. I agree with you it is a problem, but as we discussed earlier and I got back to you, you know, we just did not think we had the authority, given the process involved, to move it up substantially. And given that the Congress had passed new legislation that was very explicit, we thought our best objective would be to implement——

Senator SCHUMER. What do you think of the idea of switching people from a fixed to a variable rate? Do you think that is within the spirit of either your regulations or the law we passed?

Mr. BERNANKE. It is not prohibited if the variable rate is tied to some publicly available rate, like the LIBOR or something like that.

Senator SCHUMER. I would just say to you—and to everyone else here—that is why so many of us feel we need a Consumer Product Financial Safety Commission, because they always find ways around this. I mean, for years I said disclosure will do the job. It does not. And every law you pass, they find a way around it. Frankly, the Fed is not very lithe about these things. That is way before you got there, but it continues. And we need somebody who is going to focus on consumer products, on making sure when they find a new way to get around the intent of the law, if not the letter, that somebody is able to stop it and stop it quickly.

I know you were asked about the consumer products financial safety commission. I hope you will be supportive of it and help us draft it, because we need a regulator who is not going to—who is going to be a little more lithe than you, than the Fed has been, to be honest with you. What is happening is outrageous, and you have the power to change some of those things. Chairman Dodd and I wrote it.

Small business lending. The CIT problems have made clear how vulnerable small business is to problems. I have heard stories all over my State of small businesses who need lending. They are profitable businesses. They still have collateral. They cannot get loans for reasons nothing to do with their fault—nothing to do with them and not their fault.

Is the Fed considering any additional programs to help small business obtain access to credit?

Mr. BERNANKE. Well, first, we are, again, urging the banks to make loans to creditworthy borrowers. We do not think it is desirable from a safety and soundness point of view to be cutting off borrowers who can repay, even if they are small business or——

Senator SCHUMER. But you admit that is happening.

Mr. BERNANKE. Of course, it is happening. Yes, I realize it is happening. So I just wanted to point out we are working with the banks. Beyond the banks, the Fed, as you know, has included small business in our TALF program, and we have had some issuances which seem to have helped that market. And——

Senator SCHUMER. Can you give us some numbers on the small business TALF?

Mr. BERNANKE. I would have to get back to you with the exact numbers, but we have seen improvements on the interest rates and spreads in the secondary markets, which suggest some increased availability of funds and lower rates. And although it is not a Federal Reserve initiative, I would just take note of the Treasury's initiatives under the TALF to put money into SBA lending and to support that area. But I absolutely agree with you, this is one of the toughest areas because traditionally, in a downturn, small business is the first to get cutoff.

Senator SCHUMER. Right. And what about lifting the credit unions' cap on small business lending? It was put in as part of a political compromise years ago, maybe decades ago. I do not think there is any reason not to lift it. If this is another place where small business could get loans, and credit unions are often tied into their communities and want to help, what do you think of that idea? I think it is now 12.5 percent. Some of us have proposed legislation to lift it.

Mr. BERNANKE. I would be happy to look at that with you. It sounds like a direction to consider. I would have to understand better the rationale, but it is certainly worth looking at.

Senator SCHUMER. Thanks, Mr. Chairman.

Senator JOHNSON. Senator Martinez.

Senator MARTINEZ. Thank you, Mr. Chairman.

Chairman Bernanke, welcome, and I want to join with my colleague Senator Schumer in also acknowledging the fact that you had a very difficult situation back several months ago. Everything is not perfect, but you have tried, I know, sincerely and, I think, avoided a whole lot of problems that on a dark day back in the fall we all were fearful might be right around the corner.

I also want, by way of a question and a comment, to also strongly disagree with my colleague from New York, because I believe that the worst thing we could do right now under the current environment is to overregulate, to overreact to circumstances that happened in the marketplace. I have not had a more unanimous negative reaction about anything here in the Congress than what I have heard for the last several days about this regulator scheme that would, I think, take the banking industry at a time when it is in a perilous state and choke it. And I think it would be an overreaction, and I think we ought to take our time before we overregulate the banking industry in a way that I think will drive away in-

vestment money and everything else from the industry. I am very sensitive to consumer issues, but I really think we should go slowly on that issue and think thoroughly through it.

Along those lines about investment, private investment money into the marketplace, you indicated that investors seemed to be returning. It concerns me greatly that I do not believe there is any significant private investment going on in the mortgage-backed security arena, and, obviously, we have been through a very difficult time there.

I wonder if you could tell me what you anticipate there. I come from a State where we have some high-value markets, and even though all of them are depressed, conforming loan limits do not always cut it.

Do you anticipate that we will be in a position to see private investment money coming into securitized mortgages so that we can get away from Fannie and Freddie being the only game in town when it comes to mortgages?

Mr. BERNANKE. It is not exactly a question of private investment money. It is a question of private label securitization, which is not Government guaranteed.

Senator MARTINEZ. That is really what I am——

Mr. BERNANKE. Yes. We are not seeing much activity or really any activity in that area right now, and I think it will take two things to get that going. One will be a little bit more confidence that housing prices are stabilizing because right now there is too much concern on the private label side that house prices might go further and that would create losses for mortgage holders.

The other is I think there is still scope to improve the instruments, to increase the transparency and the standardization of these securitization instruments. And industry has an incentive to do that. It has been a pretty slow process, in part because activity has been so low, but I think there might be scope for trade associations, like the Securitization Association, to work with private issuers to try to develop a more transparent, more standardized securitization issuances.

Senator MARTINEZ. And I guess rating agencies would come into that as well.

Mr. BERNANKE. The rating agencies as well, absolutely. But the rating agencies have to show that they have good criteria, that they have eliminated potential conflicts of interest and that they are transparent as well. So they are also a part of the problem as well as the solution at this point.

Senator MARTINEZ. The issue of bank regulation and getting money out on the street from banks out at the local level, I continue to hear complaints that banks are not lending, but I also hear from bankers that there is not a clear message and that regulators are giving a different message than what I hear here, from whether it is the FDIC or yourself. What can we do to make sure that the message gets down to the local level and that we are not seeing a situation where bank regulators are overreacting to the situation and expecting banks to do the impossible while the marketplace is in desperate need for credit?

Mr. BERNANKE. Let me use this opportunity to make a clear statement to Federal Reserve examiners everywhere and I hope to

examiners of other Federal agencies. It is good for the bank, it is good for safety and soundness for banks to make safe loans to creditworthy borrowers, to maintain those relationships, and to extend credit to profitable and economic purposes.

We recognize that there is a kind of a built-in bias among examiners in a period like this where the economy is weak and there is a lot of risk to be overconservative and push banks to be overconservative in their lending decisions.

On the one hand, we certainly do not want banks to be making bad loans. That is how we got into trouble in the first place.

Senator MARTINEZ. Right.

Mr. BERNANKE. But I do think that examiners should be appropriately weighing the fact that profitable lending to creditworthy borrowers is good for the bank and that maintaining those relationships is good for the bank.

At the Federal Reserve, we have for a long time tried to communicate that message, and we have ongoing training, workshops, manuals, and other communications with the examiners and with the regional directors of supervision to try and put that message through.

Now, I have to admit that it does not always get through, but, on the other hand, it is also probably true that, you know, bank terms and conditions just are going to be tougher now for a while given the difficulties in the economy. And so, you know, not everybody who was used to getting credit is going to get credit, but to the extent that we can continue to make loans to creditworthy borrowers, we really want to support that, and we are trying to put that message to our examiners.

Senator MARTINEZ. I think your statement is very helpful and I think also, with no question, that what used to be a good credit may not be a good credit in current circumstances, and we have to be wary of that.

But along the same lines, the Federal Reserve implemented a TALF program to restart the securitized debt markets and my question has to do with the commercial real estate and the potential shortfall there. What do you think in terms of your program for the private commercial real estate lending, investing, and what may be coming in the months ahead, which is a very, very serious situation.

Mr. BERNANKE. It is a very serious situation and that is why we have brought both new commercial real estate, CMBS, and legacy CMBS into the program. The addition of those two asset classes is relatively recent, so we haven't yet seen a whole lot of activity, which is not surprising because it takes time to put together CMBS packages, CMBS deals.

What we have seen with the TALF in other categories of securitization, like in consumer loans, small business loans, student loans, and the like, is that it has been very helpful, even without a great deal of lending. So we are optimistic that this will be helpful, but it will be a few more months before we really have a good read on the effect. But at a minimum, I think it will get the CMBS market moving again, get new deals being made, and that should create more interest on the part of investors in getting involved in financing commercial real estate.

Senator MARTINEZ. My time is up and I thank you. I just want to mention in conclusion that there is in TALF, I think, still room for there to be more lending in the area of—or more encouragement to do lending in the area of floor planning for RVs, boats. You know, there is a big boating industry in Florida which is back on its heels, as well as the securitized mortgage market for vacation rentals. I don't mean vacation rentals, but time share type of vacation opportunities. Those are all industries that employ a lot of people in a State like Florida that are currently just wanting for credit availability.

Thank you, Mr. Chairman.

Senator JOHNSON. Thank you.

Senator Menendez.

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

As you know, the Congress is in the midst of a very rigorous debate about health care and there are those in this debate who suggest that we can put off for tomorrow further seeking reform of our system. It seems to me that when we look at obligations of the Federal Government, that both under Medicare and Medicaid, these long-term obligations are unsustainable at the rate that we are going, not to mention that it is unsustainable for the private sector in terms of rising costs for health care which they seek to provide for their employees and therefore creating more and more challenges to people who have health care coverage today.

Is it not true that this is one of our significant economic challenges moving forward and that the longer we delay, the greater the consequences will be?

Mr. BERNANKE. Yes. As I indicated before, there are a lot of challenges for health care, including access. There are a lot of people who are uninsured. The quality, in the sense that we see very different costs in different areas with not different results. What is the transparency of the process, and so on.

But speaking as the Federal Reserve Chairman and interested in macroeconomic stability, I think for me, the most important issue is cost and the current structure has many benefits and other problems, but one of the main issues is it has not controlled cost. Given the aging of our population, given the rapid increase in medical costs, we have both the threat of an unstable fiscal situation going forward and a tremendous tax essentially on our private economy, which has to bear the costs of medical care.

So I think Congress will be looking at a whole set of these issues, but the one that I would try to focus you on is making sure that you address the question going forward of bending the curve, as they say, or slowing down what is now a really very worrisome increase in the rate of costs of health care.

Senator MENENDEZ. I appreciate that. Let me ask you this. In March of 2007 at a Banking hearing, I said that we were going to have a tsunami of foreclosures in the residential real estate market. I was told at that time that that was an exaggeration. Unfortunately, I wish I had been wrong and those who told me it was an exaggeration were right. Now I look at the commercial real estate market, several trillion dollars that there seems to be no present market for as these mortgages become due. I heard that

you gave an answer previously on this issue with reference to TALF.

Should we not, as I believe we should have done in the residential real estate market, been proactive to be ahead of the curve instead of facing an enormous challenge after the curve? You mentioned TALF. Do you think that the Reserve and the administration are focused on dealing with this up front in a way that is aggressive and can meet the challenges, not just to that industry, but more importantly to our economy and the jobs that flow from it?

Mr. BERNANKE. Well, from the Federal Reserve's perspective, we have basically a two-pronged approach. One is to work with banks to work out commercial real estate projects which are no longer performing, in very much the same spirit as we have work-outs for residential mortgages that are not performing. There, as with residential mortgages, there is an incentive to do that if the costs of foreclosure are sufficiently high.

I think one slightly positive thing is that I don't think that commercial real estate experienced quite the increase in prices or the bubble component that housing did, but nevertheless it is still under a lot of pressure.

The second element of our program is the TALF, which now also will allow borrowing from the Treasury's PPIF program also to come in and buy CMBS through the TALF. Whether Congress wants to take additional steps, you know, you could intervene with guarantees or other kinds of support that would have fiscal implications. It would mean the Government was bearing risk.

So I haven't really seen a full-fledged proposal and I would be somewhat reluctant to strongly endorse one. I think really the Congress has to make those tradeoffs between the fiscal cost, the fiscal risk, and what is, I will agree, a very real risk on the side of foreclosures and problems in commercial real estate——

Senator MENENDEZ. As I talk to this industry, Mr. Chairman, they tell me that at least presently, there isn't—they seek the private marketplace. They are not really seeking the Government. But there isn't a private marketplace, certainly not in a sustainable way, for what is coming down the road.

And so the question is, do we wait again for the crisis to happen, or do we anticipate where it is headed and seek to stem it because otherwise we have significant risk to our economy. I am just wondering, do you think that what you have today as tools is sufficient to meet that challenge in the days ahead or not?

Mr. BERNANKE. I think what we have, including the fact that some banks are now restructuring mortgages, will help, will be in the right direction. Whether it will be enough, I honestly can't tell you. And again, I am not sure what interventions there are except those that would involve fiscal risk and fiscal cost to the Government, which may be appropriate. But I think it is Congress's call on that one.

Senator MENENDEZ. Let me ask you finally, the most significant source of money for the Government's economy recovery programs has actually not come from TARP but from the Federal Reserve using its powers to the tune of about $2.3 trillion. There are many who are concerned that this may lead to some significant inflation

in the coming few years. What is your view about the risk of some severe inflation and what are you doing to avoid it?

Mr. BERNANKE. Well, Senator, I wrote an op-ed in the *Wall Street Journal* yesterday and I discussed it somewhat in my testimony. We believe we have all the necessary tools to unwind our balance sheet, to reduce the bank reserves that are outstanding, and to raise interest rates at the appropriate time. We don't think there will be a technical reason that we can't raise interest rates and tighten monetary policy when the time comes to do that.

Now, as Senator Bunning pointed out, it is always very difficult to know exactly the right moment when that is because you have to balance off the risk of moving too soon and squelching a recovery versus moving too late and allowing some inflation to buildup. So that problem is still there and we will have to do our very best to make the right judgment.

But in terms of having the tools to unwind our actions and to raise interest rates, we believe we are quite comfortable that we have the tools to do that.

Senator MENENDEZ. Thank you, Mr. Chairman.

Senator JOHNSON. Senator Corker.

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

I know there has been a lot of discussion about an audit, if you will, of the Fed. I hope that you will do everything you can to make sure the Fed maintains its independence. I realize it sounds like to me there may have been some agreement as to what might ought to take place as relates to an audit, but I can't imagine a greater catastrophe for our country, for folks like us sitting up here or the administration to begin getting involved unduly in monetary policy. So I urge you to do everything you can to stay independent and hope that we will enable that to happen.

I appreciate the message on CRE, commercial real estate. I do think we are creating a self-fulfilling policy out there. I know that you sent a message here today out to the Fed folks, but I think the functional regulators in many cases are creating a self-fulfilling prophecy and I think one of the things that could help would be for all of you to send that message out to regulators. I hope you will consider doing that. I know you said to Chairman Dodd that it is in the banks' best interest to make those loans. I think that could help probably as much as anything we are doing.

On consumer protection, the administration came up a couple of weeks ago talking about their proposal. I assume folks at the Fed were having to hold back some degree of humor. There was a discussion about them designing products for the financial industry. I assume you, like many of us, believe that is pretty outrageous and I would love any comments you might have in that regard.

Mr. BERNANKE. Well, there is some economic analysis which suggests that there might be benefits in some cases of having a basic product available, so-called "vanilla" product. I think the design of that would have to be an industry decision, but——

Senator CORKER. By the private sector.

Mr. BERNANKE. By the private sector. But we would have to be also careful to make sure that that didn't eliminate or create a regulatory danger in some sense to legitimate products that are not

the basic product but still have appropriate features that are good for some borrowers. So we don't want to—we want to make sure that simple, straightforward products are available, but we don't—on the other hand, we certainly don't want to roll back all of the innovation in financial markets that has taken place over the past three decades or so.

Senator CORKER. A very tactful answer, but the fact is, you believe that that should reside in the private sector and not be administered through the public sector?

Mr. BERNANKE. It should be in the private sector, but there is some scope for a basic black, if you will, and then the version with sequins on it.

Senator CORKER. Good. On the resolution authority piece, I know there has been some discussion, and you are going to be highly involved in that. Another piece the administration had come forth with out of Treasury was basically keeping TARP in place in perpetuity, giving the Treasury the ability when they decided to actually invest taxpayer money in companies and also to draw a bright line around those companies that posed a systemic risk and in essence, in my view, sort of creating a more Freddie–Fannie-type view of some institutions that were over a certain size. I wonder if you might have any comments about that.

We have watched what the FDIC has proposed, which actually would unwind companies that fail. I think you made testimony earlier—I know you did, I read it—that says that you believe that is the best route to go and I wonder if you might have any comments for those of us who are going to be working on regulation.

Mr. BERNANKE. Yes. I think too big to fail is an enormous problem. We were forced to rescue some companies because the alterative was worse and we didn't have good tools. But I think it is absolutely essential that we have a good system for winding down failing systemically critical firms, and I would include in that, first, the provision that creditors of a systemically critical firm would presumptively lose money so that the firm would no longer be too big to fail in that respect and that the firm could be either wound down or broken up or sold off or put into a bridge or whatever mechanism is appropriate.

And second, I do think you need some flexibility for the resolving agency to borrow from the Treasury for a time, the same way the FDIC can do, in case there are some costs up front to resolving the company. But ultimately, I would argue that most or all of the costs ought to be borne by the financial industry.

Senator CORKER. And so the notion of Treasury having the ability just to prop them up and actually cause them to be going entities again is not one that is good for our market system?

Mr. BERNANKE. No, and I don't really think that is—that is not my interpretation of the Treasury's proposal. I think that the idea would be to have something analogous to the current FDIC laws which allows the FDIC to intervene before the actual failure, seize the company, sell off assets and so on in order to avoid a costly bankruptcy.

Senator CORKER. Back to the independence issue. I know there has been discussion about the Fed being the systemic regulator, and I guess one of my major concerns is you have received criticism

here today about activities that have taken place. I find it difficult to believe that anybody, even as intelligent as you are, can actually look out and see what all systemic risks are, and I see that as not possible. I mean, there are going to be other failures down the road, I think we know that, regardless of what we do. That is the way the market works.

I guess I have a fear that if you become, or if the Fed becomes a systemic regulator and you miss it and you are, it is going to happen again, we all know that, that that will create an opportunity for even further attacks, if you will, on your independence, and I wonder how you might respond to that.

Mr. BERNANKE. It is a good point, Senator. I would note that, just taking the administration plan as reference, that plan does not propose to make the Federal Reserve into a sort of super-regulator with capacity to move all over the system and to take whatever action it wants. In fact, it is a multipart plan that includes a council, as you know, which would include eight different regulators that would be mostly responsible for looking for emerging risks. It includes the resolution regime, which would be the Treasury, the FDIC, and not the Fed.

So the Fed's specific role, which would be much more delimited than being the overall regulator in that particular proposal, would be to be the holding company supervisor of the systemically critical firms, the Tier 1 firms, which would be identified through some combination of the Fed and the Oversight Risk Council. So our particular role in that plan would be not radically different from our current role, which is to be the umbrella supervisor of large bank and financial holding companies.

So we would not be given just a broad remit to find any risk that emerges. We would have a very specific role, which is to supervise and look at the systemic implications of a specific set of companies, and therefore I think our vulnerability would be much more limited than what you are describing.

Senator CORKER. Thank you, Mr. Chairman. I know my time is up and we have a vote coming, so I won't extend over like I sometimes do. Mr. Chairman, thank you for holding this hearing.

Chairman DODD [presiding]. Thank you, Senator Corker, very much.

Senator Warner.

Senator WARNER. Thank you, Mr. Chairman, and thank you, Chairman Bernanke, for being here and enduring such a long line of questioning.

I have got a lot to ask, but I will try to move quickly. I want to follow up on my colleague, Senator Corker's, comments. I share his concern that as we move toward resolution going forward, that the goal of resolution should be allowing large institutions to fail, not simply be propped up.

I do have concerns that what the administration has proposed would still in effect have the failed institution not bear the burden of the resolution since they would in effect still be going to the Fed or the others as a lender of last resort to get to a period, and then you would have a post-resolution assessment. I would rather see that assessment more up front for those extra-large institutions.

One of the questions that I have been struggling with, as well, is when we have had the Secretary in and a number of us have asked concerns about particularly AIG and the requirement to continue to pay off counterparties at 100 cents on the dollar. I just wonder whether you have any thoughts on them, some of the bankruptcy provisions that have elevated counterparties higher in the capital structure in terms of a bankruptcy, and those changes having been fairly recently, whether those ought to be resisted, the bankruptcy priorities, on a going forward basis.

Mr. BERNANKE. Well, the problem with AIG wasn't the bankruptcy law *per se* but the fact that we couldn't go—that a company couldn't—that we couldn't allow the company to go bankrupt because of the broad implications for the markets, and given that, we had to honor all of the existing contracts that the company had.

Under the resolution authority, we would have an alternative to bailouts and bankruptcy. I mean, right now, we have bankruptcy and chaos or we have bailouts and neither of those are satisfactory solutions. A good resolution authority would avoid the chaos but would allow both creditors and counterparties and others to take losses, you know, in a controlled way under perhaps preidentified sets of seniorities, as identified by the law——

Senator WARNER. Then we would have to take on the issue right now. We have got these exemptions for the repo provisions that allowed the counterparties to have precedence over the senior creditors——

Mr. BERNANKE. Yes. Those are useful because for very short-term derivative and other positions, the netting provisions that allow you to deal with those before the whole bankruptcy process takes place, I think is actually constructive given our existing bankruptcy law. But this would intervene prior to the standard bankruptcy and would allow the Government to intervene and to unwind all different kinds of transactions. That would be an appropriate time to think about how you would deal with these short-term derivative positions and other types of obligations going forward.

Senator WARNER. I differ from the administration and perhaps your views in terms of where the responsibility ought to be on systemic risk oversight. I believe an independent council with an independent chair, including obviously on that council the Fed. But regardless of where the policy makers end up, in the interim period, are you comfortable, whether it is as Senator Menendez mentioned in terms of kind of getting ahead of the—potentially getting ahead on the CMBS issue, are you comfortable that the Fed is the de facto systemic risk overseer at this point? Is aggregating enough information upstream from all the day-to-day prudential regulators, not just on the banking side but from securities, commodities, and others, that this aggregation of information is taking place?

Mr. BERNANKE. No, we are not being the super-regulator at all. I mean, we are trying to do a couple of things. One is within our scope, which is the bank and financial holding companies, we are taking steps to take a more macroprudential approach. That is, instead of looking at each firm individually, we have taken a number of steps to take into account the systemic implications of the failure of one of these firms. And so we have been doing that and we have basically tried to strengthen our oversight of those firms.

By the way, the stress test is an example of an analysis of 19 firms simultaneously to see what the risks were across the system. So we have been doing that, and we have been looking at the payments and settlements areas where we have responsibilities, credit default swaps, things of that sort. But in taking a holistic view of the whole system, we don't have the resources or the authority to do that, though of course in general terms we obviously are watching the economy, but not in that kind of detail.

Senator WARNER. So a nonfinancial institution that might be posing systemic risk could still be—the next disaster could still be looming, and at this point, because we have not taken action in the interim, there is no one trying to get ahead of that or seeing——

Mr. BERNANKE. Yes, we are not aware of any——

Senator WARNER. Before the next AIG comes down——

Mr. BERNANKE. We are not aware of any such situation, but it is true, if there were something that was outside of our purview——

Senator WARNER. Let me go back to something the Chairman raised, and Senator Schumer and Senator Martinez raised. I do fear that one of the casualties of this crisis may be small business lending, not just in the short term but over a longer period of time, and not just for particularly already performing firms, but I used to be in a startup business, and while I think venture and early stage capital will reemerge, interim financing, startup capital for smaller businesses. I would echo what Senator Schumer said. I would hope that we could see some actual numbers in terms of take-up rates of TALF for small business. I know the Treasury is taking some actions with SBA, although that has always had some mixed results.

I just wonder from a general comment whether—I know you don't like to give policy advice, but as we think about trying to get the financial system back in place, obviously large cap financial markets has kind of reopened, but I could see the small business area being really stymied for a long, long time and the startup business also being stymied for a long time. Comments? Suggestions?

Mr. BERNANKE. Well, one comment is that one of the main sources of small business financing is smaller banks, community banks which have closer relationships, more information, more local information. And to the extent that they remain strong, and some of them are under a lot of pressure for various reasons, but many of them remain strong and they in some cases have been able to step in where the national banks have had to pull back. That is one slightly encouraging direction and that suggests that we should continue to support community banking, which plays a very important role in supporting small business.

You know, beyond that, I think we just need to get the banking system working as well as possible again. I think there are even large banks that view small business as an important profit center and will continue to lend there. But clearly, in a downturn like this, small business, which already has a pretty high mortality rate, is even a riskier proposition, and so it does pose a tremendous problem right now.

Senator WARNER. My time has expired, but Mr. Chairman, I know we have got a lot on the docket, but I would love to have the Committee perhaps take a hearing or some examination of what we as the Congress could do to look at the state of lending in small business and startup businesses, and not just existing small businesses but how we get that next step of innovation, because that financing market has disappeared. I have a lot of folks in that spectrum who say they don't see any signs of it returning, that it is basically totally broken. So I would love to have your thoughts on that.

Chairman DODD. That is a good point. We should. I think the point you make, it is the startup. It is also that mezzanine level which can be really difficult. You are right at that point of kind of going in one or two directions and the idea of being able to have someone sustaining that effort for you during those critical periods. That has been a great source of not only job creation, but tremendous innovation in the country in so many areas.

So I think it is very worthwhile, because it is something, as I mentioned earlier, all of us hear about it every single day. We grapple with it every day, and we don't have very good answers yet on this and we should. So it is a very good suggestion. Thank you, Senator Warner.

Senator Vitter.

Senator VITTER. Thank you, Mr. Chairman, and thank you, Chairman Bernanke, for your work.

I have questions in two areas. The first is the proposed Consumer Financial Protection Agency. Do you think it is a good idea to have a very powerful consumer issues-driven regulator structurally divorced from safety and soundness regulation?

Mr. BERNANKE. I understand the motivation. I understand why people are concerned that the Fed and others have not been sufficiently active on this and they think that maybe having a separate agency would be more committed to these issues. I do think, though, that there are some costs to splitting consumer compliance regulation from safety and soundness regulation. It means banks have to go through two separate sets of examinations. It means there are certain areas, like underwriting and others, that bear on both safety and soundness and on consumer protection which are not being jointly considered. And it may mean that there is not sufficient feedback from what is going on in the banks to the rule writers at the agency. So I think there are some costs there.

I understand the motivation of those who would like to have such an agency, and I am not here to criticize that, but your particular point about some cost about splitting the safety and soundness and the consumer compliance, I think there is some validity to that.

Senator VITTER. Well, my concern is when you look at the recent crisis, some of the causes—not all, I mean, we can point to a lot of different things—but some of the causes at Fannie Mae, Freddie Mac, in mandates like the Consumer Reinvestment Act, are consumer-driven, politically driven mandates that essentially got ahead of safety and soundness, in my opinion, promoting subprime lending, *et cetera,* beyond reasonable safety and soundness guidelines.

Aren't we at risk of broadening and institutionalizing that danger by having this very powerful separate consumer issues regulator again structurally divorced from safety and soundness?

Mr. BERNANKE. It would depend whether the agency was involved in promulgating—actively promulgating proactively actions that the banks should take in terms of the kind of lending they should do and so on. If it is promoting certain kinds of lending, then it does raise the risk that that lending might not be safe and sound. If it is mostly involved in putting limits on the types of products that can be offered and so on, that could also have implications for bank profitability, but it doesn't have the same implications of what you are talking about, which is lending which is not safe and sound.

Senator VITTER. Although bank profitability goes to safety and soundness, too.

Mr. BERNANKE. That is true, but we want the profits to be made with good products. So that is important.

Senator VITTER. And Mr. Chairman, my second area of concern is this effort which I support for fuller audits of the Fed. I certainly strongly support Fed independence for monetary policy. I am also a coauthor of the Senate bill for broader audits.

I have read your statements against that and specifically one of them, quote, "If we were to raise interest rates at a meeting and someone in the Congress didn't like that and said, I want the GAO to audit that decision, wouldn't that be viewed as an interference?" close quote. I think that is exaggerated, but what if we mandated these broad audits on a regular time interval, not at the direction of Members of Congress with a specific request? Wouldn't that take care of that concern? Every 2 years, every—you know, whatever the reasonable time interval is.

Mr. BERNANKE. I would like to discuss it further with you, Senator, but we are having right now a semiannual hearing on monetary policy where I am here to answer your questions about monetary policy. And we provide a statement, we provide minutes, and we eventually provide transcripts. So I do not think there is an issue of what is the process, what is going on in the FOMC's meeting. I think the question is, you know, were the policies good choices or not, and I am a little concerned about the GAO having its set of experts coming in and saying, no, we think that was the wrong choice, and Congress, you know, therefore, essentially second-guessing the Fed's decisions.

But, again, this is a very—I am here to be accountable, and I want to—if you have questions about monetary policy, I am here to explain and respond to you.

Senator VITTER. Well, again, let me suggest that this sort of fuller audit, particularly if it is at regularly scheduled intervals, not as a specific response to a member request, seems to me is exactly the sort of thing in a less detailed basis we are doing now. How is it fundamentally different?

Mr. BERNANKE. Well, the GAO audits really involve an assessment of the policy itself and the decision process. So it presumably would involve collecting all the materials that we had in our meeting. It would involve interviews of the participants. It would involve depositions from outside experts and so on. It just seems to

me that that is more intervention than is consistent with the practice around the world that central banks operate on monetary policy independently of congressional oversight—not of oversight, but of congressional intervention.

Let me respond. One thing of concern I know you have is the Fed's balance sheet, the lending we have done, the various unusual actions we have taken, and there I think we have common ground. I think the Congress and the public ought to have comfort and confidence that all the operations that we run, all the lending we are doing, all those things are done at the highest standard of quality with appropriate controls, appropriate attention to collateral and to the taxpayers' interest. And on those sorts of things, I think we agree that that needs to be done in a way that Congress can be satisfied.

I am just concerned about what might look like an attempt on Congress' part to, even if indirectly, try to send a message, if you will, to the FOMC to take a different action than it thinks is in the long-run interest of the economy.

Senator VITTER. Well, again, I think that is really exaggerated. I think that possible danger would be even further mitigated if these broader audits are regularly scheduled not at a specific request. And, quite frankly, I think that would pale in comparison to possibly perceived intervention than the fact that we call you, you know, sometimes with specific actions in mind to come up here and testify before us.

The President can certainly request meetings with you, which I assume you would have, even in the context of his being able to reappoint the Chairman or not reappoint the Chairman. And it seems to me in all of those context, regularly scheduled audits are nothing more significant in terms of any danger of interference.

Thank you.

Mr. BERNANKE. Thank you.

Senator REED [presiding]. Thank you, Senator Vitter.

Senator Merkley.

Senator MERKLEY. Thank you very much, Mr. Chair, and thank you for your testimony, Chair Bernanke.

In your testimony, you noted that you are going to be announcing new rules on the compensation of mortgage originators. Are you intended to emphasize disclosure on yield spread premiums, or are you going to ban the practice?

Mr. BERNANKE. We are going to ban the practice of tying the compensation to the type of mortgage, to having prepayment penalties, for example.

Senator MERKLEY. So in this situation, a broker would get the same compensation if they are doing a plain vanilla 30-year, fixed-rate mortgage as they would if they were doing something that provided very high interest rates?

Mr. BERNANKE. We will be providing all the details in our meeting tomorrow, but the purpose of the regulation would be exactly what you are saying, to provide no incentive to brokers to steer borrowers into inappropriate, high-cost mortgages.

Senator MERKLEY. I look forward to seeing the details, but if that is accomplished, that is very important consumer reform.

There are basically four missions that are being discussed in this conversation for the Federal Reserve: the monetary mission; the prudential, or safety and soundness, mission; consumer protection; and consumer risk evaluation. Can you envision circumstances in which these missions are really in conflict with each other? There are certainly times that they would not be in conflict, but are you aware of circumstances when they would be in conflict?

Mr. BERNANKE. I do not think so. I think they are much more likely to be complementary. For example, our prudential work in banks and our monetary policy work involves a great deal of information about financial institutions and markets, as does our consumer protection work, and all that feeds into the systemic risk work. So I think in terms of operational activities, the kinds of people we would have, the expertise we would have, I think they are mostly complementary. And I think they are complementary in a policy perspective as well.

For example, I think you need to have good prudential supervision and good consumer protection to have good systemic stability. I think you have to have good systemic stability in order to have full employment and price stability, which is the objective of monetary policy.

So I think, in general, they tend to be complementary. I do not see any serious conflicts of interest or inconsistencies between those mandates.

Senator MERKLEY. Well, frankly, your response frightens me because I think there are occasions that they are in conflict, at least the pressures of the players within the system. You may have practices that are quite profitable for the banking system that a person looking at it from a consumer protection point of view might say that disclosure really is not complete or fairness is not complete. Indeed, some of the many things that we have been addressing recently in regard to the compensation of how mortgages are issued, prepayment penalties, the way loans are packaged and resold, the way they are rated within the system—all of these things may be profitable in ways that strengthen the banks but weaken the position of consumers. And I think at least to be able to carry out these missions simultaneously, one has to be conscious and aware of the inherent conflicts that arise and have a plan for how one addresses those.

