S. HRG. 111–742

FEDERAL RESERVE'S SECOND MONETARY POLICY REPORT FOR 2010

HEARING

BEFORE THE

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

ONE HUNDRED ELEVENTH CONGRESS

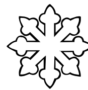
SECOND SESSION

ON

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

JULY 21, 2010

Printed for the use of the Committee on Banking, Housing, and Urban Affairs



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U.S. GOVERNMENT PRINTING OFFICE

62–643 PDF WASHINGTON : 2010

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FEDERAL RESERVE'S SECOND MONETARY POLICY REPORT FOR 2010

WEDNESDAY, JULY 21, 2010

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

The Committee met at 2:03 p.m., in room SD–G50, 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.

We are here today to hear from the Chairman of the Federal Reserve on the semiannual monetary policy report to the Congress, and, Mr. Chairman, we welcome you to our Committee once again. We thank you for your service to our country, and at least on my part, let me thank you and congratulate you for the tremendous work you and the staff of the Federal Reserve have been doing through these very difficult days in our country, and we are very fortunate to have you, in my view, as the Chair.

I want to make some brief opening comments, and then I will turn to Senator Shelby for any opening comments he may have, and I will leave it up to the members themselves—we do not have a full complement here, but there are several who would like to be heard briefly before we turn to you for your thoughts, and then the questions we will have for you this afternoon.

Let me express my gratitude to the Chairman and the other Members of the Committee. Normally, we would have had this Committee hearing in the morning, and because of the bill-signing ceremony this morning, we delayed it until this afternoon. So I appreciate you being able to accommodate us.

We are pleased to welcome you again, Mr. Chairman, to the Committee. Today he will deliver his semiannual monetary policy report, as I have said, to the Congress. The timing of this testimony could not be better, in our view. Key questions about both financial regulation and our current economic policy will be answered in the coming months. The Federal Reserve will play a key role in answering both of those series of questions.

Today the President, as many know, signed into law the Wall Street reform bill. This bill, in my view, is a comprehensive response to our financial crisis that devastated our economy. The bill demands that regulators change the oversight of the financial markets and financial institutions in very fundamental ways. It sets up a Financial Stability Oversight Council which will function as an

early warning system, we hope, be responsible for spotting and addressing threats to the overall financial stability of our country and institutions and even in other nations around the world. It creates a new orderly liquidation authority to provide for the wind-down of large financial institutions whose failure threatens overall financial stability.

Further, it makes the markets for financial derivatives much more transparent. It requires regulators to establish capital standards and margin requirements for large derivative dealers. That will reduce the risk, we believe, posed by these financial instruments.

Further, it limits the ability of banks and their owners to engage in risky trading strategies or to invest in hedge funds or private equity funds. Further, it requires higher prudential standards, including capital and liquidity for large bank holding companies and nonbank financial firms that have the potential to put the financial system at risk.

The bill establishes for the first time a Consumer Financial Protection Bureau with a mandate to focus exclusively on protecting consumers from financial abuses and ensuring that consumers get the financial information that they need in a form that they can understand.

But while the bill gives regulators substantial new authority, it does not contain the specific regulations that will translate authority into action. Congress is not in the position to write them. It is above the capacity of this institution to do that. Those rules and regulations require expert knowledge, and they must adapt over time to changing circumstances. Congress must rely on regulatory agencies to implement the goals of this reform bill. However, it is the role of Congress to oversee the actions of our regulators, and given the importance of getting financial reform right, it is a role that should be pursued with great vigor, attention, and diligence in the coming months and years.

The Federal Reserve is one of the institutions on which Congress will rely most heavily. The additional authority it has been given is remarkable in this bill. The Federal Reserve will be a member of the Oversight Council, and the insights of its supervisors and researchers will play an important part in identifying developing risks to the financial system. It will be the Fed's job to set the heightened prudential standards for the Nation's large banks and nonbank financial companies designated by the Oversight Council. The Fed will help to decide when a failing financial firm needs to be put into the new resolution process, and the Fed will have the responsibility to oversee important financial utilities, including, for example, the clearinghouses that will become increasingly central in derivatives markets.

As you are aware, Mr. Chairman, I have been critical of the Fed's past performance and, in fact, advocated striking the Fed's supervisory role. While the Fed managed the financial crisis superbly, in my view, it did less well in the run-up to the crisis. It failed to use the authority in HOEPA to prevent the serious deterioration in mortgage underwriting standards and abusive and fraudulent mortgage lending practices that, in my view, fueled the financial crisis we have been going through. It also failed, in my view, to

adequately supervise some of our largest bank holding companies. These holding companies were allowed to accumulate significant exposures to mortgage-related assets. The losses they suffered when the house price bubble burst helped to produce the financial crisis from which we have not yet fully recovered.

However, as the financial reform bill worked its way through the legislative process, the Congress in its wisdom decided not only to preserve the Fed's existing supervisory power but to bolster it. Indeed, Mr. Chairman, you sought those additional powers, and as a result, the Fed is central to maintaining our financial stability.

I think it is fair to say that the success of the financial reform law depends in large measure on how the Federal Reserve meets its new responsibilities. It is my fervent hope that under your stewardship the Fed will exercise these authorities wisely.

Of course, the financial reform law left the Fed's responsibilities for monetary policy unchanged, and this gives the Fed even more crucial work to do. The devastation brought by the financial crisis is still with us, and while output has begun to grow, it is not growing rapidly enough to replace the millions of jobs lost during this crisis. In the first quarter of this year, GDP grew at an unimpressive 2.7 percent. The unemployment rate in June was still at 9.5 percent, and nearly 7 million workers have been unemployed for 27 weeks or more.

As you have acknowledged in previous testimony, Mr. Chairman, the effects of long-term unemployment, which destroys job skills and demoralizes those who suffer from it, has the potential to create serious long-term problems in our Nation. And although firms with access to credit markets are able to borrow at relatively low interest rates, the businesses and households that depend upon banks for credit continue to find difficulty in accessing credit. Apart from inventories, investment demand remains anemic, and real fixed investment declined in the first quarter of this year.

In this less than robust environment, it is not surprising that price inflation is hardly an issue. Over the past year, the CPI has increased by only 1.1 percent, and core CPI has increased by only 0.9 percent. In short, it looks like our economy is in need of additional help. It is evident that the Fed takes this issue seriously, and I applaud you for that. The Federal funds rate is now near zero, and the banks are now sitting on extraordinary quantities of excessive reserves. But one of the issues I would like to explore with you today is whether the Fed can do more to help expand output and employment in our Nation.

Now I would like to turn to my good friend and colleague, the former Chairman of the Committee, Senator Shelby, for any opening comments he may have.

STATEMENT OF SENATOR RICHARD C. SHELBY

Senator SHELBY. Thank you, Chairman Dodd. Welcome to the Committee again, Chairman Bernanke. You have been with us for many years now on many occasions.

Mr. Chairman, judging by the minutes of the Fed's June Open Market Committee meeting and statements by Fed officials, uncertainty about the economic outlook has risen recently, and there is

a growing divergence of views. Recent data suggests that the already modest recovery may have hit a soft patch.

We have also recently experienced another flight to quality and elevated uncertainty given the events surrounding Greece and others. Although some concerns have waned, we should continue, I believe, to monitor the situation in Europe and learn from their fiscal difficulties.

Given market uncertainties and the possibility of a double-dip recession, there has been a modest change in the Fed's outlook as reflected in its recent policy discussions about whether inflation or deflation is the predominant current threat.

There are questions about what the Fed's contingency plans are in the event of a double-dip recession or persistent deflationary pressures. There are questions about whether the Fed could combat deflationary pressures or whether the U.S. would have any experience like Japan. There are questions about whether the Fed has changed its focus from executing an exit strategy to lowering interest rates on reserves and possibly further ballooning its balance sheet with more asset purchases.

This is especially concerning because the purchase of even more long-term assets may channel credit to favored segments of the markets at the expense of others.

In the current environment in which the distinction between fiscal and monetary policy is sometimes blurred, Fed transparency about its plans I think is crucial. I believe that it is important for Congress to know what options are on the table and where the Fed may be headed. Chairman Bernanke, as the economic outlook has become a bit more cloudy of late, I look forward to hearing your views here today, and I am sure all of us have a number of questions for you.

Thank you, Mr. Chairman.

Chairman DODD. Thank you, Senator Shelby.

Any of my colleagues want to be heard on this? Anyone here on the Democratic side? Senator Bunning.

Senator BUNNING. Very short.

Chairman DODD. Certainly.

STATEMENT OF SENATOR JIM BUNNING

Senator BUNNING. It is amazing to me how two people can differ on a financial reserve law than the Chairman and myself. Some of us think that we did not do enough and we did not hit the heart of the problem. We did not touch Fannie Mae or Freddie Mac. Derivatives, credit default swaps, we just barely skimmed the top. And we did not do anything but put into the law too big to fail. So, Chairman, I am anxious to hear what the outlook for the economy is.

Thank you, Mr. Chairman.

Chairman DODD. Anyone else wish to be heard? Any opening comments at all?

Senator CORKER. Mr. Chairman, I do not want to make an opening comment. I know you know that well. But how long is the Chairman going to be with us today, just so we can organize our thinking about questions? And how long will the question period be?

Chairman DODD. Well, a good part of the afternoon, my guess. I do not know. Votes on the floor may disrupt us. I do not know what the Majority and Minority Leaders' plans are for voting. I know there may be four or five votes at some point. And I think under the rules there are about 10 minutes—some five amendments that the minority has on the bill, and each amendment could take 10 minutes of debate, plus the vote itself. So I do not know when that will come. But that could disrupt the flow, I will tell you that much.

Senator CORKER. Do you expect one round or two, do you know?

Chairman DODD. I will stay as long as people want and try and get through as much as we can.

Mr. Chairman, welcome.

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

Mr. BERNANKE. Thank you. Chairman Dodd, Senator Shelby, and Members of the Committee, I am pleased to present the Federal Reserve's semiannual Monetary Policy Report to the Congress.

The economic expansion that began in the middle of last year is proceeding at a moderate pace, supported by stimulative monetary and fiscal policies. Although fiscal policy and inventory restocking will likely be providing less impetus to the recovery than they have in recent quarters, rising demand from households and businesses should help sustain growth. In particular, real consumer spending appears to have expanded at about a 2½-percent annual rate in the first half of this year, with purchases of durable goods increasing especially rapidly. However, the housing market remains weak, with the overhang of vacant or foreclosed houses weighing on home prices and construction.

An important drag on household spending is the slow recovery in the labor market and the attendant uncertainty about job prospects. After 2 years of job losses, private payrolls expanded at an average of about 100,000 per month during the first half of this year, a pace insufficient to reduce the unemployment rate materially. In all likelihood, a significant amount of time will be required to restore the nearly 8½ million jobs that were lost over 2008 and 2009. Moreover, nearly half of the unemployed have been out of work for longer than 6 months. Long-term unemployment not only imposes exceptional near-term hardships on workers and their families, it also erodes skills and may have long-lasting effects on workers' employment and earnings prospects.

In the business sector, investment in equipment and software appears to have increased rapidly in the first half of the year, in part reflecting capital outlays that had been deferred during the downturn and the need of many businesses to replace aging equipment. In contrast, spending on nonresidential structures—weighed down by high vacancy rates and tight credit—has continued to contract, though some indicators suggest that the rate of decline may be slowing. Both U.S. exports and U.S. imports have been expanding, reflecting growth in the global economy and the recovery of world trade. Stronger exports have in turn helped foster growth in the U.S. manufacturing sector.

Inflation has remained low. The price index for personal consumption expenditures appears to have risen at an annual rate of less than 1 percent in the first half of the year. Although overall inflation has fluctuated, partly reflecting changes in energy prices, by a number of measures underlying inflation has trended down over the past 2 years. The slack in labor and product markets has damped wage and price pressures, and rapid increases in productivity have further reduced producers' unit labor costs.

My colleagues on the Federal Open Market Committee and I expect continued moderate growth, a gradual decline in the unemployment rate, and subdued inflation over the next several years. In conjunction with the June FOMC meeting, Board members and reserve bank presidents prepared forecasts of economic growth, unemployment, and inflation for the years 2010 through 2012 and over the longer run. The forecasts are qualitatively similar to those we released in February and in May, although progress in reducing unemployment is now expected to be somewhat slower than we previously projected, and near-term inflation now looks likely to be a little lower. Most FOMC participants expect real GDP growth of 3 to 3½ percent in 2010, and roughly 3½ to 4½ percent in 2011 and 2012. The unemployment rate is expected to decline to between 7 and 7½ percent by the end of 2012. Most participants viewed uncertainty about the outlook for growth and unemployment as greater than normal, and the majority saw the risks to growth as weighted to the downside. Most participants projected that inflation will average only about 1 percent in 2010 and that it will remain low during 2011 and 2012, with the risks to the inflation outlook roughly balanced.

One factor underlying the Committee's somewhat weaker outlook is that financial conditions—though much improved since the depth of the financial crisis—have become less supportive of growth in recent months. Notably, concerns about the ability of Greece and a number of other euro-area countries to manage their sizable budget deficits and high levels of public debt spurred a broad-based withdrawal from risk taking in global financial markets in the spring, resulting in lower stock prices and wider risk spreads in the United States. In response to these fiscal pressures, European leaders put in place a number of strong measures, including an assistance package for Greece and 500 billion euros of funding to backstop the near-term financing needs of euro-area countries. To help ease strains in U.S. dollar funding markets, the Federal Reserve reestablished temporary dollar liquidity swap lines with the ECB and several other major central banks. To date, drawing under the swap lines has been limited, but we believe that the existence of these lines has increased confidence in dollar funding markets, helping to maintain credit availability in our own financial system.

Like financial conditions generally, the state of the U.S. banking system has also improved significantly since the worst of the crisis. Loss rates on most types of loans seem to be peaking, and in the aggregate, bank capital ratios have risen to new highs. However, many banks continue to have a large volume of troubled loans on their books, and bank lending standards remain tight. With credit demand weak and with banks writing down problem credits, bank loans outstanding have continued to contract. Small businesses,

which depend importantly on bank credit, have been particularly hard hit. At the Federal Reserve, we have been working to facilitate the flow of funds to creditworthy small businesses. Along with the other supervisory agencies, we have issued guidance to banks and examiners emphasizing that lenders should do all they can to meet the needs of creditworthy borrowers, including small businesses. We also have conducted extensive training programs for our bank examiners, with the message that lending to viable small businesses is good for the safety and soundness of our banking system as well as for our economy. We continue to seek feedback from both banks and potential borrowers about credit conditions. For example, over the past 6 months we have convened more than 40 meetings around the country of lenders, small business representatives, bank examiners, Government officials, and other stakeholders to exchange ideas about the challenges faced by small businesses, particularly in obtaining credit. A capstone conference on addressing the credit needs of small businesses was held at the Board of Governors in Washington last week. This testimony includes an addendum that summarizes the findings of this effort and possible next steps.

The Federal Reserve's response to the financial crisis and the recession has included several components. First, in response to the periods of intense illiquidity and dysfunction in financial markets that characterized the crisis, the Federal Reserve undertook a range of measures and set up emergency programs designed to provide liquidity to financial institutions and markets in the form of fully secured, mostly short-term loans. Over time, these programs helped to stem the panic and to restore normal functioning in a number of key financial markets, supporting the flow of credit to the economy. As financial markets stabilized, the Federal Reserve shut down most of these programs during the first half of this year and took steps to normalize the terms on which it lends to depository institutions. The only such programs currently open to provide new liquidity are the recently reestablished dollar liquidity swap lines with major central banks that I noted earlier. Importantly, our broad-based programs achieved their intended purposes with no loss to the taxpayers. All of the loans extended through the multiborrower facilities that have come due have been repaid in full, with interest. In addition, the Board does not expect the Federal Reserve to incur a net loss on any of the secured loans provided during the crisis to help prevent the disorderly failure of systemically significant financial institutions.

A second major component of the Federal Reserve's response to the financial crisis and recession has involved both standard and less conventional forms of monetary policy. Over the course of the crisis, the FOMC aggressively reduced its target for the Federal funds rate to a range of 0 to ¼ percent, which has been maintained since the end of 2008. And as indicated in the statement released after the June meeting, the FOMC continues to anticipate that economic conditions—including low rates of resource utilization, subdued inflation trends, and stable inflation expectations—are likely to warrant exceptionally low levels of the Federal funds rate for an extended period.

In addition to the very low Federal funds rate, the FOMC has provided monetary policy stimulus through large-scale purchases of longer-term Treasury debt, Federal agency debt, and agency mortgage-backed securities, or MBS. A range of evidence suggests that these purchases helped to improve conditions in mortgage markets and other private credit markets and put downward pressure on longer-term private borrowing rates and spreads.

Compared with the period just before the financial crisis, the System's portfolio of domestic securities has increased from about $800 billion to $2 trillion and has shifted from consisting of 100 percent Treasury securities to having almost two-thirds of its investments in agency-related securities. In addition, the average maturity of the Treasury portfolio has nearly doubled, from 3½ years to almost 7 years. The FOMC plans to return the System's portfolio to a more normal size and composition over the longer term, and the Committee has been discussing alternative approaches to accomplishing that objective.

One approach is for the committee to adjust its reinvestment policy—that is, its policy for handling repayments of principal on the securities—to gradually normalize the portfolio over time. Currently, repayments of principal from agency debt and MBS are not being reinvested, allowing the holdings of these securities to run off as the repayments are received. By contrast, the proceeds from maturing Treasury securities are being reinvested in new issues of Treasury securities with similar maturities. At some point, the committee may want to shift its reinvestment of the proceeds from maturing Treasury securities to shorter-term issues so as to gradually reduce the average maturity of our Treasury holdings toward pre-crisis levels, while leaving the aggregate value of those holdings unchanged. At this juncture, however, no decision to change reinvestment policy has been made.

A second way to normalize the size and composition of the Federal Reserve's securities portfolio would be to sell some holdings of agency debt and MBS. Selling agency securities, rather than simply letting them run off, would shrink the portfolio and return it to a composition of all Treasury securities more quickly. FOMC participants broadly agree that sales of agency-related securities should eventually be used as part of the strategy to normalize the portfolio. Such sales will be implemented in accordance with a framework communicated well in advance and will be conducted at a gradual pace. Because changes in the size and composition of the portfolio could affect financial conditions, however, any decisions regarding the commencement or pace of asset sales will be made in light of the committee's evaluation of the outlook for employment and inflation.

As I noted earlier, the FOMC continues to anticipate that economic conditions are likely to warrant exceptionally low levels of the Federal funds rate for an extended period. At some point, however, the committee will need to begin to remove monetary policy accommodation to prevent the buildup of inflationary pressures. When that time comes, the Federal Reserve will act to increase short-term interest rates by raising the interest rate it pays on reserve balances that depository institutions hold at Federal reserve banks. To tighten the linkage between the interest rate paid on re-

serves and other short-term market interest rates, the Federal Reserve may also drain reserves from the banking system. Two tools for draining reserves from the system are being developed and tested and will be ready when needed. First, the Federal Reserve is putting in place the capacity to conduct large reverse repurchase agreements with an expanded set of counterparties. Second, the Federal Reserve has tested a term deposit facility, under which instruments similar to the certificates of deposit could be auctioned to depository institutions.

Of course, even as the Federal Reserve continues prudent planning for the ultimate withdrawal of extraordinary monetary policy accommodation, we also recognize that the economic outlook remains unusually uncertain. We will continue to carefully assess ongoing financial and economic developments, and we remain prepared to take further policy actions as needed to foster a return to full utilization of our Nation's productive potential in a context of price stability.

Last week, the Congress passed landmark legislation to reform the financial system and financial regulation, and the President signed the bill into law this morning. That legislation represents significant progress toward reducing the likelihood of future financial crises and strengthening the capacity of financial regulators to respond to risks that may emerge. Importantly, the legislation encourages an approach to supervision designed to foster the stability of the financial system as a whole as well as the safety and soundness of individual institutions. Within the Federal Reserve, we have already taken steps to strengthen our analysis and supervision of the financial system and systemically important financial firms in ways consistent with the new legislation. In particular, making full use of the Federal Reserve's broad expertise in economics, financial markets, payment systems, and bank supervision, we have significantly changed our supervisory framework to improve our consolidated supervision of large, complex bank holding companies, and we are enhancing the tools we use to monitor the financial sector and to identify potential systemic risks. In addition, the briefings prepared for meetings of the FOMC are now providing increased coverage and analysis of potential risks to the financial system, thus supporting the Federal Reserve's ability to make effective monetary policy and to enhance financial stability.

Much work remains to be done, both to implement through regulation the extensive provisions of the new legislation and to develop the macroprudential approach called for by the Congress. However, I believe that the legislation, together with stronger regulatory standards for bank capital and liquidity now being developed, will place our financial system on a sounder foundation and minimize the risk of a repetition of the devastating events of the past 3 years.

Thank you, Mr. Chairman. I would be pleased to respond to your questions.

Chairman DODD. Thank you very much, and what I will do is I will ask the Clerk to—let us try 7 minutes a round. Again, I won't be banging down the gavel too hard, but if people try and keep them in that timeframe, it will be helpful since we have got a pretty good turnout, if we can.

Let me begin by raising the issue—Senator Shelby made note of the reference to the recent crisis in Europe. Let me start out there, if I can. As the European Union announced its financial stabilization program in May, you briefed us, in fact, here on the Committee on the Fed's decision to temporarily reopen the dollar swap lines with the ECB and other foreign central banks to support liquidity in the dollar funding markets. Clearly, the Fed identified a need to protect the American economy from events in Europe.

With continued downgrades of European sovereigns—I noticed Ireland, just the other day, they downgraded a bit—European bank stress test results expected this week, and again, there has been a lot written about that, how successful they may be, and the uncertainty about future economic growth, as well, what challenges lie ahead, in your view, for the efforts you and your counterparts in Europe have made to stabilize the financial system?

Mr. BERNANKE. Well, Senator, as I mentioned, concerns about the European situation created some problems in financial markets this spring, which spilled over into our own financial markets, as well. The Europeans have been quite aggressive in addressing these problems. As you know, they, together with the IMF, have provided a financial program for Greece and they have collectively developed a stabilization fund of 500 billion Euros, together with additional funds potentially from the IMF, to be used to ensure that countries under fiscal stress will be able to make their payments and to finance their governments. And indeed, in the last few weeks, we have seen some of the troubled governments being able to go back to the market, which I think is encouraging.

The Federal Reserve's liquidity swap lines were a relatively minor part of that effort, but I think they have provided some assurance that dollar funding markets will be sufficiently liquid and have reduced the risks to our own financial system.

The other thing that the Europeans are doing is trying to duplicate the success of the American bank stress tests of a little more than a year ago by conducting a set of stress tests whose results are supposed to be released later this week. Of course, it remains to be seen how effective those stress tests are, but it is clear that the Europeans are very focused and very committed to addressing these issues, and my sense is that the financial market concern about European problems has diminished to some extent recently, which is, in turn helpful to our economy.

But we will at the Federal Reserve continue to be in close contact with our colleagues in Europe. I am going to Europe for this weekend. And we will continue to monitor developments and their potential impact to the U.S. economy.

Chairman DODD. Well, I appreciate that, and I think the committee would probably as a general matter like to be kept abreast and informed as to your observations regarding their progress. Obviously, a lot of difficulty. While they share common currencies and so forth, the differences in fiscal policies in the various countries make their ability to resolve these in some sort of united fashion even more difficult, it seems. But I hope your assessment is correct.

Let me, if I can, raise an issue that has been—and it is not your job, obviously, to get into policy debates here on specific legislative matters, so I am not going to try and pin you down on that. But

we are going through the debate here now. Obviously, we have got slow growth, as you pointed out, high unemployment, low interest rates, low inflation. And again, obviously, we have got deficits that are mounting. And so the debate back and forth is to where is the balance? How do we strike here, an austerity program or do we try and stimulate some economic growth in the country at the same time and how do we do that.

You are a student of the Depression era, and there are many who have written about the failure of the New Deal administration after the first couple of years to not sustain a policy of economic growth, in fact, follow an austerity path, again, using that language. And those who have argued that because they did that, they delayed, of course, the second or more—or delayed recovery during that period of time.

Give us your take on this as a general matter. And again, I am not asking you to engage in the debate about specific budget requests and the like. But stepping back sort of with a macro approach here, what do you advise us in the legislative branch as to how to approach this debate, because obviously it is tearing us a bit apart up here and we need to strike some balance in all of this. Deficit reduction is clearly a goal we have got to focus on, but also, simultaneously, we have got to try and stimulate economic growth in the country which requires some government activity, as well.

Mr. BERNANKE. Mr. Chairman, as you know, this is very controversial and there has been a lot of debate on both sides. On the one hand, and I will come back to a kind of recommendation, but on the one hand, you have folks who are focusing on the need for government support in the current economic environment. Obviously, in the United States and in many other countries, we have a great deal of excess capacity. Private spending is weak. And so the argument is that additional fiscal support might be helpful to the economy.

Chairman DODD. Right.

Mr. BERNANKE. On the other side, you have people who are concerned about the longer-term deficit situation, are worried that financial markets might respond in an adverse way or confidence might respond in an adverse way to signals that any government is not committed to long-term fiscal sustainability.

So there is some truth to both of those arguments. I think the right way to combine them is to think about the entire trajectory of fiscal policy. I do believe that at the current moment, that the large deficits, as unattractive as they are, are important for supporting economic activity and they were important also in restoring financial stability, and so I think they were justified in that respect and I would be reluctant to withdraw that support too precipitously in the near term.

At the same time, to maintain confidence and keep interest rates low, it is very important that we have a strong and credible plan for reducing deficits over the next few years.

So if we think of this instead of either/or and think of it as a combination and think about the trajectory, the best approach, in my view, is to maintain some fiscal support for the economy in the near term, but to combine that with serious attention to addressing

what are very significant fiscal issues for the United States in the medium term.

Chairman DODD. Let me pick up on that, because again, you and I have chatted over the years and I have been very impressed with some of your writings about the long-term effects of unemployment. We have a tendency to see these matters where we have got a certain level of unemployment. Then things happen and we get people back to work. That is obviously the goal.

But talk to us about the long-term effects of unemployment. What worries you about that, in a brief comment, if you would?

Mr. BERNANKE. Well, this is part of the reason why I am concerned about the current situation and why I made reference in my remarks to the fact that, currently, about half of the unemployed have been unemployed for 6 months or more. So in terms of long-term unemployment, this is the worst labor market, the worst episode since the Great Depression.

Of course, long-term unemployment is very stressful for the unemployed and their families, being without income or reduced income for such a long period of time. But even from the perspective of economic growth and stability, as we have seen in other countries, people who are unemployed for a long period of time often see their skills atrophy or see their skills become irrelevant to the new economy or the way the economy is developing, or they may become demoralized and may become separated from the labor market. Indeed, long-term unemployment sometimes becomes permanent unemployment.

So not only for the sake of the unemployed and for the short-term strength of the economy, but also for our long-term viability and international competitiveness, I think we need to be very seriously concerned about the implications of long-term unemployment for skills, for labor force attachment, for long-term earnings and employment opportunities.

Chairman DODD. Well, I appreciate that, and obviously that was the point I was trying to make here. Your point is that there is enough empirical data on this and other examples that have occurred so that is not mere speculation about what can happen in terms of job skill levels and the ability of people then to recover and get back on their feet, not just individually, but overall the economy of a country is affected by it.

Mr. BERNANKE. There is a good bit of research on this question.

Chairman DODD. I thank you for that.

Let me turn to Senator Shelby.

Senator SHELBY. Mr. Chairman, we all, I think, agree that long-term unemployment problems is a cancer dealing with our economy and people's operations. On the other hand, a spiraling deficit and accumulated debt like we are going through now is also a real problem. And the question is, how do we balance that and how much time do we have, isn't it?

Mr. BERNANKE. Well, Senator, as I responded to the Chairman, I absolutely agree that this is a concern, that if there is a loss of confidence in the financial markets that the United States is committed to and will achieve long-term fiscal sustainability, then the implications could be bad, not only for our long-term growth pros-

pects, but they could actually hurt the current recovery for higher interest rates or higher inflation expectations.

So it is very important to demonstrate as best we can, given the difficulties of committing future Congresses and so on, but to demonstrate as best we can that we are serious about addressing long-term issues. And so I don't think it is either/or. I think you really need to do both.

Senator SHELBY. But accumulating debt after debt each year is not good for anybody in this country, is it——

Mr. BERNANKE. I agree.

Senator SHELBY. ——short term, right?

Mr. BERNANKE. If the debt continues to accumulate and becomes unsustainable, as the Congressional Budget Office believes our current policies are, then the only way that can end is through a crisis or some other very bad outcome.

Senator SHELBY. Do you, as Chairman of the Fed, do you believe that our current continuing to have these big deficits adding to our debt is unsustainable?

Mr. BERNANKE. I do, and I think that view is widely shared.

Senator SHELBY. Thank you. Mr. Chairman, the minutes of the June FOMC, the Federal Open Markets Committee meeting, stated, and I will quote, "The committee would need to consider whether further policy stimulus might become appropriate if the outlook were to worsen appreciably."

Aside from taking the Federal funds rate and the interest rate paid on reserves to zero, it is not clear to me what further policy stimulus would mean. If further stimulus were to involve more asset purchases that you alluded to by the Fed, would the Fed buy Treasuries or would they try to channel credit to specific segments of the financial markets, such as housing or perhaps even municipal debt?

Mr. BERNANKE. Senator, I think it is important to preface the answer by saying that monetary policy is currently very stimulative, as I am sure you are aware.

Senator SHELBY. Yes.

Mr. BERNANKE. We have brought interest rates down close to zero. We have had a number of programs to stabilize financial markets. We have language which says that we plan to keep rates low for an extended period. And we have purchased more than a trillion dollars in securities. So certainly no one can accuse the Fed of not having been aggressive in trying to support the recovery.

That being said, if the recovery seems to be faltering, then we will at least need to review our options, and we have not fully done that review and we need to think about possibilities. But broadly speaking, there are a number of things that we could consider and look at.

One would be further changes or modifications of our language or our framework describing how we intend to change interest rates over time, giving more information about that. That is certainly one approach.

We could lower the interest rate we pay on reserves, which is currently one-fourth of 1 percent.

The third class of things, though, has to do with changes in our balance sheet, and that would involve either not letting securities

run off, as they are currently running off, or even making additional purchases.

We have not come to the point where we can tell you precisely what the leading options are. Clearly, each of these options has got drawbacks, potential costs. So we are going to continue to monitor the economy closely and continue to evaluate the alternatives that we have, recognizing that policy is already quite stimulative.

Senator SHELBY. Some people believe that the Fed is running out of options. From what you just said, you believe you still have some options, depending on the circumstances.

Mr. BERNANKE. I think we do still have options, but they are not going to be the conventional options and so we need to look at them carefully and make sure we are comfortable with any step that we take.

Senator SHELBY. I want to get into the area of small business lending. Mr. Chairman, I hear reports of a credit crunch for small businesses and calls by other people to initiate more government programs to jump start lending in this area. I have two questions related to small business credit.

First, is there some market failure or regulatory failure inhibiting the flow of small business credit which requires even more government intervention?

Second, is there any slow down in small business credit because of weaker demand, because of a deterioration in financial conditions of small businesses and values of the collateral that they hold, or because of regulators somehow inhibiting or preventing good loans from being made? In other words, do we know the definitive reason for the slow down in credit flow to small businesses and what is your take?

Mr. BERNANKE. Senator, we have done a great deal of work on this and the addendum to my remarks gives you some of the findings of our meetings around the country on this issue. Certainly, a significant part of the reduction in lending to small business is the result either of lower demand, because firms don't want to expand, they don't have the final demand to grow——

Senator SHELBY. Uncertainty, perhaps?

Mr. BERNANKE. I am sorry?

Senator SHELBY. Uncertainty in the economy?

Mr. BERNANKE. Uncertainty and other factors. In other cases, the firm might like to expand, but its collateral value has declined and it is financially weaker and it is no longer viewed as being creditworthy at the current credit standards. So there are certainly a number of reasons why the demand for credit or the attractiveness of some borrowers has declined in this recession.

At the same time, we want to be sure that every creditworthy small business or borrower is able to obtain credit, and while there are many issues to look at as regulators, one that we are particularly concerned about is that bank regulators might somehow be putting the thumb on the scale on the wrong side and being excessively cautious about not letting banks issue what are even marginally risky loans and not taking into account the importance to our economy that creditworthy borrowers receive credit.

And so much of our effort has been focused on instructing and training our examiners to take a balanced approach, where they

both are taking appropriate caution, but also making sure that creditworthy borrowers can get credit.

Senator SHELBY. My time is running and has run. GSE debt reform—do you believe that the debt of Fannie and Freddie is backed by the full faith and credit of the United States of America?

Mr. BERNANKE. Well, not technically or legally, but, of course, the——

Senator SHELBY. Do you believe——

Mr. BERNANKE. Legally, I don't know what the legal status is. I don't think it has been given that status by the Congress. But, of course——

Senator SHELBY. Do you believe the market has given that status?

Mr. BERNANKE. The market, I think, takes appropriate comfort from the fact that there is a considerable amount of appropriated funds backing up those two companies.

Senator SHELBY. What risk does the Fed face in holding GSE debt?

Mr. BERNANKE. Well, for exactly the reason you just raised, that the Treasury is providing backstop support for the mortgages, we are taking essentially no credit risk. There is some interest rate risk, if interest rates were to rise sharply. But on the other side of that, with our very low cost of funding, we have actually been earning a fairly high income from our holdings and have been remitting that to the Treasury.

Senator SHELBY. Last, do you believe that it is important for Congress to act quickly to reform the GSEs and provide certainty and clarity to our Nation's housing policies?

Mr. BERNANKE. And I have said so before and I agree with that, Senator.

Senator SHELBY. Thank you, Mr. Chairman.

Chairman DODD. Thank you very much.

Senator Reed.

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

Thank you, Chairman Bernanke. As you pointed out, the President signed the financial reform bill this morning and there are many that thought we could not do it, get it passed. But it is a tribute to Senator Dodd's leadership, actually, the collaboration of everyone on this committee, including many of my Republican colleagues. People thought we couldn't do it, and I think there is a sizable population out there that believes that the regulators might undo much of what we have done.

So could you give us your sense of how procedurally and substantively you and your fellow regulators will prevent or at least ensure that the regulated community doesn't have an inappropriate influence on the rules and regulations that are going to be developed?

Mr. BERNANKE. Well, speaking for myself and the Federal Reserve, we think that the framework in this bill is very constructive. It addresses many of the gaps and problems that we saw in the crisis, and for our part, we intend to write rules that will implement the intent of Congress and that will be sufficiently tough to ensure that the risk of another crisis is very low.

A lot of the effectiveness of this bill, of course, depends on the implementation, not just the rule writing, but also the actual supervision and execution of those rules, and we are taking this very seriously. We are restructuring our entire supervisory framework, both intellectually and in management terms, to make sure that we are able to address risks to the broader financial system as this bill envisions and that we are able to support the FDIC in its wind-down function and the CFTC and SEC in their oversight of central counterparties, *et cetera*. So we are very committed to making this work and we think it gives us the tools that will allow us to do that.

Senator REED. Just to follow up, I think you understand that there is a very—the high degree of skepticism. And you go into this, I presume, acknowledging that in the public, so that your efforts have to be transparent and not only for the substance, but also the appearance of the deliberation is not influenced by anyone, is that a fair——

Mr. BERNANKE. That is absolutely right. I would add that we are also working with our international colleagues on capital liquidity standards, which I think will be an additional strength of the overall reform package.

Senator REED. Mr. Chairman, I have been made aware, and others have, too, that there is roughly $2 trillion on the balance sheets of American companies that is not being deployed in new product research, investment, expansion of jobs. Can you give us an indication of why that is happening? And also, it would seem to me that this recovery is going to either be led by very aggressive Federal policy to support employment or private policy, and the private money is there but it is not happening.

Mr. BERNANKE. Well, the larger corporations, in particular, have had a significant rebound in their profits. They have been able to refinance their debt at quite favorable terms, given the low interest rates in corporate bond markets. And, of course, they have been reluctant to make large capital investments in an environment where they have a lot of excess capacity. And so for all those reasons and also for reasons of caution, those cash balances have built up.

My presumption is that as uncertainty declines, as firms become more confident in the recovery, that they will deploy those funds and that will be an important source of growth for our economy.

Senator REED. Mr. Chairman, let me talk about another area which could be and in some cases already is a potential drag on the economy, and that is State and local governments who are being faced with significant budget challenges. Are you concerned that they might, indeed, collectively counteract what you and what we are trying to do to move the economy forward?

Mr. BERNANKE. Well, as you know, the Federal Government has already provided a great deal of support to the State and local governments. Notwithstanding that, they are still in a cutting mode and seem likely to cut several hundred thousand jobs going forward. So that is a drag on the economy, no question about it.

I suppose that one small piece of good news is that municipal bond markets are functioning reasonably well and rates are pretty low, so that most States are able to obtain funding if they need it.

But it certainly is one of the factors which is reducing the recovery speed that we are experiencing.

Senator REED. The final sort of area of concern is you have spoken about and my colleagues have spoken about the need to address the deficit and the need to do things that will not contribute to the long-term deficit. Is it useful to think about those policies that add to the structural deficit *versus* those policies, such as unemployment compensation, that does not add to the structural deficit, that it is typically emergency spending that will be made up as the economy recovers, employment recovers? And in that regard, proposals to once again extend the Bush tax cuts would, I think, add to the structural deficit, since they are unconditional, but temporary assistance to States, temporary assistance to workers would not add to that structural deficit. Is that a fair way to look at it?

Mr. BERNANKE. I think it is useful to distinguish cyclical and structural deficits and it is consistent with what I was saying before, is that right now, some fiscal support for the economy is probably a constructive thing, whereas over the medium term, we need to reduce our fiscal deficits, which is consistent with lowering the structural component of our deficits. But I would urge you not just to leave the structural deficit alone. I mean, it is too high and anything we can do to reduce the structural deficit, not just leave it alone, would be positive for the markets and would make it easier for the markets to accept any shorter-term actions you might want to take.

Senator REED. The unconditional extension of the Bush tax cuts would add further to a structural deficit that is much too high at the moment, is that your opinion?

Mr. BERNANKE. Well, the CBO would do that holding everything else constant. But I don't want to be interpreted as recommending one policy or another policy. As you know, I am not——

Senator REED. Your colleague was not that reticent.

Mr. BERNANKE. Well——

Senator REED. Or your predecessor.

Mr. BERNANKE. I don't think it is really my place to tell Congress which specific tax and spending policies to choose. I prefer to address the broader trajectory of fiscal stimulus.

Senator REED. Well, the trajectory would be made better or worse if those provisions were extended without condition?

Mr. BERNANKE. Well, if no other changes were made, it would increase the cyclical, or maintain the cyclical and also increase the structural. Now, of course, there is always the possibility of taking other measures to offset whatever you do on any particular program.

Senator REED. Thank you, Mr. Chairman.

Chairman DODD. Thank you, Senator.

Senator Bunning.

Senator BUNNING. Thank you, Mr. Chairman.

Thank you, Chairman Bernanke, for being here. There are so many things I would like to ask you.

