I'm pleased to be here and honored to be invited to deliver the Hutchinson Lecture. Although I never met Harry Hutchinson, I very much wish I had. Like Harry, I received a Ph.D. in economics from the University of Michigan, and my professional interests have centered on money and banking. Given Harry's expertise and his keen interest in teaching, I'm sure he would have had valuable insights about the recent financial turmoil to share with all of us. In this talk, I will focus on the economic outlook, which, of course, has been significantly influenced by that turmoil. After a brief review of recent developments, I will discuss the factors that are likely to support a resumption of economic growth over coming quarters as well as the likely contour of that recovery.¹

Recent developments

The U.S. economy and financial markets have been through an extraordinarily difficult period. The downturn in economic activity that has been under way since late 2007 steepened considerably last fall as the strains in financial markets intensified, credit conditions tightened further, and asset values continued to slump. Partly in response to the financial turmoil, consumer and business confidence plummeted, and nearly all major sectors of the economy registered steep declines in activity. In all, real gross domestic product (GDP) dropped at an annual rate of 6-1/4 percent in the fourth quarter of 2008; the Commerce Department's advance estimate for the first quarter of 2009 – which will be released next week – is expected to show another sizable decrease. This recession seems likely to be among the deepest and longest in the post-World War II period.

Labor market and production data continued to deteriorate through the first quarter. Businesses shed more than 650,000 jobs in March, the fifth consecutive month of job losses in the neighborhood of 600,000 or more, and the unemployment rate jumped to 8-1/2 percent. Moreover, the number of new claims for unemployment insurance benefits remained elevated in early April, which suggests that job losses have remained appreciable. And in the industrial sector, another large drop in output was recorded in March as manufacturers continued to cut production in response to weak demand and excess inventories.

The recent spending indicators, however, have been more mixed. On the negative side, businesses have continued to make sharp reductions in their capital expenditures, and exports have been hard hit by the steep drop in economic activity abroad. However, there are a few tentative signs that the pace of decline in some other key components of demand may be lessening. To be sure, consumer spending continues to suffer the effects of the poor job market and the sizable losses of equity and housing wealth over the past two years. But after smoothing through the data for the first three months of 2009, consumption appears to have steadied some after a sharp drop in the summer and autumn of 2008. And in the housing sector, the declines in sales and construction of single-family homes have abated in the past couple of months – in part, perhaps, because of the low levels of mortgage interest rates and the greater affordability of housing. As demand firms, and once inventories of houses and a broad range of goods are brought into line with sales, economic activity should begin to stabilize.

¹ The views are my own and not necessarily those of other members of the Federal Open Market Committee. Andrea Kusko and Daniel Sichel of the Board's staff contributed to these remarks.
The crosscurrents in the recent data and a bit more favorable financial news of late stand in contrast to the uniformly bleak picture of a few months ago. These developments may be an early indication that conditions are falling into place for real GDP to decline at a slower rate in the second quarter and to stabilize later this year. I want to emphasize that the high-frequency data are very noisy, and considerable uncertainty attends the near-term path of the economy. Still, I don't think it is premature to start to ponder the shape that a recovery – when it occurs – would be likely to take.

The outlook for recovery

Consideration of the likely shape of the recovery depends very much on understanding how we got to where we are now. For a number of years earlier in the decade, U.S. economic growth was supported importantly by rapid increases in consumption and housing, which, in turn, were fueled by an extended surge of global credit. Housing demand was propelled, in part, by persistently low long-term interest rates, loose underwriting standards on mortgages, and, for a while, expectations of continuing increases in house prices that resulted in the building of too many houses and the elevation of home prices to unsustainable levels. These same developments fed a surge in consumption through the effects on wealth of rising house prices and through various financial innovations that allowed many households to liquefy their housing wealth. Financial intermediaries were further exposed by generally inadequate compensation for risk and increased leverage. As the housing boom petered out and then reversed, both households and lenders found themselves overextended, developments that led to a mutually reinforcing pullback in spending and lending. The dynamics of this adjustment, which coincided with the collapse of the global credit boom, helped push the U.S. economy into deep recession.