Mr. BERNANKE. I do not think—safety and soundness does mean maximum profitability. I do not think it is good for banks to engage in dubious practices. Eventually, it hurts them reputationally. They become subject to suits. So, you know, I would say that banks ought to make their money the honest way—by providing good products. I do not see any incentive to rip off consumers in order to provide profits to banks. To the contrary, I think we want to have good products for consumers and good healthy business for the banks to allow them to be safe and sound.

Senator MERKLEY. Well, I wish your vision had been fully in place 10 years ago, and we would not have much of the mess that we have now. I will tell you that on every consumer issue I have worked on, the complaint has been that it would undermine the success of our financial institutions. And so I think it is an inherent tension that one has to wrestle with.

I am told there are just a few minutes left on the vote, so I will be very quick on my final question. That is, do you envision a point in the near future, if Congress was to adopt the plans related to the "too big to fail" issue—and by plans, I mean higher capital requirements or the ability to unwind nonbank financial institutions, the main ideas that are on the table. Do you envision a point where you would be able to give a speech and say, "As of today, no financial institution in America, bank or nonbank, should count on being bailed out because we will not support that"?

Mr. BERNANKE. I would go further and say if you had the systemic risk resolution authority, that the Fed's ability to lend to a failing systemic institution ought to be curtailed so that it could be invoked only at the request of the resolution authority as a support of their operation. So I would make our interventions of the sort we did with AIG, I would make them illegal.

Senator MERKLEY. Well, I appreciate the fact that you could envision even going beyond the strength of the statement I was laying out, because we have got to address successfully this issue of moral hazard, or we are perpetually in a cycle that does not serve our financial system or our citizens. And so I will look forward to being in attendance when that speech occurs, and I thank you very much for your testimony.

Mr. BERNANKE. Thank you.

Senator REED. Thank you, Senator Merkley.

Senator Akaka.

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

Chairman Bernanke, welcome to the Committee. It is always good to be in touch with you. We share a firm commitment to empowering our citizens through financial literacy to build stronger families, businesses, and communities. I greatly appreciated your efforts and that of your talented and dedicated staff on this issue.

As we know, too many working families were steered into mortgages that they could not afford or effectively understand the potential risks associated with mortgage products. Now some potential homeowners cannot obtain mortgages or meet substantial downpayment requirements, especially in States such as Hawaii with high housing costs.

What must be done? What must be done to ensure that working families are better prepared to purchase a home, select an appropriate mortgage, and remain in their house when challenged with financial hardships?

Mr. BERNANKE. Well, Senator, as you say, you and I agree very much on the importance of financial literacy. We have talked about this in the past, and I think if there was ever any doubt about the importance of financial literacy, the past 2 years and the problems we have seen would dispel those doubts.

As you know, the Federal Reserve is very actively engaged in this on a number of fronts, both at the Board level and also at our various reserve banks around the country. We have partnerships with a large number of nonprofit organizations, schools and others, to provide financial literacy materials and to try to learn about what works and what does not work.

We have found that teaching financial literacy is difficult. We have not been as successful—we, the collective community, have

not been as successful at teaching financial literacy in schools as we would like, and I think in part because students do not necessarily see the immediate relevance of mortgages and things of that sort to their own lives.

What we have seen, I think, is that people who are close to making an important decision to take out a mortgage or to buy a car or other important decisions are at that point very motivated, and counseling has turned out to be very helpful. And so I have been very supportive of counselors to help people make better financial decisions.

I think also there is some room for partnership in that parents and kids together can learn. The parents who are motivated and who understand the financial challenges they face working with kids, maybe in programs after school, those sorts of things, may be helpful.

So there are a lot of ideas out there, and the Fed is working on many of them. We do not have a magic bullet yet, but I certainly, again, applaud your support of financial literacy and financial education. The more people can understand about these things, the less risk we run of, you know, problems down the road because people just, you know, made bad choices.

Senator AKAKA. Chairman Bernanke, as you know, due to the outstanding efforts of the Chairman, other Members of the Committee and the administration, we enacted landmark credit card reform legislation. I am proud that the law includes provisions for my Credit Card Minimum Payment Warning Act, which will provide consumers with detailed personalized information on their billing statements and access to reputable credit counseling services.

What will be done to ensure that credit card minimum payment warning provisions be implemented in the manner that will be most helpful to consumers? Also, are there additional key personalized disclosures pertaining to other financial services products that would enable consumers to make better informed choices?

Mr. BERNANKE. Well, you have put your finger on minimum payment as being an important issue for consumers to understand when they manage their own credit cards. We, of course, are writing the rules for this legislation, and as you know, we have pioneered the use of consumer testing as a way of making sure that disclosures are effective and understandable. And, in particular, we have found ways of presenting the minimum payment information on the periodic statement that we found through the consumer testing is effective. And so we are using that very actively.

I would mention also that the Fed has some online resources, including a payments calculator that allows consumers to go and ask, you know, “If I pay just the minimum payment and this is my balance and this is my interest rate, how many years will it take me to pay off my consumer credit card debt?” So we are trying to be very responsive on that issue.

I also agree that in providing disclosures to consumers, it is important to have transaction-specific information. They can see their own payment, their own loan, as opposed to some kind of generic example. And so we have been working on—we will be releasing tomorrow new disclosures for mortgages and for home equity lines of credit, which require an earlier presentation of information to con-

sumers that includes information specific to their particular mortgage, so information about their payments, about their principal and so on. And we are using the same principle as we look at student loans and some other areas where we are working on providing new disclosures.

So, again, going back to my earlier comment about counseling, when people see their own numbers, their own transaction, it is much more salient to them, and they are much more willing to pay attention. And we hope that by making these disclosures more individual specific, we will make them much more useful to consumers.

Senator AKAKA. Thank you. Let me ask, finally, even in these difficult financial times, many of my constituents continue to pay excessive amounts for remittances—remittances when they send a portion of their hard-earned wages to relatives abroad. What must be done to better inform consumers about lower-cost remittances? And how can remittances be used to increase access to mainstream financial institutions?

Mr. BERNANKE. Well, the Federal Reserve has been interested in this area as well. We have a program that allows for the low-cost sending of remittances. I think the Federal Reserve Bank of Atlanta, working with the Mexican central bank, has developed some low-cost methods. I think this is an area where many mainstream institutions—banks and credit unions and the like—can provide cheaper, quicker services to minority communities. And this is an entree, this is a way to get a higher rate of participation by minorities in the mainstream banking system.

Since I have talked about this for a number of years, we have seen credit unions in particular, but also banks and others, offer new remittance services which gives them an opportunity to attract minority customers into their other services as well. So I think that is a positive development.

Senator AKAKA. Well, thank you. Again, I want to express my appreciation to your talented and dedicated staff as well as your work in this area.

Mr. BERNANKE. Thank you.

Senator AKAKA. Thank you, Mr. Chairman.

Senator REED. Thank you, Senator Akaka.

Senator Hutchison has just arrived, and if she is prepared, she will be recognized. Senator Hutchison, are you ready?

Senator HUTCHISON. Thank you, Mr. Chairman.

Thank you, Mr. Chairman Bernanke. I wanted to focus again on the health care issue that we are certainly grappling with right now. And, of course, the cost estimates are all over the lot. CBO says there is no way this is going to lower the cost to Government. And what we are concerned about, of course, is that the Government plan then attracts more and more from the private sector plans.

I just wanted to ask you how you would assess another big Government health care program, in addition to Medicare and Medicaid that are already causing great concern for the future entitlements that will be required; what you think that does to debt; and is it the right approach right now considering our economy; and let me just add, the disincentive to employers to hire people, which is

something that we are trying to do the reverse of right now when we have this high unemployment rate.

Just give me your view of whether we should be looking at something different. Is there a problem here that you see on the horizon looking at the big picture and the long term?

Mr. BERNANKE. Thank you. There are certainly a number of issues that health care reform is intended to address, like access, like quality, and so on. As I mentioned to a couple of your colleagues, though, I think that from a broad economic point of view, an extraordinarily important one is the cost. Medical costs have been rising more quickly than the GDP for a long time now, and even under existing arrangements, with Medicare and Medicaid and so on, estimates are that we will in a few decades be spending a very big part of the Federal budget just to cover those programs.

And so while I think there are lots of reasons to look at our medical system and try to find better ways to deliver health care to more Americans, I would urge Congress to pay a lot of attention to finding ways to bend the curve or to reduce the cost, particularly if the Federal Government is going to have a bigger share, because then the fiscal challenge becomes even greater.

So if I could just propose that there be a lot of attention paid to how the program, however you look at it, however you choose to design it, find ways, either through consumer choice, through Government choice, however it is designed, to try to limit the so-called—to limit this ongoing increase that will really challenge our fiscal stability over a long period of time.

Senator HUTCHISON. Does it concern you that CBO recently came out and said that it would, in fact, raise the curve, not lower it or bend it?

Mr. BERNANKE. Well, I have not looked at that in detail, and I do not have any specific comments on the CBO's analysis. But, again, to reiterate, I think we should make an important part of whatever health care reform we do close attention to the implications not only for the fiscal expenditure but also for the fact—also for the private sector, because the cost of health care affects businesses and households, you know, even outside the Government's budget. So addressing that cost issue I think really needs to be a central part of the discussion.

Senator HUTCHISON. One of the things that has been brought out is the Medicaid mandate and the cost to the States, and in my home State of Texas, it is estimated that it would add $3 billion a year to the State budget. And, of course, that is also a great concern and it is being raised in all of the States with that kind of mandate on top of the struggling State budgets because revenue is down. Do you see that the mandate on Medicaid also is an issue that is going to affect the economy in the long term and the big picture?

Mr. BERNANKE. Well, I understand the motivation and objective of trying to cover more people and to help people who are not already covered by insurance. Not to sound like a broken record, but, once again, the cost is the issue. And if Government is going to add these costs, they need to think about where else they can cut, where else they can raise revenue, because we need to have fiscal stability, fiscal sustainability going forward.

So as a broad measure, we need to think about how our Government's fiscal picture will look, you know, not just this year but 5 years from now, 10 years from now, and make sure that, however we choose to structure our health care programs, we have a sustainable fiscal outlook.

Senator HUTCHISON. Well, thank you. I think that one thing we are trying to do is just slow this down enough that we can find the information and have the best facts that we can, and setting an arbitrary August deadline seems to many of us to be very unwise because so much could happen that would be irreversible if we really do change our health care system to this extent with the cost and in a hard economic time anyway. And many of us are concerned as well that employers are going to be encouraged to just drop health care coverage, pay the fine, and let people go into the public system, which then becomes a bigger burden on the Government but also the beginning of rationed health care in many views.

So I thank you for saying that we ought to be very careful before we do add more entitlements to our health care system, and I hope you will work with us as we are able to get more and more information about the real long-term consequences.

Thank you.

Senator AKAKA [presiding]. Thank you, Senator.

We will now call on Senator Bayh for his questions.

Senator BAYH. Thank you for being with us today, Mr. Chairman. I would like to follow up on Senator Hutchison's question. I realize that you have not had a chance to review the OMB analysis of some of the different proposals that have come up here, but just let me ask you in general: If we enacted a health care reform proposal that did not bend the curve, that would not really meet the long-term fiscal challenges that we are facing, in your opinion, would it?

Mr. BERNANKE. If it did not, it would not. If it did not address the cost issue, it would not meet the challenges.

Senator BAYH. So, in some ways, the test that is being applied around here, they are looking at health care in isolation rather than as a part of the broader fiscal picture. My concern is that the long-term fiscal policies that we are on now are unsustainable. I know you are concerned about the increasing debt of more than 2 percent per year. Some people would say it really cannot increase more than the annual rate of GDP growth.

If you look at this 5-year budget and the likely 5 years after that, in no year will the growth of the debt be really below 3 and in many years it will be substantially beyond that. So as you know, it takes on a multiplier effect. And if we do not come to grips with this, it really is going to get away from us.

So if all we did was even pass a health care bill that was deficit neutral, did not make things worse but did not make it better fiscally over the next 10 years, that really does not get to the heart of the problem either, does it?

Mr. BERNANKE. That is correct.

Senator BAYH. So, in some ways, I think the standard we are holding ourselves to from a fiscal point of view is inadequate. And when at least the initial analysis of a couple of proposals suggested it might actually exacerbate the situation, well, that is a matter of

some concern. I know the President cares about that, too, and now they are looking at things that really can bend the curve, hopefully because it is just not sustainable, the financial path that we are on.

Let me ask you about the revenue side of this. You have been an observer of the elected branches of Government for a fair amount of time, as have I. The path of least resistance here is to claim savings in some sort of out-years that may never materialize or to pretend to impose cost reductions that the Congress never has the backbone to actually enforce.

There are about 18 different things that were proposed to bend to curve; 16 of them have been included, but they are largely pilots or small demonstration projects. They do not really get up to scale over the next 10 years in a way that is going to make a material impact on the deficits.

If you were sitting where we are sitting, how do we—and the OMB is reluctant to score these things because they are just so amorphous and so long term it almost—it defies, you know, reliable analysis.

What do you do if you are a policy maker in a case like that?

Mr. BERNANKE. Well, you first judge to see if you have approaches which you think are sufficiently well documented that you think they would be reliable, and if so, you can score them. If not, you might put in triggers of various kinds and say, you know, we will limit the growth unless we show that we can reduce cost per person and by so much percent. So there might be ways to tie the expansion of the program to the success of cost-saving measures.

Senator BAYH. Well, that certainly would be a good thing. You know, again, the difficulty is that some of these things have been—some companies have implemented some of them, and they have worked in sort of a microlevel. But they have never been done at scale so that they are not included in the proposal at scale. So the OMB says, Look, intuitively it makes some sense, but if you are asking us to put our reputation on the line with the hard score, just cannot do it. And as you know, it is difficult to estimate things a year or two in advance, let alone ten. So a lot of this is just educated guesswork, and that is—well, it is a difficult platform upon which to build long-term fiscal policy, and so that is one of the things that we are struggling with now.

One of the proposals that has been suggested was to take—and, you know, here, as you are aware, there was some time ago an agreement made to reduce Medicare reimbursements for physicians. We always waive it every year. And so now there are further savings in a variety programs that have been pledged as a part of this program. One has to look with some skepticism about whether we will actually enforce them. So to kind of take the politics out of it, to maximize the chances that the savings will actually be achieved, there is a proposal to create an independent commission outside of Congress to set Medicare reimbursement rates.

Do you have an opinion about that from a fiscal policy standpoint?

Mr. BERNANKE. Well, I think that is ultimately up to Congress, but you have seen examples like Base Closing Commissions, things of that sort, which have tried to make a technical decision and then

Congress has had to vote it up or down. So maybe something like that would be promising.

I guess I would note that things like reducing compensation to doctors can give you one-off savings, but you have also got to deal with just this ongoing growth rate, and that ties into the structure of our health care delivery system. So the question you have to address is, are we, for example, over using technology?

Senator BAYH. We need systemic reform, not just one-off savings.

Mr. BERNANKE. That is right. That is right.

Senator BAYH. We may have some of both. But you are right. In the long run, the rifle shots won't get this done.

I am having some cognitive dissonance, Chairman. One of the things in the stimulus package we enacted was some reduction in payroll taxes for most Americans to try and put some money in their pocket to buck up consumption. One of the proposals that is out there dealing with the employer mandate arena is to require employers below a certain size, or above a certain size that don't participate to pay up to 8 percent higher payroll taxes as their contribution to health care. How do we reconcile these two things? We would be cutting payroll taxes on the one hand to stimulate the economy, but possibly then raising them up to 8 percent on small and medium-sized businesses that don't contribute to health care on the other. Do you have a reaction to that?

Mr. BERNANKE. Well, in the short run, raising taxes in a recession will tend to weaken the economy, so there is no inconsistency there. I think the issue is if you are going to have additional coverage, how are you going to finance that, and I assume that this proposal would be a way of financing that in the longer term. This is more of a long-term proposition. In terms of the economy, maybe if you are doing that, you might want to consider phasing it in slowly so that it doesn't have an immediate impact on the profitability of small business or on the demand of consumers.

Senator BAYH. That is true. It is a short-term, long-term phenomena. But as you know, businesses tend to make investment decisions and even hiring decisions with an eye toward the intermediate term and even the longer term, not just——

Mr. BERNANKE. That is true.

Senator BAYH. ——the circumstances that they face today. So in some senses, we are trying to accomplish a humanitarian thing here, which is right, and make systemic reform, but reconcile that with the budget situation that we face and the need to not add burdens to the economy at a time when, as you pointed out in your testimony, it is burdened enough.

I just want to conclude by thanking you. I really appreciate your emphasis on the importance of fiscal policy. Your comments today reflected your op-ed piece in the *Wall Street Journal.* The hardest decision in this town over the next couple of years is going to be how do you go about altering the very accommodative policies that we are now pursuing, both monetarily and fiscally. It is going to take the wisdom of Solomon. I wish you the best with that, but I think we have got a good man in a position to do that.

Mr. BERNANKE. Thank you.

Senator BAYH. So I appreciate your appearance here today.

Senator AKAKA. Thank you, Senator Bayh.

Senator Bennet.

Senator BENNET. Thank you. Thank you, Mr. Chairman. Thanks for hanging in there. And I apologize if I go over ground that was covered since I left. It is because we are working on some other things.

The first thing I wanted to say is I, first of all, appreciate your leadership very much, appreciate the difficult times that we have been through and also your statement with regard to the examiners and the regulators. But I just want to testify on behalf of the small businesses and small banks in my State that they really feel like the message is not getting through.

And I know you talked about training. I know you talked about other kinds of things, all good, but I hope that we could work together somehow to create a set of metrics so that we can measure in some way whether or not your message is getting through. And nobody wants bad loans made, and I am the last person who would want that. But to the extent that it is true that that hesitancy that you mentioned this morning, that natural hesitancy in a time like this to be maybe more risk averse than you would otherwise be, to the extent that that is really affecting decisions that are being made at the local level, we ought to figure out what more we can do to clear that up, because where there are willing lenders and willing borrowers and where the loan is a reasonable one, given how tough these times are, we ought to be doing everything we can, I think, to make sure that happens. So I appreciate your willingness to at least think about what more can be done.

The second thing I wanted to ask you about, and quickly because my time is short, is on—you were reassuring this morning on the question of the stress test and what we learned from the banks' ability to raise capital. I continue to hear from—but at the same time, you also recognize this coming potential crisis in commercial real estate and some other things. And I am having a hard time reconciling in my own mind how those two things are true at the same time. And I know there is a deep concern, continuing concern that the bid-ask spread for the assets that are on the books of these banks has really not shrunk very much and that we haven't yet taken our medicine with respect to commercial real estate.

I don't know that you have got any more that you want to add on that, because you have already talked about it, but I am having a hard time seeing how, on the one hand, we should feel OK because the stress test came through fairly—the banks came through the stress test fairly well. They were able to raise private capital. But on the other hand, we know that this looming issue is out there with commercial real estate.

Mr. BERNANKE. Well, it is not inconsistent. The stress test, first of all, applied to the top 19 banks and we found that there is still $600 billion of losses to be experienced in the next 2 years, so that is quite substantial. And our conclusion was that even after that $600 billion of losses, they would still be able to meet well-capitalized requirements.

The other aspect is that a lot of the commercial real estate loans are in smaller banks, and so some smaller banks which were not counted in the stress test, were not examined in the stress test, will be facing those costs going forward.

So it is a major challenge to the banking system. I discussed with a couple of your colleagues some of the things that the Fed is doing, and I think what we will see is that banks faced with commercial real estate loans which cannot perform at the original terms will be trying to find renegotiations to allow at least partial performance on——

Senator BENNET. And it is my sense that up until now, there has been an inclination to roll over these financings, but what hasn't happened yet is a resetting of the underlying valuation of the assets, which is still something that we are going to be facing, I think, in the next 12 months—over the next 12 months.

One very quick question and then a longer one. I will be very brief. You mentioned twice this morning that I heard that you thought that the TALF had had an effect on small business lending and consumer lending and I just wondered what the evidence of that is.

Mr. BERNANKE. The evidence is, first, in the secondary market, you can see the spreads on securitizations that are traded and those have come in quite substantially. And we have also identified—we have talked to lenders who have said that the ability to issue these securitized products has freed up their balance sheets to make new loans. And so we do have some evidence for that.

Some of that was discussed, by the way, in the Financial Oversight Board that oversees the TARP just released its second quarter report, and that has discussion of some of these issues because the TALF is partly a TARP facility.

Senator BENNET. I will look at that. I think that the commercial paper efforts were so successful, at least in my view, that I hope we will see similar success here. I don't know.

The last question I had is just as you think about unwinding this giant bridge loan to the economy that the taxpayers have been forced to make and that the Fed has done, we have got a lot of work to do around here thinking about what we do about these mountains of debt that we have got on the Federal Government and our deficit. I know there was some of this in your written testimony. I wonder if you have got anything you would like to say to us about how we need to think about that side of the equation as you are thinking about unwinding the work that the Fed has done. How do we acknowledge that when you are in a recession like this, it has been appropriate to do what has been done, but as we come out of this recession, we need to get our fiscal house in order?

Mr. BERNANKE. It is very tough and I don't envy you, your task. I think one small piece of advice would be instead of thinking about this as a year-to-year situation, think about the whole trajectory. How are we going to go forward, not just this year and next year, but over the next 5 years and 10 years, taking into account what we know about population aging, health care costs, and those things. So the whole path is what matters, not just this year.

Senator BENNET. Well, thank you for your service. Thanks for your testimony. Thank you, Mr. Chairman.

Senator AKAKA. Thank you very much, Senator Bennet.

Senator Kohl.

Senator KOHL. Thank you, Senator Akaka.

Mr. Bernanke, the Federal Reserve has been increasing their balance sheet over the past year, as you know, and created many new lending programs to continue the flow of credit to consumers as well as stabilize the financial markets. Additionally, the Federal Reserve announced that it will purchase up to one-and-a-quarter trillion dollars of mortgage-backed securities by the end of 2009 to help support the housing markets, and that is good, too.

Despite all these efforts, loans and lines of credit are hard to come by for many creditworthy consumers in smaller communities and community banks are having a difficult time originating new loans due to liquidity problems, as I am sure you are very well aware of. The Federal Reserve has done precious little, many people say, for small community banks at the national level. So when and what can the Federal Reserve do to help small banks all across our country start lending again?

Mr. BERNANKE. Well, we agree with you that the community banks are very important, and as I was mentioning to one of your colleagues, in many cases where large banks are withdrawing from small business lending or from local lending, the community banks are stepping in, and we recognize that and think it is very important.

The Federal Reserve provides similar support to small banks that we do to large banks in that you mentioned liquidity. We provide discount window loans or loans through the Term Auction Facility and smaller banks are eligible to receive that liquidity at favorable interest rates.

It is not our department, but the Treasury has been working to expand the range of banks which can receive the TARP capital funds and they have made significant progress in dealing with banks that don't trade publicly.

We have worked with smaller banks to try to address some of the regulatory burden that they face, and we have a variety of partnerships, for example, with minority banks to try to give them assistance, technical assistance, and the like.

I agree. If I were a small banker, I would be a little bit annoyed because the big banks seem to have gotten a lot more of the attention because it was the big banks and their failures that have really threatened our system. And that is why it is very important as we do financial regulatory reform that we address this too big to fail problem so that we don't have this unbalanced situation where you either have to bail out a big bank or else it brings down the system. That is not acceptable and we have to fix that.

But we are working with small banks, and personally, I always try to meet with small bank leaders and the ICBA and other trade associations, and I agree with you that they are very important. They are playing a very important role right now in our economy.

Senator KOHL. You say you agree that they are important, that they play an important role in our economy. Are you satisfied that we are doing proportionately as much for small community banks as we are doing for the large banks?

Mr. BERNANKE. Well, again, within the powers that we have in terms of providing liquidity and from the perspective of the Treasury and the TARP providing capital, we are trying to provide an

even playing field to the extent we can do so. If you have other thoughts, I would be happy to think about it.

Senator KOHL. Well, we have small bankers all across the country, and I am thinking about my own State of Wisconsin, that are wanting so much to do more business in their communities but they don't have the liquidity to do it, and I am sure you understand that very well. And in these small communities, they are the backbone financially of the community. And, of course, I hear from them that they are not getting as much attention as they would like at the national level and I think you said that you agree.

Mr. BERNANKE. I do agree.

Senator KOHL. Thank you. While consumer spending has remained flat through 2009, the personal savings rate, as you know, has finally started to rise, and quite substantially. The weak economy has made consumers more skeptical of borrowing and increasingly aware of their spending habits, as I am sure you know. As we here consider reforms to the banking system to help financial institutions prepare for possible future economic downturns, we need also to help prepare the American families across the country for their next economic crisis. Do you have any policy recommendations that would help continue the upward trend of the personal savings rate and avoid another bubble based on consumer activity?

Mr. BERNANKE. Well, there are very few silver linings to this crisis, but I think one of them is the increased thrift and increased attention to family finances that is going to come out of it. So we welcome the higher savings rate. It is constructive for the country. It is constructive—it reduces our dependence on foreign lenders. It supports investment. So it strengthens family finances, so I think that is positive.

The Government policy makers have been trying for many decades to find a magic bullet to increase saving, and given the low savings rates, obviously it has not been very successful. There have been a number of ideas. A number of them relate to what is called behavioral approaches, taking account of the fact that people are sometimes mentally lazy and you give them—the first choice you give them is the one they will take.

So, for example, recently the Congress made changes to the law that allowed to make 401(k) contributions an opt-out rather than an opt-in choice for their workers, and they found that just by making that simple change, that many more workers decided to contribute to their 401(k) plan, and that builds up over time, of course, to a significant amount of saving. Many employers also contribute, match 401(k) contributions.

So those are some of the kinds of methods that may be useful. I talked with Senator Akaka recently, just a few minutes ago, about financial literacy and financial education. And again, I think part of the issue, particularly among lower-income and minority populations who don't save as much, is making them aware of the benefits of saving for retirement, for other life goals. So I think education has a role to play, as well.

But I have to tell you, Senator, that the economics profession has not been extremely successful in finding good methods of increasing saving and it takes, unfortunately, this kind of crisis to change behavior the way we have seen it.

Senator KOHL. Thank you very much, Chairman Bernanke, and thank you very much, Senator Akaka.

Senator AKAKA. Thank you very much, Senator Kohl, for your questions.

I want to thank the Chairman for joining us today.

The hearing record will remain open for 1 week so Members can submit additional statements or questions they may have.

This hearing is adjourned.

Mr. BERNANKE. Thank you.

[Whereupon, at 12:51 p.m., the hearing was adjourned.]

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

PREPARED STATEMENT OF CHAIRMAN CHRISTOPHER J. DODD

I'd like to welcome Chairman Bernanke, who has worked hard to address enormous challenges during a difficult time in our Nation's history.

If the success of our Government's attempts to get our economy back on track were to be measured by executive pay or the big banks' bottom lines, perhaps today would be a day to celebrate the success of that hard work. After all, leading economists believe that these indicators are signs that we have averted utter catastrophe, and suggest that a recovery may be imminent.

But while this recession may have begun on Wall Street, the recovery won't be real until and unless it's felt on Main Street. And so today is a day to ask: When will working families in my State of Connecticut and around the country start to feel the effects of our work to restore our economy?

After all, today we meet to receive the semiannual monetary policy report mandated in the 1978 Humphrey-Hawkins Full Employment Act.

And if the goal is full employment, the news today is grim.

Unemployment in June was 9.5 percent—the highest level in 26 years. Most economists and the Fed itself believe that it could top 10 percent before the end of the year.

Meanwhile, Americans who have lost, or are worried about losing, their jobs, homes, or retirement security have watched as others reap the first benefits of our Government's response.

They hear about a stock market rally, and wonder if it will ever be enough to make up for the retirement savings that have been wiped out.

They hear about million-dollar bonuses going to CEOs whose firms caused the meltdown in the first place, while rank and file workers across the country are laid off or forced to accept pay cuts.

They hear about big banks, bailed out with billions of taxpayer dollars and Government-backed credit and now reporting billions in profits.

But they still can't get a loan to send their kid to college or buy a new car. They're still getting slammed by these same companies with obscene fees and credit card interest rate hikes.

And despite hearing from everyone in Washington that stabilizing the housing market is key to stabilizing the economy, they're still having trouble modifying their mortgages, even as 10,000 families a day are hit with foreclosure notices.

Mr. Chairman, I appreciate your hard work on the monetary policy side of the equation and the positive indicators we have seen in recent weeks. But these positive indicators seem to be stuck at the top. And we on this Committee work for the American people.

When can they expect the recovery that they have funded? When will working families see their rally? Their pay raise?

What are you doing as the holding company supervisor of these recipients of TARP and other extraordinary Government assistance to ensure they are serving the interests of the American people?

These struggling Americans aren't ready for an "exit strategy" for economic recovery efforts. First, the recovery must reach them.

As we move forward, we need to make sure we lay a strong foundation for economic recovery that will reach every corner of this country. Part of that foundation will entail reforming financial regulation so that the mistakes that got us into this mess are not repeated.

As you know, I have called for, and the Administration has proposed, an independent consumer financial protection agency as part of that mission.

But the Administration has also proposed expanding the Fed's powers over systemically important companies. I have a number of concerns about this proposal. Not least of which, why does the Fed deserve more authority when it failed to prevent the current crisis?

Mr. Chairman, all of us understand the importance of the work you are doing. And we look forward to continuing to partner with you in that effort.

But the financiers who engineered this crisis aren't the reason we're here. It's the millions of families who are still struggling, still falling behind. And I hope that they can be the focus of today's hearing, as well as our efforts going forward.

PREPARED STATEMENT OF SENATOR RICHARD C. SHELBY

Thank you Mr. Chairman.

The purpose of today's hearing is to oversee the Federal Open Market Committee's conduct of monetary policy. There is no doubt that we are in a very challenging

economic environment. The economy is extremely weak. Bank lending remains sluggish and unemployment is rising rapidly.

The unemployment rate stands at a 26-year high and is expected to increase. Although the Fed has gone to great lengths to inject liquidity into our economy, its efforts are largely designed to assist banks, especially large money-center financial institutions.

Many small businesses, however, are desperately seeking capital from the financial sector and have not been able to secure it. I have heard from a number of Alabama companies that have been virtually abandoned by all of their traditional funding providers.

While it is important to bring stability to the financial sector, if the part of our economy most responsible for job creation—small business—cannot obtain funding, such stability will be short lived.

Going forward, the measure of success will have to include whether Main Street businesses are retaining or even adding jobs.

While I understand that the FOMC cannot by itself solve all our economic problems, the effective conduct of monetary policy is a necessary condition for economic recovery.

Therefore, today I hope to hear from Chairman Bernanke whether the FOMC will need to take additional steps to help revive our economy.

Because interest rates remain at record lows, I am interested to hear what other specific actions the FOMC can and is prepared to take if additional easing is necessary.

In addition, I would like to know what Chairman Bernanke believes can be done to spur lending to small and medium businesses. While monetary policy is the central focus of this hearing, I believe we must also examine the Fed's performance as a bank regulator as well as its participation in bail-outs over the past year.

I do not believe that the Board or the regional banks have handled their regulatory responsibilities very well. Many of the large financial companies that have been the focus the Fed's bailout efforts were also subject to the Fed's regulatory oversight. While they were regulated by the Fed, these firms were allowed to take great risks both on and off their balance sheets.

When the housing bubble burst, however, those risky positions were exposed and firms had to scramble to shore up their finances and the credit crunch quickly followed.

I am not aware of any effort on the part of the Fed, prior to the crisis, to question or require such firms to take any actions to address the significant risks they were taking. In fact, the only effort of which I am aware is an effort to modernize bank capital standards. This effort could have resulted in a significant reduction in overall bank capital levels.

I wonder where we would be today if the Fed had been able to act on its desire to eliminate the leverage ratio.

I cannot imagine a scenario where banks would fair better with less capital during a period of financial stress such as the one we are currently experiencing.

If the Fed had conducted its regulatory oversight with greater diligence, I do not think the financial crisis would have achieved the depth and scope that it did.

In the end, it was the failure of the Fed to adequately supervise our largest financial institutions that required the deployment of its monetary policy resources to stave off financial disaster.

In light of the Fed's record of failure as a bank regulator, it should come as no surprise that the Congress is taking a closer look at the Fed and reconsidering its regulatory mandate.

Thank you Mr. Chairman.

PREPARED STATEMENT OF SENATOR TIM JOHNSON

Thank you, Chairman Bernanke for being here today. As the economy continues to undergo a period of stress and volatility, I look forward to hearing the Fed's economic forecast for the rest of 2009 and into 2010.

The Fed continues to have a full plate as it looks for ways to address the problems plaguing our economy. I applaud your efforts to date to achieve economic stability. Unfortunately, I suspect we are not yet at the end of the road in terms the challenges facing our economy.

I am committed to our Nation's economic recovery and to ensuring the safety and soundness of the financial sector without placing unnecessary burdens on the taxpayer. In the long run, the best way to protect taxpayers is to fashion a functional

regulatory system that prevents situations like the ones we are currently experiencing from arising again.

As the Banking Committee tackles financial regulatory restructuring in coming weeks, we will continue to look to your expertise. As many others have noted, the *status quo* is no longer an option. It is my hope that Members of this Committee from both sides of the aisle can construct a proposal that reflects the needs of our Nation's taxpayers, consumers and investors, and financial markets and institutions to achieve economic recovery and needed reform.