First of all, the job of the Federal Reserve is monetary policy. I want to clear that up.

Mr. BERNANKE. That is part of our job, but we also have financial stability responsibilities, in my view.

Senator BUNNING. But the main thrust of the Federal Reserve is to conduct the monetary policy of the United States of America.

Mr. BERNANKE. I don't think it is the exclusive——

Senator BUNNING. I didn't say it was exclusive.

Mr. BERNANKE. It is very important and unique to the Federal Reserve to do monetary policy.

Senator BUNNING. If I got into monetary policy, you would get mad, as a Congressman.

Mr. BERNANKE. I think it is important for the Fed to have independence in making monetary policy.

Senator BUNNING. OK. I just want to reemphasize something that my Ranking Member said. Several news stories in the last few weeks, senior Federal Reserve officials, presumably you or someone close to you, have explained three actions the Fed could take to boost the economy if conditions get worse, and you have talked about them, lowering the interest reserve rates to zero, not ¼, but zero; extending the period of time for a near-zero Fed fund rate; and using proceeds from previous asset purchases to buy more mortgage-backed securities. However, many commentators and even some officials at the Fed doubt that these actions would have much of an impact.

Do you share their concerns, and what are we going to do if these options do not work? Are you out of bullets?

Mr. BERNANKE. Well, I don't think so. We need to continue to evaluate those options. As I said, we are not prepared to take any specific steps in the near term, particularly since we are still also evaluating the recovery and the strength of the recovery. But I do think that there is some potential for some of those steps to be effective and we will continue to look at them, recognizing your concerns. You raised the issue of credit allocation, for example, with the MBS, and a number of members of the FOMC agree with your concern.

Senator BUNNING. In evaluating some monetary policy in your discussion of your own testimony, you said that you were looking for 3 to 3½ in 2011 for growth and 4 to 4½ in 2012. Is that accurate?

Mr. BERNANKE. I don't think those were quite the numbers I had, but——

Senator BUNNING. Oh, I am sorry——

Mr. BERNANKE. ——they are in the testimony. I think it is three-and-a-half——

Senator BUNNING. I wrote them down.

Mr. BERNANKE. Three-and-a-half to four-and-a-half, I believe was the number.

Senator BUNNING. OK, that is close. Over the 2 years?

Mr. BERNANKE. For 2011 and 2012, yes.

Senator BUNNING. Thank you. OK. And 7.5 percent unemployment by the year 2012?

Mr. BERNANKE. By the end of 2012, 7.1.

Senator BUNNING. Seven-point-one, OK. You know, in this regulatory bill, we have given the Fed a lot more power. You know, in 1994, we gave the Fed a lot of power. We gave them total control over bank mortgages and mortgage brokers, 1994 law we passed,

this Congress. And, you know, for 14 years, they didn't write a regulation. Not one. Not until you did after your second year in office.

Now, if we give you all that power in this new regulatory bill that has just passed and you sit on your hands for 14 years, it isn't going to do us any good, is it?

Mr. BERNANKE. You are absolutely right.

Senator BUNNING. Well, I am really concerned because we are at approximately 90 bank failures this year in the United States of America—90. I don't know what it is going to—what August, September, October, November, and December will bring. But the FDIC has to resolve those banks or the Comptroller of the Currency, or whichever is the regulator of that bank.

Now we have handed you a job, in my mind, that is damn near impossible. You are going to have to pick and choose who is too big to fail. You and a group of so many people, but you particularly. And it is a subjective view. It is not—it doesn't say, these are the categories. It says that you should decide who is too big to fail. Is that accurate? Do you accept that as an accurate review of what is in the——

Mr. BERNANKE. No, Senator. What we have to determine is which firms are systemically critical, but they will be subject to this resolution regime, which means that they will fail and the creditors will lose money.

Senator BUNNING. But it is subjective. It is not objective.

Mr. BERNANKE. I think it will be important for us to develop as many criteria, clear criteria as we possibly can.

Senator BUNNING. Oh, I think——

Mr. BERNANKE. Obviously, it will be partly subjective, yes.

Senator BUNNING. OK. You know, we are $13 trillion going to $14 trillion in our debt. And if you count agency debt—that is public debt. If you count agency debt, just in Social Security, we are at $1 trillion. So if we add that to the $13 trillion, agency debt plus public, that is $14 trillion already. This year, we are not going to have a $14 trillion GDP, not unless we have an unbelievable recovery in the second half of this year. Isn't that pretty close to where Greece was?

Mr. BERNANKE. Well, I think that, first of all, adding the GSE debt is not entirely appropriate, because on the other side of the balance sheet are assets, mortgages, that are worth something.

Senator BUNNING. But don't we have to make good those trust fund mortgages like Social Security? Don't we, as a government, have to make good on those pieces of paper that are up in West Virginia?

Mr. BERNANKE. But if we have 5 or 10 percent losses, we will still have 90 or 95 percent assets there. So it is not as if we had borrowed the $5 trillion of the outstanding MBS and had no assets to show for it.

Senator BUNNING. But we did spend the money.

Mr. BERNANKE. We spent several hundred billion, but not five trillion.

Senator BUNNING. Well, as the Chairman of the Social Security Subcommittee, when I was there, they were spending every penny they got from the Social Security Administration for other purposes. That means that we have to make up the difference.

I just am worried where we are heading and I am worried about the tools that you have to counter where we are heading. I surely don't want us to not recover fully from this recession, because that is the—I mean, lack of jobs is the secret. We have got to create jobs. Small business creates jobs, and if this Congress doesn't act, we are not going to create those jobs. So I wish you good well.

Mr. BERNANKE. Thank you.

Senator BUNNING. Good luck.

Chairman DODD. Thank you, Senator. Let me just say here, if we were in the *status quo* and had not passed this bill and the tools that existed 2 years ago, we would be a lot more vulnerable today than we are without this, so I thank you.

Senator Bayh.

Senator BAYH. Mr. Chairman, this may be my last opportunity to interact with you in this capacity, and I just want to take this moment to thank you for your service to our country once again and to say it has been a pleasure working with you on some of these issues.

My first question has to—there have been a lot of comments here about our budget deficits and debt, which is accurately described, as you pointed out, as unsustainable. I would like to ask about another unsustainable disequilibrium, and that is our current account deficit and the corresponding current account surpluses in China and other parts of the developing world.

Many observers believe that it was this disequilibrium that gave rise to a glut of global capital that undergirded the asset bubble that led to some of the problems that we have seen. There were some signs it was beginning to be self-correcting. Savings rates in our country were going up. Consumption in China is rising. But the most recent data suggests that perhaps the current account imbalance is once again on the rise. So my question to you is: How concerned about this should we be? And given the apparent return to the *status quo ante* in terms of the gap, is this going to be self-correcting, or do other measures need to be taken?

Mr. BERNANKE. Well, first, on the forecast, the current account deficit did drop from about 6 percent of GDP to about 3 percent of GDP, and it has increased slightly, but our view is that in the medium term it is not going to go back to where it was, that we have made some progress in that respect. But to continue with the progress, we need to continue to have global adjustment, and that essentially means that surplus countries like China and others need to increase their reliance on domestic demand and, where appropriate, have flexible exchange rates. And the United States has to do its part, and this ties back to your first comment about sustainability, which is that in order to reduce our current account deficit, we have to increase our national saving. Better fiscal position is part of that. Higher household and business saving is part of that. So that is an important imperative, one that the IMF and other international agencies continue to focus on, and I absolutely agree with you that if the current account deficit were to return to 5 or 6 percent of GDP, that would be a very worrisome situation.

Senator BAYH. Well, let us hope we can get some bipartisan cooperation around here in getting our fiscal house in order, which

will help with the savings issue. Let us hope the Chinese will continue to move in the area of currency flexibility.

So as you look out to the future, you think that 3 percent—is that going to be about where it will be, do you think? And if so, that is—clearly not 5 or 6. Is that sustainable, the 3 percent rate?

Mr. BERNANKE. For the next few years. That is our estimate, but it is just forecast.

Senator BAYH. OK. I just saw the monthly figures last month, so hopefully that does not augur a return to something more——

Mr. BERNANKE. We do not focus on bilateral trade deficits for U.S.–China. We look at the overall, and that is somewhat different.

Senator BAYH. My second question has to do with the Greek debt crisis once again, and as you pointed out, the Europeans moved very aggressively and things seem to have calmed down a fair amount there. But I look with some alarm, even if they implement all these austerity measures that they are thinking about, and as you can see there is a fair amount of political turmoil around all that, it looks as if they are still going to be at about 130 percent or so of debt-to-GDP ratio, even after they have implemented all these steps. And just putting my political hat on, it could be pretty hard for them to go substantially beyond that. So that still looks like it is going to be pretty hard to sustain a situation like that. So I do not expect you to comment upon the likelihood of restructuring or anything like that. But you had mentioned that the whole episode, while it caused some disturbance, we have now kind of gone beyond that.

So my question would be: In the event of an orderly restructuring of Greek debt at some point, I assume that it would also have only a marginal impact upon our own markets?

Mr. BERNANKE. Well, what I think is important is that at least for the next few years, the Europeans have provided enough funding to assure no restructuring, no default, and that is important because we remain vulnerable in our recovery and in our financial markets to the kind of stress that would cause. So I am encouraged by the commitment of the Europeans in the large amount of funding.

The other side of their program is also to create what the IMF would call conditionality, which is that they are within European mechanisms for achieving fiscal sustainability within their members. So the countries that receive assistance will also be under a lot of pressure from their peers within the euro zone or within the EU to make appropriate adjustments.

Senator BAYH. That actually leads me to my final question. I will make one comment I do not expect you to respond to, but a skeptic might look at all this and say what was really at work here was a choice between an eventual orderly restructuring or a disorderly restructuring that could have been very destabilizing, and so what the Europeans are attempting to do is to recapitalize their banks and get them in better shape for the eventual haircut that may lie down the road at some point. So that is just an observation some have made about what is transpiring there, and hopefully the world economy will be in a stronger position and be willing to absorb all of that if, in fact, something like that happens.

But we had a great hearing yesterday, and I want to thank you for making Mr. Tarullo available. His testimony was very candid, very insightful, very helpful, and that was about the importance—since we passed our financial regulatory response to the crisis, the importance of global harmonization and convergence about standards and enforcement mechanisms and all that. And you mentioned the—I am sure many of the Europeans, particularly the Germans, wish that they had focused a little bit more on some of the enforcement mechanisms with regard to government fiscal policy at the time they had formed the common currency.

And so my question to you, Chairman, my final question would be: How important is it to our country that we continue to have, you know, harmonization of standards and particularly that there are enforcement mechanisms in place to ensure that those standards are abided by most of the time? Because that is going to be important to, I think, avoiding a recurrence of the crisis at some point. And, second, there are some competitiveness aspects with regard to this that could affect American institutions?

Mr. BERNANKE. Well, it is very important. We are not going to have perfect harmonization because countries are in different situations. They have different banking systems, different financial systems. But we are making good progress in negotiating with our colleagues a strengthening of capital liquidity standards that will help make our banking system more stable in the event of another stress event, as we recently saw.

We do not really have binding mechanisms to enforce the agreements across borders. Every country applies the Basel standards within its own borders according to its own decisions. But we do work closely together and apply peer pressure and other mechanisms to try to keep the standards very similar, and, indeed, our very key objective over the next few months is to come up with an international agreement on capital liquidity standards that will both be tough—and the United States is leading the way in looking for a very tough set of rules—but also that will be acceptable and agreed upon across the major countries.

Senator BAYH. Capital liquidity standards, resolution protocols, how we handle derivatives, all those kinds of things, it is just important that we harmonize as much as possible. Otherwise, we could see a repetition of the Greek phenomenon, not in the sovereign debt situation but when it comes to financial regulations. So we have taken some major steps here, and if we are going to really get the full fruits of that, it is important we try and get as much of the rest of the world to go along, and I thank you for your efforts in that regard. And, again, thank you for making Mr. Tarullo available, and thank you for your service to our country.

Mr. BERNANKE. Thank you.

Chairman DODD. Thank you, Senator, very much.

Just on that point, we had regulatory arbitrage. You could end up with sovereign arbitrage in a sense if we do not try and harmonize those rules. That will be an important question.

Senator Corker.

Senator CORKER. Thank you, Mr. Chairman. I was thinking, the last time the Federal Reserve Chairman was in and today, the difference between the way the Federal Reserve was being looked at

6 months ago and the outcome as it relates to this regulatory bill. He should have spiked the ball before he sat down, but I guess Federal Reserve Chairmen do not show emotion in that way. But I know things have changed tremendously from that time, and I certainly appreciate you coming back and would want to talk to you a little bit about the report that you gave obviously was disappointing to the markets. I think people are a little concerned about where we are.

Do you discuss much in your meetings the probability of a double dip? And can you give us some sense as to the future there?

Mr. BERNANKE. Well, we certainly try to talk about all contingencies, and the committee has identified some downside risks to the recovery, including problems of credit availability, small business, the high level of unemployment, which in turn has affected consumer confidence and their willingness to spend. So there are certainly some risks.

But I would like to emphasize that our forecast, our expectation is still for a moderate recovery, the numbers I gave today of 3, 3½ percent, depending on the horizon, which will over time bring down the unemployment rate. So that is still our main scenario, that the economy will continue to grow and that the final demand, private final demand will take over from inventory building and fiscal policy as the drivers of growth.

Senator CORKER. The Ranking Member asked you a question, you know, obviously sort of the customary tools that you have or you have used in the past for easing, you know, with low rates, I think right after your testimony today the 10-year Treasury went to 292, rates are low, the Fed fund target is low, a lot of the sort of customary things are kind of gone. So he asked the question about what you may be thinking about, and you mentioned some nonconventional things. I know that then you alluded to some projections into the future that you all might use to maybe spur things along.

I know in a 2002 speech you talked about the ability of the Fed to create inflation, and I am just wondering what you were saying, in essence, to the Ranking Member and what you might be referring to as it relates to projecting into the future.

Mr. BERNANKE. Well, my 2002 speech pointed out that there were other things the Federal Reserve could do besides lowering the overnight interest rate to try to stimulate the economy, and those things included making commitments or statements about the length of time that rates would be low. They included purchasing securities. They included intervening in financial markets that were dysfunctional, as we did during the worst parts of the crisis. And those are all things that we actually did in the last couple of years. And I continue to believe that there are additional steps that could be taken, but obviously we do need to think about them very carefully and also to evaluate the state of the economy before taking any further action.

Senator CORKER. What would be the hurdle or threshold that you would have to cross over before you would begin tightening?

Mr. BERNANKE. Well that has certainly got to be a committee decision, but I would say that certainly one important criterion would be whether the recovery is sustainable, whether it is fading and not

being self-propelling. If the recovery is continuing at a moderate pace, then the incentive to take extraordinary actions would be somewhat less. But certainly we would want to make sure that the economy continues to move back toward a more normal state of resource utilization.

Senator CORKER. So I know a lot of people up here have tried to sort of take you in whatever direction they think they would like to take you as it relates to the deficit. I want to sort of ask it in a neutral way, and that is, look, we have got a debt commission right now that is looking at long-term issues. It is bipartisan. No doubt in my opinion the administration has added to our concerns in that regard. But if you really look at where our debt is, a lot of that has just been building for years because of many entitlements and other things.

As a matter of fact, when you look at where we are over the next 10 years, regardless of what the factors are, I think the American people look at deficit reduction almost academically today, and yet in the near term, we are talking about draconian things having to occur. I know Erskine Bowles talked about getting to 21 percent of GDP. Some of us would like to see it at 18 to 20 as it relates to expenditures. But even getting to that level is going to take draconian steps.

So my question gets back to monetary policy. I think you all know full well where we are headed, and I think the American people have not really digested what it means for us to get our house in order. I am not sure if any of us really have digested fully what that means.

But how does that impact the decisions that you all make as it relates to monetary policy? I mean, you know that is coming. You know it is going to be draconian to deal with it in an appropriate way. How is it affecting your internal discussions as it relates to monetary policy?

Mr. BERNANKE. Well, it is a risk factor. Depending on how markets respond to developments in the debt and deficit, it could potentially be a drag on recovery if interest rates were to rise, for example. But in the near term, we are mostly focused on the business cycle, the state of the economy, the level of inflation.

For the most part, I think of these fiscal issues as being medium term. For example, the objective of the Commission is to get the deficit down I think to about 3 percent, 3½ percent by the middle of the decade, something like that. And that is the kind of objective we want. We want to get the deficit down to a point where the ratio of debt to GDP sort of stabilizes, and that would, I think, be very good for confidence in the markets.

Senator CORKER. Evan Bayh mentioned at the hearing we had yesterday with Mr. Tarullo, he did a good job presenting. One of the things that we—in preparing for the meeting, we had somebody come in who is dealing with a lot of the foreign ministers and others, with the G-20, somebody that I think is respected by both sides of the aisle. And one of the things that he mentioned was the fact there was a lot of discussion by people in other countries regarding the legislation that we did just pass, and the fact that many of them saw the opportunity for jobs to migrate out of this country into theirs or for their particular institutions to fill in the gaps, to

be able to take on additional business because of some of the things that we have done.

I know that you and others are going to attempt to assure that we have sort of a worldwide set of regulations that work together. One of the things he specifically spoke to was the Volcker Rule, and there was a lot of resistance around the world community regarding that. And I am just wondering what your thoughts are on that and, you know, is there a concern in your mind today about us not achieving that and the fact that we may, in fact, lose financial system jobs here in the country?

Chairman DODD. Just answer that quickly, if you would.

Mr. BERNANKE. Well, the Volcker Rule was, I think, constructed in a reasonable way in that it allows continued hedging and market-making activities, which are critical activities for banks and other financial institutions. I think it is evident that the European banks will not adopt the same rule because they are universal banks and they have a different mode of operation. But our banks have been able to compete with European and other banks pretty effectively even though there have been differences in powers and other requirements. I do not see a major change in that competitiveness.

Chairman DODD. Very good. Senator Akaka.

Senator AKAKA. Thank you very much, Mr. Chairman. I want to add my welcome to Chairman Bernanke back to the Committee. We share a commitment to improving the lives of working families by better educating, protecting and empowering consumers.

This is a great day for America and the American people. The Dodd-Frank Wall Street Reform and Consumer Protection Act became law today. One section of the act that will provide economic opportunities for working families is Title 12, which authorized programs intended to improve access to mainstream financial institutions and affordable small loans.

Please share with the Committee the challenges that the unbanked and underbanked are confronted with, and explain why it is important that more people utilize banks and credit unions.

Mr. BERNANKE. Well, Senator, you have been a leader in this area for a very long time, and, of course, you are well aware that many people, particularly in many cases immigrants or minorities, are utilizing nonmainstream financial institutions, like payday lenders or check cashers, and that frequently that is very costly for them and may involve getting trapped in a cycle of debt where they have to continue taking out more loans at high interest rates in order to pay back their previous loans.

So I think it is very important—and you and I have had this discussion on a number of occasions—to bring the broader public into the mainstream financial system, not only for deposits but for credit, for saving, for all the important functions of the financial system for families.

I agree that there are some useful things in the bill that will address that, including financial literacy provisions as well. I believe the Consumer Protection Bureau will have some education and literacy components. That is very complementary. The Consumer Bureau will certainly be active in trying to eliminate deceptive, misleading advertising or products, but that alone is really not suffi-

cient for people to make the best use of financial markets and financial products. They have to be educated as well. And, you know, I think that is very positive that we are going to increase the commitment to that training.

Senator AKAKA. Thank you. Chairman Bernanke, as you mentioned financial literacy, the recently enacted law includes a provision to establish the Office of Financial Education within the newly created Bureau of Consumer Financial Protection. The office will craft a strategy to develop and implement initiatives to improve financial literacy among consumers.

What do you think must be done to ensure that consumers are able to make informed financial decisions?

Mr. BERNANKE. Well, as I indicated, I think this is a very important component of consumer protection, and I look forward to seeing the proposals and the ideas that come out of this office.

I am very happy about the trend that we see across the country that more and more high schools are offering financial literacy courses. We have more organizations like Junior Achievement and others that are working with schools to increase financial literacy.

I would have to say in all honesty that there are still some very difficult challenges in figuring out how best to educate people. Many of the programs that have been tried in the past have not been so successful based in terms of subsequent testing or evaluation of people who have taken those courses. So there are some difficult problems still in figuring out how best to transmit this information, how best to make sure people absorb it.

One of the best ways to do that is to put financial literacy in the context of actual decisions that people make. If people are involved in buying a house or a car, they are much more involved and much more interested in the issues than they are if they are learning something in a high school class perhaps. So counseling and other kinds of support for people making financial decisions might be a good direction. But as I said, I applaud that the bill did not neglect financial literacy, and I hope that the Federal Reserve will be able to cooperate with the Bureau. As you know, we have our own programs, and we will continue to press education in this area.

Senator AKAKA. Chairman Bernanke, many hard-working immigrants send a portion of their earnings to relatives living abroad. The Dodd-Frank Wall Street Reform and Consumer Protection Act establishes long overdue requirements for simple, meaningful, and relevant disclosures about the cost of sending remittances. Additionally, the act requires that the Federal Reserve work with the Department of Treasury to expand the use of the automated clearinghouse system and other payment mechanisms for remittance transfers to foreign countries, and I look forward to continuing to work with you on this important issue.

Mr. Chairman, what are the benefits of having consumers utilize banks and credit unions for remittances? And what must be done to encourage greater use of the mainstream financial institutions for sending remittances?

Mr. BERNANKE. Well, this is an issue I have spoken on in the past. We were just speaking about ways of getting particularly immigrant communities to get them into the mainstream financial system. Remittances, which is a very common practice for immi-

grants who are sending money home, is one natural way to get people into the mainstream financial system, and we have encouraged and we have seen many financial institutions improve their remittance services and use that as a way of attracting the interest of minority or immigrant groups. So I think it is a very useful way to make the transition from nonmainstream to mainstream finance.

So we do support that, and you mentioned the ACH. The Federal Reserve has been involved a long time in developing better ways of transmitting remittances, and we have agreements with the Bank of Mexico to reduce the cost and increase the efficiency of remittances to that country. So we certainly are eager and prepared to expand those services, as is required by the new legislation.

Senator AKAKA. Thank you very much for your responses, Chairman Bernanke.

Thank you, Mr. Chairman.

Chairman DODD. Thank you, Senator, very much.

Senator Gregg.

Senator GREGG. Thank you, Mr. Chairman. It is a pleasure to see you. I appreciate the good job you do for this Nation, and I am glad you are still independent.

Obviously, you have brought us some information that is in some ways not all that optimistic: unusual uncertainty. Interesting term. Let me try to get to a couple of hopefully positive certainties. One would be if we were to do—if you look at the banking financial institutions today, the major ones, and you reflected in the terms of a stress test, which is what the Europeans are going through and what we have been through, do any of our banks have stress test issues of any significance right now?

Mr. BERNANKE. I am not quite sure what you mean by stress test issues, but we did do stress tests of 19 of the largest banks——

Senator GREGG. I am talking about the largest banks.

Mr. BERNANKE. ——in the United States, and some of them were required to raise additional capital, all of which did. Since then, large banks have become increasingly profitable. Their losses on most categories of loans seem to have peaked, and in some cases they are reducing their reserves against loan losses. So the overall capital levels and the quality of the capital of large banks is certainly much improved over the last couple of years.

Senator GREGG. The Chairman referred to an extraordinary quantity of excess reserves, which would imply that the banking system is fairly aggressively capitalized right now. Do you see that as being true? I mean the major banking system.

Mr. BERNANKE. Well, the excess reserves, which is about $1 trillion held by the Federal Reserve, does not count—it is an asset. It does not count as capital. It is really a form of liquidity, and it helps to ensure that banks have all the access to liquid funds that they might need, and that it is another belt-and-suspender protection for the banking system.

They have so far been reluctant to make use of those reserves, probably because they view the demand for credit as being weak or the quality of borrowers as being weak, or in some cases because they are uncertain about how much capital they will need in the

longer term and are, therefore, being cautious about putting their capital to work. But capital reserves are different quantities.

Senator GREGG. But they all reflect the strength of the system?

Mr. BERNANKE. Well, the excess reserves in particular, which are created by Federal Reserve purchases of securities in the open market, are a strength of the system in the sense that they ensure that banks have easy access to large amounts of liquidity. But it is a separate issue from capital.

Senator GREGG. Well, I guess my point is: Isn't our financial structure in pretty good shape right now compared to where it was a year and a half ago? And isn't it moving in the right direction? And so when you say "unusual uncertainties," isn't at least one certainty that at least that element of the crisis which we confronted a year and a half ago has been settled out and is moving in the right direction?

Mr. BERNANKE. Yes, I took note of that in my remarks, that both the banking system and the financial markets more generally are in considerably better shape than they were 2 years ago.

Senator GREGG. Senator Reed referred to $2 trillion on asset balance sheets across this country in corporate America. Now, I have heard this refrain a series of times from the other side of the aisle now. It is almost as if that $2 trillion should be ours, it should be the Federal Government's and we should get it reallocated right now because it is sitting there. But isn't it really a reflection of the fact that we are poised for some positive activity if confidence can return to the markets? In other words, there are resources for capital expansion and for economic expansion sitting on the books.

Mr. BERNANKE. That is right. The availability of funding or credit is not a constraint for most large firms.

Senator GREGG. What is the constraint, of course, is the unusual uncertainties that are facing American business today, and small business especially, but all business, and that is that we are facing a Government that has got a long-term debt which is unsustainable, and so there is a huge uncertainty as a result of that. In the short term, it is a two-step dance. We understand that in the short term there is a stimulus event here that is occurring. But in the long term, we have an unsustainable debt. Is that not true?

Mr. BERNANKE. Yes.

Senator GREGG. And that within the next year, it is the administration's position that major tax events will occur which will significantly dampen the creation of capital. Specifically, capital gains rates will go up by 50 percent; dividend tax rates will go up by 150 percent on some earners; and top marginal rates will go up from 35 percent to 42 percent, which dampens capital formation. Doesn't a major tax event like that in a slow economy dampen capital formation?

Mr. BERNANKE. Well, again I do not want to be recommending for or against specific taxes, but obviously, as you look at the Tax Code, thinking about this not only in the short term but in terms of demand stimulus and long term in terms of efficiency and effectiveness, I hope you look at it from both perspectives.

Senator GREGG. Well, if you tax the formation of capital over the next 6 to 8 months at a rate which is 50 percent higher than it

is today or 150 percent higher than it is today, you are probably going to slow economic activity. That is rhetorical.

And then, of course, you have the issue of the financial reform bill. I mean, there is going to be a period here where people are not going to—a lot of the banking industry is not going to know what sort of capital reserves it should actually be holding, which will constrain its willingness to go out and lend; where the derivatives market is going to be frothy, to be kind, because it will not really know where it is ending up and what type of derivatives have to have margins; and where under the Volcker Rule a large amount of proprietary trading which used to be available will no longer be available to American banks, although ironically it will be available to international banks. All of that will contract credit to some degree in the market, will it not, over the next 6 months to 2 years as people sort out their responsibilities here?

Mr. BERNANKE. Those are legitimate concerns, and for that reason the Federal Reserve is going to do the best we can to get these things resolved as quickly as possible.

Senator GREGG. So if you want to look at what is really causing—maybe the uncertainty that is causing this $2 trillion to stay on the balance sheets, it is the fiscal policies of the Government.

Mr. BERNANKE. Policy uncertainties are no doubt part of it, but there is also economic uncertainties, just uncertainty about how labor markets will evolve, how consumer spending will evolve, how the global economy will evolve and so on. So there is a lot of uncertainty, and that is certainly an issue.

Senator GREGG. If you were doing a formula, I think the percentage that would be assigned to Federal fiscal policy would be fairly high for creating uncertainty as a result of our unwillingness to face the long-term debt problems we have, the tax policies which are coming at us which will penalize capital formation, and the uncertainty about what sort of capital you have to have on your books in order to make loans in the financial institutions for at least the next 6 months to 2 years.

Chairman DODD. Let me just point out before I turn to Sherrod Brown, because we are losing some members, but I say this to the staff in the room, as well, in consultation with Senator Shelby, I would like to be able to move our nominees for the Federal Reserve out of committee before the August break, and I know they were with us a few days ago. So if my colleagues have questions for them in addition to what they asked during the confirmation hearing, if you haven't submitted questions, I would urge you to do so.

I haven't scheduled anything yet. I am obviously going to stay in touch with all of you. Just let me know whether or not you have had questions answered or not so that we could try and get those done before—at least out of the committee. I am not trying to get it up before the full Senate, obviously, before we leave, but at least set it up. So I would urge you to submit questions if you have them, to members, and I thank you for that.

Senator Brown.

Senator BROWN. Thank you, Mr. Chairman.

Chairman Bernanke, welcome. Last time you were here, several months ago, you and I talked about manufacturing, its role in our economy, that manufacturing, typically automotive but manufac-

turing generally is the vehicle, if you will—pardon my pun there—to lead us out of recession. I mentioned to you that 30 years ago, more than a quarter of our GDP was manufacturing and financial services made up only about a tenth of our GDP, and in the last 30 years, we have seen that flip and we know where that got us. It got us a shrinking middle class. It got us our financial crisis, in part, not quite that simple, but we know that if we don't make things in this country, that it is a significant problem of getting out of a recession and beyond that.

Also in the last several months, the International Trade Commission, signed of on more or less by the President and the Commerce Department, made two rulings, one of them on Chinese tires, one of them on—that was last fall. Since you have been in front of this committee, they made a country on oil country tubular steel. Each of those rulings found that the Chinese weren't playing fair on subsidies, dumping. Each of those rulings resulted immediately in American companies in my part of the country and beyond, in tires, especially, hiring several hundred people.

Back in December 2006, and this gets me to comments that Senator Bayh touched on, in December 2006 at the U.S.–China Strategic Economic Dialogue, you described China's undervalued currency, quote, "as an effective subsidy for Chinese exporters." You know how many jobs depend on our trade deficit, or we hope shrinking deficit—not a lot of evidence for that long term that I can see, although you touched on that.

But explain whether you believe, in your words, effective subsidy is still in place and whether the G-20's commitment to rebalance growth can be achieved with this apparently slow and gradual appreciation of the yuan.

Mr. BERNANKE. Well, this is related to my answer to Senator Bayh about the current account deficit. There are two tools to address imbalances. One is exchange rate flexibility. The other is to rebalance your economy so that it is more dependent on domestic demand rather than on exports.

On the latter, the Chinese have made some progress. Through fiscal policy and other policy actions, they have increased somewhat their dependence on their own domestic demand rather than excessive reliance on exports, to some extent. I mean, there has been progress in that direction.

On the exchange rate they have recently begun again to undertake this controlled float that they have. Obviously, it hasn't moved the exchange rate very far, and I would agree with you that we would like to see them move it considerably further so that it would both create a level playing field, as your concern addresses, but also from the perspective of China, to give them a more balanced domestic economy and more independence of their monetary policy. So it is really something that is important for both sides.

Senator BROWN. One thing China seems to understand better than we when they make these very, very small baby steps on currency appreciation is time. Thirty year ago, Zhou Enlai was asked what he thought of the French Revolution and he said it was too early to tell. It just seems to me that China plays us out on this currency and continues its—it is, as you say, an effective subsidy.

I assume you haven't changed your mind that it is an effective subsidy. You would use that term again?

Mr. BERNANKE. Yes.

Senator BROWN. OK. Would you agree with many, many economists who have been parts of both Democratic and Republican administrations that the subsidy approaches 40 percent?

Mr. BERNANKE. I don't know exactly. There is a range of estimates that are——

Senator BROWN. Would you give me your range of estimate?

Mr. BERNANKE. The numbers that you see in the literature range between 10 and 30 percent.

Senator BROWN. No, they range—many say 40.

Mr. BERNANKE. I don't think that is the center of the distribution but there is a wide range.

Senator BROWN. Well, 10 to 30, I am not asking the center——

Mr. BERNANKE. Right. Sorry.

Senator BROWN. ——ten to 40, the center is still not 40. You are pretty good at math, so what is the range and where do you come down? I want you to be more specific than 10 to something.

Mr. BERNANKE. Could I come back to you with some numbers?

Senator BROWN. Could you discuss it a little more now? So the range is—I am sorry I interrupted you. The range is something. Give me the range that you see——

Mr. BERNANKE. So the range——

Senator BROWN. ——and where you might——

Mr. BERNANKE. ——that I have seen through a variety of ways of calculating it is generally, in my recollection, somewhere between 10 and 30 percent.

Senator BROWN. OK. Does that mean that Chinese goods sold into this country are underpriced 10 to 30 percent?

Mr. BERNANKE. Yes, holding constant some other things like wages, which have started to rise, for example. But broadly speaking, yes.

Senator BROWN. And doesn't that mean that it should be no surprise we have this sort of this huge bilateral trade deficit with China?

Mr. BERNANKE. Well, it is a function both of the exchange rate, and I am not disagreeing with you, but it is also a function of savings and investment policies. And again, China has made some progress toward increasing the dependence of its economy on its own domestic demand.

Senator BROWN. If we were to enforce two issues where there have been petitions through the Commerce Department, one on coated paper, another on aluminum, two actually fairly major industries in the country, if we were to make the decision and enforce the laws that there is, in fact, as we do this study, that there is, in fact—or this investigation—a currency subsidy, if you will, is it fair to assert that absolutely would mean job growth, that it would mean job growth in this country, our country?

Mr. BERNANKE. There would certainly be a short-run effect on those particular industries, but I would point out that there is not much correlation over a longer period of time between overall employment or unemployment and our current account deficit, that where resources are not being utilized in one industry, they tend

over time to be deployed in other industries. So maybe there is some misallocation across industry, but overall employment doesn't depend too much on the current account.

Senator BROWN. That is a story that would ring hollow to lots of cities in my State, large and small alike, like your city in South Carolina, understanding how capital moves and families can't often.

But if, in fact, and I will wrap up with this, Mr. Chairman. I see my time has expired. Current account deficit notwithstanding, if the currency is so, your term, if the undervalued currency is an effective subsidy, doesn't that always mean lost jobs in a bilateral relationship when trade is going back and forth—more back than forth—on these commodities or these manufactured goods?

Mr. BERNANKE. It could mean that there is a transfer of jobs across different industries. It doesn't necessarily mean overall, that jobs are lost.

Senator BROWN. But when the overall net effect—you can talk about it is not like we are losing jobs in paper, we are losing jobs in chemicals, we are losing jobs in steel, we are losing jobs in aluminum, we are losing jobs in glass and we are picking it up in other manufacturing. I mean, the net loss is manufacturing writ large, correct?

Mr. BERNANKE. Well, what is happening is that the jobs are being picked up in nontraded areas, in goods and services that we don't trade abroad.

Senator BROWN. Perhaps. Thank you.

Chairman DODD. Thank you, Senator.

Senator Tester.

Senator TESTER. Thank you, Chairman Dodd.

Welcome, Ben. I appreciate you being here. I want to step back to some questions that were asked earlier, and you said—I think it was in response to Chairman Dodd, but it may have been in your opening statement, where you talked about the expenditures being made now were necessary to keep the economy propped up and keep it going, and correct me if I am wrong. And then another question was asked shortly thereafter. You had said that the deficits are unsustainable right now. Those seem to be competing statements, although they can go together. The question is, from your perspective, the expenditures we are doing right now, regardless of the deficit, are necessary?

Mr. BERNANKE. Broadly speaking, yes. I don't think that there is really much benefit to trying to reduce the 2010 deficit substantially. I think that that is supporting the economy. Those two statements are not inconsistent. It has to do with the timeframe.

Senator TESTER. OK. I just want to make sure that that is the case, because I think sometimes we interpret them as being diametrically opposed when they are not.

Mr. BERNANKE. I would much prefer to see consolidation or cuts over the medium term as opposed to immediately.

Senator TESTER. Let me get to that, because we all know that large and unsustainable deficits, as you have pointed out in the past, ultimately, we are going to have to make some tough decisions. Ultimately, we are going to have to make some choices, none

of which will be easy, whether you are talking about cutting expenditures or increasing the income.

What are the indicators that you would use to determine when we start addressing those issues, and is today the day we start or when do we start?

Mr. BERNANKE. Well, I think if you look at, for example, the CBO and other projections, they have deficit-to-GDP ratios from, say, 2013 to 2020, somewhere in the four to 7 percent range. Assuming that the economy is back to close to full employment by 2013 or 2014, that four to 7 percent is the medium-term structural deficit and that is too high to keep the debt-to-GDP ratio constant over time. It is going to lead to an unsustainable situation.

So in particular, the Deficit Commission has been tasked to bring the deficit down to 3 or 3½ percent, something in that range, by 2015. I think we ought to be shooting for a sustainable path, 3 percent, maybe even less, of GDP as a deficit starting 2 or 3 years from now and going out for the next decade, would be one broad trajectory that would be reassuring to the financial markets.

Senator TESTER. Is 3 to 3½ percent of GDP sustainable?

Mr. BERNANKE. It depends on lots of different things, but you don't have to have a zero deficit for sustainability. You just need the deficit to be roughly equal to the interest payments that you make. So if interest payments are 2 to 3 percent of GDP, then a permanent deficit of that amount is, in fact, sustainable. Yes.

Senator TESTER. OK. The G-20 met recently and they set up a timeframe for deficit reduction. Do you think that that timeframe is appropriate?

Mr. BERNANKE. It is 2015, I believe?

Senator TESTER. I think half the deficit by 2013.

Mr. BERNANKE. A majority of them are emerging market economies, many of which are actually growing pretty quickly right now, so I am not sure I would want to impose a single standard on all the members of the G-20. The important thing is the overall trajectory. Is there some evidence that the debt will begin to stabilize within the next few years?

Senator TESTER. OK. Investors have been—I mean, the Treasury bonds have been pretty solid, and that is maybe an understatement. How long do you think this will remain this way, and is it dependent on what is going on in Europe right now that they are solid, or is there another reason for it?

Mr. BERNANKE. Well, there are a number of reasons why the yield is under 3 percent——

Senator TESTER. Right.

Mr. BERNANKE. ——currently. They include low inflation expectations, low growth expectations, but very importantly, also safe haven effects. That is, the U.S. dollar or U.S. debt is considered to be very liquid, very safe instrument, and given the amount of risks in the financial markets around the world, many investors have decided to acquire U.S. dollars, including many foreign governments who want to hold dollar reserves. So those are some of the reasons.

Clearly, the bond market at this point is not focused on long-term deficits, at which point it would become more concerned. It is very hard to know.

Senator TESTER. Some have said that there is going to be—there is strong potential for another dip due to commercial real estate and other things. What impact does that have on the Treasury bonds?

Mr. BERNANKE. Well, just to be clear——

Senator TESTER. If it would happen.

Mr. BERNANKE. Just to be clear, the Federal Reserve's forecast is for moderate recovery. But if, for whatever reason, there were a significant slowdown, then presumably Treasury yields would fall further.

Senator TESTER. OK. So, I mean, so Treasury doesn't—and I am happy to hear you say yes to this question—Treasury doesn't see another dip due to commercial markets?

Mr. BERNANKE. The Federal Reserve?

Senator TESTER. The Federal Reserve, I mean. I am sorry.

Mr. BERNANKE. No, we don't think that a double——

Senator TESTER. That is good.

Mr. BERNANKE. ——is a high probability event.