Economic policymakers have moved aggressively to counter the threat to economic stability by, in effect, filling some of the gap in private lending and spending with government lending and spending. Because the disruptions in the economy have been so closely related to problems in the financial sector, many of the policy measures have been focused on financial institutions and markets and on countering the tightening of financial conditions that occurred as lenders became more risk averse and took steps to conserve capital and liquidity. These measures should result in improved credit conditions for businesses and households and thus are expected to help mitigate the negative feedback between the financial sector and the real economy. Such improvement is crucial because we will not have a meaningful recovery without a stabilization of our financial system and credit markets.

The Federal Reserve has played an active role over the past 18 months in the development and implementation of policies to counter the financial crisis and its economic fallout. Steps taken have included lowering interest rates, making backup sources of liquidity available to private lenders, and using the Federal Reserve's lending capacity to try to revive a variety of financial markets. The easing of monetary policy, as conventionally defined by the target for the federal funds rate, has been very aggressive; by the end of last year, the Federal Open Market Committee (FOMC) had brought the target federal funds rate down essentially to zero. Moreover, the FOMC noted, in the statement after its March meeting, "that economic conditions are likely to warrant exceptionally low levels of the federal funds rate for an extended period." By communicating this expectation, the Committee reinforced market beliefs that interest rate policy is likely to remain on hold, thereby putting downward pressure on longer-term rates, which have the largest effects on spending.

In addition, the Federal Reserve has taken other policy steps to ease credit conditions and support the broader economy. Throughout the crisis, the Federal Reserve has moved to ensure that U.S. depository institutions can obtain the liquidity that they require. Given the global nature of financial markets and institutions, the Federal Reserve also established swap lines with foreign central banks, allowing them to obtain dollars so that they could meet the dollar liquidity needs of banks in their jurisdictions. As some large investment banks
came increasingly under pressure in early 2008, the Federal Reserve, consistent with its role as lender of last resort and in light of the key roles these institutions play in a range of financial markets, introduced programs under which it could provide liquidity to primary dealers. And, as the financial situation deteriorated last fall, the Federal Reserve established liquidity facilities for money market mutual funds and introduced programs to provide liquidity directly to borrowers and investors in key credit markets, including the commercial paper market, where strains threatened the ability of many financial and nonfinancial firms to place their paper. The Federal Reserve and the Treasury have worked together to try to restart the asset-backed securities markets, where loans are packaged for sale to final investors. And just recently, the Federal Reserve started making substantial purchases of longer-term Treasury and mortgage-related securities to support market functioning and reduce long-term interest rates in the mortgage and other private credit markets.

Along with its monetary policy actions, the Federal Reserve has been part of a broader government effort – one that includes the Treasury and the Federal Deposit Insurance Corporation (FDIC) – to provide more direct support to financial firms and the economy. In part, this effort has involved targeted actions to prevent the failure or substantial weakening of specific systemically important institutions when the disorderly failure of a large, complex, interconnected firm would disrupt the functioning of a range of financial markets and impede the flow of credit to households and businesses. Besides this targeted support, the government has been injecting capital into the banking system to ensure that U.S. banking institutions are well capitalized and can support the recovery by lending to sound households and businesses. In addition to the programs to provide capital, the government, through the FDIC, has temporarily guaranteed selected liabilities of insured depository institutions and their holding companies, thereby improving their access to funding. The government has also taken steps, most recently through the Making Home Affordable program, to reduce unnecessary foreclosures. Beyond helping homeowners stay in their houses, limiting foreclosures should benefit lenders, mitigate adverse impacts on affected communities, and, by limiting the decline in overall home prices, help support the broader economy. Finally, the Treasury recently announced a program to assist banks and other lenders in finding markets for their "legacy assets" – that is, real estate-related assets that were accumulated during the housing boom and have since declined in value and become relatively illiquid. Uncertainty about the value of legacy assets is weighing on confidence in banks, and so helping banks to dispose of such assets should contribute to their ability to raise capital and increase lending.

Employing its fiscal policy tools, the government has enacted a multifaceted program of stimulus that will provide direct support to spending and economic activity. In February, the President signed into law a $787 billion package that included cuts in taxes and increases in transfer payments for households, lower taxes for businesses, higher spending for infrastructure investments, and additional financial assistance to state and local governments, many of which would otherwise have been forced to cut spending in response to declining revenues. Although the exact effects of these measures on the economy are difficult to gauge, they will likely provide a significant boost to activity. According to the Congressional Budget Office, the effect of the stimulus package on the level of real GDP at the end of 2010 could range from about 1 percent to more than 3 percent, relative to a baseline forecast that does not include the stimulus. That additional GDP translates into an unemployment rate by the end of next year that is between 1/2 and 2 percentage points lower than it otherwise would be. With the tax cuts already showing up in paychecks, increases in transfer payments already in place, and grants to states and localities starting to flow, the effects of the package on aggregate demand should start to provide some support to activity fairly quickly.