PREPARED STATEMENT OF SENATOR JACK REED

Today's hearing provides an important opportunity to hear from Chairman Bernanke on the overall health of the economy, labor market conditions, and the housing sector. These semiannual hearings are a critical part of ensuring appropriate oversight of the Federal Reserve's integral role to restore stability in our economy and protect families in Rhode Island and across the country.

I continue to work with my colleagues on this Committee to address three key aspects of recovering from the financial crisis. First, we must stabilize and revive the housing markets. With estimates of more than a million foreclosures this year alone, we must recognize this as a national emergency no different than when banks are on the verge of failing. One in eight mortgages is in default or foreclosure. These are more than statistics. They represent individuals and families uprooted, finances destroyed, and communities in turmoil. We need to keep pushing servicers to expand their capacity and hold them accountable for their performance. And we need to make the process more transparent for homeowners.

Second, we need to create jobs, which the American Recovery and Reinvestment Act is already doing throughout the U.S. Although there have been some positive signs in the economic outlook, the unemployment rate in Rhode Island and nationally has continued to climb steeply. In the 5 months since you addressed the Committee in February, the national unemployment rate has risen from 8.1 percent to 9.5 percent, and in Rhode Island it has surged from 10.5 percent to 12.4 percent—the second highest in the country. I will soon introduce legislation to encourage more States to use work share programs, similar to our program in Rhode Island, which provide businesses with the flexibility to reduce hours instead of cutting jobs.

Third, we need to stabilize and revitalize the financial markets. We've made significant progress in this area, but we need to continue to monitor these institutions to ensure they remain well-capitalized and are able to withstand market conditions much better than they did in the recent past. And we need to be smart about the Federal Reserve lending programs to get our credit and capital markets once again operating efficiently and effectively. This is especially true for small businesses, our job creators, which are the key to our Nation's economic recovery.

Finally, complimenting all of these is a need for comprehensive reform of the financial regulatory system. We face several major challenges in this area, including addressing systemic risk, consolidating a complex and fragmented system of regulators, and increasing transparency and accountability in traditionally unregulated markets. It is important to recognize that our economic problems have been years in the making. It will not be easy to get our economy back on the right track. But in working with President Obama we can begin to turn the tide by enacting policies that create jobs and restore confidence in our economy.

PREPARED STATEMENT OF BEN S. BERNANKE

CHAIRMAN, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

JULY 22, 2009

Chairman Dodd, 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.*

Economic and Financial Developments in the First Half of 2009

Aggressive policy actions taken around the world last fall may well have averted the collapse of the global financial system, an event that would have had extremely adverse and protracted consequences for the world economy. Even so, the financial shocks that hit the global economy in September and October were the worst since the 1930s, and they helped push the global economy into the deepest recession since World War II. The U.S. economy contracted sharply in the fourth quarter of last year and the first quarter of this year. More recently, the pace of decline appears

to have slowed significantly, and final demand and production have shown tentative signs of stabilization. The labor market, however, has continued to weaken. Consumer price inflation, which fell to low levels late last year, remained subdued in the first 6 months of 2009.

To promote economic recovery and foster price stability, the Federal Open Market Committee (FOMC) last year brought its target for the Federal funds rate to a historically low range of 0 to ¼ percent, where it remains today. The FOMC anticipates that economic conditions are likely to warrant maintaining the Federal funds rate at exceptionally low levels for an extended period.

At the time of our February report, financial markets at home and abroad were under intense strains, with equity prices at multiyear lows, risk spreads for private borrowers at very elevated levels, and some important financial markets essentially shut. Today, financial conditions remain stressed, and many households and businesses are finding credit difficult to obtain. Nevertheless, on net, the past few months have seen some notable improvements. For example, interest rate spreads in short-term money markets, such as the interbank market and the commercial paper market, have continued to narrow. The extreme risk aversion of last fall has eased somewhat, and investors are returning to private credit markets. Reflecting this greater investor receptivity, corporate bond issuance has been strong. Many markets are functioning more normally, with increased liquidity and lower bid-asked spreads. Equity prices, which hit a low point in March, have recovered to roughly their levels at the end of last year, and banks have raised significant amounts of new capital.

Many of the improvements in financial conditions can be traced, in part, to policy actions taken by the Federal Reserve to encourage the flow of credit. For example, the decline in interbank lending rates and spreads was facilitated by the actions of the Federal Reserve and other central banks to ensure that financial institutions have adequate access to short-term liquidity, which in turn has increased the stability of the banking system and the ability of banks to lend. Interest rates and spreads on commercial paper dropped significantly as a result of the backstop liquidity facilities that the Federal Reserve introduced last fall for that market. Our purchases of agency mortgage-backed securities and other longer-term assets have helped lower conforming fixed mortgage rates. And the Term Asset-Backed Securities Loan Facility (TALF), which was implemented this year, has helped restart the securitization markets for various classes of consumer and small business credit.

Earlier this year, the Federal Reserve and other Federal banking regulatory agencies undertook the Supervisory Capital Assessment Program (SCAP), popularly known as the stress test, to determine the capital needs of the largest financial institutions. The results of the SCAP were reported in May, and they appeared to increase investor confidence in the U.S. banking system. Subsequently, the great majority of institutions that underwent the assessment have raised equity in public markets. And, on June 17, 10 of the largest U.S. bank holding companies—all but one of which participated in the SCAP—repaid a total of nearly $70 billion to the Treasury.

Better conditions in financial markets have been accompanied by some improvement in economic prospects. Consumer spending has been relatively stable so far this year, and the decline in housing activity appears to have moderated. Businesses have continued to cut capital spending and liquidate inventories, but the likely slowdown in the pace of inventory liquidation in coming quarters represents another factor that may support a turnaround in activity. Although the recession in the rest of the world led to a steep drop in the demand for U.S. exports, this drag on our economy also appears to be waning, as many of our trading partners are also seeing signs of stabilization.

Despite these positive signs, the rate of job loss remains high and the unemployment rate has continued its steep rise. Job insecurity, together with declines in home values and tight credit, is likely to limit gains in consumer spending. The possibility that the recent stabilization in household spending will prove transient is an important downside risk to the outlook.

In conjunction with the June FOMC meeting, Board members and Reserve Bank presidents prepared economic projections covering the years 2009 through 2011. FOMC participants generally expect that, after declining in the first half of this year, output will increase slightly over the remainder of 2009. The recovery is expected to be gradual in 2010, with some acceleration in activity in 2011. Although the unemployment rate is projected to peak at the end of this year, the projected declines in 2010 and 2011 would still leave unemployment well above FOMC participants' views of the longer-run sustainable rate. All participants expect that inflation will be somewhat lower this year than in recent years, and most expect it to remain subdued over the next 2 years.

Policy Challenges

Monetary Policy

In light of the substantial economic slack and limited inflation pressures, monetary policy remains focused on fostering economic recovery. Accordingly, as I mentioned earlier, the FOMC believes that a highly accommodative stance of monetary policy will be appropriate for an extended period. However, we also believe that it is important to assure the public and the markets that the extraordinary policy measures we have taken in response to the financial crisis and the recession can be withdrawn in a smooth and timely manner as needed, thereby avoiding the risk that policy stimulus could lead to a future rise in inflation.[1] The FOMC has been devoting considerable attention to issues relating to its exit strategy, and we are confident that we have the necessary tools to implement that strategy when appropriate.

To some extent, our policy measures will unwind automatically as the economy recovers and financial strains ease, because most of our extraordinary liquidity facilities are priced at a premium over normal interest rate spreads. Indeed, total Federal Reserve credit extended to banks and other market participants has declined from roughly $1.5 trillion at the end of 2008 to less than $600 billion, reflecting the improvement in financial conditions that has already occurred. In addition, bank reserves held at the Fed will decline as the longer-term assets that we own mature or are prepaid. Nevertheless, should economic conditions warrant a tightening of monetary policy before this process of unwinding is complete, we have a number of tools that will enable us to raise market interest rates as needed.

Perhaps the most important such tool is the authority that the Congress granted the Federal Reserve last fall to pay interest on balances held at the Fed by depository institutions. Raising the rate of interest paid on reserve balances will give us substantial leverage over the Federal funds rate and other short-term market interest rates, because banks generally will not supply funds to the market at an interest rate significantly lower than they can earn risk free by holding balances at the Federal Reserve. Indeed, many foreign central banks use the ability to pay interest on reserves to help set a floor on market interest rates. The attractiveness to banks of leaving their excess reserve balances with the Federal Reserve can be further increased by offering banks a choice of maturities for their deposits.

But interest on reserves is by no means the only tool we have to influence market interest rates. For example, we can drain liquidity from the system by conducting reverse repurchase agreements, in which we sell securities from our portfolio with an agreement to buy them back at a later date. Reverse repurchase agreements, which can be executed with primary dealers, Government-sponsored enterprises, and a range of other counterparties, are a traditional and well-understood method of managing the level of bank reserves. If necessary, another means of tightening policy is outright sales of our holdings of longer-term securities. Not only would such sales drain reserves and raise short-term interest rates, but they also could put upward pressure on longer-term interest rates by expanding the supply of longer-term assets. In sum, we are confident that we have the tools to raise interest rates when that becomes necessary to achieve our objectives of maximum employment and price stability.

Fiscal Policy

Our economy and financial markets have faced extraordinary near-term challenges, and strong and timely actions to respond to those challenges have been necessary and appropriate. I have discussed some of the measures taken by the Federal Reserve to promote economic growth and financial stability. The Congress also has taken substantial actions, including the passage of a fiscal stimulus package. Nevertheless, even as important steps have been taken to address the recession and the intense threats to financial stability, maintaining the confidence of the public and financial markets requires that policy makers begin planning now for the restoration of fiscal balance. Prompt attention to questions of fiscal sustainability is particularly critical because of the coming budgetary and economic challenges associated with the retirement of the baby-boom generation and continued increases in the costs of Medicare and Medicaid. Addressing the country's fiscal problems will require difficult choices, but postponing those choices will only make them more difficult. Moreover, agreeing on a sustainable long-run fiscal path now could yield con-

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[1] For further discussion of the Federal Reserve's "exit strategy" from its current policy stance, see "Monetary Policy as the Economy Recovers" in Board of Governors of the Federal Reserve System (2009), Monetary Policy Report to the Congress (Washington: Board of Governors, July), pp. 34–37.

siderable near-term economic benefits in the form of lower long-term interest rates and increased consumer and business confidence. Unless we demonstrate a strong commitment to fiscal sustainability, we risk having neither financial stability nor durable economic growth.

Regulatory Reform

A clear lesson of the recent financial turmoil is that we must make our system of financial supervision and regulation more effective, both in the United States and abroad. In my view, comprehensive reform should include at least the following key elements:

- a prudential approach that focuses on the stability of the financial system as a whole, not just the safety and soundness of individual institutions, and that includes formal mechanisms for identifying and dealing with emerging systemic risks;
- stronger capital and liquidity standards for financial firms, with more-stringent standards for large, complex, and financially interconnected firms;
- the extension and enhancement of supervisory oversight, including effective consolidated supervision, to all financial organizations that could pose a significant risk to the overall financial system;
- an enhanced bankruptcy or resolution regime, modeled on the current system for depository institutions, that would allow financially troubled, systemically important nonbank financial institutions to be wound down without broad disruption to the financial system and the economy;
- enhanced protections for consumers and investors in their financial dealings;
- measures to ensure that critical payment, clearing, and settlement arrangements are resilient to financial shocks, and that practices related to the trading and clearing of derivatives and other financial instruments do not pose risks to the financial system as a whole; and
- improved coordination across countries in the development of regulations and in the supervision of internationally active firms.

The Federal Reserve has taken and will continue to take important steps to strengthen supervision, improve the resiliency of the financial system, and to increase the macroprudential orientation of our oversight. For example, we are expanding our use of horizontal reviews of financial firms to provide a more comprehensive understanding of practices and risks in the financial system.

The Federal Reserve also remains strongly committed to effectively carrying out our responsibilities for consumer protection. Over the past 3 years, the Federal Reserve has written rules providing strong protections for mortgage borrowers and credit card users, among many other substantive actions. Later this week, the Board will issue a proposal using our authority under the Truth in Lending Act, which will include new, consumer-tested disclosures as well as rule changes applying to mortgages and home equity lines of credit; in addition, the proposal includes new rules governing the compensation of mortgage originators. We are expanding our supervisory activities to include risk-focused reviews of consumer compliance in nonbank subsidiaries of holding companies. Our community affairs and research areas have provided support and assistance for organizations specializing in foreclosure mitigation, and we have worked with nonprofit groups on strategies for neighborhood stabilization. The Federal Reserve's combination of expertise in financial markets, payment systems, and supervision positions us well to protect the interests of consumers in their financial transactions. We look forward to discussing with the Congress ways to further formalize our institution's strong commitment to consumer protection.

Transparency and Accountability

The Congress and the American people have a right to know how the Federal Reserve is carrying out its responsibilities and how we are using taxpayers' resources. The Federal Reserve is committed to transparency and accountability in its operations. We report on our activities in a variety of ways, including reports like the one I am presenting to the Congress today, other testimonies, and speeches. The FOMC releases a statement immediately after each regularly scheduled meeting and detailed minutes of each meeting on a timely basis. We have increased the frequency and scope of the published economic forecasts of FOMC participants. We provide the public with detailed annual reports on the financial activities of the Federal Reserve System that are audited by an independent public accounting firm. We also publish a complete balance sheet each week.

We have recently taken additional steps to better inform the public about the programs we have instituted to combat the financial crisis. We expanded our Web site this year to bring together already available information as well as considerable new information on our policy programs and financial activities.[2] In June, we initiated a monthly report to the Congress (also posted on our Web site) that provides even more information on Federal Reserve liquidity programs, including breakdowns of our lending, the associated collateral, and other facets of programs established to address the financial crisis.[3] These steps should help the public understand the efforts that we have taken to protect the taxpayer as we supply liquidity to the financial system and support the functioning of key credit markets.

The Congress has recently discussed proposals to expand the audit authority of the Government Accountability Office (GAO) over the Federal Reserve. As you know, the Federal Reserve is already subject to frequent reviews by the GAO. The GAO has broad authority to audit our operations and functions. The Congress recently granted the GAO new authority to conduct audits of the credit facilities extended by the Federal Reserve to "single and specific" companies under the authority provided by section 13(3) of the Federal Reserve Act, including the loan facilities provided to, or created for, American International Group and Bear Stearns. The GAO and the Special Inspector General have the right to audit our TALF program, which uses funds from the Troubled Assets Relief Program.

The Congress, however, purposefully—and for good reason—excluded from the scope of potential GAO reviews some highly sensitive areas, notably monetary policy deliberations and operations, including open market and discount window operations. In doing so, the Congress carefully balanced the need for public accountability with the strong public policy benefits that flow from maintaining an appropriate degree of independence for the central bank in the making and execution of monetary policy. Financial markets, in particular, likely would see a grant of review authority in these areas to the GAO as a serious weakening of monetary policy independence. Because GAO reviews may be initiated at the request of members of Congress, reviews or the threat of reviews in these areas could be seen as efforts to try to influence monetary policy decisions. A perceived loss of monetary policy independence could raise fears about future inflation, leading to higher long-term interest rates and reduced economic and financial stability. We will continue to work with the Congress to provide the information it needs to oversee our activities effectively, yet in a way that does not compromise monetary policy independence.

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[2] See "Credit and Liquidity Programs and the Balance Sheet" on the Board's Web site at *www.federalreserve.gov/monetarypolicy/bst.htm.*

[3] See the monthly reports on the Board's Web site at "Credit and Liquidity Programs and the Balance Sheet", Congressional Reports and Other Resources, Federal Reserve System Monthly Reports on Credit and Liquidity Programs and the Balance Sheet, *www.federalreserve.gov/monetarypolicy/bst__reportsresources.htm.*

RESPONSE TO WRITTEN QUESTIONS OF SENATOR BENNETT FROM BEN S. BERNANKE

Q.1. Mr. Chairman, I understand that there may be up to as much as $1.2 trillion in U.S. company earnings in European banks, which were generated from the sale of products and services outside the U.S. The complicated nature of our U.S. tax system has worked to trap these earnings overseas. A few years ago, Congress passed a bill that allowed companies to bring some of those earnings back at a reduced tax rate, and in less than 18 months, more than $300 billion was invested in the U.S., and that cash worked its way through the economy. Do you believe it would be beneficial to incentivize companies again to bring those earnings back to the U.S.? Would it make sense to pursue policies to have those earnings be held first as deposits in U.S. banks, which would provide banks with a capital infusion at a time when they desperately need them?

A.1. With regard to specific tax proposals, as you know I have avoided taking a position on explicit budget issues during my tenure as Chairman of the Federal Reserve Board. I believe that these are fundamental decisions that must be made by the Congress, the Administration, and the American people. Instead, I have attempted to articulate the principles that I believe most economists would agree are important for the long-term performance of the economy and for helping fiscal policy to contribute as much as possible to that performance.

In that regard, a number of economic studies have shown that the U.S. corporate tax structure encourages multinational firms to retain earnings in their foreign affiliates rather than repatriating them to their U.S. parents. Indeed, the temporary tax reduction enacted in 2004, which cut the tax rate on repatriated earnings from 35 percent to 5.25 percent for 1 year, encouraged U.S. multinationals to repatriate about $300 billion in 2005, markedly higher than their annual average of around $60 billion in the previous few years.

The economic literature generally has found that most firms that participated in the repatriation tax holiday apparently did not use these funds to boost their investment or hiring, although there is some mixed evidence that a small portion of firms facing financial constraints may have increased their investment spending. Instead, the bulk of these repatriations apparently were distributed to the shareholders of these firms, primarily through share repurchases. Presumably these shareholders either reinvested these funds or used them for consumption spending, either of which would have an effect on economic activity in the United States.

We currently estimate that retained earnings at foreign affiliates were roughly $1.8 trillion at end 2008. The majority of these funds were invested in plant and equipment abroad with only around one quarter, or $450 billion, held as cash, short-term securities, and other liquid assets. We have little information on the nature of these liquid assets, but it is likely they include deposits in both European and U.S. banks. It is not clearly evident that U.S. banks would substantively benefit from a policy that boosted repatriated earnings, as any increase in deposits would likely be temporary,

lasting only until firms decided how to allocate their repatriated earnings.

RESPONSE TO WRITTEN QUESTIONS OF SENATOR BUNNING FROM BEN S. BERNANKE

Q.1. Back in March, Secretary Geithner, who was FOMC Vice-Chair under you and Chairman Greenspan, said he now thinks easy money policies by central banks were a cause of the housing bubble and financial crisis. Do you agree with him?

A.1. I do not believe that money policies by central banks in advanced economies were a significant cause of the recent boom and bust in the U.S. housing sector and the associated financial crisis. The accommodative stance of monetary policy in the United States was necessary and appropriate to address the economic weakness and deflationary pressures earlier in this decade. As I have noted previously, I believe that an important part of the crisis was caused by global saving imbalances. Those global saving imbalances increased the availability of credit to the U.S. housing sector and to other sectors of the U.S. economy, leading to a boom in housing construction and an associated credit boom. The role of global savings imbalances in the credit and housing boom and bust was amplified by a number of other factors, including inadequate mortgage underwriting, inadequate risk management practices by investors, regulatory loopholes that allowed some key financial institutions to assume very large risk positions without adequate supervision, and inaccurate assessments of risks by credit ratings agencies.

Q.2. You said you think you can stop the expansion of the money supply from being inflationary. Does that mean you think the expansion of the money supply is permanent?

A.2. Broad measures of the money supply, such as M2, have not grown particularly rapidly over the course of the financial crisis. By contrast, narrower measures, such as the monetary base, have grown significantly more rapidly. That growth can be attributed to the rapid expansion of bank reserves that has resulted from the liquidity programs that the Federal Reserve has implemented in order to stabilize financial markets and support economic activity. Nearly all of the increase in reserve is excess reserves—that is, reserves held by banks in addition to the level that they must hold to meet their reserve requirements. As long as banks are willing to hold those excess reserves, they will not contribute to more rapid expansion of the money supply. Moreover, as the Federal Reserve's acquisition of assets slows, growth of reserves will also slow. When economic conditions improve sufficiently, the Federal Reserve will begin to normalize the stance of monetary policy; those actions will involve a reduction in the quantity of excess reserves and an increase in short-term market rates, which will likely result in a reduction in some narrow measures of the money supply, such as the monetary base, and will keep the growth of the broad money aggregates to rates consistent with sustainable growth and price stability. As a result of appropriate monetary policy actions, the above-trend expansion of narrow measures of money supply will not be permanent and will not lead to inflation pressures.

Q.3. Do you think a permanent expansion of the money supply, even if done in a noninflationary matter, is monetization of Federal debt?

A.3. As noted above, growth of broad measures of the money supply, such as M2, has not been particularly rapid, and any above-trend growth of the money stock will not be permanent.

Monetization of the debt generally is taken to mean a purchase of Government debt for the purpose of making deficit finance possible or to reduce the cost of Government finance. The Federal Reserve's liquidity programs, including its purchases of Treasury securities, were not designed for such purposes; indeed, it is worth noting that even with the expansion of the Federal Reserve's balance sheet, the Federal Reserve's holdings of Treasury securities are lower now than in 2007 before the onset of the crisis. The Federal Reserve's liquidity programs are intended to support growth of private spending and thus overall economic activity by fostering the extension of credit to households and firms.

Q.4. Do you believe forward-looking signs like the dollar, commodity prices, and bond yields are the best signs of coming inflation?

A.4. We use a variety of indicators, including those that you mention, to help gauge the likely direction of inflation. A rise in commodity prices can add to firms' costs and so create pressure for higher prices; this is especially the case for energy prices, which are an important component of costs for firms in a wide variety of industries. Similarly, a fall in the value of the dollar exerts upward pressure on prices of both imported goods and the domestic goods that compete with them.

A central element in the dynamics of inflation, however, is the role played by inflation expectations. Even if firms were to pass higher costs from commodity prices or changes in the exchange rate into domestic prices, unless any such price increases become built into expectations of inflation and so into future wage and price decisions, those price increases would likely be a one-time event rather than the start of a higher ongoing rate of inflation. In this regard, it should be noted that survey measures of long-run inflation expectations have thus far remained relatively stable, pointing to neither a rise in inflation nor a decline in inflation to unwanted levels.

A rise in bond yields—the third indicator you mention—could itself be evidence of an upward movement in expected inflation. More specifically, a rise in yields on nominal Treasury securities that is not matched by a rise in yields on inflation-indexed securities (TIPS) could reflect higher expected inflation. Indeed, such movements in yields have occurred so far this year. However, the rise in nominal Treasury yields started from an exceptionally low level that likely reflected heightened demand for the liquidity of these securities and other special factors associated with the functioning of Treasury markets. Those factors influencing nominal Treasury yields have made it particularly difficult recently to draw inferences about expected inflation from the TIPS market. The FOMC will remain alert to these and other indicators of inflation

as we gauge our future policy actions in pursuit of our dual mandate at maximum employment and price stability.

Q.5.a. Other central banks that pay interest on reserves set their policy rate using that tool. Now that you have the power to pay interest on excess reserves, are you going to change the method of setting the target rate?

A.5.a. At least for the foreseeable future, the Federal Reserve expects to continue to set a target (or a target range) for the Federal funds rate as part of its procedures for conducting monetary policy. The authority to pay interest on reserves gives the Federal Reserve an additional tool for hitting its target and thus affords the Federal Reserve the ability to modify its operating procedures in ways that could make the implementation of policy more efficient and effective. Also, the Federal Reserve is in the process of designing various tools for reserve management that could be helpful in the removal of policy accommodation at the appropriate time and that use the authority to pay interest on reserves. However, the Federal Reserve has made no decisions at this time on possible changes to its framework for monetary policy implementation.

Q.5.b. Assuming you were to make such a change, would that lead to a permanent expansion of the money supply?

A.5.b. No. These tools are designed to implement monetary policy more efficiently and effectively. Their use would have no significant effect on broad measures of the money supply. It is possible that such a change could involve a permanently higher level of reserves in the banking system. However, the level of reserves under any such regime would still likely be much lower than at present and, in any case, would be fully consistent with banks' demand for reserves at the FOMC's target rate. As a result, the higher level of reserves in such a system would not have any implication for broad measures of money.

Q.5.c. Would such an expansion essentially mean you have accomplished a one-time monetization of the Federal debt?

A.5.c. No. If the Federal Reserve were to change its operating procedures in a way that involved a permanently higher level of banking system reserves, it is possible that the corresponding change on the asset side of the Federal Reserve's balance sheet would be a permanently higher level of Treasury securities, but the change could also be accounted for by a higher level of other assets—for example, repurchase agreements conducted with the private sector. The purpose of any permanent increase in the level of the Federal Reserve's holdings of Treasury securities would be to accommodate a higher level of reserves in the banking system rather than to facilitate the Treasury's debt management.

Q.6. Is the Government's refusal to rescue CIT a sign that the bailouts are over and there is no more "too-big-to-fail" problem?

A.6. The Federal Reserve does not comment on the condition of individual financial institutions such as CIT.

Q.7. Do you plan to hold the Treasury and GSE securities on your books to maturity?

A.7. The evolution of the economy, the financial system, and inflation pressures remain subject to considerable uncertainty. Reflecting this uncertainty, the way in which various monetary policy tools will be used in the future by the Federal Reserve has not yet been determined. In particular, the Federal Reserve has not developed specific plans for its holdings of Treasury and GSE securities.

Q.8. Which 13(3) facilities do you think are monetary policy and not rescue programs?

A.8. The Federal Reserve developed all of the facilities that are available to multiple institutions as a means of supporting the availability of credit to firms and households and thus buoying economic growth. Because supporting economic growth when the economy has been adversely affected by various types of shocks is a key function of monetary policy, all of the facilities that are available to multiple institutions can be considered part of the Federal Reserve's monetary policy response to the crisis. In contrast, the facilities that the Federal Reserve established for single and specific institutions would ordinarily not be considered part of monetary policy.

Q.9. Given the central role the President of the New York Fed has played in all the bailout actions by the Fed, why shouldn't that job be subject to Senate confirmation in the future?

A.9. Federal Reserve policy makers are highly accountable and answerable to the Government of the United States and to the American people. The seven members of the Board of Governors of the Federal Reserve System are appointed by the President and confirmed by the Senate after a thorough process of public examination. The key positions of Chairman and Vice Chairman are subject to presidential and congressional review every four years, a separate and shorter schedule than the 14-year terms of Board members. The members of the Board of Governors account for seven seats on the FOMC. By statute, the other five members of the FOMC are drawn from the presidents of the 12 Federal Reserve Banks. District presidents are appointed through a process involving a broad search of qualified individuals by local boards of directors; the choice must then be approved by the Board of Governors. In creating the Federal Reserve System, the Congress combined a Washington-based Board with strong regional representation to carefully balance the variety of interests of a diverse Nation. The Federal Reserve Banks strengthen our policy deliberations by bringing real-time information about the economy from their district contacts and by their diverse perspectives.

Q.10. The current structure of the regional Federal Reserve Banks gives the banks that own the regional Feds governance powers, and thus regulatory powers over themselves. And with investment banks now under Fed regulation, it gives them power over their competitors. Don't you think that is conflict of interest that we should address?

A.10. Congress established the makeup of the boards of directors of the Federal Reserve Banks. The potential for conflicts of interest that might arise from the ownership of the shares of a Federal Reserve Bank by banking organizations in that Bank's district are ad-

dressed in several statutory and policy provisions. Section 4 of the Federal Reserve Act provides that the board of directors of Reserve Banks "shall administer the affairs of said bank fairly and impartially and without discrimination in favor of or against any member bank or banks." 12 U.S.C. §301. Reserve Bank directors are explicitly included among officials subject to the Federal conflict of interest statute, 18 U.S.C. §208. That statute imposes criminal penalties on Reserve Bank directors who participate personally and substantially as a director in any particular matter which, to the director's knowledge, will affect the director's financial interests or those of his or her spouse, minor children, or partner, or any firm or person of which the director is an officer, director, trustee, general partner, or employee, or any other firm or person with whom the director is negotiating for employment. Reserve Banks routinely provide training for their new directors that includes specific training on section 208, and Reserve Bank corporate secretaries are trained to respond to inquiries regarding possible conflicts in order to assist directors in complying with the statute. The Board also has adopted a policy specifically prohibiting Reserve Bank directors from, among other things, using their position for private gain or giving unwarranted preferential treatment to any organization.

Reserve Bank directors are not permitted to be involved in matters relating to the supervision of particular banks or bank holding companies nor are they consulted regarding bank examination ratings, potential enforcement actions, or similar supervisory issues. In addition, while the Board of Governors' rules delegate to the Reserve Banks certain authorities for approval of specific types of applications and notices, Reserve Bank directors are not involved with oversight of those functions. Moreover, in order to avoid even the appearance of impropriety, the Board of Governors' delegation rules withdraw the Reserve Banks' authority where a senior officer or director of an involved party is also a director of a Reserve Bank or branch. Directors are also not involved in decisions regarding discount window lending to any financial institution. Finally, directors are not involved in awarding most contracts by the Reserve Banks. In the rare case where a contract requires director approval, directors who might have a conflict as a result of affiliation or stock ownership routinely recuse themselves or resign from the Reserve Bank board, and any involvement they would have in such a contract would be subject to the prohibitions in section 208 discussed above.

Q.11. Do you think access to the discount window should be opened to nonbanks by Congress?

A.11. The current episode has illustrated that nonbank financial institutions can occasionally experience severe liquidity needs that can pose significant systemic risks. In many cases, the Federal Reserve's 13(3) authority may be sufficient to address these situations, which should arise relatively infrequently. However, a case could be made that certain types of nonbank institutions, such as primary dealers, should have ongoing access to the discount window; any such increased access would need to be coupled with more stringent regulation and supervision. The Federal Reserve also believes that the smooth functioning of various types of regulated

payment, clearing, and settlement utilities, some of which are organized as nonbanks, is critical to financial stability; a case could also be made that such organizations should be granted ongoing access to discount window credit.

Q.12. Do you think any of the 13(3) facilities should be made permanent by Congress?

A.12. As noted above, the issue of appropriate access to central bank credit by certain types of nonbank financial institutions deserves careful consideration by policy makers. The financial crisis has illustrated that various types of nonbank financial institutions can experience severe liquidity strains that pose risks to the entire financial system. However, whether access to the discount window should be granted to such institutions depends on a wide range of considerations and any decision would need to be based on careful study of all of the relevant issues.

Q.13. For several reasons, I am doubtful that the Fed or anyone else can effectively regulate systemic risk. A better approach may be to limit the size and scope of firms so that future failures will not pose a danger to the system. Do you think that is a better way to go?

A.13. I believe that it is important to improve the U.S. financial regulatory system so as to contain systemic risk and to address the related problem of "too-big-to-fail" financial institutions. The Federal Reserve and the Administration have proposed a number of ways to limit systemic risk and the problem of "too-big-to-fail" financial institutions.

Imposing artificial limits on the size of scope of individual firms will not necessarily reduce systemic risk and could reduce competitiveness. A challenge of this approach would be to address the financial institutions that already are large and complex. Such institutions enjoy certain competitive benefits including global access to credit.

At any point in time, the systemic importance of an individual firm depends on a wide range of factors. Size is only one relevant consideration. The impact of a firm's financial distress depends also on the degree to which it is interconnected, either receiving funding from, or providing funding to, other potentially systemically important firms, as well as on whether it performs crucial services that cannot easily or quickly be executed by other financial institutions. In addition, the impact varies over time: the more fragile the overall financial backdrop and the condition of other financial institutions, the more likely a given firm is to be judged systemically important. If the ability of the financial system to absorb adverse shocks is low, the threshold for systemic importance will more easily be reached. Judging whether a financial firm is systemically important is thus not a straightforward task, especially because a determination must be based on an assessment of whether the firm's failure would likely have systemic effects during a future stress event, the precise parameters of which cannot be fully known.

I am confident that the Federal Reserve is well positioned both to identify systemically important firms and to supervise them. We look forward to working with Congress and the Administration to enact meaningful regulatory reform that will strengthen the finan-

cial system and reduce both the probability and severity of future crises.

Q.14. Given your concerns about opening monetary policy to GAO review, what monetary policy information, specifically, do you not want in the hands of the public?

A.14. The Federal Reserve believes that a substantial degree of transparency in monetary policymaking is appropriate and has initiated numerous measures to increase its transparency. In addition to a policy announcement made at the conclusion of each FOMC meeting, the Federal Reserve releases detailed minutes of each FOMC meeting 3 weeks after the conclusion of the meeting. These minutes provide a great deal of information about the range of topics discussed and the views of meeting participants at each FOMC meeting. Regarding its liquidity programs, the Federal Reserve has provided a great deal of information regarding these programs on its public Web site at *http://www.federalreserve.gov/monetarypolicy/bst.htm.* In addition, the Federal Reserve has initiated a monthly report to Congress providing detailed information on the operations of its programs, types, and amounts of collateral accepted, and quarterly updates on Federal Reserve income and valuations of the Maiden Lane facilities. This information is also available on the Web site at *http://www.federalreserve.gov/monetarypolicy/bst_reportsresources.htm.*

The Federal Reserve believes that it should be as transparent as possible consistent with the effective conduct of the responsibilities with which it has been charged by the Congress. The Federal Reserve has noted its effectiveness in conducting monetary policy depends critically on the confidentiality of its policy deliberations. It has also noted that the effectiveness of its tools to provide liquidity to the financial system and the economy depends importantly on the willingness of banks and other entities in sound financial condition to use the Federal Reserve's credit facilities when appropriate. That willingness is supported by assuring borrowers that their usage of credit facilities will be treated as confidential by the Federal Reserve. As a result of these considerations, the Federal Reserve believes that the release of detailed information regarding monetary policy deliberations or the names of firms borrowing from Federal Reserve facilities would not be in the public interest.