Senator TESTER. That is good news. You had talked about—in fact, it was Ranking Member Shelby who had some questions on the credit crunch and the reason for it. You had talked about lower demand. You had talked about collateral, the value decline. You talked about regulators being especially cautious. I want to touch onto that. You said that you were instructing regulators to be more—have more consistency in their regulation. Consistency goes to stability goes to better lending. How are you evaluating that?

Mr. BERNANKE. Well, first, in terms of what we are doing, we have put out a lot of specific guidance in terms of how you go about making these evaluations with lots of practical real world examples, and we have put out guidances about commercial real estate, about small business, and a number of other key areas. And we have been following that up with very intensive training of the examiners to make sure they understand that there needs to be an appropriate balance between appropriate prudence and making loans to creditworthy borrowers.

In terms of evaluation, we are doing this a number of ways. We are gathering more data. For example, we are now gathering on a quarterly basis lending to small businesses instead of annually. We are contributing questions to the NFIB's Survey of Small Businesses to try to understand what problems they see. Very importantly, as I mentioned in my testimony, we have had a series of 40 meetings around the country, meeting with banks, small businesses, and other relevant parties to talk about the issues, and we have put together an addendum to my testimony which includes a number of findings and recommendations to address this.

So we have been both qualitatively and quantitatively trying to assess the effects of our guidances and training on bank activity.

Senator TESTER. OK. Just one last thing, Mr. Chairman, if I might, and then I will throw it over, because it is on this issue. I continually, when I go into the State of Montana every weekend or when I come back here, I am continually getting calls from banks, community banks, that are saying the regulation isn't consistent. It is not consistent between agencies. It is not applied across the board within agencies in a consistent way. I said, you know what?

I would love to call these guys up. And they said, don't use our name. If you use our name, it will be worse.

There has got to be a way that you, being the person you are, can go out and dig down and get that information, because quite honestly, I believe the banks because I hear it from every one of them. So if you could do that, I would certainly appreciate it.

Mr. BERNANKE. I invite those comments. If they are unwilling to talk to their Federal Reserve Bank in their district, we have an Ombudsman here in Washington who will be happy to take those comments, and our Bank Supervision Department will be happy to take those comments. So we want to hear that.

Senator TESTER. Once again, thank you for being here, Chairman Bernanke. Thank you.

Chairman DODD. Senator Bennet.

Senator BENNET. Thank you, Mr. Chairman. Thank you for holding this hearing, and to the Ranking Member, thank you, and thank you for being back here, Mr. Chairman.

I actually want to pick up right where Senator Tester left off, because the last time we were together, I asked whether or not we might have some metrics where we could start to look at things and be able to distinguish between lending that is not happening because of loan demand, lending that is not happening because of regulators' overreach, lending that is not happening because we are in a different leverage environment, all that stuff, and I was pleased to see that in the addendum you have talked about it a few times.

There is a section on research and data, what you are going to start collecting, what you have heard from people that might make it more meaningful, and for the life of me, there are a million things in here that I don't know why we haven't done already, but we haven't. We haven't had the focus on small business lending that we need to have. I don't think the administration has had the focus on it that they need to have.

But my question is—and my anecdotal evidence in Colorado continues to be exactly the same as Senator Tester's, which is that small businesses that assert that they can pay on their loans can't get credit, and banks are saying that the reason they can't extend the credit is because the regulators have swung too far over to one side. It is a consistent theme. Every now and then, you hear somebody say, well, there is not really loan demand, or they will say, Michael, look and see if people are actually paying off their letters of credit and they are returning capital to banks.

So my question for you is, you talked about the training and the guidance, wanting people to take a balanced approach. In the evidence that you have collected so far that you were just talking about, what is the evidence? What does it tell you about what is happening here?

Mr. BERNANKE. Well——

Senator BENNET. Or do we not even now——

Mr. BERNANKE. I don't know if I could give you a completely final answer on this. I think we are pretty confident that a lot of the reduction in lending is not regulatory constraint, that a lot of it has to do either with reduced demand from small businesses or from the fact that their financial and economic position has been weak-

ened so that it is more difficult for them to get a loan with the tighter standards which now exist in the banking system. So that is a big part of it.

I don't have definitive answers for you that you would want on the regulatory, but let me give you an example of something which we are currently doing that I didn't mention to Senator Tester, which is we have done baseline analyses, evaluations. We have gone out to 200 or more banks and asked them how they dealt with commercial real estate problems, workouts, relending, refinancing, and so on, and we are doing a follow-up subsequent to our guidance on this issue. And what we want to try to do is identify whether there have been changes in behavior. So we are trying to get the metrics that you are——

Senator BENNET. Is your sense that the—and what I hear a lot is we used to reserve 10 percent. The requirement is now 12 percent, or it was 9 percent, it is now 12 percent. Do you think that the regulators are striking the right balance there?

Mr. BERNANKE. I am sorry, I didn't understand the question.

Senator BENNET. They are saying that the assets that they have to reserve that they can't lend have increased from, I think it is 9 percent to 12 percent.

Mr. BERNANKE. There is no simple rule like that. There is an evaluation of the overall quality of the loan, which depends on a variety of things, so there is not——

Senator BENNET. OK. They feel like—in my State, they feel like there is a simple rule like that.

Mr. BERNANKE. So there are data. Some of the data that we look at are a survey we do of 100 banks of loan officers and ask them whether they are tightening or easing standards, and they have been tightening for quite a while. So some of this surely is the banks' decision to tighten their lending standards. Now, recently, we have seen a cessation of tightening. That is, standards are no longer getting tighter. In some places, they are getting a little bit easier. So there is some stabilization there. We have also seen that small business lending is still dropping, but more slowly than before.

So there are some indications that credit is becoming more available. Whether that has to do with regulatory decisions or whether it has to do with the fact that the economy is looking a little better is hard to say.

Senator BENNET. I wanted to, just before I lose my chance here, also talk a little bit about the deficit and the debt situation. You talked about how the markets need to see a compelling—that we are taking it seriously. You have testified to that before. Actually, they are not the only ones. My daughters have heard me talk about this so much that they are enormously agitated about this question themselves, because they don't want to make these decisions that we are failing to make.

But Congress after Congress after Congress have failed to make the decisions, and we now have $13 trillion debt on the balance sheet. What is appalling about it, among other things, is that we really don't have much to show for it, I don't think. We haven't invested in this country's infrastructure, for example. We haven't built the 21st century energy infrastructure that we need. So the

hole is actually even greater than I think we imagine from a fiscal point of view.

You mentioned at the very beginning the difficulty of having one Congress bind the next Congress and the next Congress. What kind of thing do you think about when you are not here but in your office that we could do that would show that we are serious about this, that we are actually putting ourselves on a path of sustainability, knowing that we can't fix this overnight? What is it that we—what will do we need to demonstrate and how do we need to demonstrate it? I realize—I am not asking for specific policies, but what do you say to yourself?

Mr. BERNANKE. Well, Congress has over time moved toward multiyear budgeting plans, and you try to look at projected trajectories over a 10-year window. So those kinds of exercises, where you are looking at how programs will affect the deficit over a 10-year period is certainly one way to demonstrate commitment, and a future Congress could reverse what you did, but they at least would have to take active action to do that, and you could demonstrate your commitment to gradual deficit reduction over a period of time.

At some point, you are going to have to address in some way or other the unfunded liabilities associated with entitlements. The problem there is that it doesn't seem likely that you would want to change those for people who are near retirement.

Senator BENNET. Right.

Mr. BERNANKE. Even any changes you would make today are going to only take effect relatively far in the future. And so part of the challenge is to find things that will affect the trajectory, say, between now and 2020, which is what the Commission is looking at.

Senator BENNET. Mr. Chairman, may I ask one more question, or are we done——

Chairman DODD. Yes, very quickly, if you can.

Senator BENNET. Do you think—one of the things that I worry about is that as we recover, we forget that we have got these obligations that we have got to deal with, and people will cut taxes and not pay for it or spend money and not pay for it. Do you think that it would be possible to create a legislative instrument to help manage our deficit to a percentage of GDP, that we would be saying to ourselves that we have a policy objective that says, by such and such a year, the budget deficit can't be greater than 3 percent of GDP or lower?

Mr. BERNANKE. It is certainly possible. There have been a variety of different kinds of rules over the years that Congress has tried to impose on itself, sometimes successful, sometimes less. You have a created Congressional Budget Office, which is a neutral arbiter and which has been very useful in trying to make sure people are making an honest assessment of the costs of their programs or tax cuts.

So, yes, I think there probably are a range of ways of constraining future deficits, and if you look around the world, many countries either have constitutional provisions or they have a nonpartisan office that enforces certain constraints. Of course, the

States have balanced budget requirements which are not perfectly enforced, but do constrain their spending, obviously.

Senator BENNET. Thank you. Thank you, Mr. Chairman.

Chairman DODD. Thank you, Senator.

Senator Menendez.

Senator MENENDEZ. Thank you, Mr. Chairman.

Thank you, Chairman Bernanke, for your service. I always believe the starting point always has consequence, and I hear a lot about spending, which I agree is a challenge and something we need to tackle, but I also hear it in the abstract. So let me just do a very quick history line with you.

You came to us in the end of 2008 with Secretary Paulson and you said to this Congress, we need to act or otherwise we will have financial institutions collapse and that collapse will mean an entire systemic risk to the entire country and maybe we will even have a global financial meltdown. Is that true?

Mr. BERNANKE. Absolutely.

Senator MENENDEZ. So that was necessary.

Mr. BERNANKE. Yes.

Senator MENENDEZ. And then we asked you in the beginning of 2009, when President Obama—that happened before President Obama took office. And then President Obama takes office in 2009 and we have an economy that has flat-lined, is that fair to say?

Mr. BERNANKE. You have a——

Senator MENENDEZ. An economy that was flat-lined, with absolutely no——

Mr. BERNANKE. Yes.

Senator MENENDEZ. We had negative growth.

Mr. BERNANKE. Very weak, yes.

Senator MENENDEZ. We were losing three-quarters of a million jobs in January and February and March of 2009.

Mr. BERNANKE. That is correct.

Senator MENENDEZ. We had negative GDP growth, is that correct?

Mr. BERNANKE. Yes.

Senator MENENDEZ. And then we needed to stimulate that economy because it just had no private sector activity, for all intents and purposes, is that correct?

Mr. BERNANKE. Yes.

Senator MENENDEZ. And, therefore, that was necessary.

Mr. BERNANKE. Well, I never specifically endorsed any particular program, size, composition, and so on——

Senator MENENDEZ. But you then assisted to stimulate the economy.

Mr. BERNANKE. ——but stimulus was certainly beneficial, or certainly was useful in the context of the weak economy we had at the beginning of last year.

Senator MENENDEZ. Well, if we had done nothing, would it have been worse?

Mr. BERNANKE. Probably, yes.

Senator MENENDEZ. OK. So it was necessary. So I have a little difficulty in understanding some of our colleagues from their starting point. Let me ask you now, now, if we do absolutely nothing, what is the economy going to look like?

Mr. BERNANKE. Well——

Senator MENENDEZ. What is the job picture going to look like?

Mr. BERNANKE. Our baseline analysis is that there will not be another large fiscal stimulus, and based on that, we have come up with the forecast which I reported today which is for moderate recovery.

Senator MENENDEZ. But you are also looking at monetary policy as a way, possibly, to see if you can further stimulate—my word—the economy, not?

Mr. BERNANKE. That is correct.

Senator MENENDEZ. Well, that is an action that will have somewhat of a cost. So it is—we have choices here. We could have done nothing, spent nothing and had a global financial meltdown, or we could have acted and prevented that because the consequences would have been far greater. A global financial meltdown means a depression in the 21st century. That would have been far different than the depression that you studied under Roosevelt, would that not be true?

Mr. BERNANKE. Senator, I have never objected to the spending that was done to address——

Senator MENENDEZ. I know you haven't. I am just trying to get the record here straight.

Mr. BERNANKE. Right. I think that the fact that we have a 10-percent GDP deficit this year is completely understandable given what we have been through.

Senator MENENDEZ. So we are looking at debt and deficits now, and I agree we need to tackle that. So adding another $680 billion to the debt, is that a good idea?

Mr. BERNANKE. It depends on——

Senator MENENDEZ. Well——

Mr. BERNANKE. Everything else being equal, raising the debt is a negative.

Senator MENENDEZ. So raising the debt is a negative. And if I do that in a way in which I don't offset that, that would be a negative, would it not be?

Mr. BERNANKE. From the debt perspective, yes.

Senator MENENDEZ. From the debt perspective.

Mr. BERNANKE. Yes.

Senator MENENDEZ. Now, but that is, in essence, what some of our colleagues want us to do in extending the tax cuts that are expiring and not pay for them. And so I just don't understand how we reconcile those views.

Is it permissible never to pay for tax cuts than what they drain the Treasury of? Is that a good fiscal policy?

Mr. BERNANKE. If you don't control the deficits over time, eventually, the markets won't lend to you at reasonable interest rates.

Senator MENENDEZ. Now, speaking about lending at reasonable interest rates, if we continue—you know, my colleagues from Montana and Colorado, I could echo in New Jersey the reality of what banks tell us, particularly community banks and others. So it gets to be a little wide swath of the same set of statements that are being made, which always make me think a little bit about the truthfulness in terms of there seems to be more voracity when I continuously get from a wide range of entities the same answer.

But if you can borrow from the Federal Reserve at, what is it, one point?

Mr. BERNANKE. The discount window is 75 basis points, but we are not making many loans through that.

Senator MENENDEZ. But if you can borrow incredibly low and then go buy Treasury bills, why would you take risk to make loans?

Mr. BERNANKE. It is still profitable. If you can make a good loan, it is still profitable. Buying Treasury bills with short-term money is not an arbitrage. It is a risky way of making short-term profits at the risk of long-term capital losses.

Senator MENENDEZ. Let me ask you this. Why is it that we hear from bank after bank after bank after bank that in the regulatory aspect, we are telling, for example, in commercial loans that are performing—performing—that, however, they need to be recapitalized. Well, if we do that, we are going to dry up an enormous amount of capital, especially as we are looking at a commercial mortgage market problem that I think is going to be incredibly troublesome.

Mr. BERNANKE. Senator, if I may make a couple of comments. One is that there are a number of different bank regulators, as you know, and there may be differences among the regulators in terms of how aggressive they have been at trying to maintain this appropriate balance. I don't know.

Speaking for the Federal Reserve, which oversees about 10 percent of community banks, we have made a very strenuous effort to try to achieve that appropriate balance. It is also possible, I mean, that the banks may be blaming examiners when, in fact, it is their own reluctance to lend which is really the problem. But I agree with the basic point that we need to do everything we can to make sure that banks make good loans, that if a creditworthy borrower comes, that they can get credit.

With respect to your particular point, one of the specific elements of our guidance is that a decline in the value of the property, the commercial real estate is in itself not a reason not to make a loan if the cash-flow is adequate to make repayment. So we have been clear about that particular issue.

Senator MENENDEZ. Finally, I hear from the business community that they need certainty. Well, it seems to me they have certainty in the health field as a result of the law. They now have certainty in financial services regulations, or, I should say, the financial services, the Wall Street reform legislation. And I just want to make sure that my colleagues look at your testimony where you say that legislation represents significant progress toward reducing the likelihood of future financial crises and strengthening the capacity of financial regulators to respond to risks that may emerge, and you go on to say, I believe that the legislation, together with stronger regulatory standards for bank capital and liquidity now being developed will place our financial system on a sounder foundation and minimize the risk of a repetition of the devastating events of the past 3 years—the past 3 years. I think it is incredibly important to highlight that part of your testimony. Thank you for it.

I thank you, Mr. Chairman.

Chairman DODD. Thank you very much, Senator Menendez.

Let me, if I can, Judd Gregg, who I have a lot of respect for, raised the issue that uncertainty in fiscal policy was the, as he sees it, is one of the reasons for the lack of activity here. I am wondering if it is also—I mean, it seems to me that you are getting businesses with this low-growth capacity, where they are just—the demand isn't there. It seems to me that is as much of a factor here as anything else. I wonder if you might comment on that. Again, I am not trying to engage you into taking a side on this debate one way or the other. I think there is clearly some uncertainty out there, as you have described it. But it seems to me, as well, if people aren't—there isn't the capacity, the growth capacity, there is no demand. Therefore, people are not—the economy is not growing. How much of this can describe that?

Mr. BERNANKE. Demand is certainly very important, absolutely. Firms have a lot of excess capacity. They are not making use of the factories and the buildings and the equipment they have now, and so that reduces their incentive to invest further.

Chairman DODD. Well, we have a lot of buildings that are just sitting idle, vacant.

Mr. BERNANKE. That is right.

Chairman DODD. So the utilization is—capacity utilization, there is no demand for it, it seems to me. That has an awful lot to—I just think that has to be added as a major factor in all of this. I gather you agree with that.

Mr. BERNANKE. Certainly the lack of demand, even the small businesses we were talking about, when they talk about what is their number one problem, it actually is not credit. It is lack of demand.

Chairman DODD. Let me jump, if I can—I did not get into this stuff. Several members raised questions with you about, in the financial reform bill, the role of the Federal Reserve. I wanted to raise the issue of the responsibility to impose that heightened capital liquidity and leverage standards on bank holding companies and designated nonbank financial companies, and obviously the harmonization issue, which we have talked about, is going to be critically important.

But, in your view, will such standards need to be set significantly higher than they are at present in order to reduce the likelihood of another fiscal or financial crisis?

Mr. BERNANKE. We are trying simultaneously to think about the small *versus* large bank or systemically critical *versus* noncritical bank capital issues. At the same time, we are looking with our colleagues internationally to try and establish relationships between capital standards across countries. So I do not think we really have come to a conclusion there. It is not a straightforward thing to answer that question, in part because large banks and small banks have such different portfolios and such different activities that they will have different capital levels even for the same set of rules. We are committed by the legislation and by our own approach, to requiring more capital of systemically critical firms, and in a progressive way as firms become even more critical, interconnected, essential to the functioning of the system that they need to both have higher capital and to be subject to tougher prudential regulation because of the effects they have on the whole system if they fail.

Chairman DODD. Well, let me ask you this, because there has been—we will get a lot of Monday morning quarterbacking on the bill, I presume for years to come. There was a proposal in one of the versions of the bill to actually set standards in the legislation. I opposed that idea because of the very answer you just gave to my question. And I am drawing the conclusion there that you think we did the right thing by not trying to set a specific standard in the legislation but allow for more nuanced response to it, again, based on the size of the institution we are talking about, the kind of risks they pose.

On a related matter, the same question has been raised on we left a lot to the regulators, and, again, I am the first to admit exactly we did that, because, again, a set of proposed rules with commentary periods, all of the factors and processes we go through to determine how best to set these up. As someone who has been not only a student and a practitioner in all of this—and obviously a regulator, but aside from that, stepping back from the regulator role, was that generally the right approach in your view that we took with this matter rather than trying to write in a sense rigid standards in the legislation that would have, I think, been more constraining in terms of our ability to have a more measured response?

Mr. BERNANKE. On the specifics of capital there are some rules, the Collins amendment and so on. But it was very important that we have at least some flexibility in order to negotiate and collaborate with our international colleagues on developing an international set of capital standards. So that was very important.

Inevitably in a bill this complex that is addressing so many complex issues, if you want it to be responsive to changes in the environment, to deal with a lot of technical details, I think inevitably the regulators have to play a role. But Congress certainly has an oversight role. You are certainly going to be seeing what we do, and if you are dissatisfied, I am sure you will let us know.

Chairman DODD. Well, in fact, I want to do that, but I am not going to set the hearing date today, but I want to put my colleagues on notice here that my view would be that even as early as September—again, on the assumption we will be leaving here in October for the elections, but in September at some point—I will give people enough time, so probably toward the end of the month, conduct a series of hearings, either one or two of them anyway, with yourself and others to come before us and more specifically lay out what steps exactly are being taken by the various regulators under the proposed legislation so we get some sense of where things are heading at that time. That may be helpful.

In that regard, I just wanted to ask you, the financial reform bill creates the Financial Stability and Oversight Council, which you know, and the Office of Financial Research to provide it with data and analysis on overall financial market conditions. And I think particularly, despite the criticism of some, I think the Office of Financial Research will be a real asset for us in terms of that kind of real-time data that ought to be, I hope, of real assistance to you and others. But do you think that the macroprudential supervision of the economy can help to prevent a financial crisis in the future? And how do you foresee—and this may be the more important of

the two questions. How do you foresee the interaction of macroprudential supervision with the traditional bank-by-bank microprudential supervision of banking regulators?

Mr. BERNANKE. Mr. Chairman, there has been some commentary which says that the bill relies too much on prescient or omnicompetent regulators to identify risks that are emerging. In fact, there are multiple aspects of this bill. First, there is the macroprudential aspect which asks the regulators to look for emerging risks.

Chairman DODD. Right.

Mr. BERNANKE. I think the regulators would have had a better chance of identifying some of the problems that arose in this recent crisis with that kind of framework that you have created. But beyond that macroprudential aspect, there is also a number of steps to strengthen the system, make it more resilient, to put more derivatives through central counterparties, to increase capital and so on, so that whatever the source of a future crisis, even if it is not identified and defused, the system will be better able to withstand that effect.

And then, finally, if we get unfortunately to the firefighting stage, there are additional tools there. So I think it is a useful approach to have multiple ways of addressing crises, both preventive and resilience and firefighting.

So the macroprudential part is very important. It is difficult. It is going to require coordination among different regulators, but it is a direction that regulators around the world and academics and others looking at this really believe is the right direction, and there is quite a bit of thinking already out there about how we could do, for example, stress tests that look at the whole system, which combine the results for individual firms, as you mentioned, but also are able to infer from that how the system as a whole might perform if a certain set of stresses arose.

So there is clearly a relationship between the micro- and macroprudential part, but there is a lot of challenging work to be done there.

Chairman DODD. Well, I agree, and, again, you have already addressed this in passing, so I will leave it for a later gathering to look at all of this and how supervisory functions need to change under our legislation—I know you are giving a lot of thought to that already—as well as how we ought to handle the expanded mandates that we have saddled you with. And, again, I have a great deal of confidence it can be done, and I appreciate your response to Senator Bunning when he asked the question of whether or not you can do this. I am confident you can. Again, we have differences of opinions because I was looking at this a bit differently with more of a single prudential regulator where we sort of evolved from that back in November to what we have ended up here, and I accept that. That is how the process works here with people. I think even my views changed and were modified a bit as we went through the process. So I started out in one place. I would have been closer maybe to where I started out from than what we ended up, but, nonetheless, I accept the fact we are where we are and believe the capacity exists to get this right. And the fact that there is more of a holistic approach to this thing, where we have the ca-

pacity and the ability of talented people all driving toward the same goals, maintaining a strong, safe, and sound financial system with the kind of stability that is necessary in it, as well as restoring that level of trust and confidence in the system, which to me is the most critical element of all, that if the American people and others feel that sense of trust and confidence in our financial system, that in itself will have its own reward.

So, again, I am very grateful to you and your staff and others for the tremendous amount of work you have put into this effort. I appreciate it very much. I look forward to getting together with you again in a couple of months here to really get down to the details of how this is going to work.

Senator Shelby.

Senator SHELBY. Mr. Chairman, some observers warn of growing risk in the $2.8 trillion municipal debt market. Parts of California as well as municipalities in Illinois, Michigan, and New York seem to have been vulnerable to market-driven widening of spreads on their bonds relative to Treasuries, especially when market anxiety over fiscal conditions in the euro zone grew. I have two questions regarding municipal debt.

What is your assessment of the state of the U.S. municipal debt markets? Second, do you believe there is any merit to a recent characterization by Warren Buffett that there is potentially "a terrible problem" ahead for municipal bonds?

Mr. BERNANKE. Well, first, it is certainly true that States and localities are under a lot of fiscal and financial stress. Their revenues have fallen considerably, and they are trying to maintain services and so on. So clearly we have seen some deficits and some cuts at the State and local level.

My view is first of all that the municipal debt market is functioning pretty well, that at least States and localities that have good credit or seem to be sound are not having any difficulty accessing the municipal market, and that yields are pretty low, which is fortunate because there are a number of States and localities that are being forced to borrow under the current circumstances.

Certainly there may be some localities in particular that will have trouble, but I would draw a distinction between say California and Greece, which is that because of these budget balance requirements, the outstanding debt of States is generally much less than the United States or other countries.

So we always have to pay close attention, and there are a lot of stresses at the State and local level, but I do not at this point view the municipal debt market as being a major risk to the economy.

Senator SHELBY. Deflation and the Japanese experience, some people express fear that the U.S. could find itself in a period of deflation and, like Japan, have difficulty escaping. What do you believe are the differences between the U.S. and Japan in terms of structure of economic policy that would ensure that we do not follow the Japanese experience? And is that a concern of the Fed?

Mr. BERNANKE. Again, forecasts are very uncertain, but I do not view deflation as a near-term risk for the United States. If you look at inflation expectations as measured by Government bond markets or by surveys, there has not really been much decline in expected inflation, and that stability of inflation expectations is one impor-

tant factor that will keep inflation from falling very much. So, again, the forecasts of the FOMC are for a gradual increase of inflation toward a more normal, say 2-percent level, and there is not at this point, a very high probability that deflation will become a concern.

I think there are very important differences between the U.S. and Japan. Some of them are structural. The Japanese economy has been relatively low productivity in recent years. It has got a declining labor force, and so its potential growth rate is lower than the U.S., and it has been a less vibrant economy in that respect. Also in Japan are much longer-lived problems with their banking system, which were not addressed for some years. For better or worse, we were very aggressive in addressing our banking system issues, and I think, as I mentioned to a couple of folks our system is strengthening and looks to be doing much better. So I do not think that will be a source of long-term drag either.

And, finally, I would comment that I think the Federal reserve does have the capacity, the tools, should deflation occur—which I do not believe is very likely—to reverse it, and we would be assiduous in doing that.

So I do not consider this to be a very high risk at this point, but, of course, we will continue to monitor the economy and the price level.

Chairman DODD. Senator Corker.

Senator CORKER. Thank you, Mr. Chairman, and, Mr. Chairman, I thank you for your testimony and coming here today. And I know there has been a lot of probings about monetary policy, and I very much appreciate the fact that you stayed consistent with your report. So I want to probe in another area, and that is, Senator Brown was pursuing the whole issue of China, and I do think that—and I know you said we should focus on the overall trade deficits, not the bilateral deficits. But I do think with the economy being as it is and just the relationship as it is, there may be attempts to try to deal with that legislatively. I do not know. And I just wondered if you would share with us the fact is—I mean, you did say it is a subsidy, and it is, to the Chinese people to have a currency valuation relative to the dollar that allows them to export to us.

What are the things that all of us who want to make sure we try to do good things, what are the things we should think about as it relates to the Chinese currency? And what are some of the unintended consequences we should also be aware of?

Mr. BERNANKE. Of the——

Senator CORKER. Well, I mean, there are people looking at—there are all kind of things, and I understand, especially folks who come from textile orientations and all of that. I know Chuck Schumer and Lindsey Graham have looked at some things. I think there is going to be a push. I just think as this economy moves along slowly and that trade gap widens, I think there may be some legislative efforts to deal with that. I am not saying I am going to be a part of that or not part of that, but what are the things that as legislators we should think about as it relates to that issue and some of the unintended consequences of dealing with it inappropriately?

Mr. BERNANKE. Well, I fully understand the concern, and again, it is felt more probably in specific industries than it is for the economy as a whole or for employment as a whole.

Senator CORKER. Say that again? I did not hear it.

Mr. BERNANKE. I understand the concern. I think that as Senator Brown was pointing out, it is easier to identify effects on specific industries than it is to find effects of the currency policy on the economy as a whole or unemployment as a whole, because there is not much relationship between our unemployment rate and our current account deficit.

Just to take an obvious example, unemployment has soared recently while the current account deficit has actually come down. But I do understand the concern.

All I can really say is that to take some of the steps that have been suggested would be quite severe steps and would cause considerable concern about our overall relationship with China and other countries and about our trading policies.

Again, I understand the concern, but I would just reiterate first that this is a complex problem and that it is not just the currency that is involved. The Chinese are also involved in trying to restructure their economy to become more reliant on domestic demand, first of all. Second, I would note that the United States has got a vibrant bilateral relationship in terms of our dialog, for example, the strategic and economic dialog which has been going on was created by Secretary Paulson, has been expanded and continued by the current administration. And one of the things that is evident from that is that the U.S. and China have a wide range of issues, not just the currency but a wide range of issues relating to energy and environment and tourism and investment and trade and many other things where we have common interests, where we need to work cooperatively together. So I hope that Congress will think very carefully before taking any strong action.

At the same time, I recognize that particularly the Treasury has a special role here because they are the spokesman for the currency, but for the Federal Reserve as well to try to maintain a constant dialogue to persuade the Chinese and to apply pressure to them that they need to adjust their currency, which is their current policy distorts capital flows globally, but it is not even good for China in the longer term. It distorts their economy as well and makes them too reliant on exports and reduces their own domestic consumption and also makes their monetary policy less independent. So there are a lot of costs to them as well, and we are hopeful that they have become more appreciative of those concerns over time.

Senator CORKER. In most recent statements that they made, they gave a tilt, if you will, prior to some G-20 meetings, as to what they may be doing. What do you read into that? And what is your sense as you talk to counterparts about what their longer-term efforts will be?

Mr. BERNANKE. With respect to the currency?

Senator CORKER. Yes.

Mr. BERNANKE. Well, as you know, they have gone back to the managed float which allows for small changes in the currency. I think that the amount that they let it move will depend on their

own views of the stability of their own economy and global growth. We are going to have to see. I honestly do not know exactly what their plans are. I suspect that they will be responding to how they view the evolution of global economic conditions.

Senator CORKER. Well, Mr. Chairman, I thank you for coming and certainly look forward to talking to you about those issues going down the road. We had a good hearing yesterday that Senator Bayh chaired, and I think in any bill that passes there are good things and bad things, and people have to make decisions about how they voted based on the net effect.

I do think that all of us are hopeful that as it relates to our relations with the other countries, we end up with a regulatory regime that works well for all of us, and I wish you well in those efforts and look forward to talking to you as you move ahead. Thank you.

Mr. BERNANKE. Thank you, Senator.

Chairman DODD. Thank you

Let me ask, Mr. Chairman—and, again, this goes to the same sort of question that Senator Corker has raised. Some have suggested that we would have been better off had we not acted in this area of financial reform, that if we had just let the market continue the *status quo.* In fact, some have even suggested that given the opportunity they would like to repeal this effort we have all gone through over the last year and a half.

Assuming that what you are talking about is repealed is basically going back to the *status quo,* are we better off, in your view, with this legislation—I know a lot of work needs to be done—than we would be if we would have just maintained the *status quo* as things were prior to the passage of this legislation?

Mr. BERNANKE. Yes, I think we are. I think there were important gaps in our regulatory system which became painfully evident during the crisis and that substantial progress has been made to closing those gaps. We have increased our capacity to take a macroprudential approach, which I think is an important complement to our current institution-by-institution approach. And the ability to wind down large firms and avoid the bailout problem or avoid the situation where we have to choose between a bailout and a financial crisis, I think that is an important step also.

Now, all those things are going to require a lot of work to make them effective and useful tools, but it was very important to address those problems.

Chairman DODD. And so, therefore, it would be imprudent to repeal what we have talked about, what we have done here?

Mr. BERNANKE. No, I would not support repeal.

Chairman DODD. Thank you very much. This Committee will stand adjourned. Thank you, Mr. Chairman.

Mr. BERNANKE. Thank you.

[Whereupon, at 4:37 p.m., the hearing was adjourned.]

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

PREPARED STATEMENT OF BEN S. BERNANKE

CHAIRMAN, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

JULY 21, 2010

Chairman Dodd, Senator Shelby, and Members of the Committee, I am pleased to present the Federal Reserve's semiannual Monetary Policy Report to the Congress.

Economic and Financial Developments

The economic expansion that began in the middle of last year is proceeding at a moderate pace, supported by stimulative monetary and fiscal policies. Although fiscal policy and inventory restocking will likely be providing less impetus to the recovery than they have in recent quarters, rising demand from households and businesses should help sustain growth. In particular, real consumer spending appears to have expanded at about a 2½ percent annual rate in the first half of this year, with purchases of durable goods increasing especially rapidly. However, the housing market remains weak, with the overhang of vacant or foreclosed houses weighing on home prices and construction.

An important drag on household spending is the slow recovery in the labor market and the attendant uncertainty about job prospects. After 2 years of job losses, private payrolls expanded at an average of about 100,000 per month during the first half of this year, a pace insufficient to reduce the unemployment rate materially. In all likelihood, a significant amount of time will be required to restore the nearly 8½ million jobs that were lost over 2008 and 2009. Moreover, nearly half of the unemployed have been out of work for longer than 6 months. Long-term unemployment not only imposes exceptional near-term hardships on workers and their families, it also erodes skills and may have long-lasting effects on workers' employment and earnings prospects.

In the business sector, investment in equipment and software appears to have increased rapidly in the first half of the year, in part reflecting capital outlays that had been deferred during the downturn and the need of many businesses to replace aging equipment. In contrast, spending on nonresidential structures—weighed down by high vacancy rates and tight credit—has continued to contract, though some indicators suggest that the rate of decline may be slowing. Both U.S. exports and U.S. imports have been expanding, reflecting growth in the global economy and the recovery of world trade. Stronger exports have in turn helped foster growth in the U.S. manufacturing sector.

Inflation has remained low. The price index for personal consumption expenditures appears to have risen at an annual rate of less than 1 percent in the first half of the year. Although overall inflation has fluctuated, partly reflecting changes in energy prices, by a number of measures underlying inflation has trended down over the past 2 years. The slack in labor and product markets has damped wage and price pressures, and rapid increases in productivity have further reduced producers' unit labor costs.

My colleagues on the Federal Open Market Committee (FOMC) and I expect continued moderate growth, a gradual decline in the unemployment rate, and subdued inflation over the next several years. In conjunction with the June FOMC meeting, Board members and Reserve Bank presidents prepared forecasts of economic growth, unemployment, and inflation for the years 2010 through 2012 and over the longer run. The forecasts are qualitatively similar to those we released in February and May, although progress in reducing unemployment is now expected to be somewhat slower than we previously projected, and near-term inflation now looks likely to be a little lower. Most FOMC participants expect real GDP growth of 3 to 3½ percent in 2010, and roughly 3½ to 4½ percent in 2011 and 2012. The unemployment rate is expected to decline to between 7 and 7½ percent by the end of 2012. Most participants viewed uncertainty about the outlook for growth and unemployment as greater than normal, and the majority saw the risks to growth as weighted to the downside. Most participants projected that inflation will average only about 1 percent in 2010 and that it will remain low during 2011 and 2012, with the risks to the inflation outlook roughly balanced.

One factor underlying the Committee's somewhat weaker outlook is that financial conditions—though much improved since the depth of the financial crisis—have become less supportive of economic growth in recent months. Notably, concerns about the ability of Greece and a number of other euro-area countries to manage their sizable budget deficits and high levels of public debt spurred a broad-based withdrawal from risk-taking in global financial markets in the spring, resulting in lower stock prices and wider risk spreads in the United States. In response to these fiscal pressures, European leaders put in place a number of strong measures, including an as-

sistance package for Greece and €500 billion of funding to backstop the near-term financing needs of euro-area countries. To help ease strains in U.S. dollar funding markets, the Federal Reserve reestablished temporary dollar liquidity swap lines with the ECB and several other major central banks. To date, drawings under the swap lines have been limited, but we believe that the existence of these lines has increased confidence in dollar funding markets, helping to maintain credit availability in our own financial system.

Like financial conditions generally, the state of the U.S. banking system has also improved significantly since the worst of the crisis. Loss rates on most types of loans seem to be peaking, and, in the aggregate, bank capital ratios have risen to new highs. However, many banks continue to have a large volume of troubled loans on their books, and bank lending standards remain tight. With credit demand weak and with banks writing down problem credits, bank loans outstanding have continued to contract. Small businesses, which depend importantly on bank credit, have been particularly hard hit. At the Federal Reserve, we have been working to facilitate the flow of funds to creditworthy small businesses. Along with the other supervisory agencies, we issued guidance to banks and examiners emphasizing that lenders should do all they can to meet the needs of creditworthy borrowers, including small businesses. [1] We also have conducted extensive training programs for our bank examiners, with the message that lending to viable small businesses is good for the safety and soundness of our banking system as well as for our economy. We continue to seek feedback from both banks and potential borrowers about credit conditions. For example, over the past 6 months we have convened more than 40 meetings around the country of lenders, small business representatives, bank examiners, government officials, and other stakeholders to exchange ideas about the challenges faced by small businesses, particularly in obtaining credit. A capstone conference on addressing the credit needs of small businesses was held at the Board of Governors in Washington last week. [2] This testimony includes an addendum that summarizes the findings of this effort and possible next steps.

Federal Reserve Policy

The Federal Reserve's response to the financial crisis and the recession has involved several components. First, in response to the periods of intense illiquidity and dysfunction in financial markets that characterized the crisis, the Federal Reserve undertook a range of measures and set up emergency programs designed to provide liquidity to financial institutions and markets in the form of fully secured, mostly short-term loans. Over time, these programs helped to stem the panic and to restore normal functioning in a number of key financial markets, supporting the flow of credit to the economy. As financial markets stabilized, the Federal Reserve shut down most of these programs during the first half of this year and took steps to normalize the terms on which it lends to depository institutions. The only such programs currently open to provide new liquidity are the recently reestablished dollar liquidity swap lines with major central banks that I noted earlier. Importantly, our broad-based programs achieved their intended purposes with no loss to taxpayers. All of the loans extended through the multiborrower facilities that have come due have been repaid in full, with interest. In addition, the Board does not expect the Federal Reserve to incur a net loss on any of the secured loans provided during the crisis to help prevent the disorderly failure of systemically significant financial institutions.

A second major component of the Federal Reserve's response to the financial crisis and recession has involved both standard and less conventional forms of monetary policy. Over the course of the crisis, the FOMC aggressively reduced its target for the Federal funds rate to a range of 0 to ¼ percent, which has been maintained since the end of 2008. And, as indicated in the statement released after the June meeting, the FOMC continues to anticipate that economic conditions—including low rates of resource utilization, subdued inflation trends, and stable inflation expecta-

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[1] See Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, National Credit Union Administration, Office of the Comptroller of the Currency, Office of Thrift Supervision, and Conference of State Bank Supervisors (2010), "Regulators Issue Statement on Lending to Creditworthy Small Businesses", joint press release, February 5, *www.federalreserve.gov/newsevents/press/bcreg/20100205a.htm.*

[2] For more information, see Ben S. Bernanke (2010), "Restoring the Flow of Credit to Small Businesses", speech delivered at "Addressing the Financing Needs of Small Businesses," a forum sponsored by the Federal Reserve Board, Washington, July 12, *www.federalreserve.gov/newsevents/speech/bernanke20100712a.htm.*

tions—are likely to warrant exceptionally low levels of the federal funds rate for an extended period.[3]

In addition to the very low Federal funds rate, the FOMC has provided monetary policy stimulus through large-scale purchases of longer-term Treasury debt, Federal agency debt, and agency mortgage-backed securities (MBS). A range of evidence suggests that these purchases helped improve conditions in mortgage markets and other private credit markets and put downward pressure on longer-term private borrowing rates and spreads.