RESPONSE TO WRITTEN QUESTIONS OF SENATOR CORKER FROM BEN S. BERNANKE

Q.1. *13(3) Authority*—By what key criteria will the Board of Governors determine when the unusual and exigent circumstances that permitted the use of the Board's extraordinary powers under section 13(3) of the Federal Reserve Act are no longer present? (Not lots of criteria, but the top three. Follow-up: Did the Board's General Counsel write a memo spelling out these powers? Would you share that analysis with the Committee? Are there any constraints on the Board's discretion here? If so, what are they?)

A.1. To authorize credit extensions to individuals, partnerships, or corporations under section 13(3) of the Federal Reserve Act, the Board must find that, among other things, "unusual and exigent

circumstances" exist. These terms are not defined in the Act and are committed to the Board's discretion. In exercising this discretion, the Board must act reasonably.

When it approved the establishment and extension of the various lending facilities under section 13(3) authority, the Board made determinations that unusual and exigent circumstances existed based on its assessment that the condition of the financial markets presented severe risks to the integrity of the financial system and to prospects for economic growth. The approvals of lending programs for individual financial institutions were based on an assessment of the potential disruption associated with the disorderly collapse of the particular firm. The Board reached these conclusions after careful evaluation of all available economic and market data and advice of the Board's General Counsel. The determinations are consistent with the manner in which Congress intended the 13(3) authority to be used. As noted in the Senate report on the 1991 amendments to section 13(3), "with the increasing interdependence of our financial markets, it is essential that the Federal Reserve System have the authority and flexibility to respond promptly and effectively in unusual and exigent circumstances that might disrupt the financial system and markets." [1]

Q.2. What are the key objectives of the Board's various special facilities: How will we know if they have been successful? How will we know if they have failed?

A.2. In general, the Federal Reserve has established special facilities over the crisis for two purposes. The facilities that have been made available for multiple institutions (for example, the Term Auction Facility, the Primary Dealer Credit Facility, the Commercial Paper Funding Facility, and the Term Asset-Backed Securities Loan Facility) are intended to support the extension of credit to households and firms and thus contribute to a reduction in financial strains and to foster a resumption of economic growth. These programs seem to have been helpful in addressing strains in financial markets. Financial data including various risk spreads and indicators of market functioning as well as anecdotal reports from market participants have indicated that strains in financial markets have eased substantially in recent months, and particularly so in those markets in which the Federal Reserve has provided liquidity support. Although it is too early to say whether the improvement in financial conditions will be sufficient to support a sustained pickup in economic growth, economic activity appears to be leveling out, and the prospects for a resumption of economic growth over coming quarters have improved. Other facilities—for example, those related to the difficulties of Bear Stearns and AIG—were es-

[1] S. Rep. No. 102-167, at 203 (Sept. 19, 1991). The Board has already taken steps to terminate or scale back some of the extraordinary liquidity facilities that it has established, including section 13(3) facilities. For example, the Board has decided not to extend the Money Market Investor Funding Facility when it expires in October 2009, and the Federal Reserve has reduced amounts offered under some of its liquidity facilities, such as the Term Securities Lending Facility. In making such determinations to date, and in making similar determinations in the future, the Board has and will likely continue to review a broad range of indicators of financial market conditions. These indicators include credit and liquidity spreads in financial markets, information on trading and issuance volumes, measures of market volatility, assessments of the strength of individual financial institutions, and other measures. The Board's focus will be on the capability of financial markets and institutions to support a sustained recovery in economic activity.

tablished to prevent the disorderly failure of large, systemically important nonbank financial institutions and thus avoid an exacerbation of financial strains during a period when financial stress was already intense. By successfully achieving this objective, these actions helped prevent further harm to the U.S. economy.

Q.3.a. *On commercial real estate*—What are the expectations/benchmarks with the TALF facility? Will it be sufficient and timely enough in facilitating private lending/investing, or are you considering other programs?

A.3.a. The TALF program has allocated $100 billion to fund loans with up to 5 years maturity, including loans backed by newly issued commercial mortgage-backed securities (CMBS). We believe that this amount, especially if coupled with a modest revival of the new-issue CMBS market later next year, should be sufficient to allow creditworthy borrowers with maturing loans currently in CMBS pools to refinance. The Federal Reserve and the Treasury have recently indicated that at this time they do not anticipate adding additional collateral types to the TALF facility.

Q.3.b. Given the lag time needed to get securitized lending going (4 months), how do you handle the reality (as expressed by market experts and participants) that the markets need to know NOW (not "year-end") whether the program will be extended in order to see any usefulness in the next several months?

A.3.b. Because of the long lead time required to assemble CMBS, and because the market for newly issued CMBS appears likely to remain impaired for some time, the Federal Reserve and the Treasury announced on August 17, 2009, that TALF loans against newly issued CMBS will be available through June 30, 2010.

RESPONSE TO WRITTEN QUESTIONS OF SENATOR KYL FROM BEN S. BERNANKE

Q.1. As I recall at the Republican Policy Lunch a few weeks ago you acknowledged that some or the regional offices of Federal bank regulators may be too strict in their examinations and may have inadvertently discouraged some institutions from making certain loans that would otherwise be viable.

Have you been able to make any progress in addressing this problem?

A.1. In response to your concerns that actions of our examiners may be inadvertently discouraging bank lending, it is important to remember that the role of the examiner is to promote safety and soundness at financial institutions. To ensure a balanced approach in our supervisory activities, we have reminded our examiners not to discourage bank lending to creditworthy borrowers. In this environment, we are aware that lenders have been tightening credit standards and terms on many classes of loans. There are a number of factors involved in this, including the continued deterioration in residential and commercial real estate values and the current economic environment, as well as the desire of some depository institutions to strengthen their balance sheets.

To ensure that regulatory policies and actions do not inadvertently curtail the availability of credit to sound borrowers, the Fed-

eral Reserve has long-standing policies in place to support sound bank lending and the credit intermediation process. Guidance, which has been in place since 1991, specifically instructs examiners to ensure that regulatory policies and actions do not inadvertently curtail the availability of credit to sound borrowers.[1] The 1991 guidance also states that examiners are to ensure that supervisory personnel are reviewing loans in a consistent, prudent, and balanced fashion and emphasizes achieving an appropriate balance between credit availability and safety and soundness.

As part of our effort to help stimulate appropriate bank lending, the Federal Reserve and the other Federal banking agencies issued a statement in November 2008 reinforcing the longstanding guidance encouraging banks to meet the needs of creditworthy borrowers.[2] The guidance was issued to encourage bank lending in a manner consistent with safety and soundness, specifically by taking a balanced approach in assessing borrowers' ability to repay and making realistic assessments of collateral valuations.

Q.2. If so, how is the Federal Reserve facilitating coordination among the regional offices of our regulators to ensure standards are applied in a way that protects the safety and soundness of the banking system without discouraging viable lending?

A.2. Federal Reserve Board staff has consistently reminded field examiners of the November guidance and the importance of ensuring access to loans by creditworthy borrowers. Across the Federal Reserve System, we have implemented training and outreach to underscore these intentions. We have prepared and delivered targeted Commercial Real Estate training across the System in 2008, and continue to emphasize achieving an appropriate balance between credit availability and safety and soundness during our weekly conference calls with examiners across the regional offices in the System. Weekly calls are also held among senior management in supervision to discuss issues on credit availability to help ensure examiners are not discouraging viable safe and sound lending. Additional outreach and discussions occur as specific cases arise and as we participate in conferences and meetings with various industry participants, examiners, and other regulators.

[1] "Interagency Policy Statement on the Review and Classification of Commercial Real Estate Loans", (November 1991); *www.federalreserve.gov/boarddocs/srletters/1991/SR9124.htm.*

[2] "Interagency Statement on Meeting the Needs of Creditworthy Borrowers", (November 2008); *www.federalreserve.gov/newsevents/press/bcreg/20081112a.htm.*

ADDITIONAL MATERIAL SUPPLIED FOR THE RECORD

For use at 10:00 a.m., EDT
July 21, 2009

Monetary Policy Report to the Congress

July 21, 2009

Board of Governors of the Federal Reserve System

Monetary Policy Report to the Congress

Submitted pursuant to section 2B of the Federal Reserve Act

July 21, 2009

Board of Governors of the Federal Reserve System

Letter of Transmittal

BOARD OF GOVERNORS OF THE
FEDERAL RESERVE SYSTEM

Washington, D.C., July 21, 2009

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

Amid a severe global economic downturn, the U.S. economy contracted further and labor market conditions worsened over the first half of 2009. In the early part of the year, economic activity deteriorated sharply, and strains in financial markets and pressures on financial institutions generally intensified. More recently, however, the downturn in economic activity appears to be abating and financial conditions have eased somewhat, developments that partly reflect the broad range of policy actions that have been taken to address the crisis. Nonetheless, credit conditions for many households and businesses remain tight, and financial markets are still stressed. In the labor market, employment declines have remained sizable—although the pace of job loss has diminished somewhat from earlier in the year—and the unemployment rate has continued to climb. Meanwhile, consumer price inflation has remained subdued.

U.S. real gross domestic product (GDP) fell sharply again in the first quarter of 2009, but the contraction in overall output looks to have moderated somewhat of late. Consumer spending—which has been supported recently by the boost to disposable income from the tax cuts and increases in various benefit payments that were implemented as part of the 2009 fiscal stimulus package—appears to be holding reasonably steady so far this year. And consumer sentiment is up from the historical lows recorded around the turn of the year. In the housing market, a leveling out of home sales and construction activity in the first half of 2009 suggests that the demand for new houses may be stabilizing following three years of steep declines. Businesses, however, have continued to cut capital spending and liquidate inventories in response to soft demand and excessive stocks. Economic activity abroad plummeted in the first quarter and has continued to fall, albeit more slowly, in recent months. Slumping foreign demand led to a sharp drop in U.S. exports during the first half of the year. However, the ongoing contraction in U.S. domestic demand triggered an even sharper drop in imports.

The further contraction in domestic economic activity during the first half of 2009 was accompanied by a significant deterioration in labor market conditions. Private-sector payroll employment fell at an average monthly rate of 670,000 jobs in the first four months of this year before declining by 312,000 jobs in May and 415,000 jobs in June. Meanwhile, the unemployment rate moved up steadily from 7¼ percent at the turn of the year to 9½ percent in June. With the sharp reductions in employment, the wage and salary incomes of households, adjusted for price changes, fell during this period.

Overall consumer price inflation, which slowed sharply late last year, remained subdued in the first half of this year as the margin of slack in labor and product markets widened considerably further and as prices of oil and other commodities retraced only a part of their earlier steep declines. All told, the 12-month change in the personal consumption expenditures (PCE) price index was close to zero in May, while the 12-month change in PCE prices excluding food and energy was 1¾ percent. Survey measures of longer-term inflation expectations have remained relatively stable this year and currently stand at about their average values in 2008.

During the first few months of 2009, pressures on financial firms, which had eased late last year, intensified again. Equity prices of banks and insurance companies fell amid reports of large losses in the fourth quarter of 2008, and market-based measures of the likelihood of default by those institutions rose. Broad equity price indexes also fell in the United States and abroad, and measures of volatility in such markets stayed at near-record levels. In addition, bank funding markets were strained, flows of credit to businesses and households were impaired, and many securitization markets remained shut.

The Federal Reserve and other government entities continued to respond forcefully to these adverse financial market developments. The Federal Reserve kept its target for the federal funds rate at a range between 0 and ¼ percent and purchased additional agency mortgage-backed securities (MBS) and agency debt. Throughout the first half of the year, the Federal Reserve also continued to provide funding to financial institutions and markets through a variety of credit and liquidity facilities. In February, the Treasury, the Feder-

Note: A list of abbreviations is available at the end of this report.

al Reserve, the Federal Deposit Insurance Corporation, the Office of the Comptroller of the Currency, and the Office of Thrift Supervision announced the Financial Stability Plan. The plan included, among other elements, a Capital Assistance Program designed to assess the capital needs of banking institutions under a range of economic scenarios (through the Supervisory Capital Assessment Program (SCAP), or stress test) and, if necessary, to assist banking institutions in strengthening the amount and quality of their capital. In early March, the Federal Reserve and the Treasury launched the Term Asset-Backed Securities Loan Facility (TALF), an initiative designed to catalyze the securitization markets by providing financing to investors to support their purchases of certain AAA-rated asset-backed securities. At the March meeting of the Federal Open Market Committee (FOMC), the Committee decided to expand its purchases of agency MBS and agency debt and to begin buying longer-term Treasury securities to help improve conditions in private credit markets. In May, the Federal Reserve announced an expansion of eligible collateral under the TALF program. In the same month, the results of the SCAP were announced and were positively received in financial markets.

These policy actions, and ones previously taken, have helped stabilize a number of financial markets and, in some cases, have led to significant improvements. In recent months, strains in short-term funding markets have eased, with some credit spreads in those markets returning close to pre-crisis levels. The narrowing in spreads likely reflects, in part, a decrease in the probability that market participants assign to extremely adverse outcomes for the economy in light of the apparent moderation in the rate of economic contraction. Global equity prices have recouped some of their earlier declines, and measures of volatility in equity and other financial markets have retreated somewhat, though they remain at elevated levels. Issuance in some securitization markets that were essentially shut down earlier has begun to increase. Although yields on longer-term Treasury securities have risen, some of these increases are likely attributable to improvement in the economic outlook and a reversal in flight-to-quality flows. Mortgage rates have risen about in line with Treasury yields, but corporate bond yields have continued to decline. By early June, the 10 banking organizations required by the SCAP to bolster their capital buffers had issued new common equity in amounts that either met or came close to meeting the SCAP requirements. Nonetheless, despite these notable improvements, strains remain in most financial markets, many financial institutions face the possibility of significant additional losses, and the flow of credit to some businesses and households remains constrained.

In conjunction with the June 2009 FOMC meeting, the members of the Board of Governors of the Federal Reserve System and presidents of the Federal Reserve Banks, all of whom participate in FOMC meetings, provided projections for economic growth, unemployment, and inflation; these projections are presented in Part 4 of this report. FOMC participants generally viewed the outlook for the economy as having improved modestly in recent months. Participants expected real GDP to bottom out in the second half of this year and then to move onto a path of gradual recovery, bolstered by an accommodative monetary policy, government efforts to stabilize financial markets, and fiscal stimulus. However, all participants expected that labor market conditions would continue to deteriorate during the remainder of this year and improve only slowly over the subsequent two years, with the unemployment rate still elevated at the end of 2011. FOMC participants expected total and core inflation to be lower in 2009 than during 2008 as a whole, in part because of the sizable amount of slack in resource utilization; inflation was forecast to remain subdued in 2010 and 2011.

Participants generally judged that the degree of uncertainty surrounding the medium-term outlook for both economic activity and inflation exceeded historical norms. Participants viewed the risks to their projections of economic growth over the medium run as either balanced or tilted to the downside, and most saw the risk to their projections of medium-run inflation as balanced. Participants also reported their assessments of the rates to which key macroeconomic variables would be expected to converge in the longer run under appropriate monetary policy and in the absence of further shocks to the economy. Most participants expected real GDP to grow in the longer run at an annual rate of about 2½ percent, the unemployment rate to be about 5 percent, and the rate of consumer price inflation to be about 2 percent.

Part 2
Recent Financial and Economic Developments

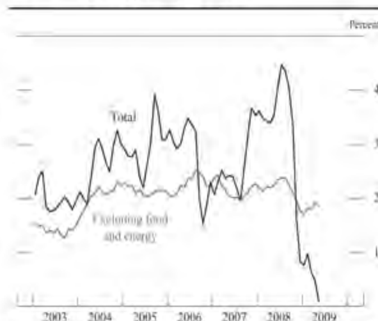
Economic activity, which fell sharply in the fourth quarter of 2008, declined at nearly the same rate in the first quarter of 2009. (For the change in real gross domestic product (GDP) in recent years, see figure 1.) However, the pace of contraction appears to have moderated somewhat of late. To be sure, businesses have continued to cut back on investment spending, and firms have reacted to the abrupt rise in inventory-sales ratios around the turn of the year by cutting production and running down inventories at a more rapid pace, particularly in the motor vehicle sector. Nevertheless, consumer spending seems to have stabilized, on balance, in the first half of this year, and housing activity, while still quite depressed, has leveled off in recent months. And, while the recession abroad led to another sharp drop in export demand in the first quarter, the latest indicators suggest that the contraction in foreign activity has lessened, especially in emerging Asian economies. In the labor market, the pace of job loss has diminished in recent months from the rate earlier this year; nonetheless, employment declines have remained sizable, and the unemployment rate has risen sharply. Meanwhile, inflation remained subdued in the first half of this year (figure 2).

In early 2009, strains in some financial markets appeared to intensify from the levels seen in late 2008.

1. Change in real gross domestic product, 2003–09

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, 2003–09



NOTE: The data are monthly and extend through May 2009; changes are from one year earlier.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

Market participants' concerns about major financial institutions increased, equity prices for such institutions fell, and their credit default swap (CDS) spreads widened substantially. These developments spilled over to broader markets, with equity prices falling and spreads of yields on corporate bonds over those on comparable-maturity Treasury securities moving to near-record highs. Deterioration in the functioning of many financial markets restricted the flow of credit to businesses and households.

In response to these financial market stresses, the Federal Reserve and other government entities implemented additional policy initiatives to support financial stability and promote economic recovery. Federal Reserve initiatives included expanding direct purchases of agency debt and agency mortgage-backed securities (MBS), beginning direct purchases of longer-term Treasury securities, and providing loans against consumer and other asset-backed securities (ABS).[1] Other government entities also undertook new measures to support the financial sector, including the provision of

1. For more information, see Board of Governors of the Federal Reserve System (2009), *Federal Reserve System Monthly Report on Credit and Liquidity Programs and the Balance Sheet* (Washington: Board of Governors, July), www.federalreserve.gov/files/monthlyclbsreport200907.pdf.

more capital to banking institutions under the Capital Purchase Program, or CPP, and the announcement of programs to help banks manage their legacy assets. In addition, the bank supervisory agencies undertook a special assessment of the capital strength of the largest U.S. banking organizations (the Supervisory Capital Assessment Program, or SCAP).

Partly as a result of these efforts, conditions in financial markets began to show signs of improvement starting in March, although they remained strained. During the subsequent few months, both equity prices of financial firms and broad equity price indexes rose, on balance, and corporate bond spreads narrowed. Firms responded by substituting longer-term financing through the corporate bond market for shorter-term funding from bank loans and commercial paper (CP). Supported by the Federal Reserve's Term Asset-Backed Securities Loan Facility (TALF), issuance of consumer ABS began to approach pre-crisis levels. Short-term interbank funding markets also showed substantial improvement, and banking institutions involved in the SCAP were able to issue significant amounts of public equity and nonguaranteed debt. However, outstanding bank loans to households and nonfinancial businesses continued to decline amid expectations that borrower credit quality would deteriorate further, risk spreads in many markets that were still quite elevated, and financial conditions that remained somewhat strained.

Domestic Developments

The Household Sector

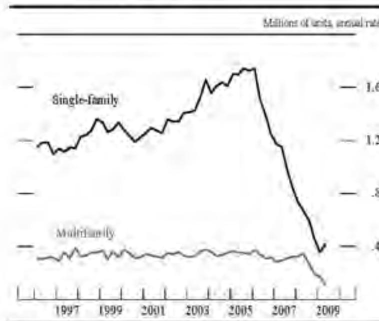
Residential Investment and Housing Finance

Although home prices have continued to fall, the steep declines in housing demand and construction that began in late 2005 appear to be abating. Sales of existing single-family homes have flattened out at a little more than 4 million units at an annual rate since late last year, and sales of new single-family homes have been little changed since January at a bit below 350,000 units. That said, the pace of sales for both new and existing homes is still very low by historical standards.

In the single-family housing sector, starts of new units appear to have firmed of late, though they remain at a depressed level (figure 3). With this restrained level of construction, months' supply of unsold new homes relative to sales has come down somewhat from its peak at the turn of the year, but it still remains quite high compared with earlier in the decade. Starts in the multifamily sector—which had held up well through the spring of 2008 even as single-family activity was plummeting—have deteriorated considerably over the past year. These declines have coincided with a substantial worsening of many of the economic and financial factors that influence construction in this sector, including reports of a pullback in the availability of credit for new projects and a sharp decline in the price of apartment buildings following a multiyear run-up.

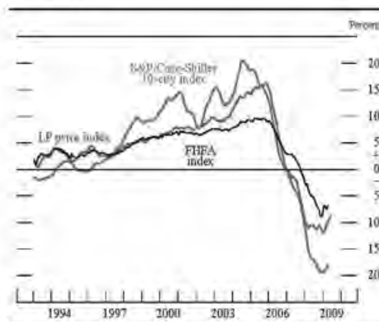
House prices continued to fall in the first part of this year. The latest readings from national indexes show price declines for existing homes over the past

3. Private housing starts, 1996–2009



NOTE: The data are quarterly and extend through 2009:Q2.
SOURCE: Department of Commerce, Bureau of the Census.

4. Change in prices of existing single-family houses, 1993–2009



NOTE: The data are monthly and extend into 2009:Q2; changes are from one year earlier. The LP price index includes purchase transactions only. The FHFA index (formerly calculated by the Office of Federal Housing Enterprise Oversight) also includes purchase transactions only. The S&P/Case-Shiller index reflects all arm's-length sales transactions in the metropolitan areas of Boston, Chicago, Denver, Las Vegas, Los Angeles, Miami, New York, San Diego, San Francisco, and Washington, D.C.
SOURCE: For LP, LoanPerformance, a division of First American CoreLogic; for FHFA, Federal Housing Finance Agency; for S&P/Case-Shiller, Standard & Poor's.

12 months in the range of 7 to 18 percent (figure 4). One such measure with wide geographic coverage, the LoanPerformance repeat-sales price index, fell more than 9 percent over the 12 months ending in May and is now 20 percent below the peak that it achieved in mid-2006. Price declines have been particularly marked in areas of the country that have experienced a large number of foreclosure-related sales, such as Nevada, Florida, California, and Arizona. Lower prices improve the affordability of homeownership for potential new buyers and, all else being equal, should eventually help bolster housing demand. However, expectations of further declines in house prices can make potential buyers reluctant to enter the market. Although consumer surveys continue to suggest that a sizable portion of households expect house prices to fall in the coming year, the share of such households appears to have subsided in recent months.

With house prices still falling, conditions in the labor market deteriorating, and household financial conditions remaining weak, delinquency rates continued to rise across all categories of mortgage loans. As of April 2009, nearly 40 percent of adjustable-rate subprime loans and 15 percent of fixed-rate subprime loans were seriously delinquent (figure 5).[2] In May 2009, delinquency rates for prime and near-prime loans reached about 12 percent for adjustable-rate loans and 4 percent for fixed-rate loans, representing substantial increases over the past year to historic highs.

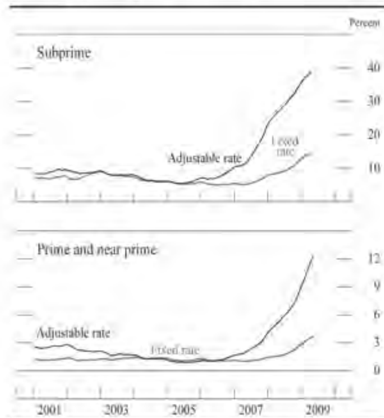
Foreclosures also jumped in 2009. Over the last three quarters of 2008, about 600,000 homes entered the foreclosure process each quarter. During the first quarter of 2009, about 750,000 homes entered the process. The increase may be related to the expiration of temporary foreclosure moratoriums that were put in place by some state and local governments, some private firms, and the government-sponsored enterprises (GSEs) late last year. The Treasury Department has recently established the Making Home Affordable program, which encompasses several efforts designed to lower foreclosure rates. The program includes a provision to allow borrowers to refinance easily into mortgages with lower payments and a provision to encourage mortgage lenders and servicers to modify delinquent mortgages.

Interest rates on 30-year fixed-rate conforming mortgages declined during early 2009; although those rates have risen more recently, about in line with increases in Treasury rates, mortgage rates remain at historically low levels (figure 6). Part of the decrease may have reflected expansion of the Federal Reserve's agency MBS purchase program. Early in the year, spreads of rates on conforming fixed-rate mortgages over long-term Treasury yields fell to their lowest levels in more than a year. Offer rates on nonconforming jumbo fixed-rate loans fell slightly but continued to be well above rates on conforming loans.[3] Although

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

3. Conforming mortgages are those eligible for purchase by Fannie Mae and Freddie Mac; they must be equivalent in risk to a prime mortgage with an 80 percent loan-to-value ratio, and they cannot exceed in size the conforming loan limit. The conforming loan limit

5. Mortgage delinquency rates, 2001–09



NOTE: The data are monthly and extend through April 2009 for subprime and May 2009 for prime and near prime. Delinquency rate is the percent of loans 90 days or more past due or in foreclosure.

SOURCE: For subprime, LoanPerformance, a division of First American CoreLogic; for prime and near prime, Lender Processing Services, Inc.

6. Mortgage interest rates, 1993–2009

NOTE: The data, which are weekly and extend through July 15, 2009, are contract rates on 30-year mortgages.

SOURCE: Federal Home Loan Mortgage Corporation.

the declines in rates and spreads made borrowing relatively less expensive for those qualified for conforming mortgages, access to credit remained limited for many other borrowers. In the April 2009 Senior Loan Officer Opinion Survey on Bank Lending Practices, a majority of respondents indicated that they had tightened standards on residential mortgages over the preceding three months, an extension of the prevailing trend in earlier quarters, that about 40 percent of banks had reduced the size of existing home equity lines of credit, and that only a few of the banks reported having made subprime loans. The secondary market for conventional mortgage loans not guaranteed by Fannie Mae or Freddie Mac remained essentially shut.

Mortgage debt outstanding was about flat in the first quarter of 2009, with the effects of the weakness in the housing market and relatively restricted access to credit offsetting the influence of lower mortgage rates. The available indicators suggest that mortgage debt likely remained very soft in the second quarter. Refinancing activity was somewhat elevated early in the year, probably due to low mortgage interest rates and the waiver of many fees and easing of many underwriting terms by the GSEs. However, such activity moderated considerably when interest rates rose during the past few months.

Consumer Spending and Household Finance

Consumer spending appears to have leveled off so far this year after falling sharply in the second half of last year (figure 7). Continued widespread job losses and the drag from large declines in household wealth have weighed on consumption; however, spending lately has been supported by the boost to household incomes from the fiscal stimulus package enacted in February. Measures of consumer sentiment, while still at depressed levels, have nonetheless moved up from the historical lows recorded around the turn of the year.

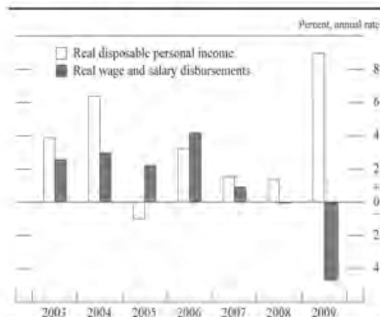
Real personal consumption expenditures (PCE), although variable from month to month, have essentially moved sideways since late last year. Sales of new light motor vehicles continued to contract early this year but have stabilized in recent months—at an average annual rate of 9.7 million units over the four months ending in June. Outlays on other goods, which plunged in 2008, have remained at extremely low levels, while spending on services has only edged up so far this year.

7. Real personal consumption expenditures, 2003–09

NOTE: The data are monthly and extend through May 2009.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

Real disposable personal income, or DPI—that is, after-tax income adjusted for inflation—has risen at an annual rate of about 9 percent so far this year, a substantial pickup from the increase of 1¼ percent posted in 2008 (figure 8). Gains in after-tax income have been bolstered by the tax cuts and increases in social benefit payments that were implemented as part of the 2009 fiscal stimulus package. In contrast, nominal labor income has been declining steeply. Although nominal hourly compensation has risen at a faster pace than overall prices, sizable reductions in employment and the workweek have cut deeply into total hours worked and hence

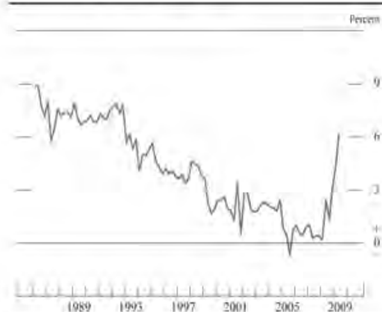
8. Change in real income and in real wage and salary disbursements, 2003–09



NOTE: Through 2008, change is from December to December; for 2009, change is from December to May.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

for a first mortgage on a single-family home in the contiguous United States is currently equal to the greater of $417,000 or 115 percent of the area's median house price; it cannot exceed $625,500. Jumbo mortgages are those that exceed the maximum size of a conforming loan; they are typically extended to borrowers with relatively strong credit histories.

9. Personal saving rate, 1986–2009

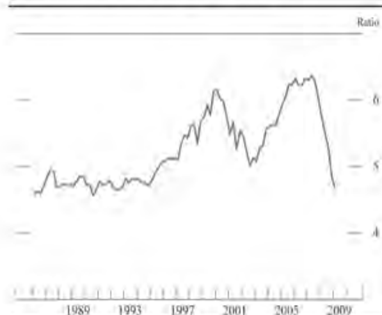


NOTE: The data are quarterly and extend through 2009:Q2; the reading for 2009:Q2 is the average for April and May.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

overall labor compensation. With real after-tax income up appreciably in the first half of the year and consumer outlays leveling off, the personal saving rate jumped during the spring, reaching nearly 7 percent in May compared with the 1¾ percent average recorded during 2008 (figure 9).

Household net worth continued to fall in the first quarter of this year as a result of the ongoing declines in house prices and a further drop in equity prices (figure 10). However, equity prices have recorded substantial gains since March, helping to offset continued declines in the value of real estate wealth. The recent stimlus-induced jump in real disposable income and the improvement in equity wealth since this spring appar-

10. Wealth-to-income ratio, 1986–2009



NOTE: The data are quarterly and extend through 2009:Q1. 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.

11. Consumer sentiment, 1996–2009

NOTE: The Conference Board data are monthly and extend through June 2009. The Reuters/University of Michigan data are monthly and extend through a preliminary estimate for July 2009.
SOURCE: The Conference Board and Reuters/University of Michigan Surveys of Consumers.

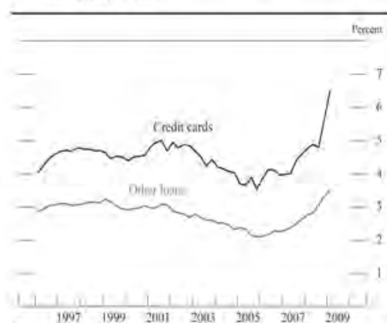
ently helped lift consumer sentiment somewhat from its earlier very low levels (figure 11).

Nonmortgage consumer debt outstanding is estimated to have fallen at an annual rate of 2 percent in the first half of 2009, extending a decline that began in the final quarter of 2008. The decreases likely reflect both reduced demand for loans as a result of the restrained pace of consumer spending and a restricted supply of credit. The April 2009 Senior Loan Officer Opinion Survey showed a further tightening of standards and terms on consumer loans over the preceding three months, actions that included lowering credit limits on existing credit card accounts.

The tightening in standards and terms likely reflected, in part, concerns by financial institutions about consumer credit quality. Delinquency rates on most types of consumer lending—credit card loans, auto loans, and other nonrevolving loans—continued to rise during the first half of 2009. The increase in credit card loan delinquency rates at banks was particularly sharp, and at 6½ percent as of the end of the first quarter of 2009, such delinquencies exceeded the level reached during the 2001 recession (figure 12). Household bankruptcy rates continued the upward trend that has been evident since the bankruptcy law reform in 2005; the recent increases likely reflect the deterioration in household financial conditions.

Changes in interest rates on consumer loans were mixed over the first half of the year. Auto loan rates were about flat, credit card rates ticked upward, and rates on other consumer loans showed a slight decline. Spreads of these rates over those on comparable-maturity Treasury securities remained at elevated levels.

12. Delinquency rates on consumer loans at commercial banks, 1996–2009



NOTE: The data are quarterly and extend through 2009:Q1. Delinquency rate is the percent of loans 30 days or more past due.
SOURCE: Federal Financial Institutions Examination Council, Consolidated Reports of Condition and Income (Call Report).