Compared with the period just before the financial crisis, the System's portfolio of domestic securities has increased from about $800 billion to $2 trillion and has shifted from consisting of 100 percent Treasury securities to having almost two-thirds of its investments in agency-related securities. In addition, the average maturity of the Treasury portfolio nearly doubled, from 3½ years to almost 7 years. The FOMC plans to return the System's portfolio to a more normal size and composition over the longer term, and the Committee has been discussing alternative approaches to accomplish that objective.

One approach is for the Committee to adjust its reinvestment policy—that is, its policy for handling repayments of principal on the securities—to gradually normalize the portfolio over time. Currently, repayments of principal from agency debt and MBS are not being reinvested, allowing the holdings of those securities to run off as the repayments are received. By contrast, the proceeds from maturing Treasury securities are being reinvested in new issues of Treasury securities with similar maturities. At some point, the Committee may want to shift its reinvestment of the proceeds from maturing Treasury securities to shorter-term issues, so as to gradually reduce the average maturity of our Treasury holdings toward precrisis levels, while leaving the aggregate value of those holdings unchanged. At this juncture, however, no decision to change reinvestment policy has been made.

A second way to normalize the size and composition of the Federal Reserve's securities portfolio would be to sell some holdings of agency debt and MBS. Selling agency securities, rather than simply letting them run off, would shrink the portfolio and return it to a composition of all Treasury securities more quickly. FOMC participants broadly agree that sales of agency-related securities should eventually be used as part of the strategy to normalize the portfolio. Such sales will be implemented in accordance with a framework communicated well in advance and will be conducted at a gradual pace. Because changes in the size and composition of the portfolio could affect financial conditions, however, any decisions regarding the commencement or pace of asset sales will be made in light of the Committee's evaluation of the outlook for employment and inflation.

As I noted earlier, the FOMC continues to anticipate that economic conditions are likely to warrant exceptionally low levels of the Federal funds rate for an extended period. At some point, however, the Committee will need to begin to remove monetary policy accommodation to prevent the buildup of inflationary pressures. When that time comes, the Federal Reserve will act to increase short-term interest rates by raising the interest rate it pays on reserve balances that depository institutions hold at Federal Reserve Banks. To tighten the linkage between the interest rate paid on reserves and other short-term market interest rates, the Federal Reserve may also drain reserves from the banking system. Two tools for draining reserves from the system are being developed and tested and will be ready when needed. First, the Federal Reserve is putting in place the capacity to conduct large reverse repurchase agreements with an expanded set of counterparties. Second, the Federal Reserve has tested a term deposit facility, under which instruments similar to the certificates of deposit that banks offer their customers will be auctioned to depository institutions.

Of course, even as the Federal Reserve continues prudent planning for the ultimate withdrawal of extraordinary monetary policy accommodation, we also recognize that the economic outlook remains unusually uncertain. We will continue to carefully assess ongoing financial and economic developments, and we remain prepared to take further policy actions as needed to foster a return to full utilization of our Nation's productive potential in a context of price stability.

Financial Reform Legislation

Last week, the Congress passed landmark legislation to reform the financial system and financial regulation, and the President signed the bill into law this morning. That legislation represents significant progress toward reducing the likelihood of future financial crises and strengthening the capacity of financial regulators to

[3] *See,* Federal Reserve Board of Governors (2010), "FOMC Statement", press release, June 23, *www.federalreserve.gov/newsevents/press/monetary/20100623a.htm.*

respond to risks that may emerge. Importantly, the legislation encourages an approach to supervision designed to foster the stability of the financial system as a whole as well as the safety and soundness of individual institutions. Within the Federal Reserve, we have already taken steps to strengthen our analysis and supervision of the financial system and systemically important financial firms in ways consistent with the new legislation. In particular, making full use of the Federal Reserve's broad expertise in economics, financial markets, payment systems, and bank supervision, we have significantly changed our supervisory framework to improve our consolidated supervision of large, complex bank holding companies, and we are enhancing the tools we use to monitor the financial sector and to identify potential systemic risks. In addition, the briefings prepared for meetings of the FOMC are now providing increased coverage and analysis of potential risks to the financial system, thus supporting the Federal Reserve's ability to make effective monetary policy and to enhance financial stability.

Much work remains to be done, both to implement through regulation the extensive provisions of the new legislation and to develop the macroprudential approach called for by the Congress. However, I believe that the legislation, together with stronger regulatory standards for bank capital and liquidity now being developed, will place our financial system on a sounder foundation and minimize the risk of a repetition of the devastating events of the past 3 years.

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

July 21, 2010

Addressing the Financing Needs of Small Businesses

Summary of Key Themes from the
Federal Reserve System's Small Business Meeting Series

Introduction

The Federal Reserve System's Community Affairs Offices hosted more than 40 meetings in 2010 as part of an initiative titled "Addressing the Financing Needs of Small Businesses."[1] The goal was to gather information and perspectives to help the Federal Reserve and other stakeholders address the immediate and intermediate credit needs of small businesses.

Some of the meetings took the form of small focus groups or listening sessions. Other meetings were on a larger scale, with more formal agendas focusing on a particular aspect of small business financing, such as minority entrepreneurship, the role of Community Development Financial Institutions (CDFIs), or federal guarantee loan programs. Several meetings focused on a specific industry, such as auto suppliers.

Whether small or large, all of the meetings brought together small business owners, small business trade groups, financial institutions and other private lenders, bank supervision officials, CDFIs, and other small business support service providers to discuss ways to improve credit flow to viable small businesses. Through this initiative, the Federal Reserve sought to deepen its understanding of the dynamics of the supply of and demand for small business credit, to identify specific credit gaps, and to learn of promising practices and suggestions for improvement.

This summary aims to capture the key issues that emerged from the meetings and offer examples of how those issues were reflected in different parts of the country and in different industries. It is not intended to be a comprehensive compilation of all the ideas and views that were expressed. We have grouped the comments under the categories of credit supply, credit demand, and credit gaps. In addition, we have included key recommendations for potential next steps that were identified by participants at the July 12 capstone event at the Board of Governors as well as throughout the System's series of meetings.

Factors Impacting the Supply of Small Business Credit

Small businesses and banks generally reported that lending contracted significantly during the recession for a variety of reasons. These comments are consistent with data indicating that outstanding loans to small businesses dropped from more than $710 billion in the second quarter of 2008 to less than $670 billion in the first quarter of 2010.[2] In addition, some banks noted that some of the contraction in lending is related to broader concerns about capital adequacy. Comments related to the supply of credit to small businesses fell into four broad categories: 1) tighter bank underwriting standards; 2) resource constraints on lending; 3) impact of regulatory guidance; and 4) utilization of alternative funding sources.

Underwriting standards – At most meetings, both small businesses and banks acknowledged that underwriting standards had tightened. Some small businesses reported that underwriting

[1] A list of meeting locations, dates, and topics can be found in Attachment A.

[2] Data are from the Federal Financial Institutions Examination Council (FFIEC) Consolidated Reports of Condition and Income (Call Report), where loans to small businesses, as reported in the reporting forms FFIEC 031 and 041, schedule RC-C, part II, are defined as loans with original amounts of $1 million or less that are secured by nonfarm nonresidential properties or are commercial and industrial loans, plus loans with original balances of $500,000 or less that are secured by farmland or are for agricultural production.

changes made access to credit more difficult, but not impossible, while others found the changes to be a significant hurdle to obtaining credit. Many banks acknowledged that lending standards had become more flexible prior to the economic downturn and that they since have returned to more traditional underwriting practices.

Recurring issues related to underwriting standards included the following:

- ***Additional collateral requirements*** – For existing loans, small businesses reported that routine collateral re-evaluations of assets that directly or indirectly secure loans – including personal residences, commercial property, and equipment – often result in additional collateral requirements because of a significant drop in asset values. In addition, in some markets, banks noted they were no longer readily taking real estate as collateral, especially if there was another outstanding lien against the property. Many banks have also reduced their loan-to-value (LTV) thresholds, increasing the amount of equity businesses need for new and refinance loans.
    - At a meeting in Cincinnati, small business owners said they were required to make cash payments when reassessments of LTV ratios resulted in insufficient collateral. If the payment was not made, the loan could be subject to default. For new loans, small businesses cited heavy collateral requirements, including personal guarantees, which made them reluctant to secure the loan.
    - In Detroit, auto suppliers emphasized their concern about the values that lenders are placing on their collateral, particularly equipment. An official with an auto supplier trade group confirmed that many of his group's members have reported issues relating to banks' current lower valuation of assets that back existing loans or that are being assessed for new loans.

- ***Greater focus on cash flow*** – Some banks acknowledged that prior to the economic crisis, credit scores or collateral values, often inflated, were sometimes more important than cash flow in underwriting a small business loan. Banks and small businesses both concurred that strong cash flow is now one of the chief underwriting criteria.
    - At the Baltimore meeting, several bankers said that they understand the frustration of small businesses that may be experiencing reduced cash flow during the recession but that had a solid track record before the downturn. They noted, however, that generally they cannot extend credit if there is no recent history of positive cash flow. According to one banker, even if a business has strong collateral, banks do not want to be in the business of taking collateral to recoup loan principal.
    - In Dayton, a small business owner stated: "If you have the money you need [i.e., good cash flow and collateral], then they'll loan to you."

- ***Higher personal credit thresholds, including credit score*** – Small businesses commented that, in response to concerns about declining collateral values and cash flow, the recent trend has been to require more personal resources and guarantees. For many larger banks, automated underwriting driven primarily by credit scores is the only way to profitably offer loans below a certain dollar threshold (e.g., below $200,000). Many

small businesses reported being denied credit because either the owner's personal credit score had declined or the score no longer satisfied lenders' heightened standards.

- In Boston and Cleveland, small business owners reported that their credit scores declined after credit-limit reductions led to higher debt ratios, despite the fact they were always current with payments. In some cases, the credit score downgrades made it extremely difficult to borrow and resulted in businesses' closure or bankruptcy.
- In Miami, business owners and intermediaries expressed concern that lenders are placing greater emphasis on business owners' personal credit to determine creditworthiness and denying credit to small businesses where the owner has a good business plan but impaired credit.

Resource Constraints – In addition to capital challenges, banks pointed to a number of other constraints on their lending resources, such as the following:

- ***Asset management challenges*** – Banks reported that higher-than-average delinquency and loss rates have taxed their workout units, forcing them to shift seasoned staff, including loan officers, to assist with the increased number of problem loans. Some banks, particularly smaller banks, described a temporary suspension of all lending activities while they assess portfolios, manage workouts and distressed loans, and reevaluate collateral.

- ***Regulatory burden*** – Smaller banks pointed out the difficulties involved in staying abreast of new regulations and guidance, understanding them thoroughly, and determining how to best implement them.
    - Because of the complexity associated with administering new or revised regulations, some community banks said that they often must assign senior loan officers to handle the new rules, leaving more junior lenders to handle new loans. Some small businesses commented that they are then left working with junior loan officers who they believe do not understand their businesses, are dismissive, or adhere mechanically to underwriting guidelines.

- ***Programmatic changes*** – Bank lenders described how enhancements to Small Business Administration (SBA) lending programs, including the increase in guarantee authority and fee waivers, helped them to make loans they might not otherwise have made. Credit unions also reported good success in using the 7(a) loan program, which was in high demand. Suggestions for program improvements included an SBA guarantee for loan modifications, more streamlined and faster loan processing, and packaging assistance for the 7(a) program, similar to what is available for the 504 program.
    - In meetings in Nashville and Tampa, several participants expressed the view that uncertainty about the duration, availability, and conditions of SBA program enhancements has made banks reluctant to invest the time to adapt to new program requirements.

- ***Impact on underwriting time*** – Banks frequently said that they do not have enough time to handle applications with insufficient documentation, such as sparse tax returns,

inadequate income statements, or unreliable interim financial statements. Participants noted that some banks significantly reduced or eliminated loans below a certain threshold, typically $200,000, as a way to limit time-consuming applications from smaller and less sophisticated businesses. Banks also cited the imbalance between time commitment and returns as a reason for not participating in certain SBA loan products, such as the America's Recovery Capital or 7(a) loan programs.

  - In Miami, bankers noted that they were spending much more time on due diligence than ever before. The bankers and technical assistance providers agreed this is necessary in a market where fraud is prevalent. However, the extended time it may now take to get a loan approved can hurt small businesses.

- ***Impact of bank closures*** – Small businesses raised the issue of credit availability in areas that have experienced bank failures. If a financial institution is closed and not replaced, the impact is particularly acute. Small businesses in rural areas and in regions with few banks raised this issue most frequently.
  - In St. Louis, participants described the challenge of "orphaned" loans, when a bank that acquires a failed financial institution chooses not to continue the relationship with the borrower, making future extensions of credit unlikely.

Regulatory Environment – Some banks cited examination-related concerns as an important factor in credit availability for small businesses. In addition to general statements attributing tightened credit to increased regulatory scrutiny in light of recent economic conditions, concerns were raised about examiner assessments and the uncertainty surrounding classification of assets.

- ***Restrictions on lending*** – Some bank participants noted that because of declining asset values of their balance sheets, more banks have been required to raise capital to cover potential losses. Among other strategies, banks can respond by taking on fewer loans in order to meet the capital requirements or raising capital under adverse economic conditions.
  - In St. Louis, participants stated they were unsure whether examiners are requiring a 5 percent tier-1 capital ratio standard or whether a stricter 7 percent standard is being applied.
  - Some banks reported inconsistent treatment of loans by different regulators.
  - Several banks mentioned that they consider their examiner's expected response before making new loans. They also expressed reluctance to do loan workouts because of concerns that examiners will still regard the loan as being impaired.[3]
  - In New York, Atlanta, and Miami, small businesses and other participants expressed the view that banks are citing increased examiner scrutiny when

[3] Relating to this topic, the Federal Reserve and other federal financial institution regulatory agencies issued a policy statement supporting prudent commercial real estate (CRE) loan workouts in October 2009 [http://www.federalreserve.gov/newsevents/press/bcreg/20091030a.htm]. The Federal Reserve complemented these issuances with training programs for examiners and outreach to the banking industry to underscore the importance of sound lending practices. Further, the Federal Reserve recently hosted an "Ask the Fed" session in May 2010, which had participation from more than 1,400 bankers and state bank commissioners, to discuss CRE-related issues, such as credit workouts and troubled debt restructurings. The Interagency Guidance on Lending to Creditworthy Small Business Borrowers raised a similar topic, stating that examiners will not criticize institutions for working in a prudent and constructive manner with small business borrowers.

refusing to lend to certain industries, such as construction, real estate, and retail services.
  - Bank regulators stated that banks in South Florida have significant challenges in maintaining adequate capital levels because of the higher loan-loss reserves related to declining asset values.

- ***Conflicting messages*** – Some bank participants expressed frustration about their perception of conflicting messages from different government stakeholders. On the one hand, the banks feel pressure to lend, but at the same time they are encouraged to apply stricter credit standards. The result is a more cautious approach to lending.
  - Several banks expressed concern about lending to small businesses that they believe have the potential to grow when the economy begins to expand. Their concern is that, although a business may have good prospects, regulators may be wary of loans based on future prospects, particularly if the business has less-than-perfect credit, a recent history of uneven cash flow, or reduced collateral values.[4]

Use of Alternative Funding Sources – Meeting participants noted that small businesses that are denied, or perceive they will be denied, credit by banks have turned to alternative sources of financing, which often carry a higher cost.

- ***Increased use of credit cards*** – At many meetings, small businesses described turning to credit cards in lieu of a bank loan. At the same time, many small businesses also described how their credit limits were being reduced. After being denied credit, many tapped their personal and business credit cards, particularly for working capital or as a line of credit. Businesses described, and several banks confirmed, that in some cases banks are recommending the use of credit cards in response to requests for smaller loans. Others attributed the increased use of credit cards to the relative ease of applying for and using a credit card as compared to the time and effort required to secure a bank loan.
  - Some businesses reported incurring additional costs in relying on credit cards. A business owner in Cleveland reported that her bank line of credit, which carried a 7 percent interest rate, was cut. She then turned to a credit card to finance business transactions and subsequently saw the rate on the card substantially increase above her line of credit rate.

- ***Greater reliance on personal resources*** – Small business owners frequently mentioned the need to use personal financial resources to replace business credit. Personal credit cards, in particular, are often used because they are easily accessed. Some small businesses said they also relied on home equity lines on their personal residence or on retirement savings. Family and friends are another source often mentioned for small

[4] To address this issue and others relating to small business lending, the Federal Reserve and other federal financial institution regulatory agencies issued a policy statement supporting prudent lending to small business borrowers in February 2010 [http://www.federalreserve.gov/newsevents/press/bcreg/20100205a.htm]. The guidance states that lenders should understand the long-term viability of the borrower's business, focus on the strength of a borrower's business plan, and analyze a borrower's performance over a reasonable range of future conditions, rather than overly optimistic or pessimistic cases.

business financing, particularly for start-ups. Current economic challenges, however, have restricted the availability of these sources.

- In Annapolis, a small business owner described being denied for a line of credit because her revenues were down in the prior two years. When she looked into refinancing an investment property to tap its equity, lenders said they were not refinancing investment property. As a result, she relied on credit cards and borrowed against her 401(k) savings for working capital.
- In Los Angeles, meeting participants indicated that Asian Pacific Islander (API) small businesses rely heavily on personal real estate for their financing, and the significant decline in residential property values has led to a reduction in credit and rising delinquencies for API small business loans.
- Participants in several meetings expressed the view that minority-owned businesses are generally less likely to have an established banking relationship and thus are less likely to receive bank loans. They often turn to friends and family for financing, particularly in the start-up phase.

- ***Adjustment of payment terms*** – Small businesses reported adjusting payment terms in order to preserve cash whenever possible – e.g., shortening payment terms for customers and extending payment terms with suppliers. Small businesses stated that their options were limited when their customers or suppliers, who may also be cash-strapped, are larger firms or the government and thus have more leverage.
  - In Milwaukee, a small business owner summarized the phenomenon: "Receivables have gone up and we have passed that on by stretching our payables. Some customers pay in 70 days, while others pay in 180. My first recommendation: pass a law that says pay in 30 days or pay interest."

- ***Alternative financial institutions*** – Many Community Development Financial Institutions (CDFIs) and credit union participants noted an increase in small business loan demand over the last two years. They expressed the view that this may be the result of a tighter supply of credit by larger financial institutions. They noted that their ability to meet increased demand is limited by capital constraints and underwriting capacity. Credit unions also noted the statutory limitation on the percentage of small business loans they may make (12.25 percent of total assets).
  - At several meetings, participants noted that some small businesses are turning toward non-mainstream finance sources such as factoring companies and pay-day loans, which carry higher fees and interest rates, due to the lack of conventional credit sources.
  - In Detroit, credit union service organizations are working to provide scale for making small business loans by centralizing some aspects of the underwriting process.
  - On the other hand, in New York, some credit unions indicated that outsourcing underwriting is not always an effective solution to capacity constraints, stating that they lose control over quality in outsourcing.
  - A credit union in Tampa expressed the view that credit unions that are new to small business lending do not have an established infrastructure to compete with the bigger banks, particularly in areas such as SBA programs.

- In Nashville, it was noted that some CDFIs are receiving loan applications from businesses that they would not expect to hear from, such as more-established businesses whose financial conditions are better than those of clients they served several years ago.
- In Chicago, the Chicago Urban League, which offers bridge loans to companies that have gone through its entrepreneurship training and coaching programs, reported making such loans to businesses that could not get credit from banks. A banker indicated that several banks participating in the meeting were founding investors in the League's loan fund.
- At several meetings, CDFI participants described the challenges in becoming authorized to provide loans under the SBA's 7(a) program.

Factors Impacting the Demand for Small Business Credit

Small businesses and bank participants noted that the economic downturn has diminished sales for many small businesses, weakening balance sheets and asset values and thus dampening small business loan demand. Some financial institutions reported weaker quality in loan applications from small businesses. Comments related to credit demand by small businesses included issues of reduced credit quality, reduced confidence, a need for additional technical assistance, and interest in government contracting and entrepreneurship.

Reduced credit quality – Banks generally attributed the decrease in overall lending to small businesses to their declining sales and asset valuations. They reported lower overall demand for credit from creditworthy businesses. Some financial institutions also noted that applications for small business credit generally have become weaker as the challenging economic environment continues. Still, as noted previously, many credit unions and CDFIs cited an increase in demand for small business loans from viable small businesses.

Reduced confidence – A number of small businesses reported that declining sales made them more cautious about seeking credit. Some commented that the danger in waiting too long was that, by the time they sought a loan, their financial position had deteriorated to a point that raised underwriting concerns. Many small businesses expressed uncertainty about business prospects in the near future, affecting current credit and business decisions. Some owners reported making decisions based on the perception of tight credit without having explored credit options.

- In Annapolis, a former small business owner reported selling her health-care business because of concerns that her line of credit would be cut while addressing challenges associated with the extension of payment terms by her clients. Her core business was fine, but she was concerned about liquidity and the ability to meet obligations, such as payroll, in a timely way.

Increased demand for technical assistance – Small businesses described the challenges associated with operating under distressed economic conditions. Many described working with reduced staff and the impact of labor reductions on the resources necessary to manage the credit process. Several bankers indicated that small businesses need help locating suitable lenders and technical assistance to prepare business plans and loan applications. Technical assistance providers indicated that a growing portion of their clients are existing businesses and the long-

time unemployed who hope to start a business. Meeting participants also noted the need for technical assistance among minority-owned businesses, which face particular challenges in accessing credit.

- In St. Louis, a participant stated that demand for technical assistance is up 150 percent at Small Business Development Centers (SBDCs). Some of this demand stems from increased interest in entrepreneurship among recently unemployed or underemployed individuals.
- At several meetings, participants mentioned that minority business owners often do not have strong networks, limiting their access to financial resources, technical assistance, or mentoring.
- In Miami, several meeting participants noted that Hispanic businesses face unique challenges due to the lack of tools and training in Spanish. They stated that Hispanic business owners may not be aware of the programs and resources available to assist small businesses or the types of documentation and information that banks require for credit decisions.
- In Omaha, nonprofit leaders expressed the view that improving the financial management skills of minority business owners is a critical step in enhancing their creditworthiness.

Interest in government contracting – Participants at several meetings mentioned that government contracting is an opportunity for minority-owned businesses, yet they need access to credit to fulfill the contracts. Minority-owned businesses often do not have the working capital needed to make up-front purchases or to sustain operations during the significant payment lag with government contracts.

- In Omaha and Nashville, government officials said that they have seen increasing interest among small businesses in becoming a certified minority-owned business for government contracting purposes.
- In Birmingham, an SBDC representative said that government contracting is a great opportunity for minority-owned businesses, but the payment lag is a significant challenge.

Interest in entrepreneurship – The high-unemployment environment is generating demand as more individuals who are jobless seek to start their own business.

- Participants in the Morgantown meeting noted that start-ups are being created by retirees, people seeking a second career, and people looking for first or second jobs.
- At the Phoenix meeting, a number of CDFIs and microlenders reported increased interest in their loan products -- one said demand had quadrupled -- from people who lost their jobs and are seeking to start a small business.

Identified Credit Gaps

A combination of disruptions on the supply and demand sides of the small business credit market, as discussed above, has resulted in notable credit gaps.

- ***Lines of credit and working capital*** – Small businesses reported that existing lines of credit had been reduced, hampering their ability to offset lower cash flows that stem from slower sales or slower customer payments. As a result, small businesses reported that they had to scramble to meet intermediate financing needs and change their business models to adapt to less credit availability. Banks, on the other hand, reported reassessing outstanding lines of credit in order to reduce their exposure to losses and minimize their capital needs. Banks also noted that small businesses had changed how they used their lines in the economic downturn, using them for major purchases and salaries rather than as short-term revolving credit. Some banks noted that, in such situations, they have converted lines of credit into term loans, which have higher finance costs.
  - In Detroit, the CEO of one auto supplier noted that while most of the manufacturers in the auto industry have restructured so that they are profitable, the companies toward the bottom of the supply chain are still struggling to obtain working capital and to finance their equipment purchases. Other auto suppliers at the meeting noted that many lines of credit were frozen in 2009 and that banks that had historically provided credit to the industry have continued to limit their lending, such as by reducing lines of credit, pricing them higher, or renewing them for more limited periods of time.

- ***Refinancing credit*** – Small businesses expressed concern about their ability to refinance loans, particularly those related to commercial real estate. In some cases, business owners faced an immediate need for cash to repay the balance of their maturing balloon loans, even where the firm still had an ability to repay the loan, because of reduced collateral values or tightened underwriting standards. To address their immediate needs for credit, many small businesses reported using credit cards and personal credit resources, such as 401(k)s and home equity lines of credit. As a result, many small businesses noted the need for loans to refinance these credits at lower rates.

- ***Small-dollar loans*** – Several small business participants cited the need for smaller dollar loans, particularly in amounts under $200,000. Microlenders in some markets were able to help address the need for loans under $35,000. Larger bank participants acknowledged that they reduced or curtailed small dollar loans altogether because of the expense in time and resources required to make these loans.
  - In Des Moines and St. Louis, larger banks indicated that they reduced or stopped providing loans under $200,000 because such loans require as many resources as larger loan amounts but do not provide the needed income to offset these costs.
  - In Tampa, several technical assistance providers reported that very few banks would offer loans under $100,000, leaving a significant credit gap. The SBA Community Express loan was cited as an option (although some considered it too expensive), but there were no local lenders who offered this product.

- ***Commercial real estate*** – Banks reported that they suffered significant losses in their commercial real estate portfolios. One bank stated that 50% to 60% vacancy rates were not uncommon in his area. Many banks reported that they have tightened underwriting standards in this segment, including requirements for higher borrower equity, stronger debt coverage ratios, lower vacancy rates, as well as stronger personal guarantees. Small

businesses confirmed these tighter loan standards and noted that, for existing loans, they were required to pledge additional cash or other assets to make up gaps created by commercial real estate that appraised at lower market values.

- ***Patient capital*** – Both banks and small businesses cited the need for sources of patient capital to assist small businesses in financing equipment and other large purchases. For capital-intensive businesses, such as manufacturing, a larger loan for equipment or materials needs a longer repayment period to provide sufficient time for sales to pick up and generate cash flow for repayment of the loan.
    - In Annapolis, service businesses, such as small law firms, discussed the need to hire staff to meet an expected increase in clients or contracts. They cited a lag between the hiring and the receipt of revenues from services provided. Small business participants indicated that banks are not willing to finance this particular need.
    - In Detroit, a meeting participant pointed out that sustained advancements in technology in the auto supply sector depend on the availability of longer-term financing for the same small businesses that are finding it difficult to finance working capital and the long-overdue replacement of basic equipment.

- ***Loans to distressed industries*** – Banks reported that they are reducing their exposure to certain industries with high loss rates.
    - In New York, bankers noted that certain sectors, such as construction, real estate, and services were particularly hard-hit by the recession, making new loans within these sectors more difficult to finance.
    - In Cleveland, bankers reported similar constraints on lending in the residential construction, commercial real estate, and automobile sectors. Small businesses affected by the reduction in credit within these industries expressed frustration over their inability to secure loans regardless of the quality of their financial condition.
    - In Detroit, an automotive supplier industry official noted that credit availability for the tooling required to support new vehicle launches is constrained, given the continued level of industry, customer, and supplier risk. He expressed the view, however, that it is precisely such innovations that will improve the industry's risk/return ratios and investment attractiveness.

- ***Start-up capital*** – Small businesses and bankers agreed that start-up businesses have always had difficulty obtaining financing, and that now it is almost impossible to secure bank credit. At several meetings, participants noted an increased demand for this type of financing, particularly given the number of unemployed workers who are now looking to start businesses.
    - In Memphis, start-up capital was identified as a significant need, yet some financial institutions indicated that they lend only to firms with five years of operating experience.
    - A Cleveland meeting that focused on venture capital highlighted the downward trend in the availability of venture capital equity. Participants noted that until

financial returns improve, this avenue for funding new and innovative businesses will likely remain suppressed.

Identified Recommendations

The following are key recommendations for potential next steps that were identified by participants at the July 12 capstone event at the Board of Governors as well as throughout the System's series of meetings. In addition, the Reserve Banks are planning a variety of efforts for the remainder of 2010 to follow up on the information and recommendations from the previous meetings or to hold further meetings in other locations. Attachment B contains a list of some of these activities.

Regulatory and Legislative Environment

- Participants expressed the need for continued and consistent dialogue between financial institutions and examination staff and greater clarity of supervisory expectations from regulators. They recommended continued use of guidance that includes real-world examples. Another suggestion focused on establishing a means through which institutions can report concerns about or appeal an examiner's decision to the regulatory agency through a neutral intermediary such as an ombudsman.
- Some participants emphasized the need for greater Community Reinvestment Act (CRA) consideration for community development loans and investments such as Equity Equivalent Investments (EQ2s) or program-related investments. They also noted that banks should receive greater consideration for investments and grants that increase access to lending capital, loan-loss reserves, loan packaging, and technical assistance. Such favorable consideration could encourage banks to engage in activities such as purchasing SBA loans or a participating interest in notes or portfolios; extending lines of credit for the warehousing of SBA loans prior to sale; or providing operating grants to assist CDFIs in obtaining or maintaining authorization required by the SBA or other licensing bodies.
- There was a recommendation to make the New Markets Tax Credit program more supportive of small business lending by establishing a safe-harbor provision or taking other steps that could encourage investors to make equity investments in community development entities that lend or invest in small businesses.
- There was support expressed for the Administration's proposal for a $30 billion small business lending fund, including: $2 billion to support innovative state programs that seek to stimulate and leverage additional private funds, $1 billion for equity financing for start-ups, and $300 million for CDFI loan funds.

SBA-Related Issues

- Participants, particularly banks, expressed strong support for the SBA enhancements that extend fee waivers and increase the guarantee limits for the 504 and 7(a) programs. They also emphasized the need for certainty and clear expectations regarding the duration and terms of the enhancements, noting the challenges of adapting to periodic and temporary changes in the programs.

- Participants recommended improving access for CDFI loan funds to participate as guaranteed lenders in the SBA 7(a) program in order to increase the availability of credit to the underserved markets that CDFIs serve.
- There was general support for more simplification and consistency in SBA regulations, guidelines, and processes to reduce confusion for both lenders and borrowers. One suggestion focused on the possibility of using additional technology, such as a web-based system, to streamline the loan application and notification process.
- Participants commented on the need for more education about SBA programs for financial institution examiners. For example, the Federal Reserve recently partnered with the SBA to conduct this type of training, and similar trainings could be arranged with the other financial institution regulators. Additionally, it was suggested that local and regional SBA field examiners could provide more frequent instruction and guidance to lenders.
- Other recommendations regarding SBA loan programs included setting higher ceilings for loan amounts, such as increasing the microloan limit from $35,000 to $50,000, and expanding the Community Express Pilot program to encompass participation by CDFIs and other mission-driven lenders with sufficient capacity. There was also support for allowing the 504 program to be used for refinancing owner-occupied commercial real estate.
- Some participants recommended the issuance of regulatory guidance related to SBA 504 first mortgages, including suspending the requirements for extra reserves for classified loans and allowing the refinancing of owner-occupied businesses, even when the loan-to-value ratio has increased.

Lender-Related Issues

- Participants noted the success of financial institutions' use of "second look" or similar programs to help ensure that viable applicants are not overlooked and that decisions such as credit-line reductions are warranted. Participants recommended broader use of such programs by financial institutions. A lender recommended that, as part of a second-look review, financial institutions consider a borrower's interim financial statements for the most recent six-month period in cases where a borrower has experienced recent improvement and the denial was due to a weaker condition of the borrower as reflected in annual financial statements.
- Lenders emphasized the need to receive complete and accurate documentation from small business loan applicants so that loan decisions can be made in a timely manner. Items such as reliable financial statements and accurate tax identification numbers were highlighted as examples.
- Participants noted the use of innovative credit programs to encourage small business borrowing, such as a "loan-for-hire" program that reduces the interest rate for an existing small business borrower if the business commits to hiring employees.

- Participants also encouraged lenders to demonstrate a greater commitment to and process for referring borrowers to alternative lenders, technical assistance providers, and counselors for appropriate technical assistance and financing solutions.

CDFI-Related Issues

- There was support expressed for more low-cost, longer-term capital for CDFIs. Such capital, for example, would allow CDFIs to add a risk premium and still be able to make small business loans to meet demand from viable small businesses that may not qualify under conventional bank standards and products. In addition, increased grants or other operational subsidies would help CDFIs to cover the costs of providing technical assistance and advisory services to small business clients as well as to boost their loan-loss reserves.
- One participant recommended that policymakers consider capital models for CDFIs that further leverage private dollars and create innovative incentives for the private sector to partner with experienced CDFI fund managers with strong risk-management capacity. For example, the potential allocation of $300 million to CDFI loan funds as part of the proposed $30 billion small business lending fund could be efficiently distributed through the CDFI Fund by a competitive process giving more points to proposals that combine experienced CDFI fund managers with private-sector capital sources and that put the private debt in a first-loss position relative to the public-sector debt capital.
- Participants recommended that banks and CDFIs set up more effective and consistent processes for banks to refer small business applicants whose credit needs they cannot meet to CDFIs.
- One participant noted that while CDFIs have demonstrated the ability to successfully underwrite the risks inherent in small business loans, this success has been achieved at relatively small volume levels in comparison to the need. He stated that efforts to significantly increase CDFI small business lending capacity must recognize the critical need for scalability in areas such as the receipt and review of applications and the underwriting, servicing, and collections of small business loans. He recommended that CDFIs consider outsourcing some of their operations to providers with more cost-effective approaches, systems, and technologies, including other CDFIs or mainstream financial institutions.
- Participants urged greater use by financial institutions and investors of existing evaluation and ratings systems for assessing CDFI performance and impact, such as the CDFI Assessment and Ratings System (CARS) administered by the Opportunity Finance Network.
- Other suggestions included expanding the access of CDFIs to government small business lending programs such as the Department of Agriculture's Rural Development Program and CDFI Fund financial assistance. One CDFI participant urged modifications to provide improved access for CDFIs to become members of the Federal Home Loan Bank System as well as greater access to Federal Home Loan Bank affordable capital.
- Some participants expressed the need for limited regulation and oversight of CDFIs to help them improve their performance and access to capital. Comments cautioned against

applying the same framework to CDFIs that currently applies to traditional financial institutions in order to ensure that CDFIs continue to have flexibility in underwriting and can focus on their mission-driven activities.

Small Business Support Services

- Participants emphasized the importance of both pre- and post-financing technical assistance and the critical need for a dedicated source of funding to adequately compensate providers of such services. They noted the effectiveness of post-loan technical assistance as a risk-mitigation tool, helping to reduce the number of business failures, as well as a way to support business expansion.
- Additional suggestions focused on increased use of the SBA Service Corps of Retired Executives (SCORE) and other similar business counseling program as well as initiatives that connect small businesses with each other to facilitate peer mentoring.
- Participants noted the need for advisory services to provide guidance to small businesses on the type of capital – from equity to debt – that best matches their financial state and funding needs. Some participants noted that the current dialogue about small business finance tends to emphasize debt even in cases where other forms of capital are more appropriate. Participants also noted that the multitude of government, non-profit, and private sector efforts around small business finance should include consideration of the entire capital structure.

Research and Data

- Participants expressed the need for timely, meaningful, and accurate data related to small business lending. Some participants also noted a trade-off between potential benefit of additional data and the increased resources and time needed to gather such data. Potential data collection issues included:
    - More frequent data collection, such as on a quarterly basis;
    - Time-series data, to allow for a more complete understanding of historical trends and more effective comparative analysis;
    - Greater access to private-sector data;
    - Enhanced segmentation of data, such as by firm size (e.g., number of employees) and loan amount; and
    - Greater collaboration and coordination of data collection among federal agencies.
- Some participants noted data gaps and suggested gathering additional information related to a variety of categories of small business lending including:
    - Loan application and origination information;
    - Appraisal and collateral values for commercial and personal real estate;
    - Intangible assets and their valuation, particularly for virtual or knowledge-based businesses;
    - Improved CDFI lending and microfinance activities;
    - Advisory services and other technical assistance for small businesses;
    - Business start-ups and "restarts," firm size, and firm age; and
    - Factors related to small business growth.

Attachment A: List of Federal Reserve System Small Business Meetings

DATE	LOCATION	FED DISTRICT	THEME/DESCRIPTION
2/3/2010	Lexington, KY	Cleveland	--
2/8/2010	Cincinnati, OH	Cleveland	--
2/9/2010	Cleveland, OH	Cleveland	--
2/10/2010	Dayton, OH	Cleveland	--
2/10/2010	Pittsburgh, PA	Cleveland	--
2/11/2010	Cleveland, OH	Cleveland	--
2/23/2010	Omaha, NE	Kansas City	Minority entrepreneurship
2/24/2010	Denver, CO	Kansas City	SBA guaranteed loan programs
2/25/2010	St. Louis, MO	St. Louis	--
3/4/2010	Little Rock, AR	St. Louis	--
3/9/2010	Las Cruces, NM	Dallas and Kansas City	Minority entrepreneurship
3/11/2010	New York, NY	New York	Small focus group meeting
3/12/2010	New York, NY	New York	Small focus group meeting
3/23/2010	Newark, NJ	New York	Small focus group meeting
3/26/2010	Memphis, TN	St. Louis	--
3/31/2010	Louisville, KY	St. Louis	--
4/13/2010	Morgantown, WV	Richmond	Small focus group meeting
4/14/2010	Minneapolis, MN	Minneapolis	Bank's Small Business Council
4/15/2010	Phoenix, AZ	San Francisco	Listening session - CDFI lending
4/20/2010	Chapel Hill, NC	Richmond	--
4/21/2010	Miami, FL	Atlanta	Hispanic-owned businesses
5/6/2010	Pittsburgh, PA	Cleveland	--
5/14/2010	Milwaukee, WI	Chicago	--
5/18/2010	Duluth, MN	Minneapolis	--
5/19/2010	San Francisco, CA	San Francisco	Small business task force
5/19/2010	Davenport, IA	Chicago	Hispanic-owned businesses
5/19/2010	Toledo, OH	Cleveland	--
5/20/2010	Indianapolis, IN	Chicago	--
5/20/2010	Columbus, OH	Cleveland	--
5/24/2010	Cincinnati, OH	Cleveland	--
5/25/2010	Nashville, TN	Atlanta	--
5/26/2010	Cleveland, OH	Cleveland	--
5/27/2010	Milwaukee, WI	Chicago	
6/2/2010	Annapolis, MD	Richmond	Small focus group meeting
6/3/2010	Tampa, FL	Atlanta	--
6/3/2010	Springfield, MA	Boston	Financial institutions
6/3/2010	Detroit, MI	Chicago	--
6/7/2010	Baton Rouge, LA	Atlanta	Small focus group meeting
6/8/2010	Gulfport, MS	Atlanta	Small focus group meeting
6/11/2010	Chicago, IL	Chicago	--
6/14/2010	Baltimore, MD	Richmond	--
6/30/2010	Phoenix, AZ	San Francisco	Small focus group meeting
6/30/2010	Shreveport, LA	Dallas	Small focus group meeting

Attachment B: Planned Reserve Bank Community Affairs Activities on Small Business

The information below describes key activities that Community Affairs Offices of Federal Reserve Banks are planning for the remainder of 2010 in response to issues that were raised at the Federal Reserve System's regional small business meetings or as a way to expand those meetings to other locations. This does not represent a comprehensive list of all Reserve Bank Community Affairs small business activities in 2010.