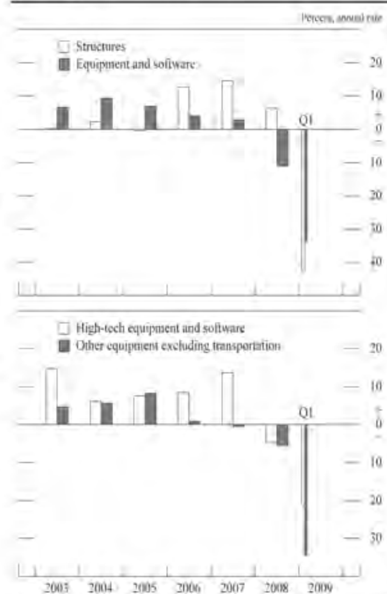
Before the onset of the financial crisis, the market for ABS provided significant support for consumer lending by effectively reducing the cost to lenders of providing such credit. The near-complete cessation of issuance in this market in the fourth quarter of 2008 thus likely contributed importantly to the curtailment of consumer credit. Issuance of credit card, auto, and student loan ABS began to pick up in March and approached pre-crisis levels in April and May. Spreads of yields on AAA-rated credit card and auto ABS over yields on swaps fell sharply in early 2009, although they remained at somewhat elevated levels. The increased issuance and falling spreads appeared to reflect importantly the TALF program, which had been announced in late 2008 and began operation in March 2009. Availability of loans to purchase automobiles, which had declined sharply at the end of 2008, rebounded in early 2009 as some auto finance companies accessed credit through the TALF and others received funding directly from the government.

The Business Sector

Fixed Investment

Businesses have continued to cut back capital spending, with declines broadly based across equipment, software, and structures. Real business fixed investment fell markedly in the final quarter of 2008 and the first quarter of this year (figure 13). The cutbacks in business investment were prompted by a deterioration late last year and early this year in the economic and financial conditions that influence capital expenditures: In particular, business output contracted steeply, corporate profits declined, and credit availability remained tight for many borrowers. More recently, it appears that the declines in capital spending may be abating, and financing conditions for businesses have improved somewhat.

13. Change in real business fixed investment, 2003–09



NOTE: High-tech equipment consists of computers and peripheral equipment and communications equipment.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

Real business outlays for equipment and software dropped at an annual rate of 34 percent in the first quarter of 2009 after falling nearly as rapidly in the fourth quarter. In both quarters, business purchases of motor vehicles plunged at annual rates of roughly 80 percent, and real spending on high-tech capital—computers, software, and communications equipment—fell at an annual rate of more than 20 percent. Real investment in equipment other than high tech and transportation, which accounts for nearly one-half of outlays for equipment and software, dropped at an annual rate of about 35 percent in the first quarter after falling at a 20 percent rate in the previous quarter. The available indicators suggest that real spending on equipment and software fell further in the second quarter, though at a much less precipitous pace: Although shipments of nondefense capital goods other than transportation items

continued to fall in April and May, the rate of decline slowed from the first-quarter pace. In addition, business purchases of new trucks and cars appear to have stabilized in the second quarter (albeit at low levels), and recent surveys of business conditions have been generally less downbeat than earlier this year.

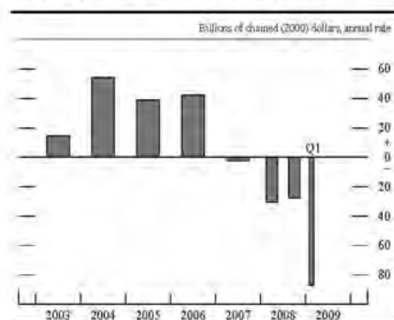
Real spending on nonresidential structures turned down late last year and fell sharply in the first quarter. Outlays for construction of commercial and office buildings declined appreciably late last year and have contracted further so far this year. Spending on drilling and mining structures, which had risen briskly for a number of years, has plunged this year in response to the substantial net decline in energy prices since last summer. In contrast, outlays on other energy-related projects—such as new power plants and the expansion and retooling of existing petroleum refineries—have been growing rapidly for some time now and continued to post robust gains through May. On balance, the recent data on construction expenditures suggest that declines in spending on nonresidential structures may have slowed in the second quarter. However, weak business output and profits, tight financing conditions, and rising vacancy rates likely will continue to weigh heavily on this sector.

Inventory Investment

Businesses ran off inventories aggressively in the first quarter, as firms entered the year with extremely high inventory-sales ratios despite having drawn down stocks throughout 2008 (figure 14). Much of the first-quarter liquidation occurred in the motor vehicle sector, where production was cut sharply and remained low in the second quarter. As a result, days' supply of domestic light vehicles dropped from its peak of about 100 days in February to less than 70 days at the end of June, closer to the automakers' preferred level.

Firms outside of the motor vehicle sector also have been making significant production adjustments to bring down inventories. Factory output (excluding motor vehicles and parts) plunged in the first quarter, and inventories of nonfarm goods other than motor vehicles were drawn down noticeably in real terms. According to the available data, this pattern of production declines and inventory liquidation appears to have continued in the second quarter as well. Although inventory-sales ratios remain elevated in many industries, some recent business surveys suggest that firms have become more comfortable in recent months with the current level of inventories.

14. Change in real business inventories, 2003–09



SOURCE: Department of Commerce, Bureau of Economic Analysis.

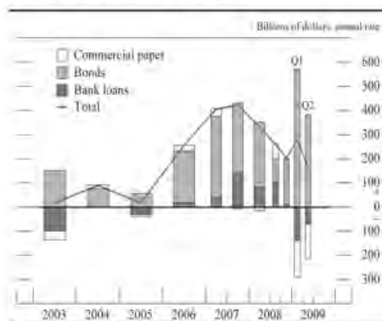
Corporate Profits and Business Finance

Operating earnings per share for S&P 500 firms in the first quarter were about 35 percent below their year-earlier levels. Profitability of both financial and nonfinancial firms showed steep declines. Analysts' forecasts suggest that the pace of profit declines moderated only slightly in the second quarter, although downward revisions to forecasts for earnings over the next two years have slowed recently.

Business financial conditions in the first half of the year were characterized by lower demand for funds, even as financial conditions eased somewhat on balance. Borrowing by domestic nonfinancial businesses fell slightly in the first half of 2009 after having slowed markedly in the second half of 2008 (figure 15). The composition of borrowing shifted, with net issuance of corporate bonds surging, while both commercial and industrial (C&I) loans and CP outstanding fell. This reallocation of borrowing may have reflected a desire by businesses to strengthen their balance sheets by substituting longer-term sources of financing for shorter-term sources during a period when the cost of bond financing was generally falling. In particular, yields on both investment- and speculative-grade corporate bonds dropped sharply, and their spreads over yields on comparable-maturity Treasury securities narrowed appreciably, as investors' concerns about the economic outlook eased. Nonetheless, bond spreads remained somewhat elevated by historical standards.

C&I and commercial real estate (CRE) lending by commercial banks were both quite weak in the first half of 2009, likely reflecting reduced demand for loans and a tighter lending stance on the part of banks. The results of the April 2009 Senior Loan Officer Opinion Survey

15. Selected components of net financing for nonfinancial corporate businesses, 2003–09



NOTE: The data for the components except bonds are seasonally adjusted. The data for 2009:Q2 are estimated.
SOURCE: Federal Reserve Board, flow of funds data.

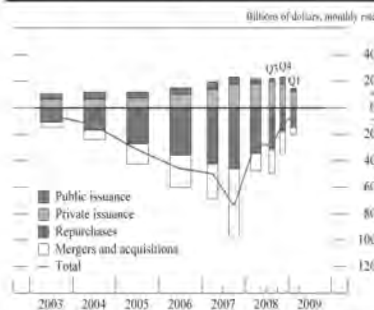
indicated that commercial banks had tightened terms and standards on C&I and CRE loans over the preceding three months (figure 16). The market for commercial mortgage-backed securities (CMBS)—an important source of funding before the crisis—remained shut.

Both seasoned and initial equity offerings by nonfinancial corporations were modest over the first half of 2009 (figure 17). Equity retirements are estimated to have slowed in early 2009 from their rapid pace during

16. Net percentage of domestic banks tightening standards and increasing spreads on commercial and industrial loans to large and medium-sized borrowers, 1993–2009

NOTE: The data are drawn from a survey generally conducted four times per year; the last observation is from the April 2009 survey, which covers 2009:Q1. Net percentage is the percentage of banks reporting a tightening of standards or an increase in spreads less the percentage reporting an easing or a decrease. Spreads are measured as the loan rate less the bank's cost of funds. The definition for firm size suggested for, and generally used by, survey respondents is that large and medium-sized firms have annual sales of $50 million or more.
SOURCE: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices.

17. Components of net equity issuance, 2003–09



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.

the second half of 2008. As a result, net equity issuance in the first quarter declined by the smallest amount since 2002.

The credit quality of nonfinancial firms continued to deteriorate in the first half of 2009. The pace of rating downgrades on corporate bonds increased, and upgrades were relatively few. Delinquency rates on banks' C&I loans continued to increase in the first quarter, while those on CRE loans rose substantially (figure 18). Delinquency rates on construction and land development loans for one- to four-family residential properties increased to more than 20 percent. Banks that responded to the Senior Loan Officer Opinion Survey conducted in April 2009 expected delinquency and charge-off rates on such loans to increase over the rest of 2009, assuming that economic activity progressed in line with consensus forecasts.

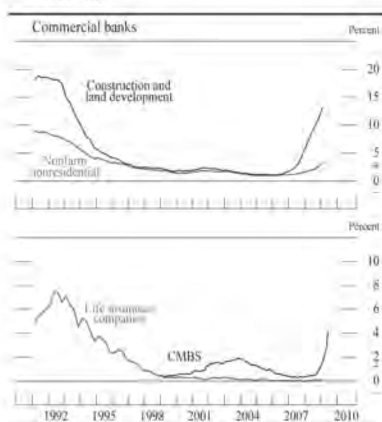
Financial firms issued bonds at a solid pace, including both debt issued under the Temporary Liquidity Guarantee Program of the Federal Deposit Insurance Corporation (FDIC) and debt issued without such guarantees. Equity issuance by such firms picked up substantially from a very low level following the completion of the SCAP reviews in May.

The Government Sector

Federal Government

The deficit in the federal unified budget has increased substantially during the current fiscal year. The budget

18. Delinquency rates on commercial real estate loans, 1991–2009



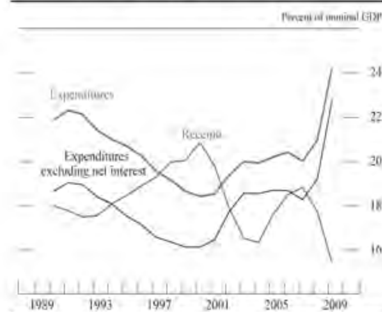
NOTE: The data for commercial banks and life insurance companies are quarterly and extend through 2009:Q1. The data for commercial mortgage-backed securities (CMBS) are monthly and extend through May 2009. The delinquency rates for commercial banks and CMBS are the percent of loans 30 days or more past 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.

costs associated with the Troubled Asset Relief Program (TARP), the conservatorship of the mortgage-related GSEs, and the fiscal stimulus package enacted in February, along with the effects of the weak economy on outlays and revenues, have all contributed to the widening of the budget gap. Over the first nine months of fiscal year 2009—from October through June—the unified budget recorded a deficit of about $1.1 trillion. The deficit is expected to widen further over the rest of the fiscal year because of the continued slow pace of economic activity, additional spending increases and tax cuts associated with the fiscal stimulus legislation, and further costs related to financial stabilization programs. The budget released by the Office of Management and Budget in May, which included the effects of the President's budget proposals, calculated that the deficit for fiscal 2009 would total more than $1.8 trillion (13 percent of nominal GDP), significantly larger than the deficit in fiscal 2008 of $459 billion (3¼ percent of nominal GDP).[4]

4. The President's budget includes a placeholder for additional funds for financial stabilization programs that have not been enacted but have an estimated budget cost of $250 billion.

19. Federal receipts and expenditures, 1989–2009



NOTE: Through 2008, receipts and expenditures 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. For 2009, receipts and expenditures are for the 12 months ending in June, and GDP is the average of 2008:Q4 and 2009:Q1.

SOURCE: Office of Management and Budget.

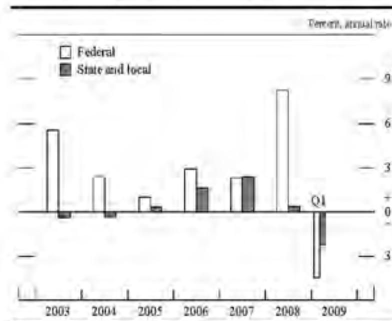
The decline in economic activity has cut deeply into tax receipts so far this fiscal year (figure 19). After falling about 2 percent in fiscal 2008, federal receipts dropped about 18 percent in the first nine months of fiscal 2009 compared with the same period in fiscal 2008. The decline in revenue has been particularly pronounced for corporate receipts, which have plunged as corporate profits have contracted and as firms have presumably adjusted payments to take advantage of the bonus depreciation provisions contained in the Economic Stimulus Act of 2008 and the American Recovery and Reinvestment Act of 2009. Individual income and payroll tax receipts have also declined noticeably, reflecting the weakness in nominal personal income and reduced capital gains realizations.[5]

Nominal federal outlays have risen markedly of late. After having increased about 9 percent in fiscal 2008, outlays in the first nine months of fiscal 2009 were almost 21 percent higher than during the same period in fiscal 2008. Spending was boosted, in part, by $232 billion in outlays recorded for activities under the TARP and the conservatorship of the GSEs so far this fiscal year.[6] Spending for income support—particularly

5. While the 2009 stimulus plan has reduced individual taxes by around $13 billion so far in fiscal 2009, the stimulus tax rebates in 2008 lowered individual taxes by about $50 billion during the same period last year. Thus, the tax cuts associated with fiscal stimulus have not contributed to the year-over-year decline in individual tax receipts.

6. In the Monthly Treasury Statements and the Administration's budget, both equity purchases and debt-related transactions under the TARP are recorded on a net-present-value basis, taking into account market risk, and the Treasury's purchases of the GSE's MBS are

20. Change in real government expenditures on consumption and investment, 2003–09



SOURCE: Department of Commerce, Bureau of Economic Analysis.

for unemployment insurance benefits—has been pushed up by the deterioration in labor market conditions as well as by policy decisions to expand funding for a number of benefit programs. Meanwhile, federal spending on defense, Medicare, and Social Security also has recorded sizable increases. In contrast, net interest payments declined compared with the same year-earlier period, as the reduction in interest rates on Treasury debt more than offset the rise in Treasury debt.

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—fell at an annual rate of 4½ percent in the first quarter following its steep rise of more than 8 percent in 2008 (figure 20). Real defense spending more than accounted for the first-quarter contraction, as nondefense outlays increased slightly. However, in the second quarter, defense spending appears to have rebounded, and it is likely to rise further in coming quarters given currently enacted appropriations.

Federal Borrowing

Federal debt continued to increase in the first half of 2009, although at a slightly less rapid pace than had been posted in the second half of 2008. Despite the considerable issuance of Treasury securities in the first half of the year, demand at Treasury auctions generally kept pace, with bid-to-cover ratios within historical ranges. Foreign custody holdings of Treasury securities at the Federal Reserve Bank of New York grew steadily over the first half of the year. Fails-to-deliver of Treasury securities, which were elevated earlier in the year, generally decreased after the May 1 implementation of the Treasury Market Practices Group's recommendation of a mandatory charge for delivery failures.[7]

State and Local Government

The fiscal positions of state and local governments have deteriorated significantly over the past year, and budget strains are particularly acute in some states, as revenues have come in weaker than policymakers expected. At the state level, revenues from income, business, and sales taxes have declined sharply.[8] Plans by states to address widening projected budget gaps have included cutting planned spending, drawing down rainy day funds, and raising taxes and fees. In coming quarters, the grants-in-aid included in the fiscal stimulus legislation will likely mitigate somewhat the pressures on state budgets, but many states are still expecting significant budget gaps for the upcoming fiscal year. At the local level, revenues have held up fairly well; receipts from property taxes have continued to rise moderately, reflecting the typically slow response of property taxes to changes in home values.[9] Nevertheless, the sharp fall in house prices over the past two years is likely to put downward pressure on local revenues before long. Moreover, many state and local governments have experienced significant capital losses in their employee pension funds in the past year, and they will need to set aside money in coming years to rebuild pension assets.

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recorded on a net-present-value basis. However, equity purchases from the GSEs in conservatorship are recorded on a cash-flow basis.

7. The fails charge is incurred when a party to a repurchase agreement or cash transaction fails to deliver the contracted Treasury security to the other party by the date agreed upon. The charge is a share of the value of the security, where the share is the greater of 3 percent (at an annual rate) minus the target federal funds rate (or the bottom of the range when the Federal Open Market Committee specifies a range) and zero. Previously, the practice was that a failed transaction was allowed to settle on a subsequent day at an unchanged invoice price; therefore, the cost of a fail was the lost interest on the funds owed in the transaction, which was minimal when short-term interest rates were very low. The new practice of a fails charge ensures that the total cost of a fail is at least 3 percent.

8. Sales taxes account for nearly one-half of the tax revenues collected by state governments.

9. The delay between changes in house prices and changes in property tax revenues likely occurs for three reasons. First, property taxes are based on assessed property values from the previous year. Second, in many jurisdictions, assessments are required to lag contemporaneous changes in market values (or they lag such changes for administrative reasons). Third, many localities are subject to state limits on the annual increases in total property tax payments and property value assessments. Thus, increases and decreases in market prices for houses tend not to be reflected in property tax bills for quite some time.

Outlays by state and local governments have been restrained by the pressures on their budgets. As measured in the NIPA, aggregate real expenditures on consumption and gross investment by state and local governments—the part of state and local spending that is a direct component of GDP—fell in both the fourth quarter of last year and the first quarter of this year, led by sharp declines in real construction spending. However, recent data on construction expenditures suggest that investment spending in the second quarter picked up, reversing a portion of the earlier declines. State and local employment has remained about flat over the past year, although some state and local governments are in the process of reducing outlays for compensation through wage freezes and mandatory furloughs that are not reflected in the employment figures.

State and Local Government Borrowing

On net, bond issuance by state and local governments picked up in the second quarter of 2009 after having been tepid during the first quarter. Issuance of short-term debt remained modest, although about in line with typical seasonal patterns. Issuance of long-term debt, which is generally used to fund capital spending projects or to refund existing long-term debt, increased from the sluggish pace seen in the second half of 2008. The composition of new issues continued to be skewed toward higher-rated borrowers.

Interest rates on long-term municipal bonds declined in April as investors' concerns about the credit quality of municipal bonds appeared to ease somewhat with the passage of the fiscal stimulus plan, which included a substantial increase in the amount of federal grants to states and localities. That bill also aided the finances of state and local governments by establishing Build America Bonds, taxable state and local government bonds whose interest payments are subsidized by the Treasury at a 35 percent rate. Yields on municipal securities rose somewhat in May and June, concomitant with the rise in other long-term interest rates over that period; even so, the ratio of municipal bond yields to those on comparable-maturity Treasury securities dropped to its lowest level in almost a year.

In contrast to long-term municipal bond markets, conditions in short-term municipal bond markets continued to exhibit substantial strains. Market participants continued to report that the cost of liquidity support and credit enhancement for variable-rate demand obligations (VRDOs)—bonds that combine long maturities with floating short-term interest rates—remained substantially higher than it had been a year earlier.[10] In addition, auctions of most remaining auction-rate securities failed. Some municipalities were able to issue new VRDOs, but many lower-rated issuers appeared to be either unwilling or unable to issue this type of debt at the prices that would be demanded of them. However, the seven-day Securities Industry and Financial Markets Association swap index, a measure of yields for high-grade VRDOs, declined to the lowest level on record, suggesting that the market was working well for higher-rated issuers.

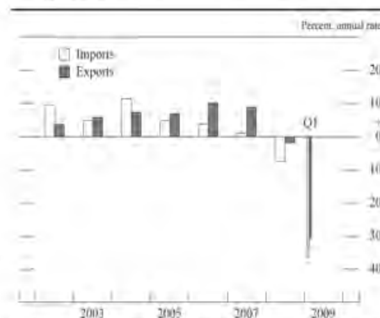
The External Sector

The demand for U.S. exports dropped sharply in the first quarter. However, U.S. demand for imports fell even more precipitously, softening the decline in real GDP.

Real exports of goods and services declined at an annual rate of 31 percent in the first quarter, exceeding even the 24 percent rate of decline in the fourth quarter of 2008 (figure 21). Exports in almost all major categories contracted, with exports of machinery, industrial supplies, automotive products, and services recording large decreases. (Exports of aircraft were the exception, with increases following the end of strike-related

10. VRDOs are taxable or tax-exempt bonds that combine long maturities with floating short-term interest rates that are reset on a weekly, monthly, or other periodic basis. VRDOs also have a contractual liquidity backstop, typically provided by a commercial or investment bank, that ensures that bondholders are able to redeem their investment at par plus accrued interest even if the securities cannot be successfully remarketed to other investors.

21. Change in real imports and exports of goods and services, 2002–09



Note: Data for 2009:Q1 are expressed as percent change from 2008:Q4.
Source: Department of Commerce, Bureau of Economic Analysis.

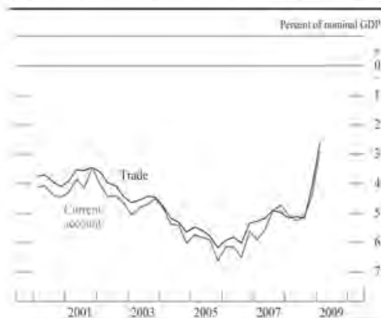
production disruptions in the fourth quarter.) All of our major trading partners reduced their demand for U.S. exports, with exports to Canada, Europe, and Mexico exhibiting especially significant declines. Data for April and May suggest that exports in the second quarter continued to fall, although more moderately, reflecting a slowing in the rate of contraction in foreign economic activity.

Real imports of goods and services fell at an annual rate of more than 36 percent in the first quarter. The drop in imports was widespread across U.S. trading partners, with large declines observed for imports from Canada, Europe, Japan, and Latin America. All major categories of imports fell, with imports of machinery, automotive products, and industrial supplies displaying particularly pronounced declines. The sharp fall in exports and imports of automotive products partly reflected cutbacks in North American production of motor vehicles, which relies heavily on flows of parts and finished vehicles among the United States, Canada, and Mexico.

In the first quarter of 2009, the U.S. current account deficit was $406 billion at an annual rate, or a bit less than 3 percent of GDP, considerably narrower than the $706 billion deficit recorded in 2008 (figure 22). The narrowing largely reflected the sharp reduction in the U.S. trade deficit, with the contraction in real imports described earlier being compounded by a steep fall in the value of nominal oil imports as oil prices declined.

Import prices fell sharply in late 2008 and the first quarter of this year, but they have stabilized over the past few months. This pattern was influenced importantly by the swing in prices for oil and non-oil commodities, which turned back up in the second quarter. Prices for finished goods declined only slightly in the last quarter of 2008 and the first quarter of this year and have increased slightly in recent months.

22. U.S. trade and current account balances, 2000–09



NOTE: The data are quarterly and extend through 2009:Q1.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

23. Prices of oil and nonfuel commodities, 2004–09

NOTE: The data are monthly. The oil price is the spot price of West Texas intermediate crude oil, and the last observation is the average for July 1–15, 2009. The price of nonfuel commodities is an index of 45 primary-commodity prices and extends through June 2009.
SOURCE: For oil, the Commodity Research Bureau; for nonfuel commodities, International Monetary Fund.

The price of crude oil in world markets rose considerably over the first half of this year (figure 23). After plunging from a record high of more than $145 per barrel in mid-July 2008 to a December average of about $40, the spot price of West Texas intermediate (WTI) crude oil rebounded to about $60 per barrel in mid-July of this year. The rebound in oil prices appears to reflect the view that the global demand for oil has begun to pick up once again. In addition, the ongoing effects of previous reductions in OPEC supply seem to be putting upward pressure on oil prices. The prices of longer-term futures contracts for crude oil have moved up to around $85 per barrel, reflecting the view that the market will continue to tighten as global demand strengthens over the medium term.

National Saving

Total net national saving—that is, the saving of households, businesses, and governments, excluding depreciation charges as measured in the NIPA—fell to a level of negative 1½ percent of nominal GDP in the first quarter of this year, its lowest reading in the post–World War II period (figure 24). After having reached 3½ percent of nominal GDP in early 2006, net national saving dropped over the subsequent three years as the federal budget deficit widened substantially and the fiscal positions of state and local governments deteriorated. In contrast, private saving has risen considerably, on balance, over this period, as a decline in business saving

24. Net saving, 1989–2009

NOTE: The data are quarterly and extend through 2009:Q1. 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.

has been more than offset by the recent jump in personal saving. National saving will likely remain very low this year in light of the weak economy and the probable further widening of the federal budget deficit. Nonetheless, if not boosted over the longer run, persistent low levels of national saving will likely be associated with both low rates of capital formation and heavy borrowing from abroad, which would limit the rise in the standard of living of U.S. residents over time and hamper the ability of the nation to meet the retirement needs of an aging population.

The Labor Market

Employment and Unemployment

The labor market deteriorated significantly further in the first half of this year as employment continued to fall and the unemployment rate rose sharply. The job losses so far this year have been widespread across industries and have brought the cumulative decline in private employment since December 2007 to more than 6½ million jobs. In recent months, however, the pace of job loss has moderated somewhat. Private nonfarm payroll employment fell by 670,000 jobs, on average, per month from January to April, but the declines slowed to 312,000 in May and 415,000 in June (figure 25). In contrast, the civilian unemployment rate has continued to move up rapidly so far this year, climbing 2¼ percentage points between December 2008 and June to 9½ percent (figure 26).

Virtually all major industries experienced considerable job losses in the first few months of the year. More

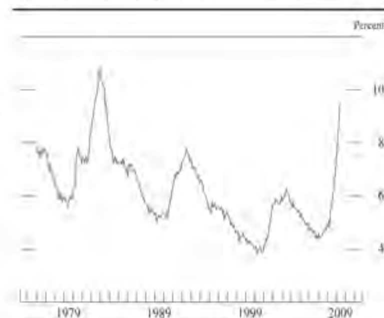
25. Net change in private payroll employment, 2003–09

NOTE: The data are monthly and extend through June 2009.
SOURCE: Department of Labor, Bureau of Labor Statistics.

recently, employment declines in many industry groups have eased, and some industries have reported small gains. The May and June declines in construction jobs were the smallest since last fall, job declines in temporary help services slowed noticeably, and employment in nonbusiness services turned up in May and increased further in June. Meanwhile, in the manufacturing sector, employment declines have subsided a bit in recent months but still remain sizable; job losses in this sector have totaled 1.9 million since the start of the recession.

In addition to shedding jobs, firms have cut their labor input by shortening hours worked. Average weekly hours of production and nonsupervisory workers on private payrolls dropped sharply through June. In addition, the share of persons who reported that they were working part time for economic reasons—a group that

26. Civilian unemployment rate, 1976–2009



NOTE: The data are monthly and extend through June 2009.
SOURCE: Department of Labor, Bureau of Labor Statistics.

includes individuals whose hours have been cut by their employers as well as those who would like to move to full-time jobs but are unable to find them—is high.

Since the beginning of the recession in December 2007, the unemployment rate has risen more than 4½ percentage points. The rise in joblessness has been especially pronounced for those who lost their jobs permanently; these individuals tend to take longer to find new jobs than those on temporary layoffs or those who left their jobs voluntarily, and their difficulty in finding new jobs has been exacerbated by the ongoing weakness in hiring. Accordingly, the median duration of uncompleted spells of unemployment has increased from 8½ weeks in December 2007 to 18 weeks in June 2009, and the number of workers unemployed more than 15 weeks has moved up appreciably.

The labor force participation rate, which typically weakens during periods of rising unemployment, decreased gradually through March but has moved up somewhat, on balance, in recent months (figure 27). The emergency unemployment insurance programs that were introduced last July have likely contributed to the higher participation rate and unemployment rate by encouraging unemployed individuals to remain in the labor force to continue to look for work. In addition, anecdotes suggest that the impairment of household balance sheets during this recession may have led some workers to delay retirement and other workers to enter the labor force.

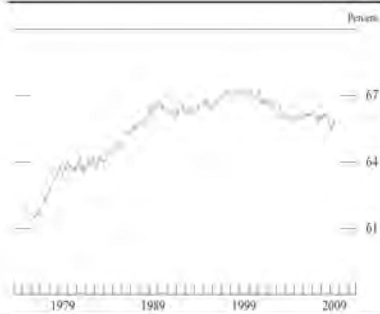
Other more recent indicators suggest that conditions in the labor market remain very weak. Initial claims for unemployment insurance, which rose dramatically earlier this year, have fallen noticeably from their peak but remain elevated, and the number of individuals receiving regular and emergency unemployment insurance benefits climbed, reaching nearly 10 million at the end of June.

Productivity and Labor Compensation

Labor productivity has continued to increase at a surprising rate during the most recent downturn, in part because firms have responded to the contraction in aggregate demand by aggressively reducing employment and shortening the workweeks of their employees. According to the latest available published data, output per hour in the nonfarm business sector increased at an annual rate of about 1½ percent in the first quarter after rising 2¼ percent during all of 2008 (figure 28). If these productivity estimates prove to be accurate, they would suggest that the fundamental factors that have supported a solid trend in underlying productivity in recent years—such as the rapid pace of technological change and ongoing efforts by firms to use information technology to improve the efficiency of their operations—remain in place.

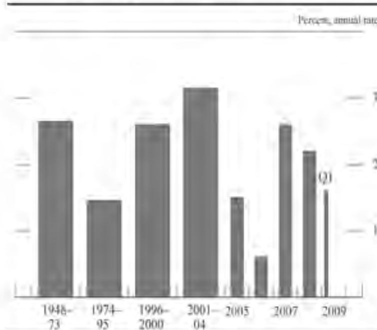
Alternative measures of nominal hourly compensation and wages suggest, on balance, that increases in labor costs have slowed this year in response to the sizable amount of slack in labor markets. The employment cost index (ECI) for private industry workers, which measures both wages and the cost to employers of providing benefits, has decelerated considerably over the past year (figure 29). This measure of compensation increased less than 2 percent in nominal terms between March 2008 and March 2009 after rising 3¼ percent in each of the preceding two years. Average hourly earn-

27. Labor force participation rate, 1976–2009



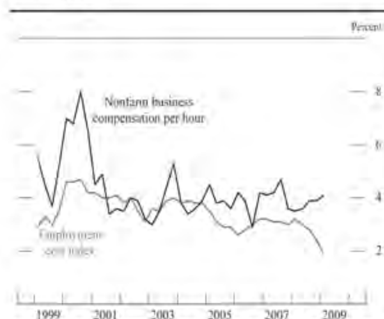
NOTE: The data are monthly and extend through June 2009.
SOURCE: Department of Labor, Bureau of Labor Statistics.

28. Change in output per hour, 1948–2009



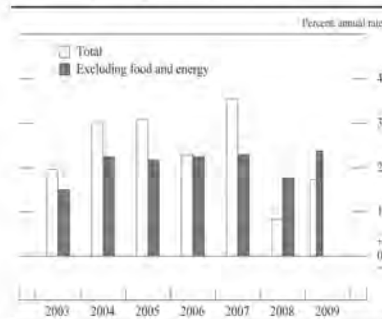
NOTE: Nonfarm business sector. Change for each multiyear period is measured to the fourth quarter of the final year of the period from the fourth quarter of the year immediately preceding the period.
SOURCE: Department of Labor, Bureau of Labor Statistics.

29. Measures of change in hourly compensation, 1999–2009



NOTE: The data are quarterly and extend through 2009:Q1. 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. A new ECI series was introduced for data as of 2001, but the new series is continuous with the old.
SOURCE: Department of Labor, Bureau of Labor Statistics.

30. Change in the chain-type price index for personal consumption expenditures, 2003–09



NOTE: Through 2008, change is from December to December; for 2009, change is from December to May.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

ings of production and nonsupervisory workers—a more timely, but narrower, measure of wage developments—have also decelerated significantly, especially in recent months. In contrast, compensation per hour (CPH) in the nonfarm business sector—an alternative measure of hourly compensation derived from the data in the NIPA—increased about 4 percent over the year ending in the first quarter of 2009, similar to the rate of increase seen during the past several years.

The much slower pace of overall consumer price inflation over the past year has supported real wage growth. Indeed, changes in both broad measures of hourly compensation—the ECI and CPH—have picked up in real terms over the past year, as has the inflation-adjusted increase in average hourly earnings. Nonetheless, as noted previously, with the sharp reduction in total hours worked, real wage and salary income of households has fallen over this period.

Prices

Headline consumer prices, which fell sharply late last year with the marked deterioration in economic activity and drop-off in the prices of crude oil and other commodities, have risen at a moderate pace so far this year. While the margin of slack in product and labor markets has widened considerably further this year, putting downward pressure on inflation, many commodity prices have retraced part of their earlier declines. All told, the chain-type price index for personal consumption expenditures increased at an annual rate of about 1¾ percent between December 2008 and May 2009, compared with its ¾ percent rise over the 12 months of 2008 (figure 30). The core PCE price index—which excludes the prices of energy items as well as those of food and beverages—also has increased at a moderate pace so far this year following especially low rates of increase late in 2008. Data for PCE prices in June are not yet available, but information from the consumer price index and other sources suggests that total PCE prices posted a relatively large increase that month as gasoline prices jumped; core consumer price increases were moderate.

Consumer energy prices flattened out, on balance, in the first five months of 2009 following their sharp drop late last year. However, crude oil prices have turned up again, with the spot price of WTI rising to around $60 per barrel in mid-July from about $40, on average, last December. The increase in crude costs has been putting upward pressure on the price of gasoline at the pump in recent months. In contrast, natural gas prices continued to plunge over the first half of this year in response to burgeoning supplies from new wells in Louisiana, North Dakota, Pennsylvania, and Texas that boosted inventories above historical midyear averages. Consumer prices for electricity have edged down so far this year—after rising briskly through the end of last year—as fossil fuel input costs have continued to decline.

Food prices decelerated considerably in the first part of this year in response to the dramatic downturn in spot prices of crops and livestock in the second half of last year. After climbing nearly 6½ percent in 2008, the

PCE price index for food and beverages decreased at an annual rate of 1 percent between December 2008 and May 2009.

Core PCE prices rose at an annual rate of 2½ percent over the first five months of the year, compared with 1¾ percent over all of 2008. The pickup in core inflation during the first part of this year reflected, in part, a jump in the prices of tobacco products associated with large increases in federal and state excise taxes this spring; excluding tobacco prices—for which the large increases likely were one-off adjustments—core inflation was unchanged at 1¾ percent over this period. Aside from tobacco, prices for other core goods snapped back early this year—following heavy discounting at the end of last year in reaction to weak demand and excess inventories—but have been little changed for the most part in recent months. In contrast, prices for a wide range of non-energy services have decelerated noticeably further this year.

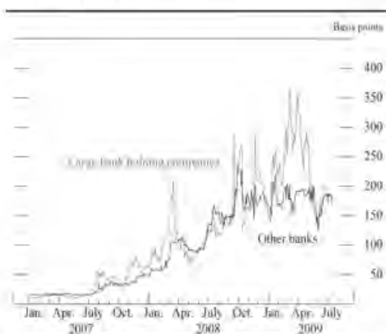
Survey-based measures of near-term inflation expectations declined late last year and early this year as actual headline inflation came down markedly, but, in recent months, some measures have moved back up close to their average levels of recent years. According to the Reuters/University of Michigan Surveys of Consumers, median expectations for year-ahead inflation stood at 3.0 percent in the preliminary estimate for July, up from about 2 percent around the turn of the year. Indicators of longer-term inflation expectations have been steadier over this period. These expectations in the Reuters/University of Michigan survey stood at 3.1 percent in the preliminary July release, about the measure's average value over all of 2008.

Financial Stability Developments

Evolution of the Financial Turmoil, Policy Actions, and the Market Response

Stresses in financial markets intensified in the first few months of 2009 but have eased more recently. Credit default swap spreads for bank holding companies—which primarily reflect investors' assessments of the likelihood of those institutions defaulting on their debt obligations—rose sharply in early January on renewed concerns that some of those firms could face considerable capital shortfalls and liquidity difficulties (figure 31). Equity prices for banking and insurance companies fell in the first quarter of the year as a number of large financial institutions reported substantial losses for the fourth quarter of 2008 (figure 32).

31. Spreads on credit default swaps for selected U.S. banks, 2007–09

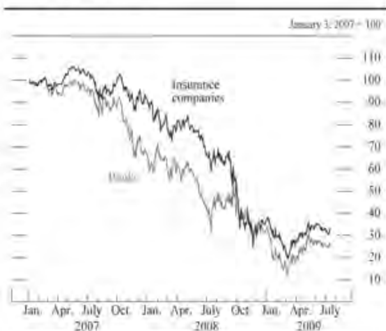


Note: The data are daily and extend through July 15, 2009. Median spreads for 6 bank holding companies and 12 other banks.
Source: Markit.

Strains in short-term funding markets persisted in January and February. A measure of stress in the interbank market, the spread of the London interbank offered rate (Libor) over the rate on comparable-maturity overnight index swaps (OIS), remained at elevated levels early in the year (figure 33). Required margins of collateral (also known as haircuts) and bid-asked spreads generally continued to be wide in the markets for repurchase agreements backed by many types of securities.

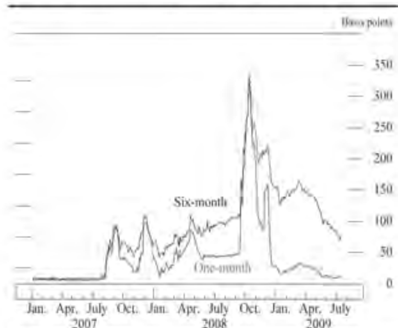
Other financial markets also continued to show signs of stress during the first two months of the year. In the leveraged loan market, bid prices remained

32. Equity price indexes for banks and insurance companies, 2007–09



Note: The data are daily and extend through July 15, 2009.
Source: Standard & Poor's.

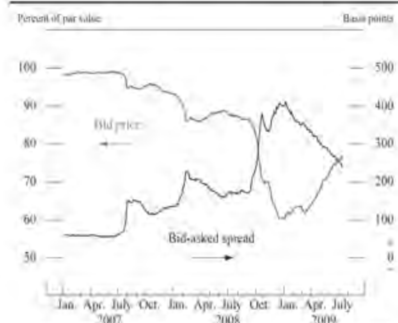
33. Libor minus overnight index swap rate, 2007–09



NOTE: The data are daily and extend through July 15, 2009. An overnight index swap (OIS) is an interest rate swap with the floating rate tied to an index of daily overnight rates, such as the effective federal funds rate. At maturity, two parties 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. Libor is the London interbank offered rate.
SOURCE: For Libor, British Bankers' Association; for the OIS rate, Prebon.

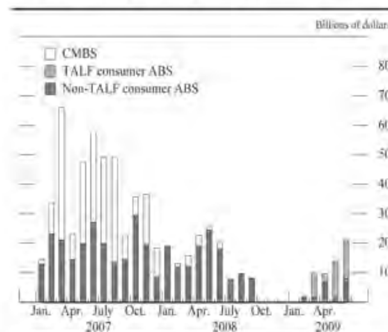
close to historical lows, and issuance—particularly of loans intended for nonbank lenders—dropped to very low levels (figure 34). Issuance of securities backed by credit card loans, nonrevolving consumer loans, and auto loans continued to be minimal in the first few months of the year, and there was no issuance of CMBS in the first half of 2009 (figure 35). An index based on CDS spreads on AAA-rated CMBS widened and neared the peak levels seen in November. Broad equity price indexes continued to fall, and measures of equity price volatility remained very high (figures 36 and 37).

34. Secondary-market pricing for syndicated loans, 2007–09



NOTE: The data are daily and extend through July 15, 2009.
SOURCE: LSTA/Thomson Reuters Mark-to-Market Pricing.

35. Gross issuance of selected commercial mortgage- and asset-backed securities, 2007–09



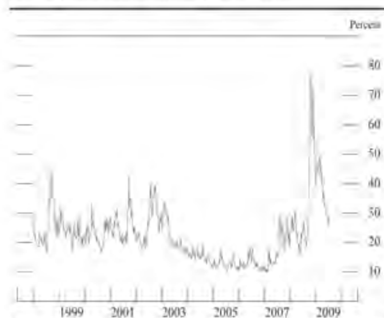
NOTE: CMBS are securities backed by commercial mortgages; consumer ABS (asset-backed securities) are securities backed by credit card loans, nonrevolving consumer loans, and auto loans. Data for consumer ABS show gross issuance facilitated by the Term Asset-Backed Securities Loan Facility (TALF) and such issuance outside the TALF.
SOURCE: For ABS, Bloomberg and the Federal Reserve Bank of New York; for CMBS, Commercial Mortgage Alert.

Nonetheless, a few financial markets showed signs of improvement early in the year. In the CP market, spreads on shorter-maturity A1/P1 nonfinancial and financial CP as well as on asset-backed commercial paper (ABCP) over AA nonfinancial CP declined modestly (figure 38). Although part of the improvement likely reflected greater demand from institutional investors as short-term Treasury yields declined to near zero on occasion, CP markets continued to be supported by the Federal Reserve's Commercial Paper Funding Facility (CPFF). More notably, spreads on shorter-maturity A2/P2 CP, which is not eligible for purchase under the

36. Stock price indexes, 1998–2009

NOTE: The data are daily and extend through July 15, 2009.
SOURCE: Dow Jones Indexes.

37. Implied S&P 500 volatility, 1998–2009



NOTE: The data are weekly and extend through the week ending July 17, 2009. The final observation is an estimate based on data through July 15, 2009. 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.

CPFF, also fell. In the corporate bond market, spreads of yields on BBB-rated and speculative-grade bonds relative to yields on comparable-maturity Treasury securities narrowed in January and February, although they remained at historically high levels (figure 39). Spreads on 10-year Fannie Mae debt and option-adjusted spreads on Fannie Mae mortgage-backed securities over comparable-maturity Treasury securi-

38. Commercial paper, 2007–09

NOTE: The data are weekly and extend through July 15, 2009. Commercial paper yield spreads are for an overnight maturity and are expressed relative to the AA nonfinancial rate. Outstandings are seasonally adjusted.
SOURCE: Depository Trust and Clearing Corporation.

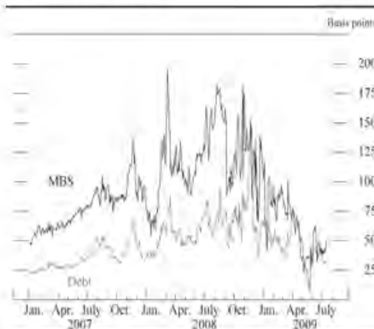
39. Spreads of corporate bond yields over comparable off-the-run Treasury yields, by securities rating, 1998–2009

NOTE: The data are daily and extend through July 15, 2009. 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.

ties dropped early in the year, reflecting, in part, the effects of Federal Reserve purchases of agency debt and agency MBS (figure 40). Interest rates on 30-year fixed rate conforming mortgages also fell.

In an effort to help restore confidence in the strength of U.S. financial institutions and restart the flow of lending to businesses and households, on February 10, the Treasury, the Federal Reserve, the FDIC, the Office of the Comptroller of the Currency, and the Office of Thrift Supervision announced the Financial Stability

40. Spreads on 10-year Fannie Mae debt and option-adjusted spreads on Fannie Mae mortgage-backed securities, 2007–09



NOTE: The data are daily and extend through July 15, 2009. The spreads are over Treasury securities of comparable maturities. MBS are mortgage-backed securities.
SOURCE: For MBS, Bloomberg; for debt, Merrill Lynch and the Federal Reserve Bank of New York.

Plan. The plan included the Capital Assistance Program (CAP), designed to assess the capital needs of depository institutions under a range of economic scenarios and to help increase the amount and strengthen the quality of their capital if necessary; a new Public-Private Investment Program, or PPIP, which would combine public and private capital with government financing to help banks dispose of legacy assets and strengthen their balance sheets, thereby supporting new lending; an expansion of the Federal Reserve's TALF program; and an extension of the senior debt portion of the FDIC's Temporary Liquidity Guarantee Program to October 31, 2009.

The announcement of the plan did not lead to an immediate improvement in financial market conditions. Bank and insurance company equity prices continued to decline, and CDS spreads of such institutions widened to levels above those observed the previous fall. Market participants were reportedly unclear about the methodology that would underlie the assessment of bank capital needs. The timing of the announcement of the results and the likely policy responses from this part of the CAP—formally named the SCAP, but popularly known as the stress test—were also sources of uncertainty. (CAP and SCAP are described in greater detail in the box titled "Capital Assistance Program and Supervisory Capital Assessment Program.") On March 2, American International Group, Inc. (AIG), reported losses of more than $60 billion for the fourth quarter of 2008, and the Treasury and the Federal Reserve announced a restructuring of the government assistance to AIG to enhance the company's capital and liquidity in order to facilitate the orderly completion of its global divestiture program.

On March 3, the Treasury and the Federal Reserve announced the launch of the TALF. In the initial phase of the program, the Federal Reserve offered to provide up to $200 billion of three-year loans on a nonrecourse basis secured by AAA-rated ABS backed by newly and recently originated auto loans, credit card loans, student loans, and loans guaranteed by the Small Business Administration. The Treasury's TARP would purchase $20 billion of subordinated debt in a special purpose vehicle (SPV) created by the Federal Reserve Bank of New York. The SPV would purchase and manage any assets received by the New York Fed in connection with any TALF loans. The demand for TALF funding was initially modest, reportedly on concerns that future changes in government policies could adversely affect TALF borrowers.

Financial markets began to show signs of improvement in early March when a few large banks indicated that they had been profitable in January and February. Sentiment continued to improve after the March 17–18 meeting of the Federal Open Market Committee (FOMC), at which, against a backdrop of weakening economic activity and significant financial market strains, the Committee announced that it would expand its purchases of agency MBS by $750 billion, and of agency debt by $100 billion; in addition, it would also purchase up to $300 billion of longer-term Treasury securities over the next six months. Yields on a wide range of longer-term debt securities dropped substantially within a day of the release of the Committee's statement. First-quarter earnings results preannounced by some large financial institutions were substantially better than expected, although some of the surprise was attributable to greater-than-anticipated effects of revisions in accounting rules.[11] Equity prices of banks and insurance companies rose, and CDS spreads for such institutions narrowed, although to still-elevated levels. Broad stock price indexes also climbed and measures of equity price volatility declined. Libor-OIS spreads began to edge down. Spreads on lower-rated investment-grade and speculative-grade corporate bonds over comparable-maturity Treasury securities also fell, though again to levels that remained high by historical standards. Bid-asked spreads on speculative-grade bonds declined. Similarly, bid-asked spreads narrowed in the leveraged loan market.

Conditions in financial markets continued to improve in the second quarter, aided in part by the emergence of more detail on the SCAP program and the release of its results on May 7. Market participants reportedly viewed the amount of additional capital that banks were required to raise in conjunction with the SCAP as relatively modest. With uncertainty about the SCAP results resolved, and amid the ongoing improvements in financial markets, market participants appeared to mark down the probability of extremely adverse financial market outcomes. Equity prices for many large banks and insurance companies rose even as substantial equity issuance by banks covered by the SCAP program added to supply. The secondary market for leveraged loans also showed improvement, with the average bid price

11. In early April, the Financial Accounting Standards Board issued new guidance related to fair value measurements and other-than-temporary impairments (OTTIs). The new fair value guidance reduces the emphasis to be placed on the "last transaction price" in valuing assets when markets are not active and transactions are likely to be forced or distressed. The new OTTI guidance will require impairment write-downs through earnings only for the credit-related portion of a debt security's fair value impairment when two criteria are met: (1) The institution does not have the intent to sell the debt security, and (2) it is unlikely that the institution will be required to sell the debt security before a forecasted recovery of its cost basis. The two changes have resulted in higher fair value estimates and reductions in impairments, improving institutions' reported first-quarter earnings.

Capital Assistance Program and Supervisory Capital Assessment Program

On February 10, 2009, the Treasury, Federal Reserve, Federal Deposit Insurance Corporation (FDIC), Office of the Comptroller of the Currency, and Office of Thrift Supervision announced a Capital Assistance Program (CAP) to ensure that the largest banking institutions would be appropriately capitalized with high-quality capital. As part of this program, the federal banking supervisors undertook a Supervisory Capital Assessment Program (SCAP) to evaluate the capital needs of the largest U.S. bank holding companies (BHCs) under a more challenging economic environment than generally anticipated. The Treasury and federal banking agencies believe it important for the largest BHCs to have a capital buffer sufficient to withstand losses and allow them to meet the credit needs of their customers if the economy were to weaken more than expected in order to help facilitate a broad and sustainable economic recovery.

The SCAP was initiated on February 25, 2009, and results were released publicly on May 7, 2009. U.S. BHCs with risk-weighted assets of more than $100 billion at the end of 2008 were required to participate. The objective of the exercise was to conduct a comprehensive and consistent assessment simultaneously on the largest BHCs using a common set of alternative macroeconomic scenarios and a common forward-looking conceptual framework. Extensive information was collected on the characteristics of the major loan, securities, and trading portfolios, revenues, and modeling methods of the institutions. With this information, supervisors were able to apply a consistent and systematic approach across firms to estimate losses, revenues, and reserves for 2009 and 2010, and to determine whether firms would need to raise capital to build a buffer to withstand larger-than-expected losses. The SCAP buffer for each BHC was sized to achieve a Tier 1 risk-based ratio of 6 percent and a Tier 1 Common risk-based ratio of 4 percent at the end of 2010 under a more severe macroeconomic scenario than expected.

Supervisors took the unusual step of publicly reporting the findings of the SCAP. The decision to depart from the standard practice of maintaining confidentiality of examination information stemmed from the belief that greater clarity around the SCAP process and findings would make the exercise more effective at reducing uncertainty and restoring confidence in financial institutions.[1]

Results of the SCAP indicated that 10 firms would need to augment their capital or improve the quality of the capital from 2008:Q4 levels; the combined amount totaled $185 billion, nearly all of which is required to meet the target Tier 1 Common risk-based ratio. Between the end of 2008 and the release of the results in May, many firms had already completed or contracted for asset sales or restructured existing capital instruments. After adjusting for these transactions and revenues that exceeded what had been assumed in the SCAP, the combined amount of additional capital needed to establish the buffer was $75 billion. The 10 firms are required to raise the additional capital by November 9, 2009.

Since the release of the results, almost all of the 10 firms that were asked to raise capital buffers issued new common equity in the public markets and raised about $40 billion; they also raised a substantial additional amount of capital by exchanging preferred shares to common shares and selling assets. Firms that do not meet their buffer requirement can issue mandatory convertible shares to the Treasury in an amount up to 2 percent of the institution's risk-weighted assets (or higher on request), as a bridge to private capital. In addition, firms can apply to the Treasury to exchange their existing Capital Purchase Program preferred stock to help meet their buffer requirement. To protect taxpayers, firms will be expected to have issued private capital before or simultaneously with the exchange.

The firms not asked to augment their capital also raised about $20 billion in common equity in May and early June. Most of these firms and others applied for and received approval from their supervisors to repay their outstanding Capital Purchase Program preferred stock. In early June, 10 large BHCs repaid about $68 billion to the Treasury. A number of banks have also been able to issue debt not guaranteed by the FDIC's Temporary Liquidity Guarantee Program.

1. A description of the methodology and a summary of results, including loss rates on major loan categories for each firm, is available at www.federalreserve.gov/bankinforeg/scap.htm.

rising considerably; issuance, however, particularly of institutional loans, remained very weak. Short-term interbank funding markets continued to improve, with Libor-OIS spreads at one-month tenors declining to near pre-crisis levels; spreads at longer tenors also fell but remained very high. Demand for TALF funds increased in May and June, particularly for securities backed by credit card and auto loans. Supported by the TALF, issuance of consumer ABS picked up further in May, and it began to approach pre-crisis levels. Also in May, the Federal Reserve announced that, starting in June, CMBS and securities backed by insurance premium finance loans would be eligible collateral under the TALF. Financial markets abroad also improved during the second quarter, reflecting improved global economic prospects and positive news from the banking sector (see "International Developments" for additional detail).

In early June, the Federal Reserve outlined the criteria it would use to evaluate applications to redeem Treasury capital from participants in the SCAP. On June 17, 10 banking institutions redeemed about $68 billion in Treasury capital. At about the same time, the 10 banking organizations that had been required under the SCAP to bolster their capital buffers all submitted plans that would provide sufficient capital to meet the required buffer under the assessment's more adverse scenario. On June 25, the Federal Reserve announced that while it would extend a number of its liquidity facilities through early 2010, in light of the improvement in financial conditions and reduced usage of some of its facilities, it would trim their size and adjust some of their terms.

Banking Institutions

Profitability of the commercial banking sector, as measured by return on assets and return on equity, recovered somewhat in the first quarter after having posted near-record lows in the fourth quarter of 2008 (figure 41). Profits were concentrated at the largest banks and were driven by a rebound in trading revenue as well as reduced noninterest expense related to smaller write-downs of intangible assets. Smaller banks, in contrast, continued to lose money amid mounting credit losses. Indeed, at the industry level, loan quality deteriorated substantially from the already poor levels recorded late last year, with delinquency rates on credit card loans reaching their highest level on record (back to 1991). Delinquency rates on residential mortgages held by banks soared to 8 percent. Regulatory capital ratios improved in the fourth quarter of

41. Commercial bank profitability, 1988–2009

NOTE: The data are quarterly and extend through 2009:Q1.
SOURCE: Federal Financial Institutions Examination Council, Consolidated Reports of Condition and Income (Call Report).

2008 and the first quarter of 2009 as commercial banks received substantial capital infusions—likely related to funds received by their parent bank holding companies under the Capital Purchase Program—while total assets declined. Despite a decline in loans outstanding, unused commitments to fund loans to both households and businesses shrank at an annual rate of more than 30 percent in the first quarter of 2009 (figure 42).

Commercial bank lending contracted at an annual rate of nearly 7 percent during the first half of 2009, reflecting weak loan demand and tight credit conditions. C&I loans fell at an annual rate of about 14 percent over this period, partly as a result of broad and sustained paydowns of outstanding loans amid weak

42. Change in unused bank loan commitments to businesses and households, 1990–2009

NOTE: The data, which are not seasonally adjusted, are quarterly and extend through 2009:Q1.
SOURCE: Federal Financial Institutions Examination Council, Consolidated Reports of Condition and Income (Call Report).

investment spending by businesses. Some of these paydowns also were likely related to increased issuance of longer-term corporate debt, as nonfinancial firms—especially those rated as investment grade—tapped the corporate bond market. CRE loans ran off steadily, likely a result of continued weakness in that sector. Bank loans to households also fell over the first half of the year, particularly in the spring, as banks reportedly sold or securitized large volumes of residential mortgages and consumer credit card loans. Loan loss reserves reported by large banks increased considerably in the second quarter, suggesting continued deterioration in credit quality and further pressure on earnings.

The Senior Loan Officer Opinion Survey conducted in April 2009 indicated that large fractions of banks continued to tighten standards and terms on loans to businesses and households over the preceding three months. For most loan categories, however, the fractions of banks that reported having done so decreased from the January survey. The majority of respondents to the April survey indicated that they expected the credit quality of their loan portfolios to worsen over the remainder of the year. Demand for most types of loans also reportedly weakened over the survey period, with the noticeable exception of demand from prime borrowers for mortgages to purchase homes—a development that coincided with a temporary rise in applications to refinance home mortgages.

Data from the February and May Surveys of Terms of Business Lending indicated that the spreads of yields on C&I loans over those on comparable-maturity market instruments rose noticeably. The increase in the May survey was partly attributable to a steep increase in spreads on loans made under commitment, as a larger share of loans in the May survey were drawn from commitments arranged after the onset of the financial crisis.

Monetary Policy Expectations and Treasury Rates

The current target range for the federal funds rate, 0 to ¼ percent, is in line with the level that investors expected at the end of 2008. However, over the first half of 2009, investors marked down, on balance, their expectation for the path of the federal funds rate for the remainder of the year. Early in the year, the markdown was attributable to continued concerns about the health of financial institutions, weakness in the real economy, and a moderation in inflation pressures. Later in the period, FOMC communications indicating that the federal funds rate would likely remain low for an extended period reportedly also contributed to the downward revision to policy expectations. In contrast, investors marked up their expectations about the pace with which policy accommodation will be removed in 2010, likely in light of increased optimism about the economic outlook. Futures quotes currently suggest that investors expect the federal funds rate to remain within the current target range for the remainder of this year and then to rise in 2010. However, uncertainty about the size of term premiums and potential distortions created by the zero lower bound for the federal funds rate continue to make it difficult to obtain a definitive reading on the policy expectations of market participants from futures prices. Options prices suggest that investor uncertainty about the future path for policy increased, on balance, during the first half of 2009.

Yields on longer-maturity Treasury securities increased substantially, on net, over the first half of 2009, in response to better-than-expected economic data releases, declines in the weight investors attached to highly adverse economic outcomes, signs of thawing in the credit markets, technical factors related to the hedging of mortgage holdings, and the large increase in the expected supply of such securities (figure 43). The rise in Treasury yields has likely been mitigated somewhat by the implementation of the Federal Reserve's large-scale asset purchases, under which the Federal Reserve is conducting substantial purchases of agency debt, agency MBS, and longer-maturity Treasury securities. On net, yields on 2- and 10-year Treasury notes rose about 50 and 115 basis points, respectively, during the first half of 2009, with the rise concentrated in the second quarter, after having declined about 200 and 140 basis points, respectively, during the second half of 2008.

43. Interest rates on selected Treasury securities, 2004–09

Note: The data are daily and extend through July 15, 2009.
Source: Department of the Treasury.

In contrast to yields on their nominal counterparts, yields on Treasury inflation-protected securities (TIPS) declined over the first half of 2009, which resulted in a noticeable increase in measured inflation compensation—the difference between comparable-maturity nominal yields and TIPS yields. Inferences about inflation expectations from inflation compensation have been difficult to make since the second half of 2008 because yields on nominal and TIPS issues appear to have been affected significantly by movements in liquidity premiums, and because other special factors have buffeted yields on nominal Treasury issues. Some of these special factors have begun to subside in recent months, suggesting that the increase in inflation compensation since year-end is partly due to an improvement in market functioning and other special factors, although near-term inflation expectations may have been boosted by rising energy prices.

Monetary Aggregates and the Federal Reserve's Balance Sheet

The M2 monetary aggregate expanded at an annual rate of 7¼ percent during the first half of 2009, reflecting robust growth in the first quarter and more moderate growth in the second (figure 44).[12] This expansion was due in part to the relatively small difference between market interest rates and the rates offered on M2 assets, as well as an increased desire of households and firms to hold safe and liquid assets because of the financial turmoil. Strong growth in liquid deposits was partially offset by rapid declines in small time deposits and retail money market mutual funds, as yields on the latter two assets dropped relative to rates on liquid deposits. The currency component of the money stock also increased, with a notable rise in the first quarter that appeared to reflect strong demand for U.S. banknotes from both foreign and domestic sources. The monetary base—essentially the sum of currency in the hands of the public and the reserve balances of depository institutions held at the Federal Reserve—continued to expand rapidly in the first quarter of 2009, albeit at a slower pace than in the second half of 2008. The expansion of the monetary base slowed further in the second quarter of 2009, as a decline in amounts outstanding under the Federal Reserve's credit and liquidity programs partially offset the effects on reserve balances of the Federal Reserve's large-scale asset purchases.

44. M2 growth rate, 1991–2009

NOTE: The data extend through 2009:Q1 and are estimated for 2009:Q2. Through 2008, the data are annual on a fourth-quarter over fourth-quarter basis; the final observation refers to 2009:Q2 relative to 2008:Q4 at an annual rate. For definition of M2, see text note 13.

SOURCE: Federal Reserve Board, Statistical Release H.6, "Money Stock Measures."

The nontraditional monetary policy actions employed by the Federal Reserve since the onset of the current episode of financial turmoil have resulted in a considerable expansion of the Federal Reserve's balance sheet (table 1). On December 31, 2007, prior to much of the financial market turmoil, the Federal Reserve's assets totaled nearly $920 billion, the bulk of which was Treasury securities. Its liabilities included nearly $800 billion in Federal Reserve notes (currency in circulation) and about $20 billion in reserve balances held by depository institutions.

By December 31, 2008, after the introduction of several new Federal Reserve policy initiatives, assets had more than doubled to about $2.2 trillion. Holdings of U.S. Treasury securities had declined by nearly one-half. At that point, the majority of Federal Reserve assets consisted of credit extended to depository institutions, other central banks, and primary dealers.[13] The Federal Reserve had extended about $330 billion in funding to the CPFF and was providing more than

12. 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 mutual funds less IRA and Keogh balances at money market mutual funds.

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

1. Selected components of the Federal Reserve balance sheet, 2007–09

Millions of dollars

Balance sheet item	Dec. 31, 2007	Dec. 31, 2008	July 15, 2009
Total assets	**917,922**	**2,240,946**	**2,074,822**
Selected assets			
Credit extended to depository institutions and dealers			
Primary credit	8,620	93,769	34,743
Term auction credit	40,000	450,219	273,691
Central bank liquidity swaps	24,000	553,728	111,641
Primary Dealer Credit Facility and other broker-dealer credit	—	37,404	0
Credit extended to other market participants			
Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility	...	23,765	5,469
Net portfolio holdings of Commercial Paper Funding Facility LLC	...	334,102	111,053
Net portfolio holdings of LLCs funded through the Money Market Investor Funding Facility	—	0	0
Term Asset-Backed Securities Loan Facility	—	—	30,121
Support of critical institutions			
Net portfolio holdings of Maiden Lane LLC, Maiden Lane II LLC, and Maiden Lane III LLC[1]	—	73,925	60,546
Credit extended to American International Group, Inc.	...	38,914	42,871
Securities held outright			
U.S. Treasury securities	740,611	475,921	684,030
Agency debt securities	0	19,708	101,701
Agency mortgage-backed securities (MBS)[2]	—	—	526,418
MEMO			
Term Securities Lending Facility[3]	...	171,600	4,250
Total liabilities	**881,023**	**2,198,794**	**2,025,348**
Selected liabilities			
Federal Reserve notes in circulation	791,691	853,168	870,327
Reserve balances of depository institutions	20,767	860,000	808,824
U.S. Treasury, general account	16,120	106,123	65,234
U.S. Treasury, supplemental financing account	...	259,325	199,939
Total capital	**36,899**	**42,152**	**49,474**

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 multi-sector 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.

3. The Federal Reserve retains ownership of securities lent through the Term Securities Lending Facility.

... Not applicable.

SOURCE: Federal Reserve Board.

$100 billion in support of certain critical institutions. The growth in assets was largely funded by an increase in reserve balances, which, at $860 billion, slightly exceeded currency in circulation.

Over the first half of this year, total Federal Reserve assets decreased slightly, on net, to about $2.1 trillion, though there were large changes in the composition of those assets. Holdings of Treasury securities increased to nearly $685 billion, and holdings of agency debt and MBS rose to more than $625 billion as a result of large-scale asset purchases. Credit extended to depository institutions, primary dealers, and other market participants fell as market functioning improved. The decline importantly reflected a decrease in foreign central banks' draws on dollar liquidity swap lines and a runoff in credit extended through the CPFF and the Term Auction Facility (TAF). The amount of credit extended in support of certain critical institutions remained about unchanged. On the liability side, reserve balances fell somewhat, while currency in circulation rose.

International Developments

International Financial Markets

During most of the first quarter of 2009, fears that global economic activity would spiral further downward led to a sharp selloff in foreign equity markets and to rising spreads on foreign corporate debt. Stock indexes in Europe and Japan fell about 20 percent, and European bank shares fell more than 40 percent in response to weak earnings reports and rising fears about the exposure of many Western European banks to emerging Europe. Interbank funding markets were supported by government guarantees of bank debt and other policies put in place during 2008 to aid wholesale funding. These markets remained more stressed than before the financial crisis, but their functioning continued to gradually improve from the serious disarray that occurred last fall.

Rapidly easing monetary policies in many foreign economies, along with further safe-haven flows into Treasury securities, fueled continued dollar appreciation over the first two months of the year. The Federal Reserve's broadest measure of the nominal trade-weighted foreign exchange value of the dollar rose more than 6 percent during January and February (figure 45). However, beginning in March, the dollar depreciated as the global outlook improved a bit and investors accordingly shifted away from Treasury securities to riskier assets abroad, reversing the pattern observed in the fourth quarter of 2008. During the spring, the dollar fell most sharply against currencies of major commodity-producing economies such as Australia and Canada, as the improvement in the global outlook also boosted commodity prices (figure 46). On net, the Federal Reserve's broad measure of the nominal exchange value of the dollar is about 2 percent lower than it was

45. U.S. dollar nominal exchange rate, broad index, 2005–09

NOTE: The data, which are in foreign currency units per dollar, are daily. The last observation for the series is July 15, 2009. 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.

at the start of the year but remains well above its mid-2008 lows.

Stock markets around the world rebounded in the second quarter along with prospects for global growth (figure 47). Financial stocks led this rise in the advanced foreign economies as some large banks reported strong earnings growth, which benefited from the low interest rate environment. On net, headline European stock indexes are now about where they were at the start of the year. Equity prices in the emerging market economies, which were helped both by the improved outlook and by an increased willingness on the part of investors to hold riskier assets, are now 20 to 75 percent higher than at the start of the year (figure 48).

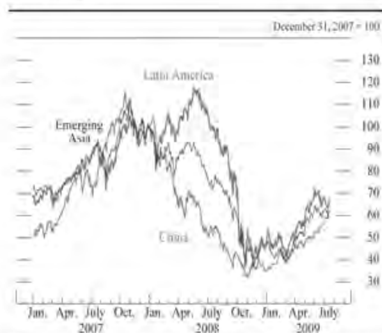
46. U.S. dollar exchange rate against selected major currencies, 2007–09

NOTE: The data, which are in foreign currency units per dollar, are daily. The last observation for each series is July 15, 2009.
SOURCE: Federal Reserve Board, Statistical Release H.10, "Foreign Exchange Rates."

47. Equity indexes in selected advanced foreign economies, 2007–09

NOTE: The data are daily. The last observation for each series is July 15, 2009. Because the Tokyo Exchange was closed on December 31, 2007, the Japan index is scaled so that the December 28, 2007, closing value equals 100.
SOURCE: For euro area, Dow Jones Euro STOXX Index; for Canada, Toronto Stock Exchange 300 Composite Index; for Japan, Tokyo Stock Exchange (TOPIX); and for the United Kingdom, London Stock Exchange (FTSE 350), as reported by Bloomberg.