Federal Reserve Bank of Atlanta

- Events
    - Research conference on October 26-27 in partnership with the Federal Reserve Bank of Dallas and the Ewing Marion Kauffman Foundation. The conference is titled "Small Business, Entrepreneurship, and Economic Recovery: A Focus on Job Creation and Economic Stabilization."
    - Banker roundtable in Birmingham, Alabama, on July 28 and a forum in Palm Beach, Florida, in September.
    - August event with the Baton Rouge Area Chamber of Commerce and the LSU Small Business Development Center.
- Research
    - Survey of small businesses owners and intermediaries in the Sixth District, in partnership with the Bank's Research Division.
    - Research on CDFI capacity for small business lending and the state of microenterprise lending in the Sixth District.
    - Discussion papers focusing on the effect of social networks on small business access to financial resources; small business job creation and destruction in the current and previous recessions and recoveries; and small business and neighborhood stabilization.

Federal Reserve Bank of Boston

- Research
    - Analysis of data collected in a survey on small business lending in New England to which more than 125 community banks have responded.

Federal Reserve Bank of Chicago

- Events
    - August meeting with SBA District Directors and State Directors to follow up on meetings held in Illinois, Indiana, Michigan, and Wisconsin.
    - Fall meeting in the Quad Cities area (Davenport, Iowa, and several counties in Northwest Illinois) with a special focus on minority-owned and rural business issues.

- Meeting with Michigan bankers and the Michigan Economic Development Corporation (MEDC) to discuss MEDC's lending program for manufacturers that are having trouble obtaining financing for growth.

- First statewide CDFI conference in Wisconsin in the fall.

Federal Reserve Bank of Cleveland

- Research
  - Survey of Ohio bankers, in partnership with the Ohio Bankers League, focusing on small business credit conditions, trends in lending, and the impact of the regulatory environment on bankers' decisions to lend to small businesses.

Federal Reserve Bank of Dallas

- Events
  - Interagency Small Business Forum in Houston on July 29.
  - Research conference on October 26-27 in partnership with the Federal Reserve Bank of Atlanta and the Ewing Marion Kauffman Foundation.

Federal Reserve Bank of Kansas City

- Events
  - Meeting about guaranteed lending programs in New Mexico on August 19 in Albuquerque.

Federal Reserve Bank of Minneapolis

- Events
  - Meeting on August 13 in South Dakota that will focus on microenterprise, small business, and workforce development on the state's reservations.
  - Meeting of researchers from around the Federal Reserve System in late August to discuss work in the area of small business financing and develop ideas for future lines of inquiry.

Federal Reserve Bank of New York

- Research
  - Survey of small business owners and independent workers in New York, New Jersey, Delaware, and Pennsylvania and report on the findings from the 560 responses.
- Events
  - Briefings on survey findings for New York civic and business organizations and for New Jersey, Delaware, and Pennsylvania community partners in conjunction with the Philadelphia Fed.

- Series of workshops, in partnership with New York City small business agencies, focusing on key technical assistance needs.

Federal Reserve Bank of Philadelphia

- Events
  - Briefing on the findings of a survey conducted by the New York Fed (see above) for New Jersey, Delaware, and Pennsylvania community partners.

Federal Reserve Bank of Richmond

- Events
  - Small business forum on July 22 in Charlottesville, Virginia, in partnership with Tayloe Murphy Center at the University of Virginia's Darden School of Business and the Virginia Bankers Association.
  - Training session for financial institutions about government lending programs in Baltimore on September 29, in partnership with the Maryland Department of Business and Economic Development, the Maryland Bankers Association, and the Retail Merchants Association.
- Research
  - Small business field study in North Carolina and a small business credit conditions report for the Fifth District.

Federal Reserve Bank of St. Louis

- Events
  - Meeting with stakeholders on July 19 to discuss the possibility of creating a small business loan fund for the St. Louis region.

Federal Reserve Bank of San Francisco

- Events
  - July meeting of the California Small Business Task Force, which was formed as a result of the System's series.
  - Four meetings in Washington state to identify the credit needs of small businesses and education stakeholders: July 14 in Richland; July 15 in Yakima; July 20 in Bellingham; and July 22 in Wenatchee.
  - Microenterprise conference on October 15, with the Oregon Microenterprise Network.
  - Workshops on economic development in Indian Country, in partnership with the CDFI Fund and HUD: July 28 in Sacramento; August 17 in Seattle; August 19 in Anchorage; and September 16 in Albuquerque.

- Business Leadership Summit on October 13, in partnership with the Turlock (California) Chamber of Commerce, focusing on small business financing needs in California's Central Valley.

- Research
  - Paper on small business lending in low- and moderate-income census tracts during the financial crisis.

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

Q.1. *Effect of Stimulus*—The economy has been growing for several quarters now, but that growth has been significantly boosted by tax cuts and government spending under the Recovery Act. Economists think the boost was as much as 2½ percentage points and the Council of Economic Advisors last week estimated that Recovery Act programs created and saved 2.5 to 3.6 million jobs.

It's always hard to speculate on counterfactual scenarios, but how much do you think the Recovery Act programs—tax cuts and spending—have boosted GDP growth so far?

What do you think the state of our economy, including the unemployment rate, would be right now if we hadn't passed the stimulus bill?

A.1. As noted by your question, it is difficult to confidently determine the effects of the 2009 American Recovery and Reinvestment Act (ARRA) on economic activity. In particular, it is not possible to establish with certainty the counterfactual of what households and State and local governments would have spent in the absence of receiving stimulus funds. That said, the available economic evidence suggests that the tax reductions and increases in transfers for households have likely provided support to consumer spending—relative to what it would have been otherwise—as households, since the enactment of the ARRA, have faced sluggish income growth, an extremely weak labor market, losses in wealth, and tight credit conditions. Also, the stimulus grants for states and localities appear to have helped these governments maintain their spending—relative to what it would have been otherwise—in the face of very weak tax receipts. The Congressional Budget Office (CBO) has provided what I think is a reasonable range of estimates of the effects of the ARRA on macroeconomic activity. The CBO's estimates suggest that the ARRA boosted the rate of change in real GDP by between 1½ and 3½ percentage points last year and added around ¼ to 1 percentage point to real GDP growth in the first half of this year; the unemployment rate is estimated to have been reduced by between ¾ and 2 percentage points by the middle of this year.

The fiscal policy actions taken to address the extraordinary challenges imposed by the recent recession and the financial crisis have contributed to significantly wider Federal deficits since last year. These actions were necessary to help mitigate the overall loss of employment and income that otherwise would have occurred thereby laying the groundwork for a self-sustaining, broad-based recovery. But maintaining the confidence of the financial markets and the public requires that plans now begin to be put into place for the restoration of fiscal balance in the medium term in order to avoid the economic costs and risks associated with persistently large deficits that cause the Federal debt to expand significantly faster than the economy.

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

Q.1. Back in December 2006, during the U.S.–China Strategic dialogue, you described China's undervalued currency as "an effective subsidy for Chinese exporters." During your testimony you confirmed that you believe this to still be the case. Do you agree with many economists that the subsidy approaches 40 percent? If not, what is the price subsidy range, and what evidence are you using to support this conclusion?

A.1. This note briefly summarizes the professional literature that seeks to assess the undervaluation of the Chinese renminbi (RMB). While this literature has generated an array of estimates, most studies put the extent of this undervaluation in the range of roughly 10 percent to 30 percent.

For many reasons, when discussing currency misalignments and their implications for current account balances, economists generally prefer to focus on the behavior of the real effective exchange rate (which takes into account the value of a country's currency against the currencies of all of its trading partners and adjusts for cross-country differences in rates of inflation) rather than on bilateral nominal exchange rates. The estimates reported here, therefore, focus on the extent of undervaluation of the real effective Chinese exchange rate, rather than of the nominal value of the RMB *vis-a-vis* the dollar.

There is no single accepted methodology for determining whether a country's exchange rate is appropriately valued. Studies have employed a variety of approaches to measure a currency's misalignment, including the following:

- One approach seeks to estimate how far the real effective exchange rate is from the level that would ensure a sustainable current account balance over the medium term.
- Another approach aims to estimate how out of line a country's real effective exchange rate is compared with those of other countries, taking into account the country's level of development, income, and other macroeconomic and financial considerations.
- Yet a third approach attempts to gauge how far a country's real effective exchange rate is from the level that would be necessary to stabilize the country's net creditor position at a reasonable level relative to the size of its GDP.

Using these approaches, researchers have found a wide range of estimates for the extent of undervaluation of the Chinese RMB. There are some outlier estimates that put the Chinese currency at being even 5 percent overvalued and, at the other extreme, at as much as 60 percent undervalued. The bulk of the studies, however, fall in the range of 10 percent to 30 percent, undervaluation. For example, a very recent study, Cline and Williamson (2010), follows the first approach described above and obtains the result that the

RMB is approximately 15 percent undervalued.[1] Cline and Williamson arrive at this result by assuming China's sustainable (or "target") current account surplus to be about 3 percent of GDP and using a forecasted value of the current account surplus in the absence of any exchange rate adjustment of about 7.5 percent of GDP.[2] They then estimate that the amount of real effective appreciation of the RMB that would be necessary to move the current account from 7.5 percent of GDP to 3 percent of GDP is about 15 percent.[3]

Another study, Goldstein (2007), finds that "the RMB is now grossly undervalued—on the order of 30 percent or more against an average of China's trading partners."[4] However, this finding uses data that go only through 2006. Generally, estimates using more recent data find a somewhat smaller degree of undervaluation. The IMF staff has also determined that the "renminbi remains substantially below the level that is consistent with medium-term fundamentals."[5] Clearly, these estimates and other estimates in this literature are quite sensitive to a number of underlying assumptions about which there is often not much consensus, as well as to the approaches used to compute the undervaluation and the exact vintage of Chinese data used in the analysis.

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

Q.1. In the past months, the European Central Bank has spent billions of dollars to purchase sovereign debt from overleveraged EU countries, in essence bailing out these countries by supporting their ability to continue to finance further debt rather than impose needed budgetary discipline. Prior to this program, the ECB, through liquidity facilities, was accepting sovereign debt collateral from European banks. Here at home in the U.S., some States and municipalities have similarly overleveraged themselves and failed to make the difficult decisions necessary to get their finances in order—the clearest example being the States of Illinois and California. Being concerned that the Federal Reserve could choose to pursue a similar course, is it your opinion that the Fed has the authority:

a. To accept municipal debt as collateral from commercial or investment banks?

b. To create a special lending facility for private-sector purchases of municipal bonds, similar to what the Fed did in 2009 for commercial real estate securitizations?

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[1] William R. Cline and John Williamson, "Estimates of Fundamental Equilibrium Exchange Rates, May 2010", Peterson Institute for International Economics, Policy Brief Number PB10-15.

[2] They take the forecasted value of China's current account from the International Monetary Fund's World Economic Outlook, April 2010 with some adjustments.

[3] Last year, when the IMF was forecasting a bigger medium-term current account surplus for China, Cline and Williamson's estimate of the degree of undervaluation of the real effective RMB was a little over 20 percent.

[4] Morris Goldstein, "A (Lack of) Progress Report on China's Exchange Rate Policies", Peterson Institute for International Economics, Working Paper 07-5. This study updates results from Morris Goldstein and Nicholas Lardy, "China's Exchange Rate Policy Dilemma", *American Economic Review,* Vol. 96, No. 2 (May, 2006), pp. 422–426, which provides more details of the methodology used.

[5] "People's Republic of China: 2010 Article IV Consultation", International Monetary Fund, IMF Country Report No. 10/238, July 2010.

c. To guarantee or directly purchase municipal bonds in the secondary market, similar to the purchase program for the more than $1 trillion of mortgage-backed securities now on the Fed's balance sheet?

d. To lend directly to overleveraged States or municipalities?

A.1. Answer not received by time of publication.

Q.2. If your answer to any of Question Number 1's subparts is yes, please explain, for each and with specific references, from where this authority is derived?

A.2. Answer not received by time of publication.

Q.3. Would you ever support any of the following courses of action for the Federal Reserve:

a. To accept municipal debt as collateral from commercial or investment banks?

b. To create a special lending facility for private-sector purchases of municipal bonds, similar to what the Fed did in 2009 for commercial real estate securitizations?

c. To guarantee or directly purchase municipal bonds in the secondary market, similar to the purchase program for the more than $1 trillion of mortgage-backed securities now on the Fed's balance sheet?

d. To lend directly to overleveraged States or municipalities?

A.3. Answer not received by time of publication.

Q.4. If your answer to any of Question Number 3's subparts is yes, please explain your rationale for each.

A.4. Answer not received by time of publication.

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

Q.1. Chairman Bernanke, I am deeply disturbed by the most recent quarterly report to Congress from the Special Inspector General for the Troubled Asset Relief Program. In this report, SIGTARP Neil Barofsky tells Congress that reductions in current outstanding balances of TARP and TARP-related programs "have been more than offset in the past 12 months by significant increases in expenditures and guarantees in other programs, with the total current outstanding balance increasing 23 percent, from approximately $3.0 trillion to $3.7 trillion. This increase can largely be attributed to great support for the Government-sponsored enterprises (GSEs), the housing market, and the financial institutions that participate in it" despite the fact that the banking crisis, by an reasonable measures, subsided. How long do you perceive a need for extraordinary taxpayer support for the housing market?

A.1. As your question suggests, declining balances in, and closing of, some financial-sector support programs are positive developments that are indicative of a gradual healing in the financial system. The stock of other assets acquired by the Federal Government related to extraordinary support of the financial system has increased significantly over the past year, including purchases of Treasury, agency, and agency-guaranteed mortgage-backed securi-

ties under the Federal Reserve's large scale asset purchase program, and purchases by Treasury of preferred shares in Fannie Mae and Freddie Mac as those GSEs continue to operate in conservatorship. Other housing-related guarantees, commitments, and outlays by the Government have also grown significantly over that period, although some are probably better understood as reflecting extraordinary conditions in the housing finance market more than extraordinary actions to support the financial system. In particular, mortgage loans and mortgage-backed securities guaranteed by FRA and the GSEs have continued to rise substantially, as the private-label mortgage securitization market remained essentially closed.

The programs described above, along with continuing low mortgage interest rates and the effects of the first-time homebuyer tax credit, have helped support housing market conditions and thus to blunt some of the damage of the financial crisis. Nonetheless underlying weaknesses remain in the housing and home finance markets. As noted in my testimony, for example, housing construction has continued to be weighed down by weak demand, a large inventory of distressed or vacant houses, and tight credit conditions for builders and some potential buyers. For their part, RAMP and non-RAMP foreclosure mitigation loan modification programs have made a positive contribution, reducing debt service obligations for many struggling borrowers. Over the longer horizon, it remains too early to assess the overall effect of these programs, including the extent to which borrowers with RAMP permanent modifications, or other loan modifications and refinancings, may subsequently default on these obligations.

As economic and financial conditions gradually improve, the extraordinary conditions and need for extraordinary Government actions will of course diminish. When that time comes, as with the Federal Reserve's purchases of agency-guaranteed mortgage-backed securities, the withdrawal of extraordinary support should be managed carefully so that it can be achieved with a minimum of associated dislocation. Congress has a direct/public policy role to play in some aspects of this eventual withdrawal, including as it considers the future role of Government-sponsored enterprises in the market for housing finance.

The non-TARP program estimates published in SIGTARP reports are assembled directly by SIGTARP staff across non-TARP programs they deem relevant, drawn from public sources. Without speaking directly to the figures you reference, the SIGTARP estimates cited in your question can reasonably be interpreted as consistent with this assessment.

Q.2. Chairman Bernanke, you have indicated that the Federal Reserve may undertake additional asset purchases. What kind of assets will the Fed purchase if it decides to undertake a second quantitative easing? How will you ensure that the Federal Reserve adequately protects itself in pricing those asset purchases and how long would the Fed hold those assets on its balance sheet? What metric will you use to determine that additional easing is necessary?

A.2. Consistent with its statutory mandate to foster maximum employment and stable prices, the Federal Reserve would consider ad-

ditional steps to provide monetary accommodation if economic developments suggested that it was appropriate to do so. As noted in the minutes of recent FOMC meetings and in speeches by Federal Reserve officials, purchasing additional assets would be one of the options that the Federal Reserve could implement in such a situation. The Federal Reserve's legal authority largely limits Federal Reserve purchases of securities to Treasury, agency, and agency-guaranteed securities. As a result, additional Federal Reserve purchases of securities, if deemed necessary, would likely be of these general types. Decisions about the specific securities that would be purchased within this general class of securities would depend on a number of factors, including the implications of purchases for the general level of longer-term interest rates, the effect of purchases on market liquidity and functioning, and policymakers' preferences for the long-run composition of the Federal Reserve's balance sheet. As in the past, the Federal Reserve would employ a competitive bidding process in purchasing securities to ensure that such purchases are conducted at market prices.

The evidence suggests that the Fed's earlier program of purchases of securities was effective in improving market functioning and lowering long-term interest rates in a number of private credit markets. The program (which was significantly expanded in March 2009) made an important contribution to the economic stabilization and recovery that began in the spring of 2009. Indeed, the FOMC's recent decision to keep constant the Federal Reserve's securities holdings reflects the conviction that these holdings can promote financial conditions that help support the recovery. Decisions regarding how long these assets or any newly acquired assets will be held on the Federal Reserve's balance sheet will be based on an assessment of the outlook for economic activity and inflation.

There are no simple metrics that the Federal Reserve can employ in determining whether additional policy easing is necessary and, if so, whether additional purchases of securities would be appropriate. As always, a wide range of economic indicators informs the Federal Reserve's view about the outlook for economic activity and inflation. Any decision to acquire additional securities would need to weigh the potential benefits of such purchases against the potential costs. Regarding potential benefits, additional purchases could further lower the costs of borrowing for households and businesses and thereby provide needed support for spending and economic growth. On the other hand, further purchases of securities could reduce public confidence in the ability of the Federal Reserve to exit smoothly from a very accommodative policy stance at the appropriate time. Even if unjustified, a reduction in confidence might lead to an undesired increase in inflation expectations and so to upward pressure on actual inflation. The Federal Reserve will weigh these and other considerations and carefully monitor economic and financial developments in judging whether additional asset purchases are warranted.

Q.3. A number of economists, market watchers and Members of Congress have speculated that U.S. firms are reluctant to invest and hire, though they may have the cash on their balance sheets to do so, because of uncertainty over a dramatic reshaping of the health care and financial regulatory regimes. How large of a role

do you believe this uncertainty is playing in companies' decisions on how and when to deploy their capital? And, do you think the uncertainty over future tax rates also factors in?

A.3. Several factors are likely to influence hiring and capital spending decisions. Typically, a firm's sales prospects and the expected rate of return to an investment—either in new equipment or new workers—are key elements in the decision. In some cases, access to credit also might affect decisions to invest and hire. In addition, uncertainty about the economic environment or expected returns can also influence the willingness of a firm to make spending commitments.

Recent surveys of businesses provide some insights into these issues and suggest that many firms are concerned about the overall economic environment and their company's own sales prospects. Two examples are presented in the table. As shown on line 1, 36 percent of respondents to the latest Duke CFO survey cited consumer demand as the most important problem facing their business. Fortunately, concerns about consumer demand have diminished from a year ago, but they remain the most frequently cited problem. Similarly, as shown on line 3 of the table, respondents to the latest survey of small businesses, conducted by the National Federation of Independent Business (NFIB), pointed to poor sales as their most important problem, but that concern also has diminished from a year ago. In addition, the S&P 500 volatility index (VIX), an indicator of uncertainty in financial markets, also is down from its previous peaks, although it remains relatively elevated by historical standards.

Most Important Problem Facing Your Business
(Percent citing factor)

		One year ago	Most recent
	All businesses*		
1.	Consumer demand	46	36
2.	Federal government agenda/policies	17	18
	Small businesses**		
3.	Poor sales	34	29
4.	Govt. Regulations and Red Tape	11	15
5.	Taxes	19	22

* Duke CFO Magazine Global Business Outlook Survey; most recent data are for 2010:Q2
** NFIB Small Business Economic Trends; most recent data are for July 2010.

It is difficult to know the extent to which uncertainty specifically related to future taxes, the recently enacted health care legislation, or financial regulatory reform is affecting business capital spending and hiring decisions. However, both the Duke CFO survey and the NFIB allow respondents to cite government policies more generally as the most important problem facing their business. These responses are shown on lines 2 and 4 of the table. In addition, line 5 presents the data on the extent to which taxes are a pressing business concern. Of course, these responses are not direct indicators of uncertainty. Moreover, the figures presented in the table are from only two surveys and may not present a complete picture of whether greater uncertainty about Government policies is restraining capital spending and hiring.

Q.4. Are you concerned that keeping interest rates this low, for such an extended period of time, will have negative or dangerous consequences? Why, or why not?

A.4. The FOMC has established a very low level of short-term interest rates to foster its statutory objectives of maximum employment and stable prices. The FOMC has been very explicit in stating that the current very accommodative stance of monetary policy is conditional on the economic outlook, which includes low anticipated rates of resource utilization, subdued inflation trends, and stable inflation expectations. The explicit conditionality of the Federal Reserve's policy stance should help to guard against adverse outcomes such as a buildup in inflationary pressures or imbalances in financial markets. As the economy recovers, investors, seeing that the conditions supporting the current stance of policy have changed, will likely begin to anticipate the removal of policy accommodation; such anticipations of policy firming will, in turn, boost longer-term interest rates immediately, helping to damp any buildup in inflationary pressures. Of course, the Federal Reserve must be able to validate expectations of policy firming at the appropriate time. To do so, the Federal Reserve has a number of tools at its disposal. First, the Federal Reserve will put upward pressure on short-term interest rates by raising the rate it pays on the reserve balances held by depository institutions. Second, the Federal Reserve has developed reserve draining tools that can be employed to reduce the quantities of reserves outstanding and thereby tighten the relationship between the rate paid on reserve balances and short-term market rates. Finally, the Federal Reserve can sell assets at an appropriate time and pace to further tighten the stance of monetary policy. In short, the Federal Reserve has the tools necessary to effectively remove policy accommodation when such actions are warranted by the economic outlook. As always, the Federal Reserve is sensitive to the risks surrounding the outlook, and we are mindful of the possibility that very low interest rates could, if maintained for too long, lead to adverse economic outcomes. At the same time, there are risks that the premature removal of policy accommodation could undermine the economic recovery and contribute to unwelcome disinflationary pressures. The Federal Reserve will be monitoring economic and financial developments carefully to ensure that its policy actions appropriately balance these risks.

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

Q.1. During initial Senate consideration of financial regulatory reform legislation, I was very concerned that State-chartered community banks and small-and medium-sized bank holding companies would no longer be able to choose supervision from the Federal Reserve. I worried that community banks in Texas and across the country would lose access to the Federal Reserve, and, likewise, that the Fed would lose the important data that these important financial institutions provide on economic and banking conditions in communities in Texas and across the country.

I was proud to sponsor Amendment 3759 during Senate consideration to ensure that State-chartered banks and small- and medium-sized bank holding companies could retain Federal Reserve supervision. I appreciate the support that you and many of the regional Federal Reserve presidents demonstrated to help my amendment pass with overwhelming support;

I worked hard to ensure that community banks would not be unduly penalized as a result of the new regulations which will come from the Dodd-Frank Wall Street Reform and Consumer Protection Act. However, I continue to hear from many Texas community bankers sharing concerns about the possible effects of this legislation. The regulatory burden on community banks, particularly small banks in rural locations, was already significant prior to the enactment of legislation. Many in the Texas banking community fear that the rules soon to be written by the new Consumer Financial Protection Agency will be the tipping point for many community banks, making the regulatory burden too great to operate effectively. Texas community bankers are concerned that greater regulation will ultimately lead smaller community banks to succumb to larger banks, which would make the big bigger and wipe out the smaller banks.

As a Member of the Committee on Banking, Housing, and Urban Affairs having oversight over the enactment of the Dodd-Frank Wall Street Reform and Consumer Protection Act, I respectfully ask the following:

Which provisions of the Dodd-Frank Act require careful monitoring from the Committee because their respective implementation could be especially burdensome to community banks?

A.1. Although adjustments were made to moderate the impact of the Collins amendment, the effect of this provision (section 171) on the ability of smaller banking organizations to access capital from the public markets warrants close monitoring. You are correct that the impact on community banks of various portions of the Dodd-Frank Act, such as the Title VII derivatives provisions and the Title X Consumer Financial Protection Bureau provisions, will depend in part on the regulatory implementation of those provisions. As I mentioned often during the debate, small community banks play a key role in our financial system. Close connections with community bankers enable the Federal Reserve to better understand the full range of financial concerns and risks facing the country. The community banking perspective is also critical as we assess the burden and effectiveness of financial regulation.

Q.2. What proposals do you have to help our Nation's community banks withstand the onslaught of new regulations so that they can remain competitive and avoid potential arbitrage in the future by larger banks?

A.2. Through implementation of provisions addressing the "too-big-to-fail" problem, the Dodd-Frank Act should help to level the playing field between small and large banks. The Federal Reserve supported such provisions—including implementation of a resolution regime for large, interconnected firms and the imposition of more rigorous capital, liquidity, and supervisory requirements for large systemically important banking firms and nonbank financial insti-

tutions—in part because of the disparate treatment that resulted for banks of different sizes. Under the new law, the competitive position of community banks may be improved as implicit "too-big-to-fail" subsidies from which the largest banks previously benefited are removed through the higher supervisory costs and requirements placed on institutions that are or become large and systemically important.

ADDITIONAL MATERIAL SUPPLIED FOR THE RECORD

For use at 2:00 p.m., EDT
July 21, 2010

Monetary Policy Report to the Congress

July 21, 2010

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, 2010

Board of Governors of the Federal Reserve System

Letter of Transmittal

BOARD OF GOVERNORS OF THE
FEDERAL RESERVE SYSTEM

Washington, D.C., July 21, 2010

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

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

Sincerely,

Ben Bernanke, Chairman

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Part 1
Overview: Monetary Policy and the Economic Outlook

Economic activity expanded at a moderate pace in the first half of 2010 after picking up in the second half of 2009. Some of the increase in real gross domestic product (GDP) in the first half of the year came from a continued turn in the inventory cycle. But more broadly, activity was bolstered by ongoing stimulus from monetary and fiscal policies and generally supportive financial conditions. In the labor market, payrolls rose modestly and hours per worker increased; nevertheless, employment remained significantly below pre-recession levels and unemployment receded only slightly from its recent high. Meanwhile, consumer price inflation edged lower.

Financial markets, although volatile, generally supported economic growth in the first half of 2010. Bank credit, however, remained tight for many borrowers. Moreover, in the second quarter, uncertainty about the consequences of the fiscal pressures in a number of European countries and about the durability of the global recovery led to large declines in equity prices around the world and produced strains in some short-term funding markets. According to the projections prepared in conjunction with the June meeting of the Federal Open Market Committee (FOMC), meeting participants (members of the Board of Governors and presidents of the Federal Reserve Banks) continue to expect that economic activity will expand at a moderate rate over the second half of 2010 and in 2011. However, participants' current projections for economic growth are somewhat weaker than those prepared for the April FOMC meeting, and unemployment is expected to fall even more slowly than had been anticipated in April. Largely because of uncertainty about the implications of developments abroad, the participants also indicated somewhat greater concern about the downside risks to the economic outlook than they had at the time of the April meeting.

After rising at an annual rate of about 4 percent, on average, in the second half of 2009, U.S. real GDP increased at a rate of 2¾ percent in the first quarter of 2010, and available information points to another moderate gain in the second quarter. Some of the impetus to the continued recovery in economic activity during the first half of the year came from inventory investment as businesses started to rebuild stocks after the massive liquidation in the latter part of 2008 and in 2009. In addition, final sales continued to firm as personal consumption expenditures (PCE) rose and as business fixed investment was spurred by capital outlays that had been deferred during the downturn and by the need of many businesses to replace aging equipment. In the external sector, exports continued to rebound, providing impetus to domestic production, while imports were lifted by the recovery in domestic demand. On the less favorable side, outlays for nonresidential construction have declined further this year, and despite a transitory boost from the homebuyer tax credit, housing construction has continued to be weighed down by weak demand, a large inventory of distressed or vacant houses, and tight credit conditions for builders and some potential buyers. In addition, state and local governments are still cutting spending in response to ongoing fiscal pressures.

The upturn in economic activity has been accompanied by a modest improvement in labor market conditions. On average, private-sector employment rose 100,000 per month over the first half of 2010, with increases across a wide range of industries; businesses also raised their labor input by increasing hours per worker. Nonetheless, the pace of hiring to date has not been sufficient to bring about a significant reduction in the unemployment rate, which averaged 9¾ percent in the second quarter, only slightly below its recession high of 10 percent in the fourth quarter of 2009. Long-term unemployment has continued to worsen.

On the inflation front, prices of energy and other commodities have declined in recent months, and underlying inflation has trended lower. The overall PCE price index rose at an annual rate of about ¾ percent over the first five months of 2010 (compared with an increase of about 2 percent over the 12 months of 2009), while price increases for consumer expenditures other than food and energy items—so-called core PCE—slowed from 1½ percent over the 12 months of 2009 to an annual rate of 1 percent over the first five months of 2010. FOMC participants expect that, with

substantial resource slack continuing to restrain cost pressures and longer-term inflation expectations stable, inflation is likely to be subdued for some time.

Domestic financial conditions generally showed improvement through the first quarter of 2010, but the fiscal strains in Europe and the uncertainty they engendered subsequently weighed on financial markets. As a result, foreign and domestic equity price indexes fell appreciably in the second quarter, and pressures emerged in dollar funding markets; safe-haven flows lowered sovereign yields in most of the major advanced economies and boosted the foreign exchange value of the dollar and the Japanese yen.

Over the first half of the year, investors marked down expectations for the path of U.S. monetary policy in response to economic and financial developments and to the FOMC's continued indication that it expected economic conditions to warrant exceptionally low levels of the federal funds rate for an extended period. These same factors, as well as safe-haven flows, contributed to a decline in Treasury rates. Some private borrowing rates, including mortgage rates, also fell. Broad equity price indexes declined, on net, over the first half of 2010.

Consumer credit outstanding continued to fall, though at a less rapid pace than in the second half of last year. Larger corporations with access to capital markets were able to issue bonds to meet their financing needs, although some smaller businesses reportedly had considerable difficulties obtaining credit. Standards on many categories of bank loans remained tight, and loans on banks' books continued to contract, although somewhat less rapidly than around year-end. Commercial bank profitability stayed low by historical standards, as loan losses remained at very high levels.

To support the economic expansion, the FOMC maintained a target range for the federal funds rate of 0 to ¼ percent throughout the first half of 2010. To complete the purchases previously announced, over the first three months of the year, the Federal Reserve also conducted large-scale purchases of agency mortgage-backed securities and agency debt in order to provide support to mortgage lending and housing markets and to improve overall conditions in private credit markets. In light of improved functioning of financial markets, the Federal Reserve closed by the end of June all of the special liquidity facilities that it had created to support markets in late 2007 and in 2008. However, in response to renewed dollar funding pressures abroad, in May the Federal Reserve reestablished swap lines with the Bank of Canada, the Bank of England, the Bank of Japan, the European Central Bank, and the Swiss National Bank. The Federal Reserve continued to develop its tools for draining reserves from the banking system to support the withdrawal of policy accommodation when such action becomes appropriate. The Committee is monitoring the economic outlook and financial developments, and it will employ its policy tools as necessary to promote economic recovery and price stability.

The economic projections prepared in conjunction with the June FOMC meeting are presented in Part 4 of this report. In general, FOMC participants anticipated that the economic recovery would proceed at a moderate pace. The expansion was expected to be restrained in part by household and business uncertainty, persistent weakness in real estate markets, only gradual improvement in labor market conditions, waning fiscal stimulus, and slow easing of credit conditions in the banking sector. The projected increase in real GDP was only a little faster than the economy's longer-run sustainable growth rate, and thus the unemployment rate was anticipated to fall only slowly over the next few years. Inflation was expected to remain subdued over this period. The participants' projections for economic activity and inflation were both somewhat lower than those prepared in conjunction with the April FOMC meeting, mainly because of the incoming economic data and the anticipated effects of developments abroad on the U.S. economy.

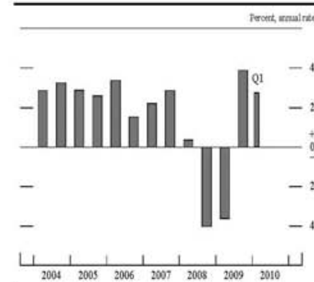
Participants generally judged that the degree of uncertainty surrounding the outlook for both economic activity and inflation was greater than historical norms. About one-half of the participants viewed the risks to the growth outlook as tilted to the downside, whereas in April, a large majority had seen the risks to growth as balanced; most continued to see balanced risks surrounding their inflation projections. Participants also reported their assessments of the rates to which macroeconomic variables would be expected to converge over the longer run under appropriate monetary policy and in the absence of further shocks to the economy. The central tendencies of these longer-run projections were 2.5 to 2.8 percent for real GDP growth, 5.0 to 5.3 percent for the unemployment rate, and 1.7 to 2.0 percent for the inflation rate.

Part 2
Recent Economic and Financial Developments

Real gross domestic product (GDP) increased at an annual rate of 2¾ percent in the first quarter of 2010 after rising about 4 percent on average in the second half of 2009, and it apparently posted another moderate gain in the second quarter (figure 1).[1] Some of the impetus to the continued recovery in economic activity in the first half of the year came from inventory investment as businesses started to rebuild stocks after the massive liquidation in the latter part of 2008 and in 2009. In addition, final sales continued to firm as consumer spending moved up, businesses raised their outlays for equipment and software, and demand for U.S. exports strengthened. In contrast, the underlying pace of activity in the housing sector has improved only marginally since hitting bottom in 2009. In the labor market, employment rose gradually over the first half of 2010 and average weekly hours worked increased, but the unemployment rate fell just slightly. Headline consumer price inflation has been low this year, as energy prices have dropped and core inflation has slowed (figure 2).

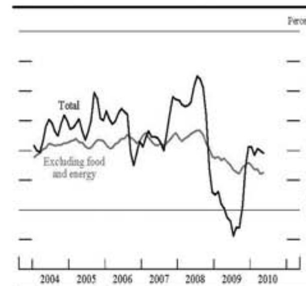
1. The oil spill in the Gulf of Mexico is having serious consequences for the environment and for many individuals and firms in the affected localities. However, the disaster does not appear to have registered sizable effects on the national economy to date.

1. Change in real gross domestic product, 2004–10



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, 2004–10



NOTE: The data are monthly and extend through May 2010; changes are from one year earlier.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

The gradual healing of the financial system that began in the spring of 2009 continued through the early spring of 2010. In the first quarter, financial market conditions generally became more supportive of economic activity, with yields and spreads on corporate bonds declining, broad equity price indexes rising, and measures of stress in many short-term funding markets falling to near their pre-crisis levels. In late April and early May, however, concerns about the effects of fiscal pressures in a number of European countries led to increases in credit spreads on many U.S. corporate bonds, declines in broad equity price indexes, and a renewal of strains in some short-term funding markets. Even so, over the first half of the year, mortgage rates and yields on U.S. corporate securities remained at low levels.

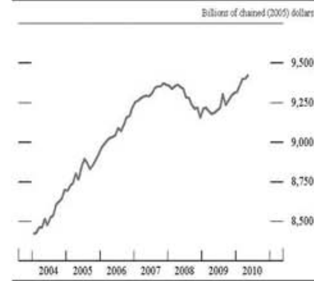
Domestic Developments

The Household Sector

Consumer Spending and Household Finance

Personal consumption expenditures (PCE) appear to have posted a moderate advance in the first half of 2010 after turning up in the second half of 2009 (figure 3).

3. Real personal consumption expenditures, 2004–10

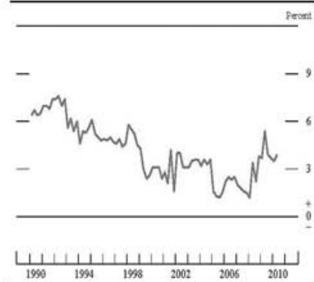


NOTE: The data are monthly and extend through May 2010.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

The improvement in employment and hours worked, and the associated pickup in real household incomes, provided important impetus to spending. The rise in household net worth in 2009 and the first quarter of 2010 also likely helped buoy spending, although the drop in stock prices during the spring unwound some of the earlier increase in wealth and—all else being equal—may restrain the rise in real PCE in the second half of the year. The personal saving rate has fluctuated in a fairly narrow range since the middle of 2009, and it stood at 4 percent in May (figure 4).

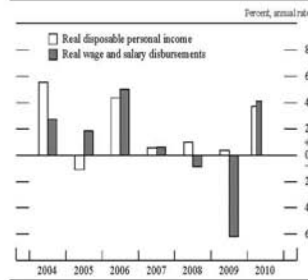
The gains in consumer spending during the first half of 2010 were widespread. Sales of new light motor vehicles (cars, sport utility vehicles, and pickup trucks) rose from an annual rate of 10¾ million units in the fourth quarter of 2009 to 11¼ million units in the second quarter, supported in part by favorable financing

4. Personal saving rate, 1990–2010



NOTE: The data are quarterly and extend through 2010:Q2; the reading for 2010:Q2 is the average for April and May.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

5. Change in real disposable personal income and in real wage and salary disbursements, 2004–10



NOTE: Through 2009, change is from December to December; for 2010, change is from December to May.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

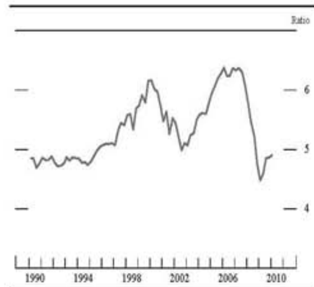
conditions for auto buyers. Spending for other goods started the year on a strong note—perhaps boosted by pent-up demand for purchases that had been deferred during the recession—though it appears to have cooled somewhat during the spring. Real outlays for services increased modestly after having only edged up in 2009.

Aggregate real disposable personal income (DPI)—personal income less personal current taxes, adjusted to remove price changes—rose at an annual rate of more than 3½ percent over the first five months of the year after barely increasing in 2009 (figure 5). Real wage and salary income, which had fallen appreciably in 2009, has regained some lost ground this year, as employment and hours of work have turned up and as real hourly wages have been bolstered by the very low rate of PCE price inflation. One measure of real wages—average hourly earnings of all employees, adjusted for the rise in PCE prices—increased at an annual rate of roughly 1 percent over the first five months of 2010 after having been about flat over the 12 months of 2009.

With equity values up and house prices holding steady, the ratio of household net worth to DPI edged higher in the first quarter of 2010 after increasing appreciably over the last three quarters of 2009. Nonetheless, the wealth-to-income ratio at that time was well below the highs of 2006 and 2007 (figure 6). Moreover, equity prices have fallen substantially since the end of the first quarter, a development that has not only depressed net worth but has also adversely affected consumer sentiment in recent months (figure 7).

Households continued to reduce their debt in the first half of 2010. Total household debt contracted at an annual rate of about 2½ percent in the first quarter

6. Wealth-to-income ratio, 1990–2010

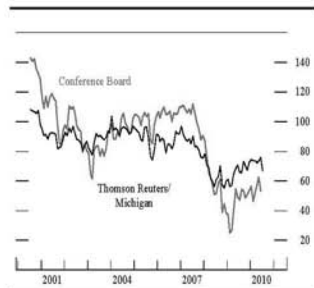


NOTE: The data are quarterly and extend through 2010:Q1. The wealth-to-income ratio is the ratio of household net worth to disposable personal income.
SOURCE: For net worth, Federal Reserve Board, flow of funds data; for income, Department of Commerce, Bureau of Economic Analysis.

of 2010, with both mortgage debt and consumer credit posting declines. The fall in consumer credit was less rapid than it had been in the second half of 2009, a development that is consistent with banks' increased willingness to extend consumer installment loans that has been reported in recent results of the Senior Loan Officer Opinion Survey on Bank Lending Practices (SLOOS).[2] However, SLOOS respondents also continued to report weak demand for such loans. Reflecting

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

7. Consumer sentiment indexes, 2000–10



NOTE: The Conference Board data are monthly and extend through June 2010; the series is indexed to equal 100 in 1985. The Thomson Reuters/University of Michigan data are monthly and extend through a preliminary estimate for July 2010; the series is indexed to equal 100 in 1966.
SOURCE: The Conference Board and Thomson Reuters/University of Michigan Surveys of Consumers.

8. Household debt service, 1980–2010

NOTE: The data are quarterly and extend through 2010:Q1. Debt service payments consist of estimated required payments on outstanding mortgage and consumer debt.
SOURCE: Federal Reserve Board, "Household Debt Service and Financial Obligations Ratios," statistical release.

the contraction in household debt, debt service payments—the required principal and interest on existing mortgages and consumer debt—fell as a fraction of disposable income (figure 8).

Changes in interest rates on consumer loans were mixed during the first half of 2010. Interest rates on new auto loans edged down on balance, and spreads on these loans relative to Treasury securities of comparable maturity remained near their average levels over the past decade. Interest rates on credit card loans rose through the first half of 2010; part of the increase early in the year may be attributable to adjustments made by banks prior to the imposition of new rules in February under the Credit Card Accountability Responsibility and Disclosure (Credit CARD) Act.[3]

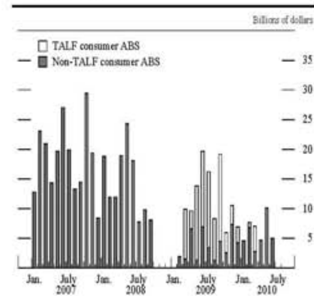
Although delinquency rates on auto loans at captive finance companies and on credit card loans at commercial banks edged down in the first quarter of 2010, they remained at elevated levels. Charge-off rates for credit card loans at commercial banks were also high.

The Federal Reserve's Term Asset-Backed Securities Loan Facility (TALF) continued to support the issuance of consumer asset-backed securities (ABS) until its closure for such securities on March 31 (figure 9).[4] Subsequently, issuance of consumer ABS was solid during the second quarter. Yields on such securities fell on balance during the first quarter, and spreads on high-quality credit card and auto loan ABS relative to

3. The Credit CARD Act includes some provisions that place restrictions on issuers' ability to impose certain fees and to engage in risk-based pricing.

4. The TALF extended loans to finance investment in ABS. The TALF remained open until June 30 for loans backed by newly issued commercial mortgage-backed securities.

9. Gross issuance of selected asset-backed securities, 2007–10



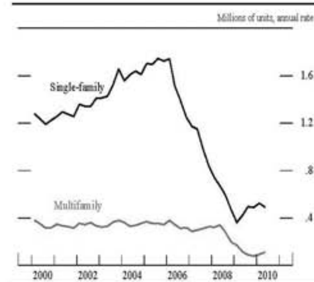
NOTE: Consumer asset-backed securities (ABS) are securities backed by credit card loans, nonrevolving consumer loans, and auto loans. Data for consumer ABS show gross issuance facilitated by the Term Asset-Backed Securities Loan Facility (TALF) and such issuance outside the TALF.
SOURCE: Bloomberg and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

comparable-maturity Treasury securities declined to levels last seen in 2007.

Residential Investment and Housing Finance

Home sales and construction were boosted in the spring by the homebuyer tax credit. But looking through this temporary improvement, underlying housing activity appears to have remained weak this year despite a historically low level of mortgage interest rates. In an environment of soft demand, a large inventory of foreclosed or distressed properties on the market, and limits on the availability of financing for builders and some potential buyers, homebuilding has stayed at a slow pace. In the single-family sector, new units were started at an average annual rate of about 510,000 units between January and June—just 150,000 units above the quarterly low reached in the first quarter of 2009 (figure 10). Activity in the multifamily sector has continued to be held down by elevated vacancy rates and tight credit conditions; starts averaged just 100,000 units at an annual rate during the first half of 2010, essentially the same as in the second half of 2009 and well below the norm of 350,000 units per year that had prevailed over the decade prior to the financial crisis.

10. Private housing starts, 2000–10

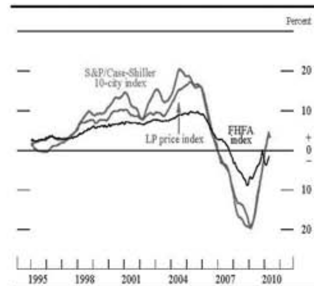


NOTE: The data are quarterly and extend through 2010:Q2.
SOURCE: Department of Commerce, Bureau of the Census.

Home sales surged in the spring, but these increases likely were driven by purchases that were pulled forward to qualify for the homebuyer tax credit.[5] Sales of existing single-family houses jumped to an annual rate of 5 million units on average in April and May, ½ million units above their first-quarter pace. However, new home sales agreements—which also appear to have gotten a lift in April from the looming expiration of the

5. In order to receive the homebuyer tax credit, a purchaser had to sign a sales agreement by the end of April. As the law was written, the purchaser had to close on the property by June 30, but the closing deadline was recently changed to September 30. Sales of existing homes are measured at closing, while sales of new homes are measured at the time the contract is signed.

11. Change in prices of existing single-family houses, 1995–2010



NOTE: The data are monthly and extend into 2010: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.

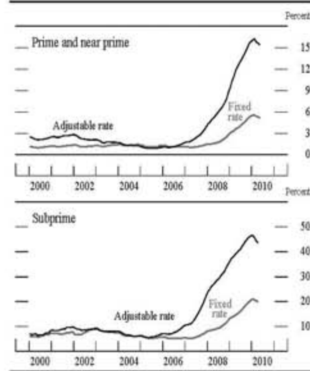
tax credit—plummeted in May, and other indicators of housing demand generally remain lackluster.

Meanwhile, house prices, as measured by a number of national indexes, appear to be reaching bottom (figure 11). For example, the LoanPerformance repeat-sales price index, which had dropped 30 percent from its peak in 2006 to its trough in 2009, has essentially moved sideways this year. This apparent end to the steep drop in house prices should begin to draw into the market potential buyers who had been reluctant to purchase homes when prices were perceived to be at risk of significant further declines.

Delinquency rates on most categories of mortgages showed tentative signs of leveling off over the first several months of 2010 but remain well above levels posted a year earlier (figure 12). As of May, serious delinquency rates on prime and near-prime loans had edged down to about 15 percent for variable-rate loans and to about 5 percent for fixed-rate loans.[6] For subprime loans, as of April (the latest data available), delinquency rates moved down to about 40 percent for variable-rate loans and slightly less than 20 percent for fixed-rate loans. About 650,000 homes entered the foreclosure process in the first quarter of 2010, only slightly below the elevated pace seen in 2009.

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

12. Mortgage delinquency rates, 2000–10



NOTE: The data are monthly and extend through April 2010 for subprime and May 2010 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.

13. Mortgage interest rates, 1995–2010

NOTE: The data, which are weekly and extend through July 14, 2010, are contract rates on 30-year mortgages.

SOURCE: Federal Home Loan Mortgage Corporation.

On balance, interest rates on fixed-rate mortgages decreased over the first half of 2010, a move that partly reflected the decline in Treasury yields over that period (figure 13). Some financial market participants had reportedly expressed concerns that rates would rise following the March 31 end of large-scale purchases of agency mortgage-backed securities (MBS) by the Federal Reserve. However, mortgage rates changed little around that date, and spreads have remained relatively narrow.

Despite the further fall in mortgage rates, the availability of mortgage financing continued to be constrained. The April 2010 SLOOS indicated that while banks had generally ceased tightening lending standards on all types of mortgages, they had not yet begun to ease those standards from the very stringent levels that had been imposed over the past few years. Perhaps reflecting the stringency of lending standards and low levels of home equity for many homeowners, over the first quarter of 2010 indicators of refinancing activity showed only a modest pickup from the subdued levels posted in the second half of 2009. Refinancing appeared to pick up late in the second quarter. Overall, residential mortgage debt contracted at a somewhat faster pace in the first half of 2010 than it had in the second half of the previous year.

Net issuance of MBS guaranteed by Fannie Mae, Freddie Mac, or Ginnie Mae fell during the first half of 2010 after having expanded briskly in the second half of 2009; the fall was largely attributable to weak demand for mortgages and to sizable prepayments on outstanding MBS stemming from repurchases by Fannie Mae and Freddie Mac of large numbers of

delinquent mortgages out of the pools of mortgages backing agency MBS. The securitization market for mortgage loans not guaranteed by a housing-related government-sponsored enterprise (GSE) or the Federal Housing Administration remained essentially closed.

The Business Sector

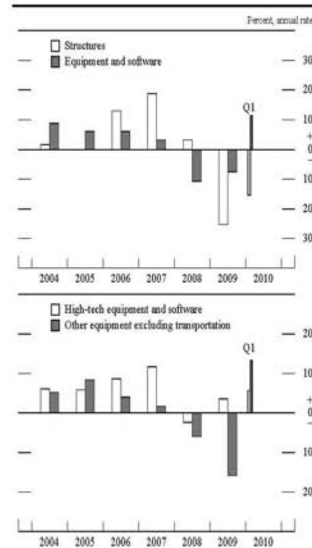
Fixed Investment

Real business fixed investment turned up in the fourth quarter of 2009 after more than a year of steep declines, and it appears to have risen further in the first half of 2010. The pickup occurred entirely in spending for equipment and software (E&S), which rebounded in response to the improvement in sales, production, and profits. Moreover, businesses have ample internal funds at their disposal. And although bank lending remains constrained—especially for small businesses—firms with access to capital markets have generally been able to finance E&S projects with the proceeds of bond issuance at favorable terms.

Real outlays for E&S rose at an annual rate of 11½ percent in the first quarter after an even larger increase in the fourth quarter (figure 14). As it had in the fourth quarter, business spending on motor vehicles rose briskly, and outlays on information technology (IT) capital—computers, software, and communications equipment—continued to be spurred by the need to replace older, less-efficient equipment and by the expansion of the infrastructure for wireless communications networks. In addition, investment in equipment other than transportation and IT jumped in the first quarter after falling more than 15 percent in 2009. More recently, orders and shipments for a wide range of equipment rose appreciably this spring, pointing to another sizable increase in real E&S outlays in the second quarter.

Investment in nonresidential structures continued to decline in the first half of 2010 against a backdrop of high vacancy rates, low property prices, and difficult financing conditions. Real outlays on structures outside of the drilling and mining sector fell at an annual rate of 27½ percent in the first quarter after falling 18 percent in 2009, and the incoming data point to continued weakness in the second quarter. Construction of manufacturing facilities appears to have firmed somewhat in recent months and outlays in the power category—though volatile from quarter to quarter—have retained considerable vigor, but spending on office and commercial structures remained on a steep downtrend through May. Meanwhile, real spending on drilling and mining

14. Change in real business fixed investment, 2004–10



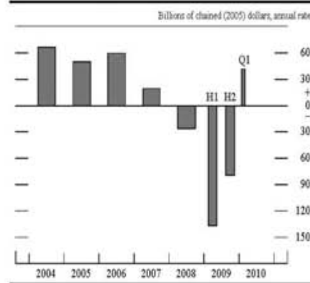
NOTE: High-tech equipment consists of computers and peripheral equipment and communications equipment.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

structures has posted solid increases in recent quarters in response to the rebound in oil and natural gas prices in the second half of last year; nonetheless, this pickup in activity follows a massive decline in the first half of 2009, and spending in this sector is still well below late-2008 levels.

Inventory Investment

The pace of inventory liquidation slowed dramatically in late 2009 as firms acted to bring production into closer alignment with sales, and businesses began restocking in the first quarter of 2010 (figure 15). That swing in inventory investment added nearly 2 percentage points to the rise in real GDP in the first quarter. Nonetheless, firms appear to be keeping a tight rein on stocks. For example, in the motor vehicle sector, manufacturers held second-quarter production of light vehicles to a pace that pushed days' supply below historical norms—even after adjusting for the reduction

15. Change in real business inventories, 2004–10



SOURCE: Department of Commerce, Bureau of Economic Analysis.

over the past couple of years in the number of models, trim lines, and dealerships. Outside of motor vehicles, real inventories rose modestly in the first quarter, and the limited available information suggests that stock-building remained at about this pace in the spring. The inventory-to-sales ratios for most industries covered by the Census Bureau's book-value data have moved back into a more comfortable range after rising sharply in 2009.

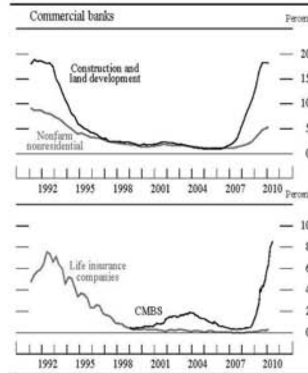
Corporate Profits and Business Finance

Operating earnings per share for S&P 500 firms continued to bounce back in the first quarter of 2010. In percentage terms, the recent advances were stronger among financial firms, as their profits rebounded from depressed levels, though profits at nonfinancial firms also posted solid increases. Analysts' forecasts point to an expected moderation in profit gains in the second quarter.

The credit quality of nonfinancial corporations has shown improvement this year. Credit rating upgrades outpaced downgrades through May, and very few corporate bond defaults have occurred this year. Although delinquency rates for commercial and industrial (C&I) loans edged down to about 4 percent in the first quarter of 2010, they remained near the higher end of their range over the past 20 years. Delinquency rates for commercial real estate (CRE) loans held steady as rates on construction and land development loans remained near 20 percent (figure 16).

Reflecting an improved economic outlook and a somewhat more hospitable financing environment, particularly for larger firms, borrowing by nonfinancial businesses expanded over the first two quarters of

16. Delinquency rates on commercial real estate loans, 1991–2010

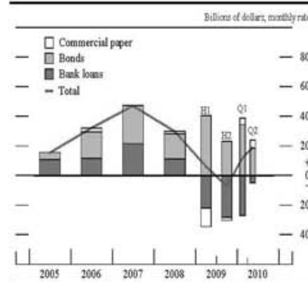


NOTE: The data for commercial banks and life insurance companies are quarterly and extend through 2010:Q1. The data for commercial mortgage-backed securities (CMBS) are monthly and extend through June 2010. The delinquency rates for commercial banks and CMBS are the percent of loans 30 days or more past 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.

2010 after having fallen during the second half of 2009 (figure 17). Net issuance of corporate bonds increased through April as businesses took advantage of relatively low interest rates to issue longer-term debt, and net issuance of commercial paper turned positive. However,

17. Selected components of net financing for nonfinancial businesses, 2005–10



NOTE: The data for the components except bonds are seasonally adjusted.

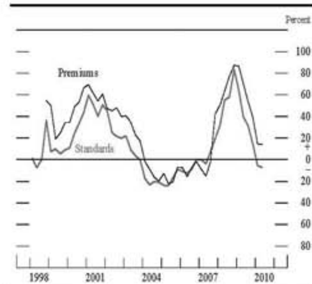
SOURCE: Federal Reserve Board, flow of funds data.

bond issuance fell in May as a result of the market volatility and pullback from risk that accompanied European financial developments. C&I loans declined through May before flattening out in June, while CRE lending contracted steeply throughout the first half of the year.

The decline in commercial bank lending to businesses is partly attributable to weak demand for such loans, as suggested by answers to the April 2010 SLOOS. In addition, respondents to the April survey reported that banks increased premiums charged on riskier C&I loans over the previous three months; and although a small net fraction of banks reported easing standards on those loans, the severe bout of tightening reported over the past several years has yet to be materially unwound (figure 18). Moreover, a moderate net fraction of banks tightened standards on CRE loans over the first quarter of 2010.

Small businesses face relatively tight credit conditions given their lack of direct access to capital markets. Results from the May 2010 Survey of Terms of Business Lending indicated that the spread between the average interest rate on loans with commitment sizes of less than $1 million—loans that were likely made to smaller businesses—and swap rates of comparable maturity edged down in the second quarter but remained quite elevated. In surveys conducted by the National Federation of Independent Business, the net

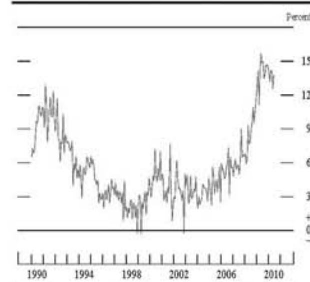
18. Net percentage of domestic banks tightening standards and increasing premiums charged on riskier loans to large and medium-sized business borrowers, 1998–2010



NOTE: The data are drawn from a survey generally conducted four times per year; the last observation is from the April 2010 survey, which covers 2010:Q1. Net percentage is the percentage of banks reporting a tightening of standards or an increase in premiums less the percentage reporting an easing or a decrease. 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.

19. Net percentage of small businesses that reported more difficulty in obtaining credit, 1990–2010



NOTE: The data are drawn from a survey conducted monthly and are seasonally adjusted; the last observation is from the July 2010 survey, which covers June 2010. The data reflect the proportion of borrowers who sought credit in the past three months that reported more difficulty in obtaining credit less the proportion that reported more ease in obtaining credit.

SOURCE: National Federation of Independent Business.

fraction of small businesses reporting that credit had become more difficult to obtain over the preceding three months remained at historically high levels during the first half of 2010 (figure 19). However, the fraction of businesses that cited credit availability as the most important problem that they faced remained small.

New issuance in the commercial mortgage-backed securities (CMBS) market, which had resumed in November 2009 with a securitization supported by the Federal Reserve's TALF program, continued at a very low level in the first half of 2010. The expiration of the legacy CMBS portion of the TALF program on March 31 had little apparent effect on issuance, and spreads on AAA-rated CMBS relative to comparable-maturity Treasury securities generally fell over the first half of the year, though they remained elevated in comparison with their pre-crisis levels.

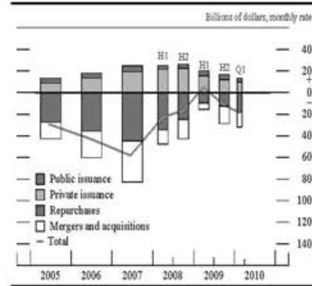
In the equity market, combined issuance from seasoned and initial offerings by nonfinancial firms slowed a bit in the first quarter of 2010 (figure 20). Meanwhile, equity retirements due to cash-financed merger and acquisition deals and share repurchases increased somewhat, leaving net equity issuance modestly negative.

The Government Sector

Federal Government

The deficit in the federal unified budget appears to be stabilizing—albeit at a very high level—after its sharp

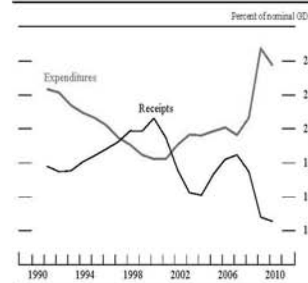
20. Components of net equity issuance, 2005–10



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. The data for 2010:Q1 are estimated.

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

21. Federal receipts and expenditures, 1990–2010



NOTE: Through 2009, receipts and expenditures are for fiscal years (October through September); gross domestic product (GDP) is for the four quarters ending in Q3. For 2010, receipts and expenditures are for the 12 months ending in June, and GDP is the average of 2009:Q4 and 2010:Q1. Receipts and expenditures are on a unified-budget basis.

SOURCE: Office of Management and Budget.

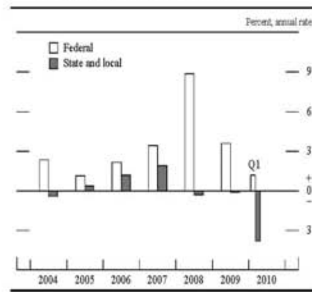
run-up in fiscal year 2009. Indeed, over the first nine months of fiscal 2010, the deficit was a little smaller than that recorded a year earlier, and the ongoing recovery in economic activity should help shore up revenues over the remainder of the fiscal year. Nonetheless, the deficit is still on track to exceed 9 percent of nominal GDP for fiscal 2010 as a whole, only a shade below the 10 percent figure for 2009 and substantially above the average value of 2 percent of GDP for fiscal years 2005 to 2007, prior to the onset of the recession and financial crisis. The budget costs of financial stabilization programs, which added significantly to the deficit in fiscal 2009, have helped reduce the deficit this year as the sum of (1) repayments and downward revisions of expected losses in the Troubled Asset Relief Program (TARP) and (2) banks' required prepayments to the Federal Deposit Insurance Corporation of three years of deposit insurance premiums has exceeded the additional payments by the Treasury to the housing-related GSEs. However, the deficit has continued to be boosted by the American Recovery and Reinvestment Act (ARRA) and other policy actions and by the still-low level of economic activity, which is damping revenues and pushing up cyclically sensitive outlays.

After falling 16½ percent in fiscal 2009, federal receipts edged up ½ percent in the first nine months of fiscal 2010 compared with the same period in fiscal 2009; they currently stand around 14½ percent of GDP—the lowest percentage in 60 years (figure 21). Taken together, individual income and payroll taxes were 4½ percent lower than a year earlier, in part because of the weakness in wage and salary income last fall and the low level of net final payments on 2009 tax liabilities this spring; in addition, the revenue provisions in ARRA had a larger negative effect on individual collections during the first nine months of fiscal 2010 than they did during the comparable period of fiscal 2009. In contrast, corporate receipts turned back up after a dramatic drop in 2008 and 2009.

Outlays through June were nearly 3 percent lower than those during the first nine months of fiscal 2009, but the decrease was more than accounted for by a marked downswing in total net outlays for the TARP, the GSE conservatorship, and federal deposit insurance. Excluding these financial transactions, outlays rose 10 percent compared with a year earlier, mainly because of the effects of the weak labor market on income-support programs (such as unemployment insurance and food stamps) and because of the spending associated with ARRA and other stimulus-related policies. In addition, net interest payments have been pushed up by the higher levels of outstanding 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—rose at an annual rate of only 1 percent in the first quarter (figure 22). Defense spending—which tends to be erratic from quarter to quarter—posted just a small rise, and nondefense purchases only inched up after a large stimulus-related increase in the second half of 2009. Real federal purchases likely increased somewhat faster in the second quarter, boosted by the surge in hiring for the decennial census.

22. Change in real government expenditures on consumption and investment, 2004–10

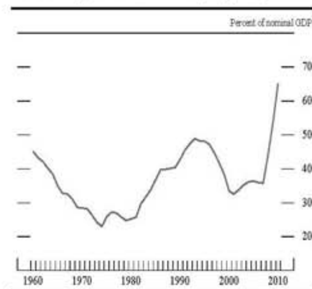


SOURCE: Department of Commerce, Bureau of Economic Analysis.

Federal Borrowing

Federal debt held by the public is projected to reach more than 65 percent of nominal GDP by the end of this year, the highest ratio seen in more than 50 years (figure 23). Despite the increase in financing needs, Treasury auctions have been mostly well received so far this year, and bid-to-cover ratios at those auctions were generally strong. Demand for Treasury securities was likely boosted by a desire for relatively safe and liquid assets in light of concerns about the consequences of fiscal strains in a number of European countries. Indicators of foreign demand for U.S. Treasury debt remained solid.

23. Federal government debt held by the public, 1960–2010



NOTE: The data for debt are as of year-end; the observation for 2010 is an estimate. The corresponding values for gross domestic product (GDP) are for Q4 at an annual rate. Excludes securities held as investments of federal government accounts.

SOURCE: Federal Reserve Board, flow of funds data.

State and Local Government

State and local governments, facing difficult situations, have continued to reduce expenditures on consumption and gross investment. Over the first six months of 2010, these governments cut roughly 100,000 jobs after a similar reduction in the second half of 2009 and kept a tight rein on operating expenditures to satisfy balanced budget requirements. Real construction expenditures dropped in the fourth quarter of 2009 and remained low in the first half of 2010 despite the availability of federal stimulus funds and supportive conditions in municipal bond markets. Capital expenditures are not typically subject to balanced budget requirements; however, debt service payments on the bonds used to finance capital projects are generally made out of operating budgets (and thus must compete with Medicaid and other high-priority programs for scarce funding), which may be deterring governments from undertaking new infrastructure projects.

As is the case at the federal level, the hemorrhaging of revenues that took a heavy toll on state and local budgets in 2008 and 2009 seems to be easing, and governments will continue to receive significant amounts of federal stimulus aid through the end of the year. Still, total state tax collections are well below their pre-recession levels, and available balances in reserve funds are low. At the local level, property taxes held up well through the first quarter, likely in part because lower real estate assessments have been offset by hikes in statutory tax rates in some areas; however, further increases in tax rates may encounter resistance, and many local governments are facing steep cutbacks in state aid. Moreover, many state and local governments will need to set aside money in coming years to rebuild their employee pension funds after the financial losses experienced over the past couple of years and to fund their ongoing obligations to provide health care to their retired employees.

State and Local Government Borrowing

Despite concerns over the fiscal positions and the financial health of state and local governments, the municipal bond market remained receptive to issuers over the first half of the year. Issuance of long-term municipal bonds was solid and continued to be supported by the Build America Bond program, which was authorized under ARRA.[7] Short-term municipal bond issuance was

7. The Build America Bond program allows state and local governments to issue taxable bonds for capital projects and receive a subsidy payment from the Treasury for 35 percent of interest costs.

moderate but generally consistent with typical seasonal patterns.

Interest rates on long-term municipal bonds on balance fell a bit less than those on comparable-maturity Treasury securities, leaving the ratio of their yields slightly elevated by historical standards. Downgrades of state and local government debt by credit agencies continued to exceed upgrades.

The External Sector

Following a substantial rebound in the second half of 2009, both real exports and imports continued to increase at a robust pace in the first quarter of this year (figure 24). While the cyclical recovery in real exports of goods and services remained strong, growth slowed from its 20 percent annual rate in the second half of last year to an 11 percent rate in the first quarter of 2010. Exports in almost all major categories expanded, with sales of industrial supplies, high-tech equipment, and services registering large increases. Exports of aircraft were the exception, as they slumped after a sizable increase in the fourth quarter of last year. Export demand from Mexico, Japan, Canada, and emerging Asia excluding China was especially vigorous, while exports to the European Union and China were flat. Data for April and May suggest that exports continued to rise at a solid pace in the second quarter.

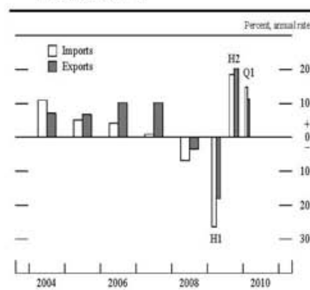
Real imports of goods and services rose at an annual rate of 15 percent in the first quarter, about the same pace as in the fourth quarter of last year. All major categories of imports rose, especially industrial supplies (including petroleum), capital goods, and consumer goods. Data for April and May suggest that imports continued to climb robustly in the second quarter, with automotive products and computers registering notable increases.

In the first quarter of 2010, the U.S. current account deficit reached an annual rate of $436 billion, approximately 3 percent of GDP (figure 25). The current account deficit has widened a little over the past few quarters, as imports have outpaced exports.

The spot price of a barrel of West Texas Intermediate crude oil started the year at about $80 and had risen to $86 by early May, continuing the rebound from last year's recession-induced lows as the global economic recovery progressed (figure 26). The price has since moved back down to about $77 as a result of increased concerns about the sustainability of the global recovery. The prices of longer-term futures contracts for crude oil (that is, those expiring in December 2018) also fell, from $100 per barrel in early May to $92 per barrel in mid-July. The upward-sloping futures curve is consistent with the view that, despite mounting worries about the near-term growth outlook, oil prices will rise again as global demand strengthens over the medium term.

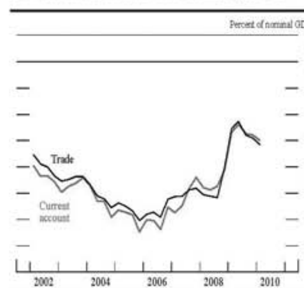
Nonfuel commodity prices have been mixed in 2010. Food prices have been roughly flat so far this year. Prices for metals and agricultural raw materials have been volatile; prices for these commodities rose into early April, as the global recovery continued, but since then have fallen sharply, reflecting the stronger value of the dollar and growing uncertainty about the outlook for the global economy. Market commentary also suggests that prices for metals have fallen because of concerns that policy tightening in China may slow its demand for those commodities.

24. Change in real imports and exports of goods and services, 2004–10



SOURCE: Department of Commerce, Bureau of Economic Analysis.

25. U.S. trade and current account balances, 2002–10



NOTE: The data are quarterly and extend through 2010:Q1.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

26. Prices of oil and nonfuel commodities, 2005–10

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 1–14, 2010. The price of nonfuel commodities is an index of 45 primary-commodity prices and extends through May 2010.
SOURCE: For oil, the Commodity Research Bureau; for nonfuel commodities, International Monetary Fund.

27. Net saving, 1990–2010

NOTE: The data are quarterly and extend through 2010: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.

Prices of imported goods rose briskly in early 2010, boosted by the depreciation of the dollar in foreign exchange markets and the rise in commodity prices in late 2009. In the second quarter of this year, as commodity prices declined and the dollar appreciated, import price inflation slowed. Prices for imports of finished goods have, on average, been little changed in 2010.

National Saving

Total net national saving—that is, the saving of households, businesses, and governments excluding depreciation charges—remains very low by historical standards. After having reached 3¾ percent of nominal GDP in 2006, net national saving dropped steadily over the subsequent three years; since the start of 2009, it has averaged negative 2½ percent of nominal GDP (figure 27). The widening of the federal budget deficit over the course of the recession has more than accounted for the downswing in net saving since 2006, and the large federal deficit will likely cause national saving to remain low in the near term. Because the demand for funds for capital investment is currently relatively meager, the low rate of national saving is not being translated into higher real interest rates or increased foreign borrowing. However, if not boosted over the longer term, persistent low levels of national saving will likely be associated with upward pressure on interest rates, 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 bottomed out around the turn of the year and is now adding jobs across a range of industries, albeit at a modest pace. After falling steeply through most of 2009, nonfarm private payroll employment rose 100,000 per month, on average, over the first half of the year (figure 28).[8] Firms have also raised their labor input by increasing hours per worker. Indeed, the average workweek of employees, which had dropped sharply over the course of the recession, ticked up toward the end of 2009 and rose considerably over the first half of 2010; by June, it had recouped nearly one-half of its earlier decrease. The job gains to date have only been sufficient to about match the rise in the number of jobseekers, and the unemployment rate in the second quarter, at 9¾ percent on average, was only slightly below the recession high of 10 percent reached in the fourth quarter of last year (figures 29 and 30).

8. Total employment—private plus government—has exhibited unusually sharp swings of late, mainly because of the hiring of temporary workers for the decennial census. Census hiring started in earnest in March and peaked at about 400,000 in May. In June, the winding down of the census subtracted 225,000 workers from government payrolls. Apart from the census, government employment fell slightly on net over the first half of the year because of cutbacks at state and local governments.

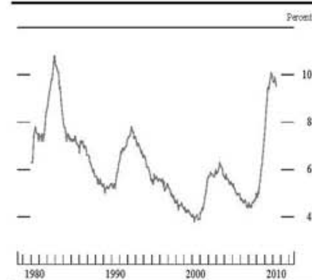
28. Net change in private payroll employment, 2004–10

NOTE: The data are monthly and extend through June 2010.
SOURCE: Department of Labor, Bureau of Labor Statistics.

Other indicators are also consistent with a gradual improvement in labor market conditions this year. Measures of hiring and job openings have moved up from the low levels of 2009, as have readings from private surveys of hiring plans. In addition, layoffs have come down, although the relatively flat profile of initial claims for unemployment insurance in recent months suggests that the pace of improvement may have slowed lately.

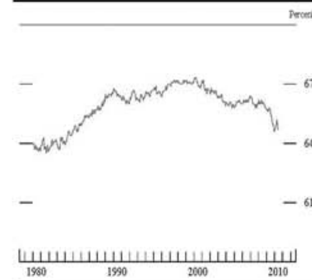
The economy remains far from full employment. The job gains this year have reversed only a small portion of the nearly 8½ million jobs lost during 2008 and 2009, and the unemployment rate is still at its highest level since the early 1980s. Moreover, long-term unemployment has continued to worsen—in June, 6.8 million persons, 600,000 more than at the end of

29. Civilian unemployment rate, 1980–2010



NOTE: The data are monthly and extend through June 2010.
SOURCE: Department of Labor, Bureau of Labor Statistics.

30. Labor force participation rate, 1980–2010



NOTE: The data are monthly and extend through June 2010.
SOURCE: Department of Labor, Bureau of Labor Statistics.

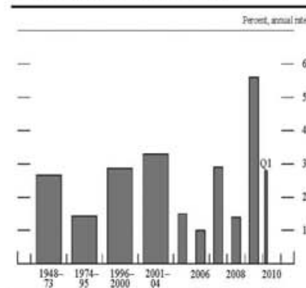
2009 and nearly one-half of the total unemployed, had been out of work for six months or more. Also, the number of workers who are working part time for economic reasons—another indicator of the underutilization of labor—has fallen only slightly this year and stands at nearly twice its pre-recession level.

Productivity and Labor Compensation

Labor productivity has continued to rise briskly, although not as rapidly as in 2009. According to the latest published data, output per hour in the nonfarm business sector rose at an annual rate of 2¾ percent in the first quarter after a 5½ percent advance in 2009 (figure 31). The continuing strong productivity gains reflect ongoing efforts by firms to improve the efficiency of their operations and their reluctance to increase their labor input in an uncertain economic environment.

Increases in hourly compensation continue to be restrained by the wide margin of slack in the labor market. The 12-month change in the employment cost index for private industry workers, which measures both wages and the cost to employers of providing benefits, has been 2 percent or less since the start of 2009 after several years of increases in the neighborhood of 3 percent (figure 32). Compensation per hour in the nonfarm business sector—a measure derived from the labor compensation data in the NIPA—has also slowed noticeably over the past couple of years; though erratic from quarter to quarter, this measure rose just 1½ percent over the year ending in the first quarter of 2010. Similarly, average hourly earnings—the timeliest measure of wage developments—rose 1¾ percent

31. Change in output per hour, 1948–2010

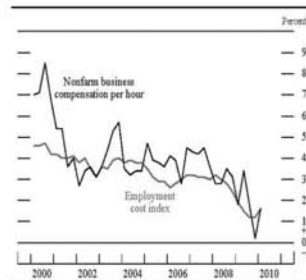


NOTE: Nonfarm business sector. Change for each multiyear period is measured to the fourth quarter of the final year of the period from the fourth quarter of the year immediately preceding the period.
SOURCE: Department of Labor, Bureau of Labor Statistics.

in nominal terms over the 12 months ending in June; as suggested earlier, this measure appears to have posted a modest increase in real terms over this period as a consequence of the low rate of consumer price inflation of late.

Reflecting the small rise in hourly compensation and the sizable advance in labor productivity, unit labor costs in the nonfarm business sector declined 4¼ percent over the year ending in the first quarter of 2010. Over the preceding year, unit labor costs had been flat.

32. Measures of change in hourly compensation, 2000–10



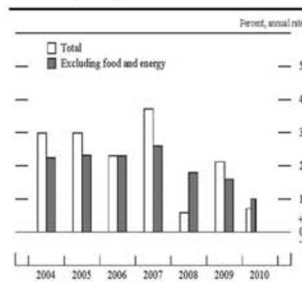
NOTE: The data are quarterly and extend through 2010:Q1. For nonfarm business compensation, change is over four quarters; for the employment cost index (ECI), change is over the 12 months ending in the last month of each quarter. The nonfarm business sector excludes farms, government, nonprofit institutions, and households. The sector covered by the ECI used here is the nonfarm business sector plus nonprofit institutions.
SOURCE: Department of Labor, Bureau of Labor Statistics.

Prices

Inflation diminished further in the first half of 2010. After rising 2 percent over the 12 months of 2009, the overall PCE chain-type price index increased at an annual rate of just ¾ percent between December 2009 and May 2010 as energy prices fell (figure 33). The core PCE price index—which excludes the prices of energy items as well as those of food and beverages—rose at an annual rate of 1 percent over the first 5 months of the year, compared with a rate of 1½ percent over the 12 months of 2009. This moderation was also evident in the appreciable slowing of inflation measures such as trimmed means and medians, which exclude the most extreme price movements in each period. Longer-run inflation expectations have been stable this year, with most survey-based measures remaining within the narrow ranges that have prevailed for the past few years.

Consumer energy prices continued to increase in January after a steep rise in the second half of 2009, but they turned down in February and fell further through midyear. Gasoline prices registered sizable decreases—especially in May and June—reflecting the ample inventories and drop in the price of crude oil in May. Although spot prices for natural gas were pushed up during the winter by unusually cold weather in some major consuming regions, they too fell on net over the spring and early summer as inventories remained high. Retail prices for electricity have fluctuated this year in response to movements in the cost of fossil fuel inputs, but on net they have changed little since the end of 2009.

33. Change in the chain-type price index for personal consumption expenditures, 2004–10



NOTE: Through 2009, change is from December to December; for 2010, change is from December to May.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

Consumer food prices rose at an annual rate of 1¾ percent between December 2009 and May 2010, boosted by higher prices for meats and for fruits and vegetables. Farm prices drifted down through the end of June as reports on crop production pointed to an abundant harvest, though they have moved up a bit in recent weeks.

The slowdown in core PCE inflation has been centered in prices of core goods, which declined at an annual rate of 1½ percent, on net, over the first five months of 2010 after rising 1½ percent in 2009. The deceleration in core goods prices was widespread and occurred despite sizable increases in prices for some industrial commodities and materials. Meanwhile, prices of services other than energy posted only a small increase over this period, as the softness in the housing market continued to put downward pressure on housing costs and as prices of other services were restrained by the wide margin of economic slack.

Survey measures of inflation expectations have been relatively stable this year. In the preliminary Thomson Reuters/University of Michigan Surveys of Consumers for July, median year-ahead inflation expectations stood at 2.9 percent. Median 5- to 10-year inflation expectations were also at 2.9 percent in early July—a reading that is in line with the average value for 2009 and the first half of 2010. In the Survey of Professional Forecasters, conducted by the Federal Reserve Bank of Philadelphia, expectations for the increase in the consumer price index over the next 10 years remained around 2½ percent in the second quarter, a level that has been essentially unchanged for many years.