48. Equity indexes in selected emerging market economies, 2007–09

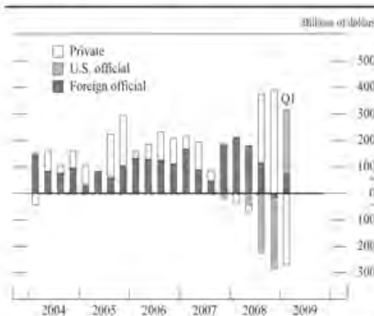


NOTE: The data are daily. The last observation for each series is July 15, 2009. Because the Shanghai Stock Exchange was closed on December 31, 2007, the China index is scaled so that the December 28, 2007, closing value equals 100. The Latin American economies are Argentina, Brazil, Chile, Colombia, Mexico, and Peru. The emerging Asian economies are China, India, Indonesia, Malaysia, Pakistan, the Philippines, South Korea, Taiwan, and Thailand.
SOURCE: For Latin America and emerging Asia, Morgan Stanley Capital International (MSCI) index; for China, Shanghai Composite Index, as reported by Bloomberg.

49. Yields on benchmark government bonds in selected advanced foreign economies, 2007–09

NOTE: The data, which are for 10-year bonds, are daily. The last observation for each series is July 15, 2009.
SOURCE: Bloomberg.

50. U.S. net financial inflows, 2004–09



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

The decisions of several foreign central banks to engage in nontraditional monetary policies appeared to have some effect on longer-term interest rates (figure 49). Yields on long-term British gilts fell 60 basis points around the March 5 announcement by the Bank of England that it would begin purchasing government securities, and yields on European covered bonds fell nearly 30 basis points over the week following the May 7 announcement by the European Central Bank (ECB) that it would purchase covered bonds. However, as the economic outlook improved some in the second quarter, and amid concerns about mounting fiscal deficits and debts, yields on nominal benchmark bonds rose. On balance, nominal benchmark bond yields in major foreign countries are higher than at the start of the year, even as yields on inflation-protected bonds have fallen.

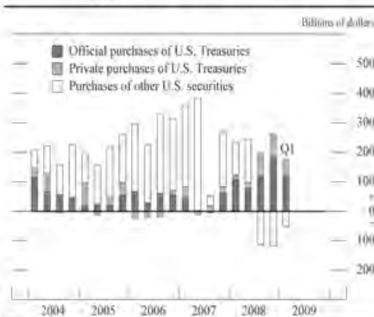
The Financial Account

The pattern of financial flows between the United States and the rest of the world was strongly affected by the intensification of financial turmoil in the fall of 2008 and, more recently, by the easing of strains in financial markets (figure 50). In the second half of 2008, U.S. investors withdrew to some extent from foreign securities, and foreigners slowed their purchases of U.S. assets. At the same time, foreigners noticeably shifted their purchases away from U.S. corporate and agency securities and toward safer U.S. Treasury securities (figure 51). For 2008 as a whole, the size of the purchases of U.S. Treasury securities by foreigners was unprecedented, nearly doubling the previous record.

The pattern of flows has normalized somewhat this year. The pace of private foreign net Treasury purchases slowed in the first quarter, and in April flows turned to net sales, primarily of short-term Treasury securities, signaling some reversal of the flight to safety. Foreign demand for most other U.S. securities, however, remained extremely weak throughout the first part of 2009. Foreigners continued to sell U.S. corporate and agency securities through April, although they did show renewed interest in U.S. corporate stocks in March, April, and particularly May.

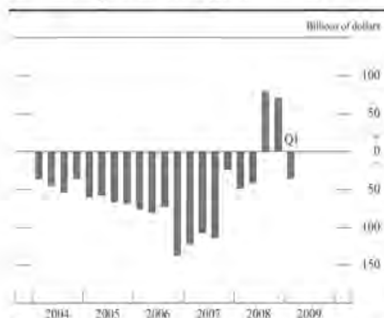
Foreign official institutions resumed strong net purchases of U.S. assets in the first several months of 2009, although acquisitions remained centered on U.S.

51. Net foreign purchases of U.S. securities, 2004–09



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

52. Net U.S. purchases of foreign securities, 2004–09



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.

Treasury securities. This development followed net sales in the fourth quarter of 2008 as some countries sold reserves to support their currencies; although foreign official institutions made large net purchases of Treasury securities, they sold larger amounts of other U.S. assets. Foreign official acquisitions of Treasury securities were concentrated in short-term bills for some months during the winter, but official acquisitions of long-term notes and bonds have been similar to those of bills over the period since February.

Resumption of portfolio investment abroad by U.S. investors in 2009 also pointed to reduced risk aversion in financial markets. Following unprecedented net inflows in this category in 2008 resulting from U.S. residents bringing home their foreign investments, outflows resumed in early 2009 as U.S. investors returned to net purchases of foreign securities (figure 52). Finally, starting this year, improvements in the tone of interbank funding markets led to a resumption of net lending abroad by U.S. banks after a sharp contraction of lending in the fourth quarter. As private sources of dollar liquidity reemerged, foreign banks were able to repay the loans they had received from their central banks. These foreign central banks, in turn, reduced the outstanding amounts of U.S. dollars drawn on swap lines from the Federal Reserve.

Advanced Foreign Economies

The contraction of economic activity in the major advanced foreign economies deepened in the first quarter, as financial turbulence, shrinking world trade, adverse wealth effects, and eroding business and consumer confidence continued to weigh on activity. GDP fell particularly sharply in Germany and Japan, which were hit hard by a contraction in manufacturing exports. Domestic demand plummeted across the advanced foreign economies, with double-digit declines in investment spending and sizable negative contributions of inventories to economic growth. Housing markets also continued to weaken in the first quarter, with prices and building activity declining. By the second quarter, however, monthly indicators of economic activity in these economies began to show some moderation in the pace of contraction. Purchasing managers indexes and surveys of business confidence rebounded in the second quarter from the exceptionally low levels reached in the first quarter, while industrial production stabilized somewhat.

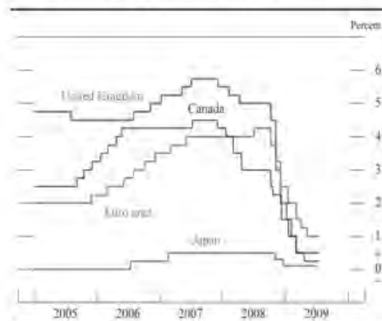
Twelve-month consumer price inflation continued to decline during the first half of the year, driven down by the fall in oil and other commodity prices since mid-2008 and the significant increase in economic slack (figure 53). Headline inflation fell to near or below zero in all major economies except the United Kingdom, where the depreciation of the pound late last year contributed to keeping inflation around 2 percent. Excluding food and energy prices, the slowing in consumer prices in these economies was more limited.

Foreign central banks responded to worsening economic conditions and reduced inflation by aggressively cutting policy rates and, in some cases, initiating unconventional monetary easing. The ECB and Bank of England each reduced its key policy rate 150 basis points over the first half of 2009, while the Bank of Canada

53. Change in consumer prices for major foreign economies, 2005–09

NOTE: The data are monthly, and the percent change is from one year earlier. The data extend through June 2009 for the euro area and the United Kingdom and May 2009 for Japan and Canada.
SOURCE: Haver Analytics.

54. Official or targeted interest rates in selected advanced foreign economies, 2005–09



NOTE: The data are daily and extend through July 15, 2009. The data shown are, for Canada, the overnight rate; for the euro area, the minimum bid rate on main refinancing operations; for Japan, the call money rate; and, for the United Kingdom, the official bank rate paid on commercial reserves.
SOURCE: The central bank of each area or country shown.

lowered its rate 125 basis points (figure 54). The Bank of Japan, which had already cut the overnight uncollateralized call rate to 10 basis points, kept rates at that minimal level. As policy rates fell to very low levels, central banks implemented nontraditional policies to provide further support to activity. The Bank of England established an Asset Purchase Facility to purchase up to £125 billion in government and corporate debt; the Bank of Japan announced that it would increase its purchase of Japanese government bonds, including longer-term bonds, and would purchase commercial paper outright; and the ECB announced plans to purchase as much as €60 billion in covered bonds over the next year and conducted its first one-year financing operations on June 24, allocating €442 billion.

Emerging Market Economies

The global financial crisis took its toll on the emerging market economies as well. After falling steeply in the fourth quarter, economic activity contracted sharply again in the first quarter. However, recent data on business sentiment, production, and retail sales suggest that economic activity may be starting to recover.

Among the larger developing economies, only China and India have maintained positive growth during the global slowdown. Chinese growth was supported in the first quarter and boosted significantly further in the second quarter by a large fiscal stimulus package, which focused on infrastructure investment, and by an enormous jump in credit growth. India's economy also was supported by fiscal stimulus and was relatively insulated from the negative global shock because it is less open. Elsewhere in emerging Asia, the economies of Hong Kong, Malaysia, Singapore, South Korea, Taiwan, and Thailand all contracted at double-digit annual rates in at least one quarter, in line with their deep trade and financial linkages with the global economy. More recently, however, indicators such as industrial production have turned up in some of these countries. In addition, exports, although they remain weak, have edged higher in some countries, partly because of stimulus-driven demand from China.

Economic activity in Mexico contracted sharply late last year and again in the first quarter, owing largely to Mexico's strong ties to the United States. The outbreak of the H1N1 virus was a significant drag on Mexican economic activity in the second quarter. In addition, the economies of Mexico and some other Latin American countries continued to be negatively affected by the sharp fall in commodity prices in the second half of last year. However, as in Asia, industrial production in several Latin American countries has recently turned higher. In Brazil, the automobile sector, which has received government support, appears to have led a rebound in output.

Several countries in emerging Europe continued to experience intense financial stress and sharp economic contractions in the first quarter, with activity declining at an especially precipitous rate in Latvia. The region has faced external financing difficulties as a result of large external imbalances and high dependence on foreign capital flows. Hungary, Latvia, Romania, and Ukraine are among the countries that have received official assistance from the International Monetary Fund.

As the global economy has slowed, inflation in emerging market economies has diminished. Inflation in emerging Asia has decreased significantly, especially in China where consumer prices in June were below their year-earlier levels. Reduced price pressures and weak economic growth prompted significant monetary easing in several Asian emerging market economies. Inflation in Latin America has fallen less sharply. Notably, Mexican inflation remains near its recent high, due in part to pass-through from the peso's depreciation earlier this year. In these circumstances, monetary easing has taken place in Latin America, but nominal interest rates remain somewhat higher than in Asia. Many emerging market economies have undertaken fiscal stimulus this year, although the degree has varied and all stimulus packages have been smaller than that in China.

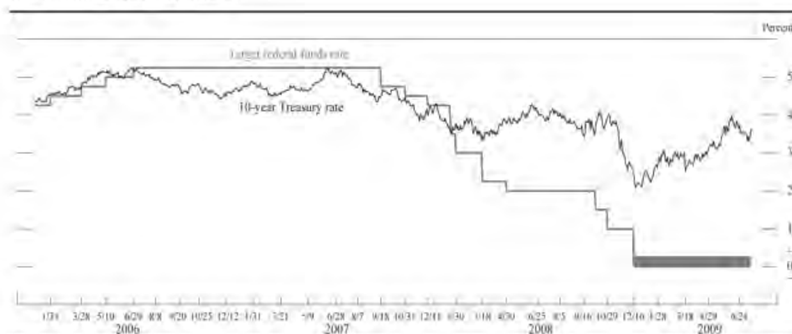
Part 3
Monetary Policy: Recent Developments and Outlook

Monetary Policy over the First Half of 2009

Over the second half of 2008, the Federal Open Market Committee (FOMC) eased the stance of monetary policy by decreasing its target for the federal funds rate from 2 percent to a range between 0 and ¼ percent and took a number of additional actions to increase liquidity and improve the functioning of financial markets (figure 55). During the first half of 2009, the FOMC maintained its target range for the federal funds rate of 0 to ¼ percent, and it extended and modified the nontraditional policy actions taken previously.

The data reviewed at the January 27–28 FOMC meeting indicated a continued sharp contraction in economic activity. The housing market remained on a steep downward trajectory, consumer spending continued its significant decline, the slowdown in business equipment investment intensified, and foreign demand had weakened. Conditions in the labor market had continued to deteriorate rapidly, and the drop in industrial production had accelerated. Headline consumer prices fell in November and December, reflecting declines in consumer energy prices; core consumer prices were about flat in those months. Although credit conditions generally had remained tight, some financial markets—particularly those that were receiving support from Federal Reserve liquidity facilities and other government actions—exhibited modest signs of improvement. Meeting participants—Federal Reserve Board governors and Federal Reserve Bank presidents—anticipated that a gradual recovery in U.S. economic activity would begin in the second half of the year in response to monetary easing, additional fiscal stimulus, relatively low energy prices, and continued efforts by the government to stabilize the financial sector and increase the availability of credit. Committee members agreed that keeping the target range for the federal funds rate at 0 to ¼ percent would be appropriate. In its January statement, the FOMC reiterated that the Federal Reserve would use all available tools to promote the resumption of sustainable economic growth and to preserve price stability. The Committee also stated that, in addition to the purchases of agency debt and mortgage-backed securities (MBS) already under way, it was prepared to purchase longer-term Treasury securities if evolving circumstances indicated that such transactions

55. Selected interest rates, 2006–09



NOTE: The data are daily and extend through July 15, 2009. 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.

would be particularly effective in improving conditions in private credit markets. The Committee indicated that it would continue to monitor carefully the size and composition of the Federal Reserve's balance sheet in light of evolving financial market developments. It would also continue to assess whether expansions of, or modifications to, lending facilities would serve to further support credit markets and economic activity and help preserve price stability.

On February 7, 2009, the Committee met by conference call in a joint session with the Board of Governors to discuss the potential role of the Federal Reserve in the Treasury's forthcoming Financial Stability Plan. The Federal Reserve's primary direct role in the plan would be through an expansion of the previously announced Term Asset-Backed Securities Loan Facility (TALF), which would be supported by additional funds from the Treasury's Troubled Asset Relief Program (TARP). It was anticipated that such an expansion would provide additional assistance to financial markets and institutions in meeting the credit needs of households and businesses and thus would support overall economic activity.

At the March FOMC meeting, nearly all participants indicated that economic conditions had deteriorated relative to their expectations at the time of the January meeting. Economic activity continued to fall sharply, with widespread declines in payroll employment and industrial production. Consumer spending had remained flat at a low level, the housing market weakened further, and nonresidential construction fell. Business spending on equipment and software had continued to decline across a broad range of categories. Despite the cutbacks in production, inventory overhangs appeared to have worsened in a number of areas. Of particular note was the sharp fall in foreign economic activity, which was having a negative effect on U.S. exports. Both headline and core consumer prices had edged up in January and February. Credit conditions remained very tight, and financial markets continued to be fragile and unsettled, with pressures on financial institutions generally having intensified over the past few months. Overall, participants expressed concern about downside risks to an outlook for activity that was already weak. Nonetheless, looking beyond the very near term, participants saw a number of market forces and policies then in place as eventually leading to economic recovery. Notably, the low level of mortgage interest rates, reduced house prices, and the Administration's new programs to encourage mortgage refinancing and mitigate foreclosures ultimately could bring about a lower cost of homeownership, a sustained increase in home sales, and a stabilization of house prices.

In light of the deterioration in the economic situation and outlook, Committee members agreed that substantial additional purchases of longer-term assets would be appropriate. In its March statement, the Committee announced that, to provide greater support to mortgage lending and housing markets, it would increase the size of the Federal Reserve's balance sheet further by purchasing up to an additional $750 billion of agency MBS, bringing its total purchases of these securities to up to $1.25 trillion in 2009, and that it would increase its purchases of agency debt this year by up to $100 billion to a total of up to $200 billion. Moreover, to help improve conditions in private credit markets, the Committee decided to purchase up to $300 billion of longer-term Treasury securities over the next six months. The Committee decided to maintain the target range for the federal funds rate at 0 to ¼ percent and noted in its March statement that it anticipated that economic conditions were likely to warrant exceptionally low levels of the federal funds rate for an extended period. The Committee also noted that the Federal Reserve had launched the TALF to facilitate the extension of credit to households and small businesses, and it anticipated that the range of eligible collateral for this facility was likely to be expanded to include other financial assets. The Committee stated that it would continue to carefully monitor the size and composition of the Federal Reserve's balance sheet in light of evolving financial and economic developments.

On March 23, the Federal Reserve and the Treasury issued a joint statement on the role of the Federal Reserve in preserving financial and monetary stability. In the statement, the Federal Reserve and the Treasury agreed to continue to cooperate on measures to improve the stability and functioning of the financial system while minimizing the associated credit risk to the Federal Reserve and preserving the ability of the Federal Reserve to achieve its monetary policy objectives. The two government entities also agreed to work together with the Congress on a comprehensive resolution regime for systemically important financial institutions, and the Treasury promised to remove the emergency loans for systemically important institutions from the Federal Reserve's balance sheet over time to the extent its authorities permit.

At the FOMC meeting on April 28 and 29, participants noted that the pace of decline in some components of final demand appeared to have slowed. Consumer spending firmed in the first quarter after dropping markedly during the second half of 2008. Housing activity remained depressed but seemed to have leveled off in February and March. In contrast, businesses had cut production and employment substantially in

recent months—reflecting, in part, inventory overhangs that had persisted into the early part of the year—and fixed investment continued to contract. Headline and core consumer prices rose at a moderate pace over the first three months of the year. Participants noted that financial market conditions had generally strengthened, and surveys and anecdotal reports pointed to a pickup in household and business confidence, which nonetheless remained at very low levels. Yields on Treasury and agency securities had fallen after the release of the March FOMC statement, which noted the increase in planned purchases of longer-term securities. However, this initial drop was subsequently reversed amid the improved economic outlook, an easing of concerns about financial institutions, and perhaps some unwinding of flight-to-quality flows. Participants anticipated that the acceleration in final demand and economic activity over the next few quarters would be modest, with growth of consumption expenditures likely to be restrained and business investment spending probably shrinking further. Looking further ahead, participants considered a number of factors that would be likely to restrain the pace of economic recovery over the medium term. Strains in credit markets were expected to recede only gradually as financial institutions continued to rebuild their capital and remained cautious in their approach to asset-liability management, especially given that the outlook for credit performance would probably remain weak. Households would likely continue to be cautious, and their desired saving rates would be relatively high over the extended period that would be required to bring their wealth back up to more normal levels relative to income. The stimulus from fiscal policy was expected to diminish over time as the government budget moved to a sustainable path. Demand for U.S. exports would also take time to revive, reflecting the gradual recovery of economic activity in our major trading partners.

Against this backdrop, the FOMC indicated that it would maintain the target range for the federal funds rate at 0 to ¼ percent and anticipated that economic conditions would be likely to warrant exceptionally low levels of the federal funds rate for an extended period. The Committee reiterated that, to provide support to mortgage lending and housing markets and to improve overall conditions in private credit markets, the Federal Reserve would purchase a total of up to $1.25 trillion of agency MBS and up to $200 billion of agency debt by the end of the year. In addition, the Federal Reserve would buy up to $300 billion of Treasury securities by autumn. The Committee would continue to evaluate the timing and overall amounts of its purchases of securities in light of the evolving economic outlook and conditions in financial markets. The Federal Reserve was facilitating the extension of credit to households and businesses and supporting the functioning of financial markets through a range of liquidity programs. The Committee indicated that it would continue to carefully monitor the size and composition of the Federal Reserve's balance sheet in light of financial and economic developments.

The information reviewed at the June 23–24 FOMC meeting suggested that the economy remained weak, though declines in activity seemed to be lessening. Consumer spending appeared to have stabilized, sales and starts of new homes flattened out, and the recent declines in capital spending did not look as severe as those that had occurred around the turn of the year. At the same time, labor markets and industrial production continued to deteriorate sharply. Apart from a tax-induced jump in tobacco prices, consumer price inflation was fairly quiescent in recent months, although an upturn in energy prices appeared likely to boost headline inflation in June. Conditions and sentiment in financial markets had continued to show signs of improvement since the last meeting. The results of the Supervisory Capital Assessment Program (SCAP) were positively received by financial markets, credit default swap spreads of banking organizations declined considerably, and the institutions involved in the SCAP were subsequently able to issue significant amounts of public equity and nonguaranteed debt. The functioning of short-term funding markets improved, broad stock price indexes increased, and spreads on corporate bonds continued to narrow. Nominal Treasury yields climbed steeply, reflecting investors' perceptions of an improved economic outlook, a reversal of flight-to-quality flows, and technical factors related to the hedging of mortgage holdings.

In its June statement, the FOMC reiterated that it would employ all available tools to promote economic recovery and preserve price stability. It noted that it would maintain its target range for the federal funds rate at 0 to ¼ percent and continued to anticipate that economic conditions would likely warrant exceptionally low levels of the federal funds rate for an extended period. The FOMC indicated that, as it had previously announced, to provide support to mortgage lending and housing markets and to improve overall conditions in private credit markets, the Federal Reserve would purchase a total of up to $1.25 trillion of agency MBS and up to $200 billion of agency debt by the end of the year. In addition, the Federal Reserve would buy up to $300 billion of Treasury securities by autumn. The Committee noted that it would continue to evaluate the timing and overall amounts of its purchases of securities in

light of the evolving economic outlook and conditions in financial markets. The FOMC also stated that the Federal Reserve was monitoring the size and composition of its balance sheet and would make adjustments to its credit and liquidity programs as warranted.

Conditions in financial markets had improved notably by the end of June, although market functioning in many areas remained impaired and seemed likely to remain strained for some time. Usage of some of the Federal Reserve's liquidity programs had also decreased in recent months. Against this backdrop, on June 25, the Federal Reserve announced extensions of and modifications to a number of its liquidity programs (see table 2 for a summary of the changes).[14] The Federal Reserve noted that the Board and the FOMC would continue to monitor closely the condition of financial markets and the need for and effectiveness of the Federal Reserve's special liquidity facilities and arrangements. Should the recent improvements in market conditions continue, the Board and the FOMC anticipated that a number of the facilities might not need to be extended beyond February 1, 2010. However, if financial stresses did not moderate as expected, the Board and the FOMC were prepared to extend the terms of some or all of the facilities as needed to promote financial stability and economic growth. The public would receive timely notice of planned extensions, discontinuations, or modifications of Federal Reserve programs. The next section of this report, "Monetary Policy as the Economy Recovers," has further discussion related to the evolution of these programs.

Over the first half of the year, the Federal Reserve also undertook a number of initiatives to improve communications about its policy actions. These initiatives are described more fully in the box titled "Federal Reserve Initiatives to Increase Transparency."

Monetary Policy as the Economy Recovers

At present, the focus of monetary policy is on stimulating economic activity in order to limit the degree to which the economy falls short of full employment and to prevent a sustained decline in inflation below levels consistent with the Federal Reserve's legislated objectives. Economic conditions are likely to warrant accommodative monetary policy for an extended period. At some point, however, economic recovery will take hold, labor market conditions will improve, and the downward pressures on inflation will diminish. When this process has advanced sufficiently, the stance of policy will need to be tightened to prevent inflation from rising above levels consistent with price stability and to keep economic activity near its maximum sustainable level. The FOMC is confident that it has the necessary tools to withdraw policy accommodation, when such action becomes appropriate, in a smooth and timely manner.

Monetary policy actions taken over the past year have led to a considerable increase in the assets held by the Federal Reserve. This increase in assets reflects both the expansion of Federal Reserve liquidity facilities and the purchases of longer-term securities. On the margin, the extension of credit and acquisition of assets

14. For more details, see Board of Governors of the Federal Reserve System (2009), "Federal Reserve Announces Extensions of and Modifications to a Number of Its Liquidity Programs," press release, June 25, www.federalreserve.gov/newsevents/press/monetary/20090625a.htm.

2. Extensions and modifications of Federal Reserve liquidity programs

Liquidity program	Extension	Modification
Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF)	Extended to February 1, 2010	Money market mutual funds have to experience material outflows before being able to sell asset-backed commercial paper that would be eligible collateral for AMLF loans.
Central bank swap lines	Extended to February 1, 2010	...
Commercial Paper Funding Facility	Extended to February 1, 2010	...
Money Market Investor Funding Facility	Expiration date remains at October 30, 2009	...
Primary Dealer Credit Facility	Extended to February 1, 2010	...
Term Asset-Backed Securities Loan Facility	Expiration date remains at December 31, 2009	...
Term Auction Facility	No fixed expiration date	Auction amounts reduced initially to $125 billion.
Term Securities Lending Facility	Extended to February 1, 2010	Auctions backed by Schedule 1 collateral suspended effective July 1, 2009. Auctions backed by Schedule 2 collateral now conducted every four weeks. Total amount offered reduced initially to $75 billion.

... Not applicable.
Source: Federal Reserve Board.

Federal Reserve Initiatives to Increase Transparency

The Federal Reserve took a number of nontraditional policy actions during the current episode of financial turmoil. In late 2008, Chairman Bernanke asked Vice Chairman Kohn to lead a review of how Federal Reserve disclosure policies should be adapted to make more information about these programs available to the public and to the Congress. A guiding principle of the review was that the Federal Reserve would seek to provide to the public as much information and analysis as possible, consistent with its objectives of promoting maximum employment and price stability. The Federal Reserve subsequently created a separate section of its website devoted to providing data, explanations, and analyses of its lending programs and balance sheet.[1] Postings in the first half of 2009 included additional explanatory material and details about a number of Federal Reserve credit and liquidity programs, the annual financial statements of the 12 Federal Reserve Banks, the Board of Governors, and the limited liability companies (LLCs) created in 2008 to avert the disorderly failures of The Bear Stearns Companies, Inc., and American International Group, Inc., as well as the most recent reports to the Congress on the Federal Reserve's emergency lending programs.

On June 10, the Federal Reserve issued the first of a series of monthly reports to provide more information on its credit and liquidity programs.[2] For many of those programs, the new information provided in the report includes the number of borrowers and the amounts borrowed by type of institution, collateral by type and credit rating, and data on the concentration of borrowing. The report also includes information on liquidity swap usage by country, quarterly income earned on different classes of Federal Reserve assets, and asset distribution and other information on the LLCs. In addition, the report summarizes and discusses recent developments across a number of Federal Reserve programs. In addition to the new report, the Federal Reserve Bank of New York recently made available the investment management agreements related to its financial stability and liquidity activities.[3]

1. This section of the Board's website is available at www.federalreserve.gov/monetarypolicy/bst.htm.

2. See Board of Governors of the Federal Reserve System (2009), ***Federal Reserve System Monthly Report on Credit and Liquidity Programs and the Balance Sheet*** (Washington: Board of Governors, July), www.federalreserve.gov/files/monthlyclbsreport200907.pdf.

3. Federal Reserve Bank of New York (2009), "Vendor Information," www.newyorkfed.org/aboutthefed/vendor_information.html.

by the Federal Reserve has been funded by crediting the reserve accounts of depository institutions (henceforth referred to as banks). Thus, the increase in Federal Reserve assets has been associated with substantial growth in banks' reserve balances, leaving the level of reserves far above that typically observed when short-term interest rates were significantly greater than zero.

To some extent, a contraction in the stock of reserve balances will occur automatically as financial conditions improve. In particular, most of the liquidity facilities deployed by the Federal Reserve in the current period of financial turmoil are priced at a premium over normal interest rate spreads or have a minimum bid rate that is high enough to make them unattractive under normal market conditions. Thus, the sizes of these programs, as well as the stock of reserve balances they create, will tend to diminish automatically as financial strains abate. Indeed, as noted elsewhere in this report, total credit extended to banks and other market participants (excluding support of critical institutions) declined from about $1.5 trillion as of December 31, 2008, to less than $600 billion as of July 15, 2009, as financial conditions improved. In addition, redemptions of the Federal Reserve's holdings of agency debt, agency MBS, and longer-term Treasury securities are expected to occur at a rate of $100 billion to $200 billion per year over the next few years, leading to further reductions in reserve balances.

But even after lending facilities have wound down and holdings of long-term assets have begun to run off, the volume of assets on the Federal Reserve's balance sheet may remain very large for some time. Without additional actions, the level of bank reserves would continue to remain elevated as well.

Despite continued large holdings of assets, the Federal Reserve will have at its disposal two broad means of tightening monetary policy at the appropriate time. In principle, either of these methods would suffice to raise short-term interest rates; however, to ensure effectiveness, the two methods will most likely be used in combination.

The first method for tightening monetary policy relies on the authority that the Congress granted to the Federal Reserve last fall to pay interest on the balances maintained by banks. By raising the rate it pays on banks' reserve balances, the Federal Reserve will be able to tighten monetary policy by inducing increases in the federal funds rate and other short-term market interest rates. In general, banks will not supply funds to the money market at an interest rate lower than the rate they can earn risk free at the Federal Reserve. Moreover, they should compete to borrow any funds that are offered in the market at rates below the rate of interest paid by the Federal Reserve, as such borrowing allows them to earn a spread without any risk. Thus, raising the interest rate paid on balances that banks hold at the Federal Reserve should provide a powerful upward influence on short-term market interest rates, including the federal funds rate, without the need to drain reserve balances. A number of foreign central banks have been able to maintain overnight interbank interest rates at or above the level of interest paid on bank reserves even in the presence of unusually high levels of reserve balances (see the box titled "Foreign Experience with Interest on Reserves").

Despite this logic, the federal funds rate has been somewhat lower than the rate of interest banks earn on reserve balances; the gap was especially noticeable in October and November 2008, when payment of interest on reserves first began. This gap appears to have reflected several factors: First, the Federal Reserve is not allowed to pay interest on balances held by nondepository institutions, including some large lenders in the federal funds market such as the government-sponsored enterprises (GSEs). Such institutions may have an incentive to lend at rates below the rate that banks receive on reserve balances. Second, the payment of interest on reserves was a new policy at the time that the gap was particularly noticeable, and banks may not have had time to adjust their operations to the new regime. Third, the unusually strained conditions in financial markets at that time may have reduced the willingness of banks to arbitrage by borrowing in the federal funds market at rates below the rate paid on reserve balances and earning a higher rate by increasing their deposits at the Federal Reserve. The latter two factors are not likely to persist, particularly as the economy and financial markets recover. Moreover, if, as the economy recovers, large-scale lending in the federal funds market by nondepository institutions threatens to hold the federal funds rate below its target, the Federal Reserve has various options to deal with the problem. For example, it could offer these institutions the option of investing in reverse repurchase agreements. Under these transactions, the Federal Reserve sells securities from its portfolio, thereby removing funds from the market, and agrees to buy back the securities at a later date.[15] Eliminating the incentive of nondepository institutions to lend their excess funds into short-term money markets would help ensure that raising the rate of interest paid on reserves would raise the federal funds rate and tighten monetary conditions even if the level of reserve balances were to remain high.

The second method for tightening monetary policy, despite a high level of assets on the Federal Reserve's balance sheet, is to take steps to reduce the overall level of reserve balances. Policymakers have several options for reducing the level of reserve balances should such action be desired. First, the Federal Reserve could engage in large-scale reverse repurchase agreements with financial market participants, including the GSEs as well as other institutions. Reverse repurchase agreements are a traditional tool of Federal Reserve monetary policy implementation. Second, the Treasury could sell more bills and deposit the proceeds with the Federal Reserve. The Treasury has been conducting such operations since last fall; the resulting deposits are reported on the Federal Reserve balance sheet as the Supplementary Financing Account. One limitation on this option is that the associated Treasury debt is subject to the statutory debt ceiling. Also, to preserve monetary policy independence, the Federal Reserve must ensure that it can achieve its policy objectives without reliance on the Treasury if necessary. A third option is for the Federal Reserve to offer banks the opportunity to hold some of their balances as term deposits. Such deposits would pay interest but would not have the liquidity and transactions features of reserve balances. Term deposits could not be counted toward reserve requirements, nor could they be used to avoid overnight overdraft penalties in reserve accounts.[16] Each of these three policy options would allow a tightening of monetary policy by draining reserve balances and raising short-term interest rates. As noted earlier, measures to drain reserves will likely be used in conjunction with increases in the interest rate paid on reserves to tighten conditions in short-term money markets.

15. These transactions are referred to as reverse repurchase agreements to distinguish them from repurchase agreements in which the Federal Reserve is the investor.

16. To be successful, especially in a period of rising interest rates, such deposits likely would have to pay rates of interest above the overnight rate on reserve balances. To prevent banks from earning risk-free profits by borrowing from the Federal Reserve and investing the proceeds in term deposits, the rate of remuneration on term deposits would have to be kept lower than the rates the Federal Reserve charges on its lending facilities, such as the discount window.

Raising the rate of interest on reserve balances and draining reserves through the options just described would allow policy to be tightened even if the level of assets on the Federal Reserve's balance sheet remained very high. In addition, the Federal Reserve retains the option to reduce its stock of assets by selling off a portion of its holdings of longer-term securities before they mature. Asset sales by the Federal Reserve would serve to raise short-term interest rates and tighten monetary policy by reducing the level of reserve balances; in addition, such sales could put upward pressure on longer-term interest rates by expanding the supply of longer-term assets available to investors. In an environment of strengthening economic activity and rising inflation pressures, broad-based increases in interest rates could facilitate the achievement of the Federal Reserve's dual mandate.

In short, the Federal Reserve has a wide range of tools that can be used to tighten the stance of monetary policy at the point that the economic outlook calls for such action. However, economic conditions are not likely to warrant a tightening of monetary policy for an extended period. The timing and pace of any future tightening, together with the mix of tools employed, will be calibrated to best foster the Federal Reserve's dual objectives of maximum employment and price stability.