Financial Developments

The recovery of the financial system that began in the spring of 2009 generally continued through the early spring of 2010, but in recent months concerns about spillovers from the fiscal pressures in a number of European countries and the durability of the global recovery have led to the reemergence of strains in some markets.

Monetary Policy Expectations and Treasury Rates

On balance over the first half of 2010, market participants pushed back their expected timing of the first increase in the target federal funds rate from its current range of 0 to ¼ percent, and they scaled back their expectations of the pace with which monetary policy accommodation would be removed. Quotes on money market futures contracts imply that, as of mid-July 2010, investors' expected trajectory for the federal funds rate rises above the current target range in the first quarter of 2011, two quarters later than the quotes implied at the start of 2010. Investors also expect, on average, that the effective federal funds rate will be around 1 percent by the middle of 2012, about 1¼ percentage points lower than anticipated at the beginning of this year. The expected path for monetary policy appeared to move lower in response to the mounting fiscal strains in Europe and weaker-than-expected U.S. economic data releases. The drop probably also reflected Federal Reserve communications, including the repetition in the statement released after each meeting of the Federal Open Market Committee that economic conditions are likely to warrant exceptionally low levels of the federal funds rate for an extended period.

Yields on longer-term nominal Treasury securities fell noticeably, on net, over the first half of the year, while two-year yields fell somewhat less (figure 34). Yields were generally little changed during the first quarter but dropped in the second quarter along with the decline in the expected path for monetary policy. Increased demand for Treasury securities by investors looking for a haven from volatility in other markets has likely contributed to the decline in yields. On balance, over the first half of the year, yields on 2-year Treasury notes decreased about ½ percentage point to about ¾ percent, and yields on 10-year notes fell about ¾ percentage point to about 3 percent.

Yields on Treasury inflation-protected securities, or TIPS, declined substantially less than those on their

34. Interest rates on selected Treasury securities, 2004–10

Note: The data are daily and extend through July 14, 2010.
Source: Department of the Treasury.

nominal counterparts over the first half of the year, resulting in lower medium- and long-term inflation compensation. The decline in inflation compensation may have partly reflected a drop in inflation expectations given the subdued rates of growth in major price indexes over the period and indications that economic slack would remain substantial for some time. However, inferences about investors' inflation expectations based on TIPS have been complicated over recent years by special factors such as the safe-haven demands for nominal Treasury securities and changes over time in the relative liquidity of TIPS and nominal Treasury securities.

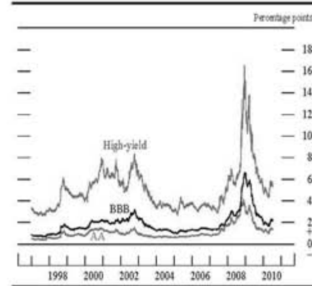
Other Interest Rates and Equity Markets

In the commercial paper market, over the first half of 2010, yields on lower-quality A2/P2-rated paper and on AA-rated asset-backed commercial paper rose a bit from low levels, pushing up spreads over higher-quality AA-rated nonfinancial commercial paper (figure 35). Even so, spreads on both types of assets remain near the low end of the range observed since the fall of 2007.

Yields on corporate bonds rated AA and BBB fell by less than those on comparable-maturity Treasury securities over the first half of the year, resulting in a noticeable increase in risk spreads (figure 36). Yields on speculative-grade corporate bonds fell during much of the first quarter but rose sharply during the second, leaving yields higher on net over the period and spreads somewhat more elevated. The widening of spreads appears to reflect a decrease in demand for risky assets stemming from concerns about developments in Europe and the outlook for the global economy.

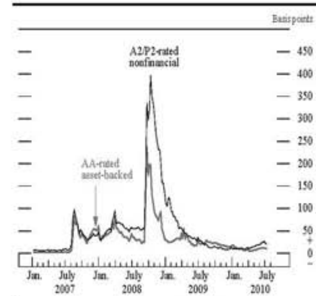
Similarly, broad equity price indexes, which rose in the first quarter, owing both to relatively strong earnings reports and to some better-than-expected economic data releases, fell back in the second quarter (figure 37). The second-quarter decline was broad based, encompassing most major equity market categories, and was consistent with movements in the prices of a wide variety of other asset classes. Implied volatility of the S&P 500, as calculated from option prices, spiked

36. Spreads of corporate bond yields over comparable off-the-run Treasury yields, by securities rating, 1997–2010



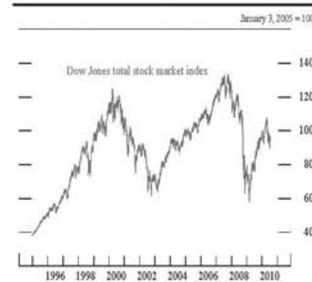
NOTE: The data are daily and extend through July 14, 2010. The spreads shown are the yields on 10-year bonds less the 10-year Treasury yield.
SOURCE: Derived from smoothed corporate yield curves using Merrill Lynch bond data.

35. Commercial paper spreads, 2007–10



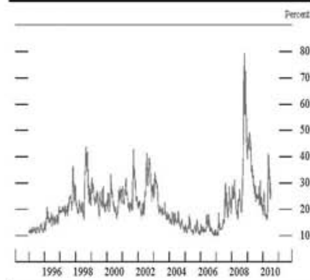
NOTE: The data are weekly and extend through July 14, 2010. Commercial paper yield spreads are for an overnight maturity and are expressed relative to the AA nonfinancial rate.
SOURCE: Depository Trust and Clearing Corporation.

37. Stock price index, 1995–2010



NOTE: The data are daily and extend through July 14, 2010.
SOURCE: Dow Jones Indexes.

38. Implied S&P 500 volatility, 1995–2010

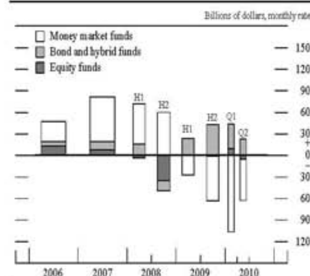


NOTE: The data are weekly and extend through the week ending July 16, 2010. The final observation is an estimate based on data through July 14, 2010. The series shown—the VIX—is the implied 30-day volatility of the S&P 500 stock price index as calculated from a weighted average of options prices.
SOURCE: Chicago Board Options Exchange.

upward in May before receding somewhat, then ended the first half of the year at a still-elevated level (figure 38).

Against a backdrop of declining equity prices and increases in equity market volatility, equity mutual funds experienced outflows in the second quarter; they had posted modest inflows in the first quarter after having been nearly flat for much of 2009 (figure 39). Most categories of bond funds and hybrid funds (which invest in a mix of bonds and equities) continued to show sizable inflows in the first half of 2010, although high-yield bond funds registered outflows as spreads widened in the second quarter. Money market mutual funds recorded large outflows, likely reflecting the very

39. Net flows into mutual funds, 2006–10



NOTE: The data exclude reinvested dividends and are not seasonally adjusted. The data for 2010:Q2 are estimated.
SOURCE: Investment Company Institute.

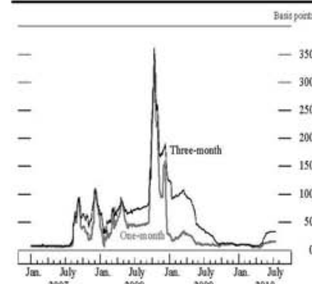
low yields on those assets relative to other short-term investments.

Financial Market Functioning

Financial market functioning continued to improve, on balance, during the first half of 2010. However, strains emerged in some markets. For example, the spread between the London interbank offered rate (Libor) and the rate on comparable-maturity overnight index swaps (OIS)—a measure of stress in short-term bank funding markets—widened over the first half of the year (figure 40). The increases in Libor-OIS spreads were more pronounced at longer maturities. In securities financing markets, bid-asked spreads and haircuts applied to collateral fell slightly.

In order to expand the availability of information on developments with respect to credit and leverage outside the traditional banking sector, the Federal Reserve initiated a Senior Credit Officer Opinion Survey on Dealer Financing Terms (SCOOS). The SCOOS surveys senior credit officers at about 20 U.S. and foreign dealers that, in the aggregate, provide the vast majority of the financing of dollar-denominated securities to nondealers and are the most active intermediaries in over-the-counter (OTC) derivative instruments. The survey will be conducted on a quarterly basis. In the first survey, conducted in late May and early June, dealers generally reported that the terms at which

40. Libor minus overnight index swap rate, 2007–10



NOTE: The data are daily and extend through July 14, 2010. 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.

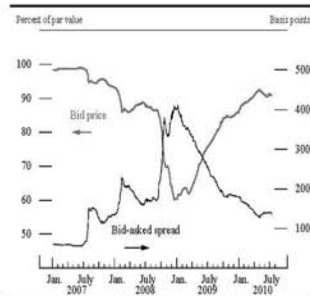
they provided credit were tight relative to those at the end of 2006.[9] However, they noted some loosening of terms for both securities financing and OTC derivative transactions, on net, over the previous three months for certain classes of clients—including hedge funds, institutional investors, and nonfinancial corporations—and intensified pressures by those clients to negotiate more-favorable terms. At the same time, they reported a pickup in demand for financing across several collateral types over the past three months.

The SCOOS results are consistent with market commentary suggesting that financial system leverage had begun to pick up in early 2010. However, leverage reportedly fell back in May against the backdrop of heightened market volatility. Hedge funds, which had earned solid returns on average during the first few months of the year, posted a sharp decline in May.

Conditions in the leveraged loan market continued to improve on balance over the first half of 2010. Gross issuance of such loans picked up slightly during that period from very low levels in 2009, as loan pools issuing collateralized loan obligations (CLOs) moved to reinvest the cash received from companies that had paid down older loans with the proceeds of bond issues. New CLO issuance, which had nearly ceased in the second half of 2009, also began to pick up in the second quarter of 2010. The recovery in investor demand for syndicated loans was evident in the secondary market as well, where average bid-asked spreads declined, on net, over the first half of 2010, and bid prices moved closer to par (figure 41).

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

41. Secondary-market pricing for syndicated loans, 2007–10



NOTE: The data are daily and extend through July 14, 2010.
SOURCE: LSTA/Thomson Reuters Mark-to-Market Pricing.

42. Equity price index for banks, 2007–10

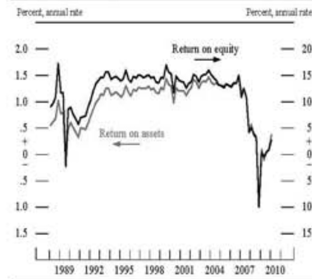
NOTE: The data are daily and extend through July 14, 2010.
SOURCE: Standard & Poor's.

Financial Institutions

Investor sentiment regarding the outlook for commercial banks, which had generally improved during the first quarter, became more pessimistic during the second quarter. Equity prices of commercial banks generally outperformed the broader market over the first quarter, before declining about in line with equity market indexes during the second (figure 42). Bank equity prices were likely boosted slightly by modest improvements in returns on equity and assets in the first quarter, although both profitability measures remained near the bottom end of their ranges of the past 20 years (figure 43). After adjusting for the effects of changes in the accounting treatment of securitized assets, net interest margins rose noticeably in the first quarter, while provisions for loan losses declined, consistent with responses to the January SLOOS that pointed to an improvement in banks' outlook on credit quality.[10] Smaller commercial banks collectively registered their first profitable quarter in more than a year in the first quarter.

10. The Financial Accounting Standards Board's Statements of Financial Accounting Standards Nos. 166 and 167 (FAS 166 and 167) modified the basis for determining whether a firm must consolidate securitized assets (as well as the associated liabilities and equity) onto its balance sheet. Most banking institutions were required to implement the standards in the first quarter of 2010. Banks are estimated to have brought $435 billion of loans back onto their books, of which about three-fourths were credit card loans, and increased their allowance for loan and lease losses by about $36 billion. For additional detail on the effects of FAS 166 and 167 on banks' balance sheets, see the "Notes on the Data" portion of Board of Governors of the Federal Reserve System, Statistical Release H.8, "Assets and Liabilities of Commercial Banks in the United States," www.federalreserve.gov/releases/h8/h8notes.htm.

43. Commercial bank profitability, 1988–2010



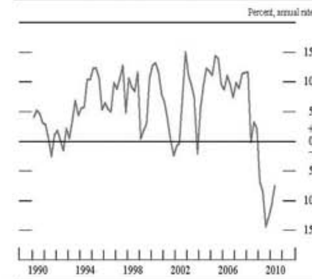
Note: The data are quarterly and extend through 2010:Q1.
Source: Federal Financial Institutions Examination Council, Consolidated Reports of Condition and Income (Call Report).

Credit default swap (CDS) spreads for banking institutions—which primarily reflect investors' assessments of and willingness to bear the risk that those institutions will default on their debt obligations—increased on net over the first half of the year, particularly for larger banking organizations (figure 44). The widening in CDS spreads reportedly reflected uncertainty about the outcome of legislation to reform the financial system as well as concerns about developments in Europe and their implications for the robustness of the U.S. and global economic recovery. The overall delinquency rate on loans held by commercial banks increased somewhat in the first quarter of 2010, as continued deterioration in the credit quality of residential mortgages offset

44. Spreads on credit default swaps for selected U.S. banks, 2007–10

Note: The data are daily and extend through July 14, 2010. Median spreads for six bank holding companies and nine other banks.
Source: Markit.

45. Change in total bank loans, 1990–2010



Note: The data, which are seasonally adjusted, are quarterly and extend through 2010:Q2. Data have been adjusted for banks' implementation of certain accounting rule changes (including the Financial Accounting Standards Board's Statements of Financial Accounting Standards Nos. 166 and 167) and for the effects of large nonbank institutions converting to commercial banks or merging with a commercial bank.
Source: Federal Reserve Board, Statistical Release H.8, "Assets and Liabilities of Commercial Banks in the United States."

decreases in delinquency rates on most other categories of loans.

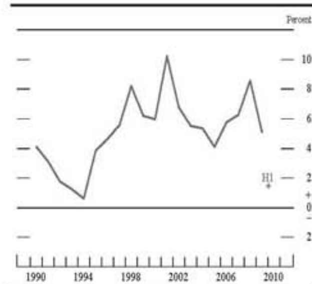
With loan demand reportedly continuing to be weak and credit conditions remaining tight, total loans on banks' books contracted during the first half of the year, though less rapidly than they had during the second half of 2009 (figure 45). After adjusting for the effects of changes in the accounting treatment of securitizations, all major categories of loans posted sizable declines. Securities holdings rose, on balance, reflecting substantial accumulation of Treasury securities. Cash assets also posted noticeable increases. However, total and risk-weighted assets shrank even as banks continued to raise capital, resulting in increases in regulatory capital ratios to historical highs.

Monetary Aggregates and the Federal Reserve's Balance Sheet

The M2 monetary aggregate rose only modestly in the first half of 2010 (figure 46).[11] Liquid deposits expanded

11. 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

46. M2 growth rate, 1990–2010



NOTE: The data extend through 2010:Q1 and are estimated for 2010:Q2. Through 2009, the data are annual on a fourth-quarter over fourth-quarter basis; the final observation refers to 2010:Q2 relative to 2009:Q4 at an annual rate. For definition of M2, see text note 11.

SOURCE: Federal Reserve Board, Statistical Release H.6, "Money Stock Measures."

moderately, likely reflecting heightened household demand for safe and liquid assets. That increase was only partially offset by continued large outflows from small time deposits and retail money market mutual funds that likely reflected the very low rates of return offered on those products compared with other assets. The currency component of the money stock expanded moderately in the first half of the year. The monetary base—roughly equal to the sum of currency in circulation and the reserve balances of depository institutions held at the Federal Reserve—increased at a 3½ percent annual rate in the first half of 2010, well below the 30 percent rate posted in the second half of 2009. The slower growth rate was largely attributable to the more gradual expansion in reserve balances as the Federal Reserve's program of large-scale asset purchases came to an end.

The size of the Federal Reserve's balance sheet remained at a historically high level in mid-2010 (table 1). Total Federal Reserve assets on July 7, 2010, stood at about $2.3 trillion, about $100 billion more than at the end of 2009. The increase is largely attributable to the completion on March 31 of the Federal Reserve's program to purchase agency debt and agency mortgage-backed securities. Securities holdings, the vast majority of Federal Reserve assets, increased from about $1.8 trillion to about $2.1 trillion over the first half of the year.

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.

1. Selected components of the Federal Reserve balance sheet, 2009–10

Millions of dollars

Balance sheet item	Dec. 30, 2009	July 7, 2010
Total assets	**2,237,258**	**2,335,457**
Selected assets		
Credit extended to depository institutions and dealers		
Primary credit	19,111	17
Term auction credit	75,918	...
Central bank liquidity swaps	10,272	1,245
Primary Dealer Credit Facility and other broker-dealer credit	0	...
Credit extended to other market participants		
Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility	0	...
Net portfolio holdings of Commercial Paper Funding Facility LLC	14,072	1
Term Asset-Backed Securities Loan Facility	47,532	42,278
Support of critical institutions		
Net portfolio holdings of Maiden Lane LLC, Maiden Lane II LLC, and Maiden Lane III LLC[1]	65,024	66,996
Credit extended to American International Group, Inc.	22,033	24,560
Preferred interests in AIA Aurora LLC and ALICO Holdings LLC	25,000	25,733
Securities held outright		
U.S. Treasury securities	776,587	776,997
Agency debt securities	159,879	164,762
Agency mortgage-backed securities (MBS)[2]	908,257	1,118,290
MEMO		
Term Securities Lending Facility[3]	0	...
Total liabilities	**2,185,139**	**2,278,523**
Selected liabilities		
Federal Reserve notes in circulation	889,678	907,698
Reverse repurchase agreements	70,450	62,904
Deposits held by depository institutions	1,025,271	1,061,239
Of which: Term deposits	...	2,122
U.S. Treasury, general account	149,819	16,475
U.S. Treasury, supplemental financing account	5,001	199,963
Total capital	**52,119**	**56,934**

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.

On February 1, 2010, in light of improved functioning in financial markets, the Federal Reserve closed the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility, the Commercial Paper Funding Facility, the Primary Dealer Credit Facility, and the Term Securities Lending Facility. On March 8, the Federal Reserve conducted the final auction under the Term Auction Facility. With the closure

of these facilities, the amount of credit extended by these programs fell to zero from roughly $100 billion at year-end. In addition, the terms on the primary credit facility were adjusted to increase the cost of funds to ¾ percent and to reduce the typical maturity of these loans to one day.[12] In response, primary credit declined from about $19 billion to about $17 million over the first half of the year. On June 30, the Federal Reserve closed the Term Asset-Backed Securities Loan Facility (TALF). About $42 billion in TALF loans, which have maturities of three or five years, remain on the Federal Reserve's balance sheet.

These broad-based programs, which were introduced during the crisis to provide liquidity to financial institutions and markets, contributed to the stabilization of financial markets and helped support the flow of credit to the economy—at no loss to the taxpayer. All of the loans extended through these programs that have come due have been repaid in full, with interest.

The credit provided to American International Group, Inc. (AIG), increased slightly, on net, over the first half of the year, in part because additional borrowing through this facility was used to pay down outstanding commercial paper that had been issued to the Commercial Paper Funding Facility LLC (limited liability company). The net portfolio holdings of Maiden Lane LLC—which was created in conjunction with efforts to avoid a disorderly failure of The Bear Stearns Companies, Inc.—increased as the recovery in financial markets boosted the fair value of the assets held in that LLC. Consistent with the terms of the transaction, the distribution of the proceeds realized on the asset portfolio held by Maiden Lane LLC will occur on a monthly basis going forward unless otherwise directed by the Federal Reserve. The monthly distributions will cover the expenses and repay the obligations of the LLC, including the principal and interest on the loan from the Federal Reserve Bank of New York, according to the priority established in the terms of the transaction. The portfolio holdings of Maiden Lane II LLC and Maiden Lane III LLC—which were created in conjunction with efforts to avoid the disorderly failure of AIG—decreased as prepayments and redemptions of some of the securities held in those portfolios were used to pay down the loans extended by the Federal Reserve Bank of New York. The Federal Reserve does not expect to incur a net loss on any of the secured loans provided during the crisis to help prevent the disorderly failure of systemically significant financial institutions.

12. The primary credit rate had been ½ percent, and the maximum maturity of primary credit loans had been 90 days.

On the liabilities side of the Federal Reserve's balance sheet, reserve balances averaged just over $1 trillion over the first six months of 2010. The Federal Reserve made preparations to conduct small-scale reverse repurchase operations to ensure its ability to use agency MBS collateral for such transactions, and the first small-value auctions in the Term Deposit Facility program were conducted in June and July. Reverse repurchase operations and the Term Deposit Facility are among the tools that the Federal Reserve will have at its disposal to drain reserves from the banking system at the appropriate time. The Treasury's supplementary financing account, which had fallen to about $5 billion when the statutory debt ceiling was approached last year, returned to its previous level of about $200 billion after the statutory debt ceiling was raised in early 2010.

On April 21, the Federal Reserve System released the 2009 annual comparative financial statements for the combined Federal Reserve Banks, the 12 individual Federal Reserve Banks, the LLCs that were created as part of the Federal Reserve's response to strains in financial markets, and the Board of Governors. The statements showed that the Reserve Banks' comprehensive income was just over $53 billion for the year ending December 31, 2009, an increase of nearly $18 billion from 2008. The increase in earnings was primarily attributable to the increase in the Federal Reserve's holdings of agency debt and agency MBS. The consolidated LLCs also contributed to the increase in the Reserve Banks' comprehensive income. The Reserve Banks transferred more than $47 billion of their $53 billion in comprehensive income to the U.S. Treasury in 2009, an increase of more than $15 billion—or about 50 percent—from the amount transferred in 2008.

International Developments

International Financial Markets

In recent months, global financial markets have been roiled by the Greek fiscal crisis and the resultant concerns about the European outlook more broadly (see box on European fiscal stress). Fears about the exposure of euro-area financial institutions to Greece and other vulnerable euro-area countries also resulted in pressure in dollar funding markets (see box on dollar funding pressures). Risk-related flows into safe investments lifted the value of the dollar and lowered yields on the sovereign bonds of most major advanced economies, including the United States. On net for the first half of

European Fiscal Stress and Policy Responses

The fiscal crisis in Greece and its ramifications for Europe have been a source of anxiety in global financial markets in recent months. Concerns about Greece began mounting around the turn of the year after announcements revealed the government's deficit to be considerably larger than initially estimated. Despite the announcement by the Greek government of plans to implement significant fiscal consolidation, the spread of yields on Greek sovereign bonds over those of German bonds soared during the spring, as market confidence in the ability of Greece to meet its fiscal obligations diminished (figure A). At the same time, concerns also spread to other euro-area countries with high debt and deficit ratios, including Portugal, Spain, and Ireland. On May 2, with the Greek government and banking sectors having difficulty obtaining market finance, the European Union and International Monetary Fund (IMF) announced a joint €110 billion financial support package for Greece. Disbursement of the support, in the form of loans to be distributed over three years, is contingent on aggressive fiscal consolidation, which would bring the country's budget deficit from almost 14 percent of gross domestic product in 2009 to below 3 percent by 2014.

A. Ten-year government debt spreads for peripheral European economies, 2009–10

NOTE: The data are weekly. The last observation for each series is July 9, 2010. The spreads shown are the yields on 10-year bonds less the 10-year German bond yield.
SOURCE: Bloomberg.

The announcement of the May 2 package assuaged investor concerns only briefly. Spreads on Greek sovereign debt and that of other vulnerable euro-area economies moved up sharply in the week after the announcement, and dollar funding strains for many euro-area institutions intensified.

In response, European leaders announced much broader stabilization measures on May 10. One set of initiatives addressed sovereign risk, providing up to €500 billion in funds—€60 billion through a European Financial Stabilization Mechanism and €440 billion from a special purpose vehicle, the European Financial Stabilization Facility, which is authorized to raise funds in capital markets backed by guarantees from euro-area member states. These funds may also be augmented with bilateral loans from the IMF. The European Central Bank (ECB) simultaneously announced that it was prepared to purchase government and private debt securities to ensure the depth and liquidity of euro-area debt markets that were considered dysfunctional. In addition, the ECB expanded its liquidity provision facilities. Finally, to forestall an emerging shortage of dollar liquidity, the Federal Reserve reopened temporary U.S. dollar liquidity swap lines with the ECB and four other major central banks.

The announcement of these measures and the subsequent purchases of sovereign debt by the ECB led to an improvement in market sentiment and a considerable drop in spreads, but spreads have since moved up. This renewed increase is due, at least in part, to market concerns about the growth implications of the significant and synchronized fiscal consolidation efforts being implemented across the euro area.

Considerable uncertainties also remain about the exposure of financial institutions to vulnerable countries and about the financial position of these institutions more generally. European governments are currently working to address these uncertainties through a coordinated set of bank stress tests.

47. U.S. dollar exchange rate against selected major currencies, 2008–10

NOTE: The data, which are in foreign currency units per dollar, are daily. The last observation for each series is July 14, 2010.
SOURCE: Federal Reserve Board, Statistical Release H.10, "Foreign Exchange Rates."

the year, the dollar has appreciated, and foreign stock markets and the yields on benchmark sovereign bonds have moved down.

In the first quarter of this year, a sense that the U.S. recovery was proceeding more rapidly than the recovery in Europe led the dollar to appreciate against the euro and sterling (figure 47), while strong growth in emerging Asia led the dollar to depreciate against many emerging market currencies. These divergent

48. U.S. dollar nominal exchange rate, broad index, 2005–10

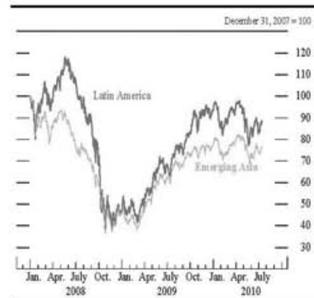
NOTE: The data, which are in foreign currency units per dollar, are daily. The last observation for the series is July 14, 2010. The broad index is a weighted average of the foreign exchange values of the U.S. dollar against the currencies of a large group of the most important U.S. trading partners. The index weights, which change over time, are derived from U.S. export shares and from U.S. and foreign import shares.
SOURCE: Federal Reserve Board, Statistical Release H.10, "Foreign Exchange Rates."

49. Equity indexes in selected advanced foreign economies, 2008–10

NOTE: The data are daily. The last observation for each series is July 14, 2010. Because the Tokyo Stock Exchange was closed on December 31, 2007, the Japan index is scaled so that the December 28, 2007, closing value equals 100. 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).
SOURCE: Bloomberg.

movements left the Federal Reserve's broadest measure of the nominal trade-weighted foreign exchange value of the dollar little changed by the end of the first quarter (figure 48). Foreign equity indexes generally rose modestly during the first quarter, as the effect of improving growth prospects in some regions was only partly offset by concerns about Greece (figures 49 and 50). Those concerns led yields on the sovereign bonds of Germany

50. Aggregate equity indexes for emerging market economies, 2008–10



NOTE: The data are daily. The last observation for each series is July 14, 2010. 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: Morgan Stanley Capital International (MSCI) index.

Dollar Funding Pressures and the Reinstitution of Central Bank Swap Lines

In March, dollar funding pressures began to reemerge in the euro area as uncertainties about the condition of some euro-area financial institutions were amplified by concerns about their possible exposures to Greece and other peripheral euro-area economies. The London interbank offered rate, or Libor, for U.S. dollars increased sharply in late April.

In response to the intensification of these dollar funding strains, the Federal Open Market Committee reestablished dollar liquidity swap lines on May 9 and 10 with the European Central Bank (ECB), the Bank of England, the Bank of Canada, the Bank of Japan, and the Swiss National Bank. So far, drawings on the lines have been limited, with only the ECB and the Bank of Japan attracting any bidders in their dollar tender operations.

Draws on these lines have been limited because the central banks are offering dollar liquidity in their markets at rates equal to the overnight index swap rate plus 100 basis points—rates that have exceeded the cost of dollar funding available to most institutions from alternative sources. However, these facilities were designed to provide a backstop, and as such, even with limited credit extensions, they are supporting the functioning of dollar funding markets and helping to curtail uncertainties in those markets.

and France to drift down, as investors shifted into those assets (figure 51).

By late April, the problems in Greece were exacerbating concerns about fiscal sustainability in Europe and growth in the region more broadly. The increase in perceived risk caused the dollar to appreciate noticeably from mid-April to the end of May and led to sharp declines in foreign stock markets. The yields on the sovereign bonds of France and Germany fell further, and yields on the sovereign bonds of other advanced economies began falling as well, driven by flight-to-safety flows and expectations that policy tightening would occur later than had previously been expected.

Steps taken by European countries in early May to provide assistance to Greece and other countries with fiscal vulnerabilities supported some improvement in market sentiment; equity prices temporarily halted their decline by early June and the dollar depreciated somewhat, likely reflecting a modest reversal of flight-to-safety flows. Over the past month, however, worries about global growth prospects have intensified, and yields on advanced economy sovereign bonds have drifted down further.

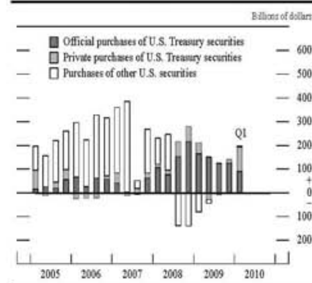
51. Yields on benchmark government bonds in selected advanced foreign economies, 2007–10

NOTE: The data, which are for 10-year bonds, are daily. The last observation for each series is July 14, 2010.
SOURCE: Bloomberg.

The Financial Account

Financial flows in the first quarter of this year reflected a growing imprint of the strains in Europe. Data for the first quarter and indicators for the second quarter point to unusually large purchases of U.S. Treasury securities by private foreigners so far this year, likely indicating a flight to quality as fiscal problems in Europe mounted (figure 52). Foreign demand for other U.S. securities remained mixed. Net purchases of U.S. agency debt stayed weak, while net purchases of U.S. equities, which were strong in the first quarter, appear to have weakened in the second quarter. Foreign private investors continued to sell U.S. corporate debt securities, on net, but at a slower pace in the second quarter. Conversely, U.S. residents continued to purchase sizable amounts of foreign bonds and equities, including both emerging market and European securities (figure 53).

52. Net foreign purchases of U.S. securities, 2005–10

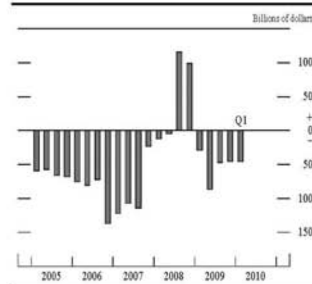


NOTE: Other U.S. securities include corporate equities and bonds, agency bonds, and municipal bonds.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

Banks located in the United States sharply increased net lending abroad, generating net private capital outflows (figure 54). These outflows were spurred in part by the reemergence of dollar funding pressures in European interbank markets; such pressures had been acute at the height of the global financial crisis in late 2008 but had subsided by the middle of last year.

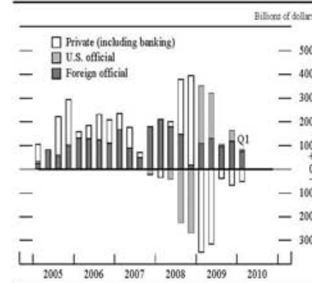
Inflows from foreign official institutions remained strong through the first quarter. Most of these inflows were from countries seeking to counteract upward pressure on their currencies by purchasing U.S. dollars on foreign currency markets. These countries then used the proceeds to acquire U.S. assets, primarily Treasury securities. Available data for the second quarter indicate that foreign official purchases of U.S. Treasury

53. Net U.S. purchases of foreign securities, 2005–10



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.

54. U.S. net financial inflows, 2005–10



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

securities slowed in line with the strengthening of the dollar.

Advanced Foreign Economies

Notwithstanding the ongoing strains on the European economy, the data on economic activity abroad that we have received to date do not show significant effects of these strains and suggest that a moderate recovery is under way. In the first quarter, the recovery from last year's recession gathered momentum in the advanced foreign economies, driven by a rebound in world trade and continuing improvement in business sentiment. Growth was particularly robust in Japan, which benefited from rising exports to emerging Asia, and in Canada, where private domestic demand remained strong. Economic growth was less vigorous in the euro area, where consumption and investment spending declined again, and in the United Kingdom, where consumption was held back by the hike in the value-added tax in January.

Monthly indicators of economic activity across the advanced foreign economies suggest widespread growth in the second quarter. Industrial production has continued to rebound, business confidence has improved further, and purchasing managers indexes remain at levels consistent with solid expansion. However, indicators of household spending showed considerable variation across countries, with retail sales expanding rapidly in Canada but declining in the euro area. Such variation in part reflected differences in labor market developments. Canadian employment has rebounded this year, while euro-area employment

has stagnated. As described earlier, increasing concerns about sovereign debt and banking systems in some euro-area countries have affected a wide array of financial markets. However, while these stresses are materially restraining economic activity in Greece and several other European countries, they have not yet had a broader effect on economic indicators in the other major advanced foreign economies.

Twelve-month consumer price inflation picked up a bit in the advanced foreign economies early this year, largely owing to increases in the prices of energy and other commodities, but inflation remained below target in the euro area and Canada and continued to be negative in Japan (figure 55). Core consumer price inflation, excluding food and energy, remained subdued in these economies, as considerable economic slack persisted. In contrast, headline inflation in the United Kingdom rose above 3 percent this year, driven by exchange rate depreciation and the increase in the value-added tax.

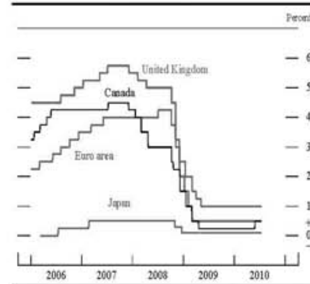
After cutting policy rates to very low levels in 2009, most major foreign central banks have kept rates unchanged so far this year (figure 56). The Bank of Canada, however, tightened monetary policy in June, raising its target for the overnight rate 25 basis points to ½ percent, amid signs of strong growth and diminishing excess capacity in the Canadian economy. The European Central Bank kept its main refinancing rate at 1 percent and, in the second quarter, took additional measures to provide liquidity: extending the period over which it promised to provide fixed-rate refinancing with full allotment, adjusting its collateral requirements on

55. Change in consumer prices for major foreign economies, 2006–10

NOTE: The data are monthly, and the percent change is from one year earlier. The data extend through June 2010 for the euro area and United Kingdom, and through May 2010 for Canada and Japan.

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

56. Official or targeted interest rates in selected advanced foreign economies, 2006–10



NOTE: The data are daily and extend through July 14, 2010. The data shown are, for Canada, the target for the overnight rate; for the euro area, the minimum bid rate on main refinancing operations; for Japan, the target for the call rate; and, for the United Kingdom, the official bank rate.

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

repurchase agreements to ensure that Greek government debt would remain eligible, and buying the debt of some euro-area countries in the secondary market. The Bank of Japan kept its targeted rate near zero and added a new lending facility aimed at encouraging private-bank lending to businesses.

Emerging Market Economies

The emerging market economies, which have led the recovery from the global financial crisis, have continued to grow strongly thus far this year.

In emerging Asia, aggregate real GDP growth picked up to an impressive double-digit pace in the first quarter. Indicators suggest that growth likely slowed to a more sustainable but still-rapid pace in the second quarter. In China, domestic demand has been strong, with retail sales registering significant gains. The accompanying rapid growth of imports has provided a boost to other economies in the region and to commodity exporters around the world. However, Chinese real GDP decelerated in the second quarter, reflecting a slowdown in fixed investment and tighter credit conditions. Rising property prices and concerns about the volume and quality of lending led authorities to clamp down on bank lending through a variety of prudential measures. Authorities also began to tighten monetary policy and have raised required reserve ratios for banks a cumulative 150 basis points since January. In late June, Chinese authorities announced that they would

take steps to increase the flexibility of the renminbi. The renminbi has subsequently appreciated about 1 percent against the dollar.

In Latin America, real GDP growth dipped in the first quarter, with output declines in Mexico, Chile, and Venezuela offsetting rapid growth in Brazil. The fall in output in Mexico reflected both a sharp decline in Mexico's agricultural sector and deceleration in the manufacturing sector, but other indicators, including very strong exports, were more upbeat. Brazilian economic activity continued to show strength in the first quarter, with real GDP expanding at a double-digit rate, boosted by fiscal stimulus and strong demand for the country's commodity exports. Brazil's central bank has recently tightened monetary policy, raising the policy rate a cumulative 150 basis points since late April.

Inflation in emerging market economies rose at the end of 2009 and into 2010, reflecting increases in food and energy prices and, particularly in the case of Mexico, special factors such as tax increases. Consumer price readings from recent months suggest that these price pressures are waning.

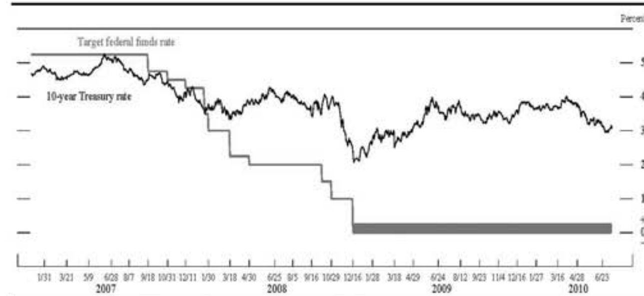
Part 3
Monetary Policy: Recent Developments and Outlook

Monetary Policy over the First Half of 2010

The Federal Open Market Committee (FOMC) maintained a target range for the federal funds rate of 0 to ¼ percent throughout the first half of 2010 in order to continue to promote economic recovery and price stability (figure 57). In the statement accompanying each regularly scheduled FOMC meeting, the Committee noted that economic conditions, including low rates of resource utilization, subdued inflation trends, and stable inflation expectations, were likely to warrant exceptionally low levels of the federal funds rate for an extended period. At the end of March, the Federal Reserve concluded its purchases of agency mortgage-backed securities (MBS) and agency debt under its large-scale asset purchase programs, which were undertaken to provide support to mortgage lending and housing markets and to improve overall conditions in private credit markets. Also, in light of improved functioning of financial markets, by the end of June the Federal Reserve had closed all of the special liquidity facilities that it had created to support markets during the crisis. However, in response to the reemergence of strains in U.S. dollar short-term funding markets in Europe, the Federal Reserve and five foreign central banks announced in May the reestablishment of temporary U.S. dollar liquidity swap facilities.

At its January 26–27 meeting, the Committee agreed that the incoming information, though mixed, indicated that overall economic activity had strengthened in recent months, about in line with expectations. Consumer spending was well maintained in the fourth quarter, and business expenditures on equipment and software appeared to expand substantially. However, the improvement in the housing market had slowed, and spending on nonresidential structures continued to fall. Available data suggested that the pace of inventory liquidation had diminished considerably in the fourth quarter, providing a sizable boost to economic activity, and especially to industrial production. In the labor market, layoffs subsided noticeably in the final months of 2009, but the unemployment rate remained elevated and hiring stayed quite limited. The weakness in labor markets continued to be an important concern for the Committee; moreover, the prospects for job growth remained a significant source of uncertainty in the economic outlook, particularly for consumer spending. Financial market conditions were supportive of economic growth. Nonetheless, net debt financing by nonfinancial businesses was near zero in the fourth

57. Selected interest rates, 2007–10



NOTE: The data are daily and extend through July 14, 2010. 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.

quarter after being negative in the third, consistent with sluggish demand for credit and tight lending standards and terms at banks. Increases in energy prices pushed up headline consumer price inflation, but core consumer price inflation remained subdued.

In their discussion of monetary policy for the period ahead, Committee members agreed that neither the economic outlook nor financial conditions had changed appreciably since the December meeting and that no changes to the Committee's large-scale asset purchase programs or to its target range for the federal funds rate of 0 to ¼ percent were called for. Further, policymakers reiterated their anticipation that economic conditions were likely to warrant exceptionally low rates for an extended period. The Committee affirmed its intention to purchase a total of $1.25 trillion of agency MBS and about $175 billion of agency debt by the end of the first quarter and to gradually slow the pace of these purchases to promote a smooth transition in markets. Committee members agreed that with substantial improvements in most financial markets, including interbank markets, the statement following the meeting would indicate that on February 1, 2010, the Federal Reserve would close several special liquidity facilities and that the temporary swap lines with foreign central banks would expire. In addition, the statement would say that the Federal Reserve was in the process of winding down the Term Auction Facility (TAF) and that the final auction would take place in March 2010.

As had been announced, on February 1, 2010, the Federal Reserve closed the Primary Dealer Credit Facility, the Term Securities Lending Facility, the Commercial Paper Funding Facility, and the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility. The temporary swap lines with foreign central banks expired on the same day. On February 18, 2010, the Federal Reserve announced a further normalization of the terms of loans made under the primary credit facility. The rate charged on these loans was increased from ½ percent to ¾ percent, effective on February 19, and the typical maximum maturity for such loans was shortened to overnight, effective on March 18, 2010. The Federal Reserve also announced on February 18 that the minimum bid rate on the final TAF auction on March 8 had been raised to 50 basis points, ¼ percentage point higher than in previous auctions. The Federal Reserve noted that the modifications were not expected to lead to tighter financial conditions for households and businesses and did not signal any change in the outlook for the economy or for monetary policy.

The data reviewed at the March 16 FOMC meeting suggested that economic activity expanded at a moderate pace in early 2010. Business investment in equipment and software seemed to have picked up, and consumer spending increased further in January. Private employment would likely have turned up in February but for the snowstorms that affected the East Coast. Meeting participants agreed that available indicators suggested that the labor market appeared to be stabilizing. Output in the manufacturing sector continued to trend higher as firms increased production to meet strengthening final demand and to slow the pace of inventory liquidation. On the downside, housing activity remained flat and nonresidential construction weakened further. Meanwhile, a sizable increase in energy prices had pushed up headline consumer price inflation in recent months; in contrast, core consumer price inflation was quite low. Participants agreed that financial market conditions remained supportive of economic growth. Spreads in short-term funding markets were near pre-crisis levels, and risk spreads on corporate bonds and measures of implied volatility in equity markets were broadly consistent with historical norms given the outlook for the economy. Participants were also reassured by the absence of any signs of renewed strains in financial market functioning as a consequence of the Federal Reserve's winding down of its special liquidity facilities. However, bank lending was still contracting, and interest rates on many bank loans had risen further in recent months.

Against this backdrop, Committee members agreed that it would be appropriate to maintain the target range of 0 to ¼ percent for the federal funds rate and to complete the Committee's previously announced purchases of $1.25 trillion of agency MBS and about $175 billion of agency debt by the end of March. Nearly all members judged that it was appropriate to reiterate in the Committee's statement the expectation that economic conditions—including low levels of resource utilization, subdued inflation trends, and stable inflation expectations—were likely to warrant exceptionally low levels of the federal funds rate for an extended period. In light of the improved functioning of financial markets, Committee members agreed that it would be appropriate for the statement to indicate that the previously announced schedule for closing the Term Asset-Backed Securities Loan Facility (TALF) was being maintained. On March 31, the TALF closed for loans backed by collateral other than newly issued commercial MBS.

The information reviewed at the April 27–28 FOMC meeting suggested that, on balance, the economic recovery was proceeding at a moderate pace and that the deterioration in the labor market was likely coming to an end. Consumer spending continued to post solid

gains in the first three months of the year, and business investment in equipment and software appeared to have increased significantly further in the first quarter. In addition, growth of manufacturing output remained brisk, and gains became more broadly based across industries. However, residential construction, while having edged up, was still depressed, construction of nonresidential buildings remained on a steep downward trajectory, and state and local governments continued to retrench. Consumer price inflation remained low. Meeting participants expected that business investment would be supported by improved conditions in financial markets. Large firms with access to capital markets appeared to be having little difficulty in obtaining credit, and in many cases they also had ample retained earnings with which to fund their operations and investment. However, many participants noted that, while financial market conditions had generally improved, bank lending was still contracting and that smaller firms in particular continued to face substantial difficulty in obtaining bank loans. Members saw an escalation of financial strains in Europe as a risk to the outlook, although the attendant effects on global market conditions were only beginning to be felt.

Members agreed that no adjustments to the federal funds rate target range were warranted at the meeting. On balance, the economic outlook had changed little since the March meeting. Even though the recovery appeared to be continuing and was expected to strengthen gradually over time, most members projected that economic slack would continue to be elevated for some time, with inflation remaining below rates that would be consistent in the longer run with the Federal Reserve's dual objectives of maximum employment and price stability. In addition, nearly all members judged that it was appropriate to reiterate the expectation that economic conditions were likely to warrant exceptionally low levels of the federal funds rate for an extended period. In light of the improved functioning of financial markets, Committee members again agreed that it would be appropriate for the statement to indicate that the previously announced schedule for closing the TALF was being maintained.

On May 9, 2010, the Committee met by conference call to discuss developments in global financial markets and possible policy responses. Over the previous several months, financial market concerns about the ability of Greece and some other euro-area countries to contain their sizable budget deficits and finance their debt had increased. Conditions in short-term funding markets in Europe had deteriorated, and global financial markets more generally had been volatile and less supportive of economic growth.

In connection with the possible implementation by the European authorities of a number of measures to promote fiscal sustainability and support financial market functioning, some major central banks had requested that dollar liquidity swap lines with the Federal Reserve be reestablished. The Committee agreed that such arrangements could be helpful in limiting the strains in dollar funding markets and the adverse implications of recent developments for the U.S. economy. In order to promote the transparency of these arrangements, participants also agreed that it would be appropriate for the Federal Reserve to publish the swap contracts and to release on a weekly basis the amounts of draws under the swap lines by central bank counterparty. It was recognized that the Committee would need to consider the implications of swap lines for bank reserves and overall management of the Federal Reserve's balance sheet. Participants noted the importance of appropriate consultation with U.S. government officials and emphasized that a reestablishment of the lines should be contingent on strong and effective actions by authorities in Europe to address fiscal sustainability and support financial markets.

At the conclusion of its discussion, the Committee voted unanimously to authorize the Chairman to agree to reestablish swap lines with the European Central Bank (ECB), the Bank of England, the Swiss National Bank, the Bank of Japan, and the Bank of Canada. The arrangements with the Bank of England, the ECB, the Swiss National Bank, and the Bank of Japan would provide those central banks with the capacity to conduct tenders of U.S. dollars in their local markets at fixed rates for full allotment, similar to arrangements that had been in place previously. The arrangement with the Bank of Canada would support draws of up to $30 billion, as was the case previously. The swap arrangements were authorized through January 2011.

The information reviewed at the June 22–23 FOMC meeting suggested that the economic recovery was proceeding at a moderate pace in the second quarter. Businesses continued to increase employment and lengthen workweeks in April and May, but the unemployment rate remained elevated. Industrial production registered strong and widespread gains, and business investment in equipment and software rose rapidly. Consumer spending appeared to have moved up further in April and May. However, housing starts dropped in May, and nonresidential construction remained depressed. Falling energy prices held down headline consumer prices in April and May, while core consumer prices edged up.

Financial markets had become somewhat less supportive of economic growth since the April meeting,

with developments in Europe a leading cause of greater global financial market tensions. Risk spreads for many corporate borrowers had widened noticeably, equity prices had fallen appreciably, and the dollar had risen in value against a broad basket of other currencies. Participants saw these changes as likely to weigh to some degree on household and business spending over coming quarters.

The Committee agreed to make no change in its target range for the federal funds rate at the meeting. Although the economic outlook had softened somewhat, and a number of meeting participants saw the risks to the outlook as having shifted to the downside, all saw the economic expansion as likely to be strong enough to continue raising resource utilization, albeit more slowly than they had previously anticipated. In addition, they saw inflation as likely to stabilize near recent low readings in coming quarters and then gradually rise toward more desirable levels. Nearly all members again judged that it was appropriate to indicate in the statement released following the meeting that economic conditions were likely to warrant exceptionally low levels of the federal funds rate for an extended period. Participants noted that in addition to continuing to develop and test instruments to exit from the period of unusually accommodative monetary policy, the Committee would need to consider whether further policy stimulus might become appropriate if the economic outlook were to worsen appreciably.

Tools for the Withdrawal of Monetary Policy Accommodation

Although the FOMC continues to anticipate that economic conditions are likely to warrant exceptionally low levels of the federal funds rate for an extended period, ultimately the Federal Reserve will need to begin to tighten monetary conditions to prevent the development of inflation pressures as the economy recovers. That tightening will be accomplished partly through changes that will affect the composition and size of the Federal Reserve's balance sheet.

The Federal Reserve has developed a number of tools that will facilitate the removal of policy accommodation and reduce the quantity of reserves held by the banking system at the appropriate time. These tools encompass (1) raising the interest rate paid on excess reserve balances (the IOER rate), (2) executing term reverse repurchase agreements (RRPs) with the primary dealers and other counterparties, (3) issuing term deposits to depository institutions through the Term Deposit Facility (TDF), (4) redeeming maturing and prepaid securities held by the Federal Reserve without reinvesting the proceeds, and (5) selling securities held by the Federal Reserve. All but the first of these tools would shrink the supply of reserve balances; the last two would also reduce the size of the Federal Reserve's balance sheet.

Interest on Excess Reserves Rate

In their discussion of the IOER rate at the January meeting, all participants agreed that raising that rate and the target for the federal funds rate would be a key element of a move to less-accommodative monetary policy. Most participants thought that it likely would be appropriate to reduce the supply of reserve balances, to some extent, before raising the IOER rate and the target for the federal funds rate, in part because reducing the supply of reserve balances would tighten the link between short-term market rates and the IOER rate. However, several participants noted that draining operations might be seen as a precursor to tightening and should be undertaken only when the Committee judged that an increase in its target for the federal funds rate would soon be appropriate. For the same reason, a few believed that it would be better to drain reserves concurrently with the eventual increase in the IOER and target rates.

With respect to longer-run approaches to implementing monetary policy, most policymakers saw benefits in continuing to use the federal funds rate as the operating target for implementing monetary policy, so long as other money market rates remained closely linked to the federal funds rate. Many thought that an approach in which the primary credit rate was set above the Committee's target for the federal funds rate and the IOER rate was set below that target—a corridor system—would be beneficial. Participants recognized, however, that the supply of reserve balances would need to be reduced considerably to lift the federal funds rate above the IOER rate. Participants noted that their judgments were tentative, that they would continue to discuss the ultimate operating regime, and that they might well gain useful information about longer-run approaches during the eventual withdrawal of policy accommodation.

Reverse Repurchase Agreements

At the January meeting, staff reported on successful tests of the Federal Reserve's ability to conduct term RRPs with primary dealers by arranging several

small-scale transactions using Treasury securities and agency debt as collateral; staff anticipated that the Federal Reserve would be able to execute term RRPs against MBS later in the year and would have the capability to conduct RRPs with an expanded set of counterparties shortly thereafter. The staff updated the Committee on the status of work on RRPs at subsequent meetings.

Term Deposit Facility

In late December 2009, the *Federal Register* published a notice requesting the public's input on a proposal for a TDF. At the January FOMC meeting, Federal Reserve staff indicated that they would analyze comments from the public in the coming weeks and then prepare a final proposal for the Board's consideration. On April 30, the Federal Reserve Board announced that it had approved amendments to Regulation D (Reserve Requirements of Depository Institutions) authorizing the Reserve Banks to offer term deposits to institutions that are eligible to receive earnings on their balances at Reserve Banks. On May 10, the Federal Reserve Board authorized up to five small-value offerings of term deposits under the TDF, which were designed to ensure the effectiveness of TDF operations and to provide eligible institutions with an opportunity to gain familiarity with the procedures. The first of these offerings, for $1 billion in 14-day term deposits, was conducted on June 14. The auction had a stop-out rate of 27 basis points and a bid-to-cover ratio of slightly more than 6. The second offering, for $2 billion in 28-day deposits, was conducted on June 28. That auction had a stop-out rate of about 27 basis points and a bid-to-cover ratio of about 5½. The third, for $2 billion in 84-day term deposits, was conducted on July 12. That auction had a stop-out rate of 31 basis points and a bid-to-cover ratio of about 3¾.

Asset Redemptions and Sales

Over the course of the FOMC meetings conducted in the first half of 2010, participants discussed the eventual size and composition of the Federal Reserve's balance sheet and longer-run strategies for asset redemptions and sales. Participants agreed that any longer-run strategy for asset sales and redemptions should be consistent with the achievement of the Committee's objectives of maximum employment and price stability. Policymakers were also unanimous in the view that it will be appropriate to shrink the supply of reserve balances and the size of the Federal Reserve's balance sheet substantially over time. Moreover, they agreed that it will eventually be appropriate for the System Open Market Account to return its domestic holdings to only securities issued by the U.S. Treasury, as was the case before the financial crisis. Meeting participants also agreed that sales of agency debt and agency MBS should be implemented in accordance with a framework communicated well in advance and be conducted at a gradual pace that potentially could be adjusted in response to developments in economic and financial conditions.

Most participants favored deferring asset sales for some time, and a majority preferred beginning asset sales after the first increase in the FOMC's target for short-term interest rates. Such an approach would postpone any asset sales until the economic recovery was well established and would maintain short-term interest rates as the Committee's key monetary policy tool. Participants agreed that the current policy of redeeming and not replacing agency debt and agency MBS as those securities mature or are prepaid helped make progress toward the Committee's goals regarding the size and composition of the Federal Reserve's balance sheet. Many policymakers saw benefits to eventually adopting an approach of reinvesting maturing Treasury securities in bills and shorter-term coupon issues to shift the maturity composition of the Federal Reserve's portfolio toward the structure that had prevailed prior to the financial crisis. Several meeting participants thought the Federal Reserve should eventually hold a portfolio composed largely of shorter-term Treasury securities.

Participants expressed a range of views about the appropriate timing and pace of asset sales and redemptions, and Committee members did not reach final decisions about those issues over the course of the meetings in the first half of 2010. Participants agreed that it would be important to maintain flexibility regarding these issues given the uncertainties associated with the unprecedented size and composition of the Federal Reserve's balance sheet and its effects on financial conditions. For the time being, meeting participants agreed that the Federal Reserve should continue the interim approach of allowing all maturing agency debt and all prepayments of agency MBS to be redeemed without replacement while rolling over all maturing Treasury securities. At the June meeting, participants recognized that in light of the increased downside risks to an already gradual recovery from a deep recession, the Committee also needed to review its options for providing additional monetary stimulus should doing so become necessary. Participants will continue to consider the Committee's portfolio management strategy at future meetings.

Part 4
Summary of Economic Projections

The following material appeared as an addendum to the minutes of the June 22–23, 2010, meeting of the Federal Open Market Committee.

In conjunction with the June 22–23, 2010, 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 for the years 2010 to 2012 and over the longer run. The 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' forecasts for economic activity and inflation suggested that they expected the recovery to continue and inflation to remain subdued, but with, on balance, slightly weaker real activity and a bit lower inflation than in the projections they made in conjunction with the April 2010 FOMC meeting. As depicted in figure 1, the economic recovery was anticipated to be gradual, with real gross domestic product (GDP) expanding at a pace only moderately above the participants' assessment of its longer-run sustainable growth rate and the unemployment rate slowly trending lower over the next few years. Most participants also anticipated that inflation would remain relatively low over the forecast period. As indicated in table 1, participants generally made modest downward revisions to their projections for real GDP growth for the years 2010 to 2012, as well as modest upward revisions to their projections for the unemployment rate for the same period. Participants also revised down a little their projections for inflation over the forecast period. Several participants noted that these revisions were largely the result of the incoming economic data and the anticipated effects of developments abroad on U.S. financial markets and the economy. Overall, participants continued to expect the pace of the economic recovery to be held back by a number of factors, including household and business uncertainty, persistent weakness in real estate markets, only gradual improvement in labor market

Table 1. Economic projections of Federal Reserve Governors and Reserve Bank presidents, June 2010

Percent

Variable	Central tendency[1]				Range[2]			
	2010	2011	2012	Longer run	2010	2011	2012	Longer run
Change in real GDP	3.0 to 3.5	3.5 to 4.2	3.5 to 4.5	2.5 to 2.8	2.9 to 3.8	2.9 to 4.5	2.8 to 5.0	2.4 to 3.0
April projection	3.2 to 3.7	3.4 to 4.5	3.5 to 4.5	2.5 to 2.8	2.7 to 4.0	3.0 to 4.6	2.8 to 5.0	2.4 to 3.0
Unemployment rate	9.2 to 9.5	8.3 to 8.7	7.1 to 7.5	5.0 to 5.3	9.0 to 9.9	7.6 to 8.9	6.8 to 7.9	5.0 to 6.3
April projection	9.1 to 9.5	8.1 to 8.5	6.6 to 7.5	5.0 to 5.3	8.6 to 9.7	7.2 to 8.7	6.4 to 7.7	5.0 to 6.3
PCE inflation	1.0 to 1.1	1.1 to 1.6	1.0 to 1.7	1.7 to 2.0	0.9 to 1.8	0.8 to 2.4	0.5 to 2.2	1.5 to 2.0
April projection	1.2 to 1.5	1.1 to 1.9	1.2 to 2.0	1.7 to 2.0	1.1 to 2.0	0.9 to 2.4	0.7 to 2.2	1.5 to 2.0
Core PCE inflation[3]	0.8 to 1.0	0.9 to 1.3	1.0 to 1.5		0.7 to 1.5	0.6 to 2.4	0.4 to 2.2	
April projection	0.9 to 1.2	1.0 to 1.5	1.2 to 1.6		0.7 to 1.6	0.6 to 2.4	0.6 to 2.2	

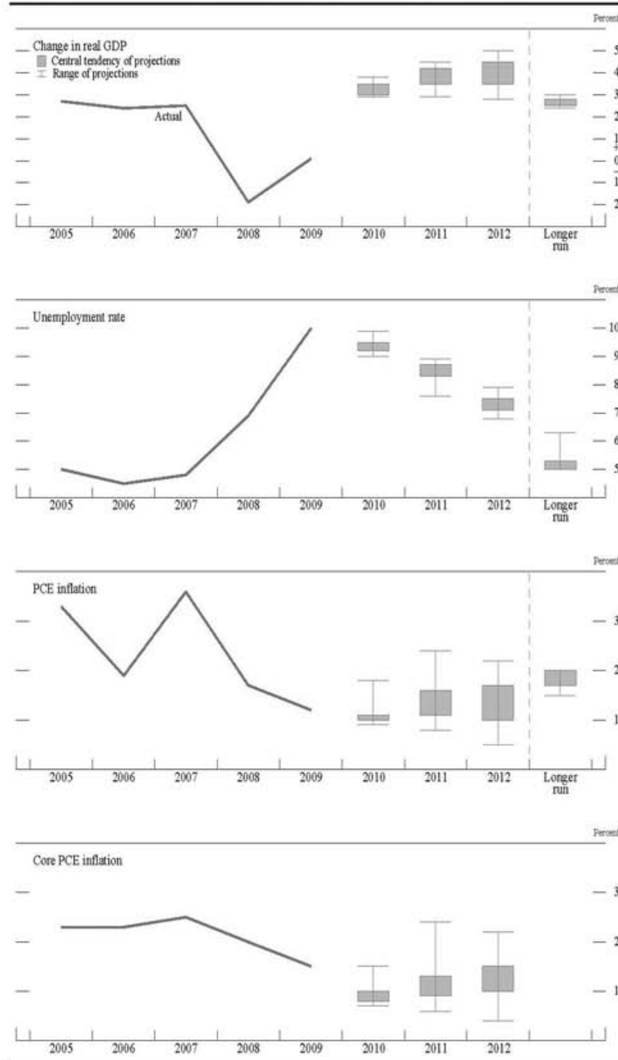
NOTE: Projections of change in real gross domestic product (GDP) and in inflation are from the fourth quarter of the previous year to the fourth quarter of the year indicated. PCE inflation and core PCE inflation are the percentage rates of change in, respectively, the price index for personal consumption 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 27–28, 2010.

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, 2010–12 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.

conditions, waning fiscal stimulus, and slow easing of credit conditions in the banking sector. Participants generally anticipated that, in light of the severity of the economic downturn, it would take some time for the economy to converge fully to its longer-run path as characterized by sustainable rates of output growth, unemployment, and inflation consistent with participants' interpretation of the Federal Reserve's dual objectives; most expected the convergence process to take no more than five to six years. About one-half of the participants now judged the risks to the growth outlook to be tilted to the downside, while most continued to see balanced risks surrounding their inflation projections. Participants generally continued to judge the uncertainty surrounding their projections for both economic activity and inflation to be unusually high relative to historical norms.

The Outlook

Participants' projections for real GDP growth in 2010 had a central tendency of 3.0 to 3.5 percent, slightly lower than in April. Participants noted that the economic recovery was proceeding. Consumer spending was increasing, supported by rising disposable income as labor markets gradually improved. Business outlays on equipment and software were also rising, driven by replacement spending, the low cost of capital, and increased production. Participants pointed to a number of factors that would provide ongoing support to economic activity, including accommodative monetary policy and still generally supportive conditions in financial markets. Fiscal policy was also seen as currently contributing to economic growth, although participants expected that the effects of fiscal stimulus would diminish going forward and also anticipated that budgetary pressures would continue to weigh on spending at the state and local levels. Participants noted that financial conditions had tightened somewhat because of developments abroad. The effects of a stronger dollar, a lower stock market, and wider corporate credit spreads were expected to be offset only partially by lower oil and commodity prices and a decline in Treasury yields. Many participants anticipated that the economic expansion would be held back by firms' caution in hiring and spending in light of the considerable uncertainty regarding the economic outlook, by households' focus on repairing balance sheets weakened by equity and house price declines, and by tight credit conditions for small businesses and households.

Looking further ahead, the central tendencies of participants' projections for real GDP growth were 3.5 to 4.2 percent in 2011 and 3.5 to 4.5 percent in 2012. Participants generally expected a rebound in spending on housing, consumer durables, and business capital equipment as household income and balance sheets strengthen, credit becomes more widely available, and the recovery is seen by households and firms as more firmly established. Nevertheless, participants cited several factors that could restrain the pace of expansion over the next two years, including a rising household saving rate as households seek to make further progress in repairing balance sheets, persistent uncertainty on the part of households and businesses about the strength of the recovery, spillovers from fiscal strains abroad to U.S. financial markets and the U.S. economy, and continued weakness in residential construction. Moreover, despite improvements in the condition of banking institutions, strains in the commercial real estate sector were seen as posing risks to the balance sheets of such institutions for some time. Terms and standards on bank loans continued to be restrictive, and participants anticipated only a gradual loosening of credit conditions for many households and smaller firms. In the absence of further shocks, participants generally expected that real GDP growth would eventually settle down at an annual rate of 2.5 to 2.8 percent, a pace that appeared to be sustainable in view of expected long-run trends in the labor force and labor productivity.

Participants anticipated that labor market conditions would improve slowly over the next several years. The central tendency of their projections for the average unemployment rate in the fourth quarter of 2010 was 9.2 to 9.5 percent. Consistent with their expectations of a gradual economic recovery, participants generally anticipated that the unemployment rate would decline to 7.1 to 7.5 percent by the end of 2012, remaining well above their assessments of its longer-run sustainable rate. Although a few participants were concerned about a possible decrease in the sustainable level of employment resulting from ongoing structural adjustments in product and labor markets, participants' longer-term unemployment projections had a central tendency of 5.0 to 5.3 percent, the same as in April.

Participants noted that prices of energy and other commodities declined somewhat in recent months, and underlying inflation trended lower. They generally expected inflation to remain subdued over the next several years. Indeed, most of the participants marked down a bit their projections for inflation over the forecast period. The central tendency of their projections for personal consumption expenditures (PCE) inflation was 1.0 to 1.1 percent for 2010, 1.1 to 1.6 percent for 2011, and 1.0 to 1.7 percent for 2012, generally about

¼ percentage point lower than in April. The central tendencies of participants' projections for core PCE inflation followed a broadly similar path, although headline PCE inflation was expected to run slightly above core PCE inflation over the forecast period, reflecting somewhat more rapid increases in food and energy prices. Most participants anticipated that, with appropriate monetary policy, inflation would rise gradually toward the inflation rate that they individually consider most consistent with the Federal Reserve's dual mandate for maximum employment and stable prices. The central tendency of participants' projections of the longer-run, mandate-consistent inflation rate was 1.7 to 2.0 percent, unchanged from April. A majority of participants anticipated that inflation in 2011 and 2012 would continue to be below their assessments of the mandate-consistent inflation rate.

Table 2. Average historical projection error ranges

Percentage points

Variable	2010	2011	2012
Change in real GDP[1]	±1.0	±1.6	±1.8
Unemployment rate[1]	±0.4	±1.2	±1.5
Total consumer prices[2]	±0.9	±1.0	±1.1

NOTE: Error ranges shown are measured as plus or minus the root mean squared error of projections for 1990 through 2009 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.

Uncertainty and Risks

Most participants judged that their projections of future economic activity and unemployment continued to be subject to greater-than-average uncertainty, while a few viewed the uncertainty surrounding their outlook for growth and unemployment as in line with typical levels.[13] About one-half of the participants saw the risks to their growth outlook as tilted to the downside; in contrast, in April a large majority of participants saw the risks to growth as balanced. In the current survey, a substantial number of participants also viewed the risks to unemployment as tilted to the upside. The remaining participants saw the risks to the projections for economic growth and unemployment as roughly balanced. Participants pointed to developments abroad and their possible ramifications for U.S. financial markets and the U.S. economy as suggesting somewhat greater uncertainty about the path of economic growth. In addition, some participants cited the unusual rise in the unemployment rate last year, which was associated with rapid growth in labor productivity, as contributing to increased uncertainty regarding the outlook for employment and economic activity. Participants who judged that the risks to their growth outlook were tilted to the downside pointed to recent developments abroad and the risk of further contagion, together with the potential for an increase in risk aversion among investors, as important factors contributing to their assessment. Participants noted that problems in the commercial real estate market and the effects of financial regulatory reform could lead to greater constraints on credit availability, thereby restraining growth of output and employment. However, some participants viewed the downside risks to the growth outlook as roughly balanced by upside risks; they saw the possibility that monetary policy might remain accommodative for too long as one reason that growth could prove stronger than expected.

As in April, most participants continued to see the uncertainty surrounding their inflation projections as above average. Still, a few judged that uncertainty in the outlook for inflation was about in line with or lower than typical levels. Most participants judged the risks to the inflation outlook as roughly balanced. As factors accounting for elevated uncertainty regarding the outlook for inflation, participants pointed to the extraordinary degree of monetary policy accommodation, the uncertain timing of the exit from accommodation, and the unusually large gap between expected inflation, as measured by surveys of households and businesses, and current inflation. Participants noted that, despite the downward trend in underlying inflation in recent months, inflation expectations continued to be well anchored. Nonetheless, the possibility that inflation expectations might start to decline in response to persistently low levels of actual inflation and the potential effects of continued weakness of the economy on price trends were seen by a few participants as posing some downside risks to the inflation outlook.

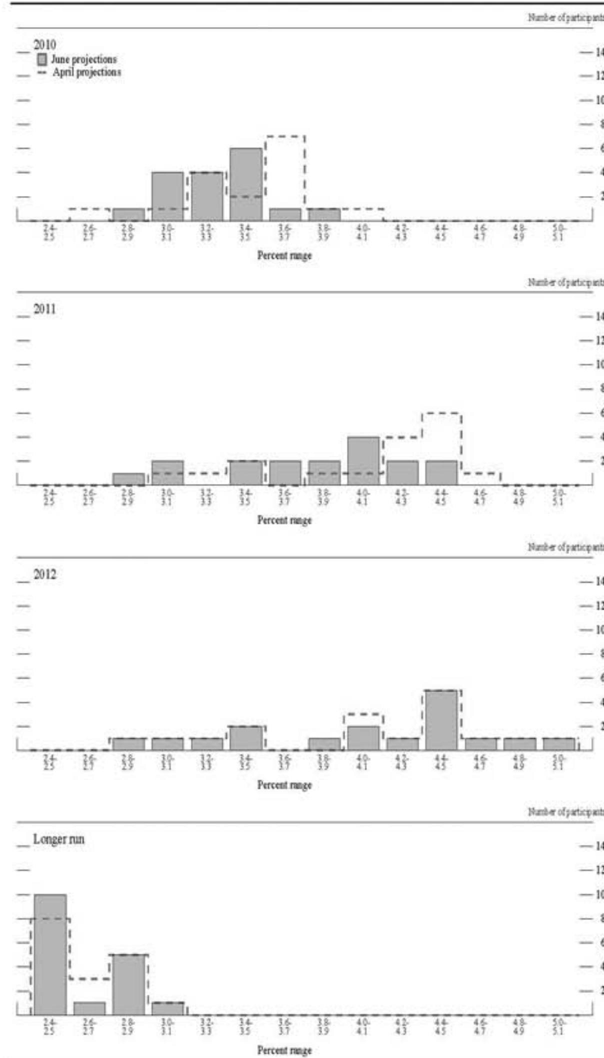
13. Table 2 provides estimates of forecast uncertainty for the change in real GDP, the unemployment rate, and total consumer price inflation over the period from 1990 to 2009. At the end of this summary, the box "Forecast Uncertainty" discusses the sources and interpretation of uncertainty in economic forecasts and explains the approach used to assess the uncertainty and risk attending participants' projections.

Diversity of Views

Figures 2.A and 2.B provide further details on the diversity of participants' views regarding the likely outcomes for real GDP growth and the unemployment rate. The distribution of participants' projections for real GDP growth this year was slightly narrower than the distribution in April, but the distributions for real GDP growth in 2011 and 2012 were about unchanged. As in earlier projections, the dispersion in forecasts for output growth appeared to reflect the diversity of their assessments regarding the current degree of underlying momentum in economic activity, the evolution of consumer and business sentiment, the degree of support to economic growth provided by financial markets, the effects of monetary policy accommodation, and other factors. Regarding participants' projections for the unemployment rate, the distributions shifted somewhat higher for the years 2010 to 2012. The distributions of their estimates of the longer-run sustainable rates of output growth and unemployment were little changed from April.

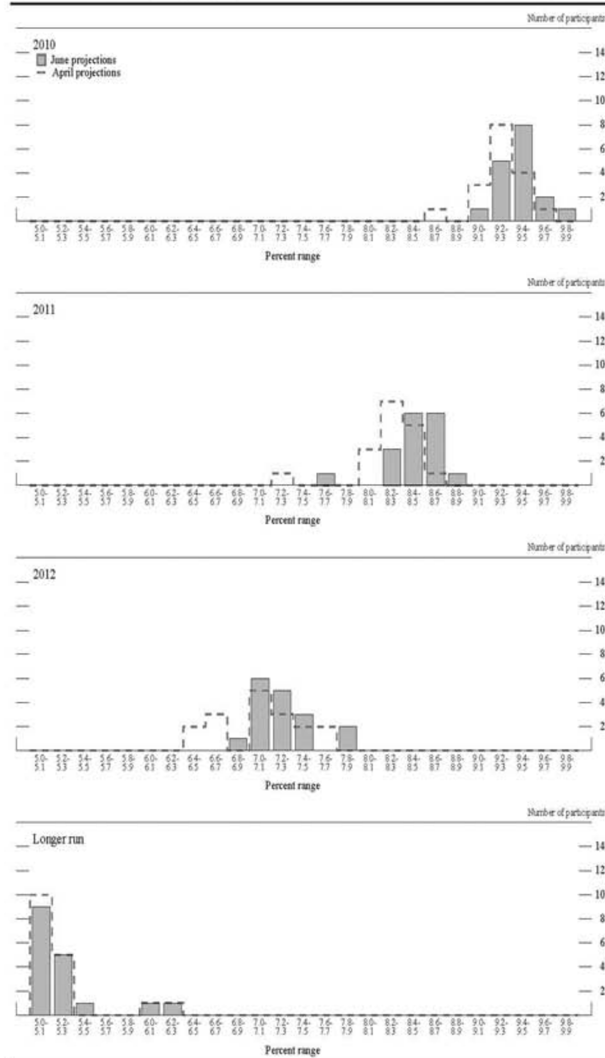
Corresponding information about the diversity of participants' views regarding the inflation outlook is provided in figures 2.C and 2.D. The distributions of projections for overall and core PCE inflation for 2010 shifted lower relative to the distributions in April, and the distributions were noticeably more tightly concentrated. The distributions of overall and core inflation for 2011 and 2012, however, were generally little changed and remained fairly wide. The dispersion in participants' projections over the next few years was mainly due to differences in their judgments regarding the determinants of inflation, including their estimates of prevailing resource slack and their assessments of the extent to which such slack affects actual and expected inflation. In contrast, the relatively 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.

Figure 2.A. Distribution of participants' projections for the change in real GDP, 2010–12 and over the longer run



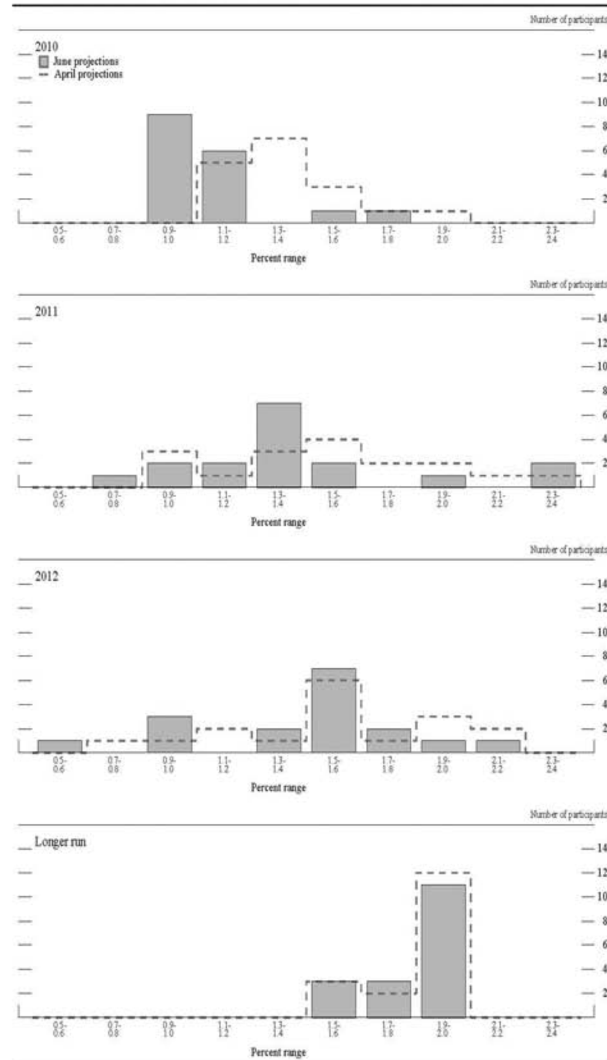
NOTE: Definitions of variables are in the general note to table 1.

Figure 2.B. Distribution of participants' projections for the unemployment rate, 2010–12 and over the longer run



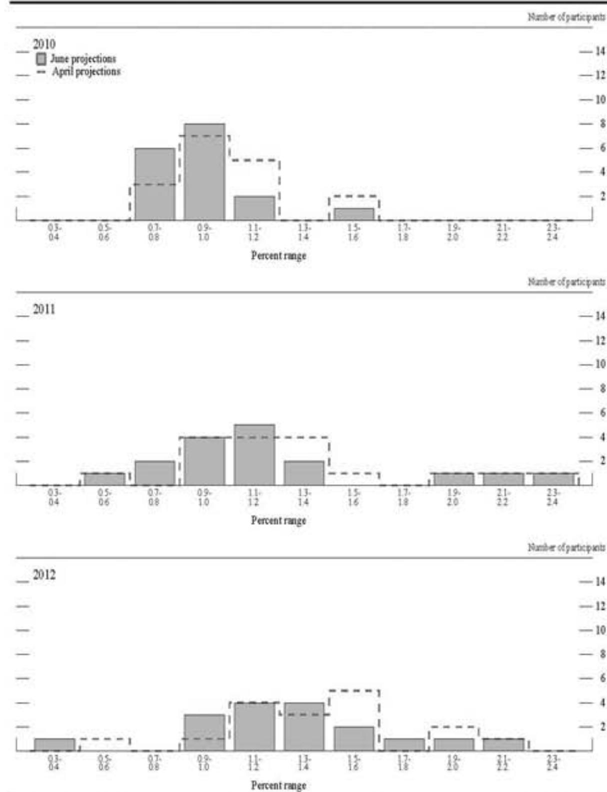
NOTE: Definitions of variables are in the general note to table 1.

Figure 2.C. Distribution of participants' projections for PCE inflation, 2010–12 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, 2010–12



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

Table 2 summarizes the average historical accuracy of a range of forecasts, including those reported in past *Monetary Policy Reports* and those prepared by 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, 1.4 to 4.6 percent in the second year, and 1.2 to 4.8 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, 1.0 to 3.0 percent in the second year, and 0.9 to 3.1 percent in the third year.

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

ABS	asset-backed securities
AIG	American International Group, Inc.
ARRA	American Recovery and Reinvestment Act
CDS	credit default swap
C&I	commercial and industrial
CLO	collateralized loan obligation
CMBS	commercial mortgage-backed securities
CRE	commercial real estate
Credit CARD Act	Credit Card Accountability Responsibility and Disclosure Act
DPI	disposable personal income
ECB	European Central Bank
E&S	equipment and software
FAS	Financial Accounting Standards
FOMC	Federal Open Market Committee; also, the Committee
GDP	gross domestic product
GSE	government-sponsored enterprise
IMF	International Monetary Fund
IOER	interest on excess reserves
IRA	individual retirement account
IT	information technology
Libor	London interbank offered rate
LLC	limited liability company
MBS	mortgage-backed securities
NIPA	national income and product accounts
NOW	negotiable order of withdrawal
OIS	overnight index swap
OTC	over the counter
PCE	personal consumption expenditures
RRP	reverse repurchase agreement
SCOOS	Senior Credit Officer Opinion Survey on Dealer Financing Terms
SLOOS	Senior Loan Officer Opinion Survey on Bank Lending Practices
TAF	Term Auction Facility
TALF	Term Asset-Backed Securities Loan Facility
TARP	Troubled Asset Relief Program
TDF	Term Deposit Facility
TIPS	Treasury inflation-protected securities