Foreign Experience with Interest on Reserves

Paying interest on excess reserve balances, either directly or by allowing banks to place excess balances into an interest-bearing account, is a standard tool used by major foreign central banks. Many have used interest on reserves, in combination with other tools, to maintain a floor under overnight interbank interest rates both in normal circumstances and during the period of financial turmoil. The European Central Bank (ECB), for example, has long allowed banks to place excess reserves into a deposit facility that pays interest at a rate below the ECB's main refinancing rate (its bellwether policy rate). The quantity of funds that banks hold in that facility increased sharply as the ECB expanded its liquidity-providing operations last fall and has remained well above pre-crisis levels; as a result, the euro-area overnight interbank rate fell from a level close to the main refinancing rate toward the rate the ECB pays on deposits—but, importantly, not below that rate. Since November 2008, the Bank of Japan (BOJ) on a temporary basis has paid interest on excess reserve balances, at a rate of 10 basis points per year, which is also its current target for the overnight uncollateralized call rate; the BOJ noted that its action was intended to keep the call rate close to the targeted level as it supplied additional liquidity to the banking system. Indeed, the overnight rate has traded near 10 basis points in recent months, even as reserve balances at the BOJ have risen substantially, returning to their level during much of 2002, when the BOJ was implementing its Quantitative Easing Policy and the call rate was trading at 1 basis point or below. The Bank of Canada and the Bank of England also have used their standing deposit facilities to help manage interbank interest rates.

Part 4
Summary of Economic Projections

The following material appeared as an addendum to the minutes of the June 23–24, 2009, meeting of the Federal Open Market Committee.

In conjunction with the June 23–24, 2009, FOMC meeting, the members of the Board of Governors and the presidents of the Federal Reserve Banks, all of whom participate in deliberations of the FOMC, submitted projections for output growth, unemployment, and inflation in 2009, 2010, 2011, and over the longer run. Projections were based on information available through the end of the meeting and on each participant's assumptions about factors likely to affect economic outcomes, including his or her assessment of appropriate monetary policy. "Appropriate monetary policy" is defined as the future path of policy that the participant deems most likely to foster outcomes for economic activity and inflation that best satisfy his or her interpretation of the Federal Reserve's dual objectives of maximum employment and stable prices. 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.

FOMC participants generally expected that, after declining over the first half of this year, output would expand sluggishly over the remainder of the year. Consequently, as indicated in table 1 and depicted in figure 1, all FOMC participants projected that real gross domestic product (GDP) would contract over the entirety of this year and that the unemployment rate would increase in coming quarters. All participants also expected that overall inflation would be somewhat slower this year than in recent years, and most projected that core inflation would edge down this year. Almost all participants viewed the near-term outlook for domestic output as having improved modestly relative to the projections they made at the time of the April FOMC meeting, reflecting both a slightly less severe contraction in the first half of 2009 and a moderately stronger, but still sluggish, recovery in the second half. With the strong adverse forces that have been acting on the economy likely to abate only slowly, participants generally expected the recovery to be gradual in 2010. Even though all participants had raised their near-term outlook for real GDP, in light of incoming data on labor markets, they increased their projections for the path of the unemployment rate from those published in April. Participants foresaw only a gradual improvement in labor market conditions in 2010 and 2011, leaving the unemployment rate at the end of 2011 well above the level they viewed as its longer-run sustainable rate. Participants projected low inflation this year. For 2010 and 2011, the central tendencies of the participants' inflation

Table 1. Economic projections of Federal Reserve Governors and Reserve Bank presidents, June 2009

Percent

Variable	Central tendency[1]				Range[2]			
	2009	2010	2011	Longer run	2009	2010	2011	Longer run
Change in real GDP	-1.5 to -1.0	2.1 to 3.3	3.8 to 4.6	2.5 to 2.7	-1.6 to -0.6	0.8 to 4.0	2.3 to 5.0	2.4 to 2.8
April projection	-2.0 to -1.3	2.0 to 3.0	3.5 to 4.8	2.5 to 2.7	-2.5 to -0.5	1.5 to 4.0	2.3 to 5.0	2.4 to 3.0
Unemployment rate	9.8 to 10.1	9.5 to 9.8	8.4 to 8.8	4.8 to 5.0	9.7 to 10.5	8.5 to 10.6	6.8 to 9.2	4.5 to 6.0
April projection	9.2 to 9.6	9.0 to 9.5	7.7 to 8.5	4.8 to 5.0	9.1 to 10.0	8.0 to 9.6	6.5 to 9.0	4.5 to 5.3
PCE inflation	1.0 to 1.4	1.2 to 1.8	1.1 to 2.0	1.7 to 2.0	1.0 to 1.8	0.9 to 2.0	0.5 to 2.5	1.5 to 2.1
April projection	0.6 to 0.9	1.0 to 1.6	1.0 to 1.9	1.7 to 2.0	-0.5 to 1.2	0.7 to 2.0	0.5 to 2.5	1.5 to 2.0
Core PCE inflation[3]	1.3 to 1.6	1.0 to 1.5	0.9 to 1.7		1.2 to 2.0	0.5 to 2.0	0.2 to 2.5	
April projection	1.0 to 1.5	0.7 to 1.3	0.8 to 1.6		0.7 to 1.6	0.5 to 2.0	0.2 to 2.5	

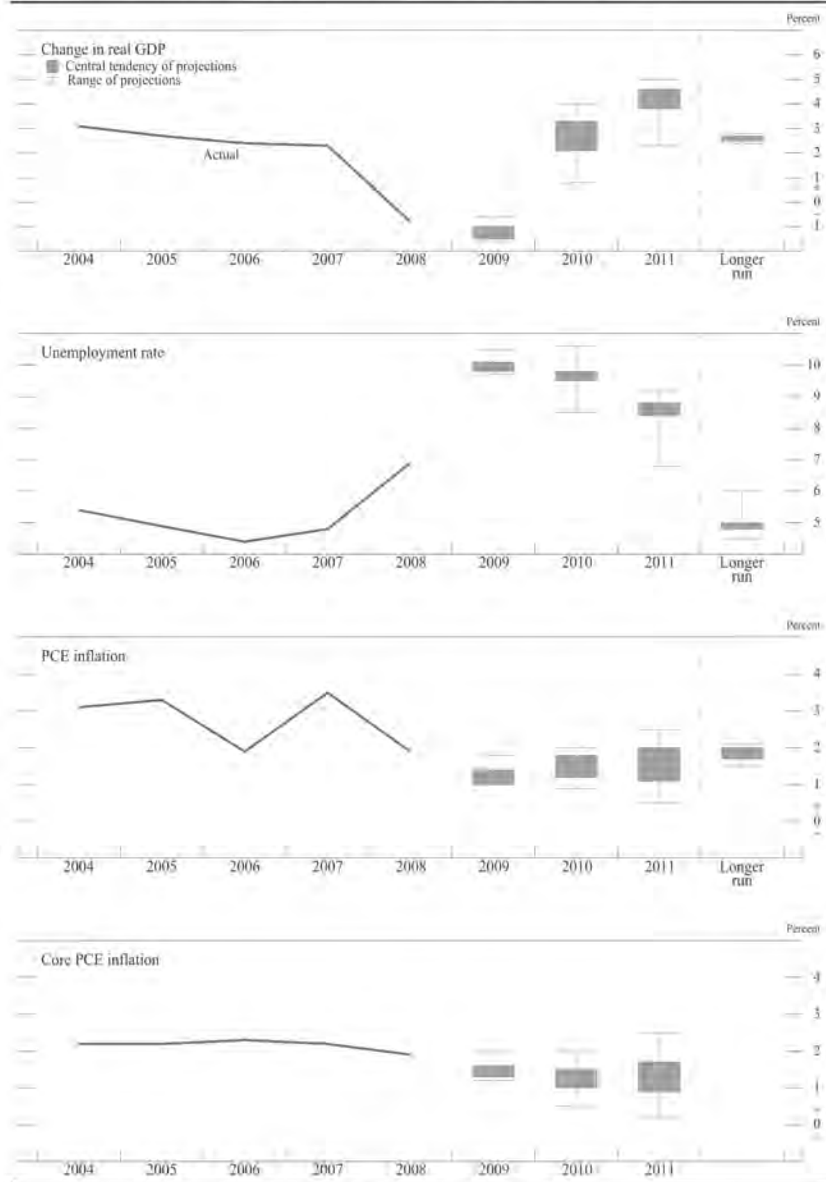
NOTE: Projections of change in real gross domestic product (GDP) and in inflation are from the fourth quarter of the previous year to the fourth quarter of the year indicated. PCE inflation and core PCE inflation are the percentage rates of change in, respectively, the price index for personal consumption 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 April projections were made in conjunction with the meeting of the Federal Open Market Committee on April 28–29, 2009.

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 consists of all participants' projections, from lowest to highest, for that variable in that year.

3. Longer-run projections for core PCE inflation are not collected.

Figure 1. Central tendencies and ranges of economic projections, 2009–11 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.

forecasts pointed to fairly stable inflation that would be modestly below most participants' estimates of the rate consistent with the dual objectives; however, the divergence of participants' views about the inflation outlook remained wide. Most participants indicated that they expected the economy to take five or six years to converge to a longer-run path characterized by a sustainable rate of output growth and by rates of unemployment and inflation consistent with the Federal Reserve's dual objectives, but several said full convergence would take longer. In contrast to recent projections, a majority of participants perceived the risks to growth as roughly balanced, although several still viewed those risks as tilted to the downside. Most participants saw the risks surrounding their inflation outlook as roughly balanced, and fewer participants than in April characterized those risks as skewed to the downside. With few exceptions, participants judged that the projections for economic activity and inflation remained subject to a degree of uncertainty exceeding historical norms.

The Outlook

Participants' projections for the change in real GDP in 2009 had a central tendency of negative 1.5 percent to negative 1.0 percent, somewhat above the central tendency of negative 2.0 percent to negative 1.3 percent for their April projections. Participants noted that the data received between the April and June FOMC meetings pointed to a somewhat smaller decline in output during the first half of the year than they had anticipated at the time of the April meeting. Moreover, participants saw additional indications that the economic downturn in the United States and worldwide was moderating in the second quarter, and they continued to expect that sales and production would begin to recover gradually during the second half of the year, reflecting the effects of monetary and fiscal stimulus, measures to support credit markets, and diminishing financial stresses. As reasons for marking up their projections for near-term economic activity, participants pointed to a further improvement in financial conditions during the intermeeting period, signs of stabilization in consumer spending, and tentative indications of a leveling out of activity in the housing sector. In addition, they observed that aggressive inventory reductions during the first half of this year appeared to have left firms' stocks in better balance with sales, suggesting that production is likely to increase as sales stabilize and then start to turn up later this year. Participants expected, however, that recoveries in consumer spending and residential investment initially would be damped by further deterioration in labor markets, the continued repair of household balance sheets, persistently tight credit conditions, and still-weak housing demand. They also anticipated that very low capacity utilization, sluggish growth in sales, uncertainty about the economic environment, and a continued elevated cost and limited availability of financing would contribute to continued weakness in business fixed investment this year. Some participants noted that weak economic conditions in other countries probably would hold down growth in U.S. exports. A number of participants also saw recent increases in some long-term interest rates and in oil prices as factors that could damp a near-term economic recovery.

Looking further ahead, participants' projections for real GDP growth in 2010 and 2011 were not materially different from those provided in April. The projections for growth in 2010 had a central tendency of 2.1 to 3.3 percent, and those for 2011 had a central tendency of 3.8 to 4.6 percent. Participants generally expected that household financial positions would improve only gradually and that strains in credit markets and in the banking system would ebb slowly; hence, the pace of recovery would continue to be damped in 2010. But they anticipated that the upturn would strengthen in late 2010 and in 2011 to a pace exceeding the growth rate of potential GDP. Participants noted several factors contributing to this pickup, including accommodative monetary policy, fiscal stimulus, and continued improvement in financial conditions and household balance sheets. Beyond 2011, they expected that output growth would remain above that of potential GDP for a time, leading to a gradual elimination of slack in resource utilization. Over the longer run, most participants expected that, without further shocks, real GDP growth eventually would converge to a rate of 2.5 to 2.7 percent per year, reflecting longer-term trends in the growth of productivity and the labor force.

Even though participants raised their output growth forecasts, they also moved up their unemployment rate projections and continued to anticipate that labor market conditions would deteriorate further over the remainder of the year. Their projections for the average unemployment rate during the fourth quarter of 2009 had a central tendency of 9.8 to 10.1 percent, about ½ percentage point above the central tendency of their April projections and noticeably higher than the actual unemployment rate of 9.4 percent in May—the latest reading available at the time of the June FOMC meeting. All participants raised their forecasts of the unemployment rate at the end of this year, reflecting the sharper-than-expected rise in unemployment that occurred over the intermeeting period. With little material change in projected output growth in 2010

and 2011, participants still expected unemployment to decline in those years, but the projected unemployment rate in each year was about ½ percentage point above the April forecasts, reflecting the higher starting point of the projections. Most participants anticipated that output growth next year would not substantially exceed its longer-run sustainable rate and hence that the unemployment rate would decline only modestly in 2010; some also pointed to frictions associated with the reallocation of labor from shrinking economic sectors to expanding sectors as likely to restrain progress in reducing unemployment. The central tendency of the unemployment rate at the end of 2010 was 9.5 to 9.8 percent. With output growth and job creation generally projected to pick up appreciably in 2011, participants anticipated that joblessness would decline more noticeably, as evident from the central tendency of 8.4 to 8.8 percent for their projections of the unemployment rate in the fourth quarter of 2011. They expected that the unemployment rate would decline considerably further in subsequent years as it moved back toward its longer-run sustainable level, which most participants still saw as between 4.8 and 5.0 percent; however, a few participants raised their estimates of the longer-run unemployment rate.

The central tendency of participants' projections for personal consumption expenditures (PCE) inflation in 2009 was 1.0 to 1.4 percent, about ½ percentage point above the central tendency of their April projections. Participants noted that higher-than-expected inflation data over the intermeeting period and the anticipated influence of higher oil and commodity prices on consumer prices were factors contributing to the increase in their inflation forecasts. Looking beyond this year, participants' projections for total PCE inflation had central tendencies of 1.2 to 1.8 percent for 2010 and 1.1 to 2.0 percent for 2011, modestly higher than the central tendencies from the April projections. Reflecting the large increases in energy prices over the intermeeting period, the forecasts for core PCE inflation (which excludes the direct effects of movements in food and energy prices) in 2009 were raised by less than the projections for total PCE inflation, while the forecasts for core and total PCE inflation in 2010 and 2011 increased by similar amounts. The central tendency of projections for core inflation in 2009 was 1.3 to 1.6 percent; those for 2010 and 2011 were 1.0 to 1.5 percent and 0.9 to 1.7 percent, respectively. Most participants expected that sizable economic slack would continue to damp inflation pressures for the next few years and hence that total PCE inflation in 2011 would still be below their assessments of its appropriate longer-run level. Some thought that such slack would generate a decline in inflation over the next few years. Most, however, projected that, as the economy recovers, inflation would increase gradually and move closer to their individual assessments of the measured rate of inflation consistent with the Federal Reserve's dual mandate for maximum employment and price stability. Several participants, noting that the public's longer-run inflation expectations had not changed appreciably, expected that inflation would return more promptly to levels consistent with their judgments about longer-run inflation than these participants had projected in April. A few participants also anticipated that projected inflation in 2011 would be modestly above their longer-run inflation projections because of the possible effects of very low short-term interest rates and of the large expansion of the Federal Reserve's balance sheet on the public's inflation expectations. Overall, the range of participants' projections of inflation in 2011 remained quite wide.

As in April, the central tendency of projections of the longer-run inflation rate was 1.7 to 2.0 percent. Most participants judged that a longer-run PCE inflation rate of 2 percent would be consistent with the Federal Reserve's dual mandate; others indicated that inflation of 1½ percent or 1¾ percent would be appropriate. Modestly positive longer-run inflation would allow the Committee to stimulate economic activity and support employment by setting the federal funds rate temporarily below the inflation rate when the economy suffers a large negative shock to demands for goods and services.

Uncertainty and Risks

In contrast to the participants' views over the past several quarters, in June a majority of participants saw the risks to their projections for real GDP growth and the unemployment rate as broadly balanced. In explaining why they perceived a reduction in downside risks to the outlook, these participants pointed to the tentative signs of economic stabilization, indications of some effectiveness of monetary and fiscal policy actions, and improvements in financial conditions. In contrast, several participants still saw the risks to their GDP growth forecasts as skewed to the downside and the associated risks to unemployment as skewed to the upside. Almost all participants shared the judgment that their projections of future economic activity and unemployment continued to be subject to greater-than-average uncertainty.[17] Many participants again high-lighted the still-

17. Table 2 provides estimates of forecast uncertainty for the change in real GDP, the unemployment rate, and total consumer price inflation over the period from 1989 to 2008. At the end of this sum-

Table 2. Average historical projection error ranges

Percentage points

Variable	2009	2010	2011
Change in real GDP[1]	±1.0	±1.5	±1.6
Unemployment rate[1]	±0.4	±0.8	±1.0
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 1989 through 2008 that were released in the summer by various private and government forecasters. As described in the box titled "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.

considerable uncertainty about the future course of the financial crisis and the risk that a resurgence of financial turmoil could adversely impact the real economy. In addition, some noted the difficulty in gauging the macroeconomic effects of the credit-easing policies that have been employed by the Federal Reserve and other central banks, given the limited experience with such tools.

Most participants judged the risks to the inflation outlook as roughly balanced, with the number doing so higher than in April. A few participants continued to view these risks as skewed to the downside, and one saw the inflation risks as tilted to the upside. Some participants noted the risk that inflation expectations might drift downward in response to persistently low inflation outcomes and continued significant slack in resource utilization. Several participants pointed to the possibility of an upward shift in expected and actual inflation if the stimulative monetary policy measures and the attendant expansion of the Federal Reserve's balance sheet were not unwound in a timely fashion as the economy recovers. Most participants again saw the uncertainty surrounding their inflation projections as exceeding historical norms.

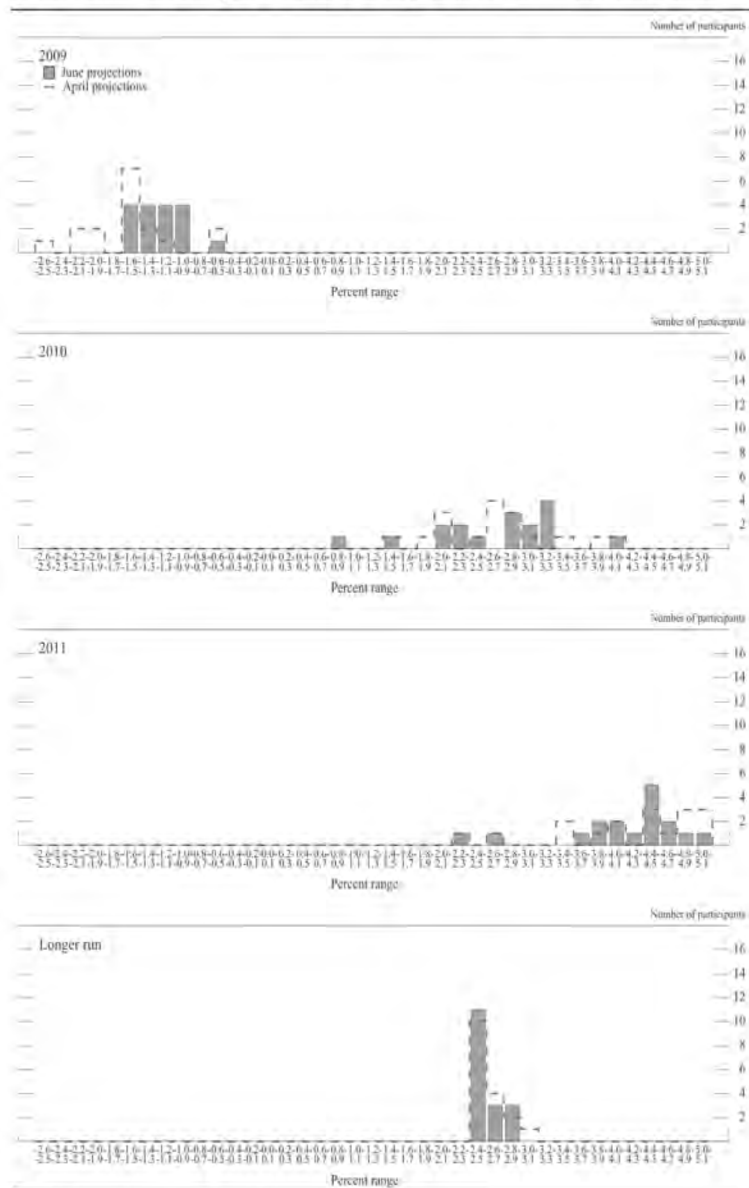
Diversity of Views

Figures 2.A and 2.B provide further details on the diversity of participants' views regarding likely outcomes for real GDP growth and the unemployment rate in 2009, 2010, 2011, and over the longer run. The dispersion in participants' June projections for the next three years reflects, among other factors, the diversity of their assessments regarding the effects of fiscal stimulus and nontraditional monetary policy actions as well as the likely pace of improvement in financial conditions. For real GDP growth, the distribution of projections for 2009 narrowed and shifted slightly higher, reflecting the somewhat better-than-expected data received during the intermeeting period. The distributions for 2010 and 2011 changed little. For the unemployment rate, the surprisingly large increases in unemployment reported during the intermeeting period prompted an upward shift in the distribution. Because of the persistence exhibited in many of the unemployment forecasts, there were similar upward shifts in the distributions for 2010 and 2011. The dispersion of these forecasts for all three years was roughly similar to that of April. The distribution of participants' projections of longer-run real GDP growth was about unchanged. A few participants raised their longer-run projections of the unemployment rate, widening the dispersion of these estimates, as they incorporated the effects of unexpectedly high recent unemployment data and of the reallocation of labor from declining sectors to expanding ones. The dispersion in participants' longer-run projections reflected differences in their estimates regarding the sustainable rates of output growth and unemployment to which the economy would converge under appropriate monetary policy and in the absence of any further shocks.

Figures 2.C and 2.D provide corresponding information about the diversity of participants' views regarding the inflation outlook. The distribution of the projections for total and core PCE inflation in 2009 moved upward, reflecting the higher inflation data released over the intermeeting period, while distributions for the projections in 2010 and 2011 did not change significantly. The dispersion in participants' projections for total and core PCE inflation for 2009, 2010, and 2011 illustrates their varying assessments of the effects on inflation and inflation expectations of persistent economic slack as well as of the recent expansion of the Federal Reserve's balance sheet. These varying assessments are especially evident in the wide dispersion of inflation projections for 2011. In contrast, the tight distribution of participants' projections for longer-run inflation illustrates their substantial agreement about the measured rate of inflation that is most consistent with the Federal Reserve's dual objectives of maximum employment and stable prices.

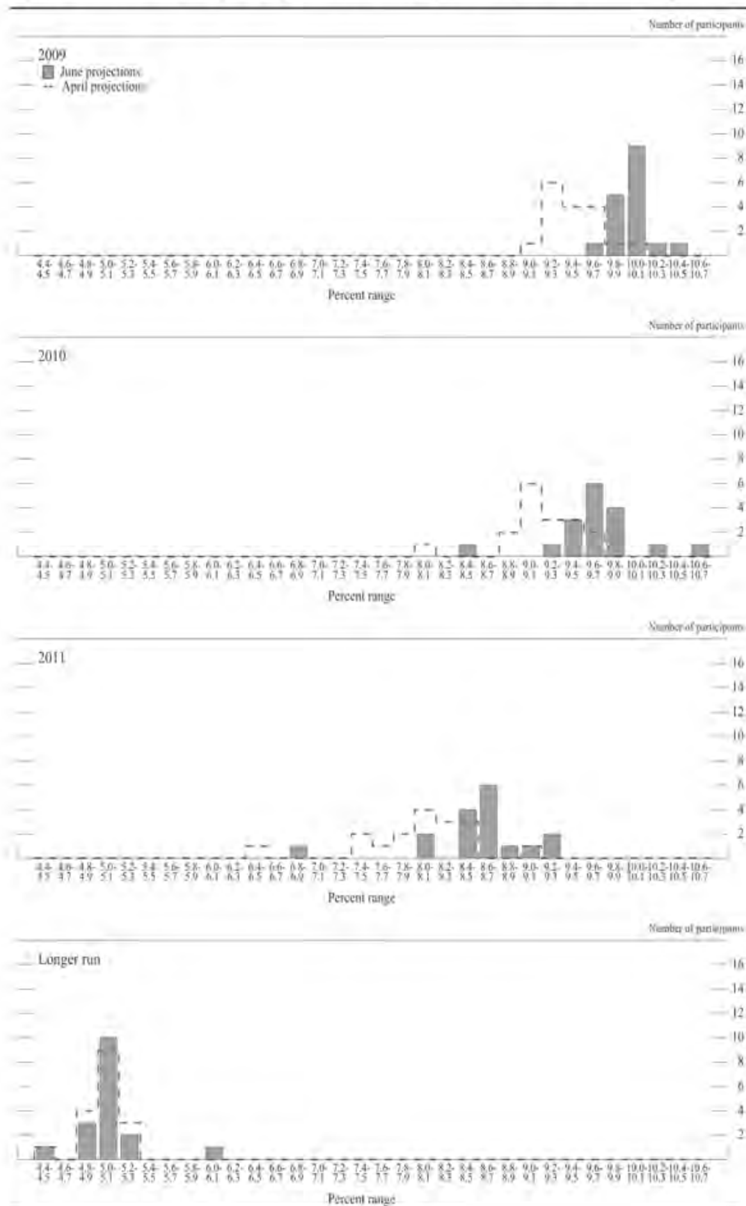
mary, the box titled "Forecast Uncertainty" discusses the sources and interpretation of uncertainty in economic forecasts and explains the approach used to assess the uncertainty and risks attending participants' projections.

Figure 2.A. Distribution of participants' projections for the change in real GDP, 2009–11 and over the longer run



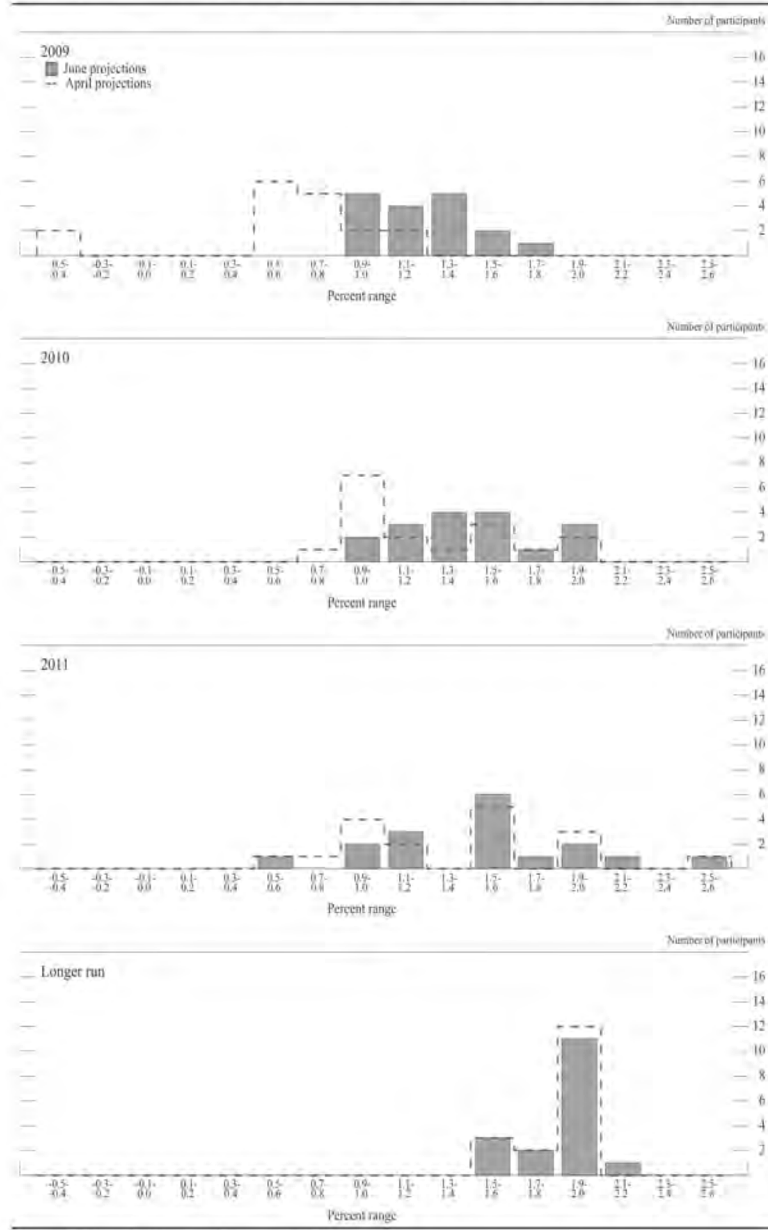
NOTE: Definitions of variables are in the general note to table 1.

Figure 2.B. Distribution of participants' projections for the unemployment rate, 2009–11 and over the longer run



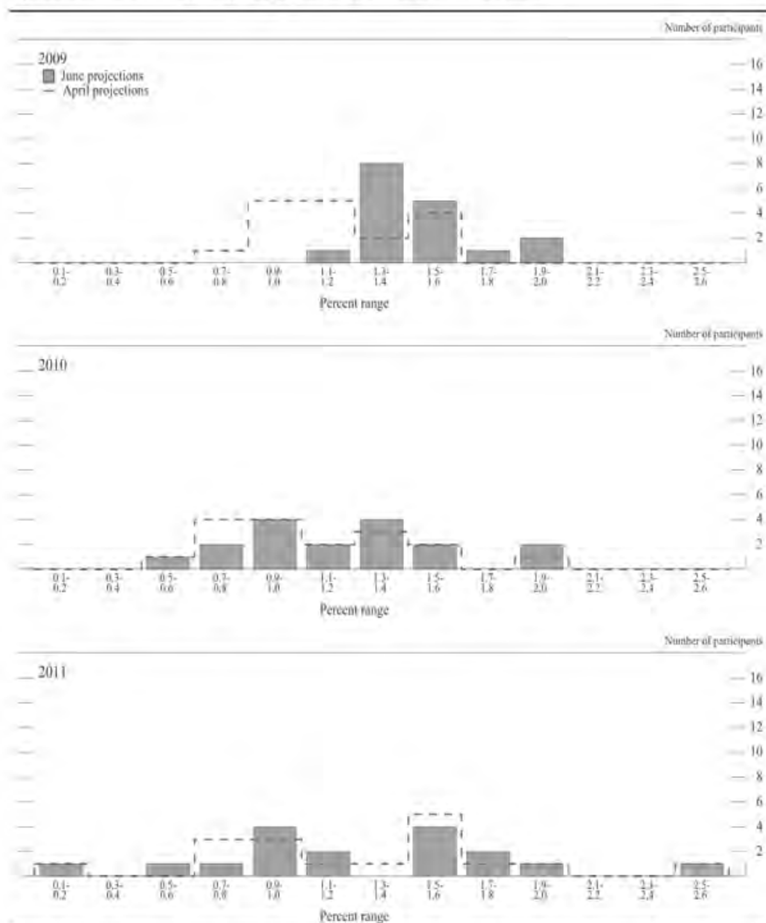
Note: Definitions of variables are in the general note to table 1.

Figure 2.C. Distribution of participants' projections for PCE inflation, 2009–11 and over the longer run



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

Figure 2.D. Distribution of participants' projections for core PCE inflation, 2009–11



Note: 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 policy makers 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 Federal Reserve Board 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 2.0 to 4.0 percent in the current year, 1.5 to 4.5 percent in the second year, and 1.4 to 4.6 percent 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.

Abbreviations

ABCP	asset-backed commercial paper
ABS	asset-backed securities
AIG	American International Group, Inc
BHC	bank holding company
BOJ	Bank of Japan
CAP	Capital Assistance Program
CDS	credit default swap
C&I	commercial and industrial
CMBS	commercial mortgage-backed securities
CP	commercial paper
CPFF	Commercial Paper Funding Facility
CPH	compensation per hour
CPP	Capital Purchase Program
CRE	commercial real estate
DPI	disposable personal income
ECB	European Central Bank
ECI	employment cost index
FDIC	Federal Deposit Insurance Corporation
FOMC	Federal Open Market Committee; also, the Committee
GDP	gross domestic product
GSE	government-sponsored enterprise
IRA	individual retirement account
Libor	London interbank offered rate
LLC	limited liability company
MBS	mortgage-backed securities
NIPA	national income and product accounts
NOW	negotiable order of withdrawal
OCC	Office of the Comptroller of the Currency
OIS	overnight index swap
OTTI	other-than-temporary impairment
PCE	personal consumption expenditures
PPIP	Public-Private Investment Program
SCAP	Supervisory Capital Assessment Program
SPV	special purpose vehicle
TAF	Term Auction Facility
TALF	Term Asset-Backed Securities Loan Facility
TARP	Troubled Asset Relief Program
TIPS	Treasury inflation-protected securities
VRDO	variable-rate demand obligation
WTI	West Texas intermediate