Thus a broad range of policies are in place to foster recovery. But economic recoveries are also typically shaped by powerful internal cyclical dynamics. Indeed, it appears that some of the forces that had been holding down growth are starting to abate. In particular, the recent data suggest that the multiyear contraction in home sales and new construction may be
nearing an end. House prices could well continue to fall for a while, and months’ supply of unsold homes will likely remain elevated for some time. At some point, however, house prices will begin to flatten out, and fears about buying into a falling market will start to wane. At the same time, the improved affordability of homeownership resulting from reduced house prices, low mortgage interest rates, and government programs (including incentives for first-time homebuyers) should boost demand. Because inventories of unsold homes are still very high relative to sales, it may take a while for any pickup in demand to translate into higher production. But even stabilization in residential construction would remove what has been a significant drag on the U.S. economy.

Addressing inventory overhangs of goods other than houses is another important part of the adjustment process. In a number of industries, inventory-sales ratios soared late last year, and they remain elevated despite substantial reductions in manufacturing output and a marked quickening in the rate of inventory liquidation. Businesses still have a ways to go to bring inventories into alignment with sales. But as these excesses are worked off, production will begin rising back up to the level of sales, thereby providing a boost to GDP growth.

Another factor at work is the sharp fall in prices of oil and other commodities since the middle of 2008. This decline in prices – which partly reflected the worldwide drop in demand – has helped bolster real incomes and consumer spending in the United States.

More broadly, we are in the midst of an adjustment to the negative shocks that have hit the economy over the past two years and that intensified last fall. In particular, late last year we experienced a marked deterioration in a broad range of financial markets, severe cutbacks in spending in response to the tighter financial conditions, and a sudden and substantial erosion of confidence among households and businesses that greatly steepened the ongoing recession. In response to the effect of these shocks, businesses have instituted sharp reductions in production, ratcheted down capital spending plans, and laid off workers. At the same time, households have scaled back spending in response to lower wealth, diminished access to credit, and the deterioration in their prospects for employment and income. Financial markets have improved some since last fall, though they remain disrupted and fragile. Over time, as businesses and households gradually adjust to these adverse shocks, the drag on activity will abate, and the stage will be set for recovery and a resumption of growth.

How strong will the recovery be?

The historical record provides a natural starting point for gauging the likely strength of the coming recovery. According to the research literature, the recessions that occurred between the end of World War II and the 1980s were typically followed by high-growth recovery phases that relatively quickly pushed output back up to its pre-recession level, and policy – sometimes fiscal but especially monetary policy – contributed significantly to those bouncebacks. All else being equal, that historical pattern would point to a strong recovery in this episode.

However, the last two business cycles cast some doubt on that conclusion. The recovery that followed the recession in the early 1990s was fairly sluggish. And with a lackluster recovery

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after the 2001 recession, the evidence supporting rapid bouncebacks after downturns was weakened further. Some analysts have suggested that those slow recoveries reflected the shallowness of the downturns – indeed, the research on the pre-1990 episodes indicated that the strength of recoveries was correlated with the depth of the preceding recessions, and the slowness of the recoveries from the 1990 and 2001 recessions would be consistent with that correlation. However, many commentators instead attributed the slowness of those recoveries to the drag from structural factors – namely, the financial headwinds in the early 1990s and the need to work off capital overhangs after 2001. All in all, the historical record leaves us with at least two possibilities for the coming recovery: a strong recovery from the deep recession or a sluggish recovery because drag from the underlying structural factors partly offsets the usual forces that generate a rapid bounceback.

In the current episode, the imbalances preceding this contraction were substantial, and we are still dealing with the consequences of the developments that precipitated the downturn. Accordingly, my best guess is that we are in for a relatively gradual recovery, though a very wide range of uncertainty surrounds that outlook.

In the financial markets, we are in the midst of a massive restructuring of credit flows and adjustment of risk premiums. After the recent experience, there is likely to be less reliance on securitization markets to intermediate credit flows and more reliance on banks and other intermediaries. But those intermediaries are still rebuilding the capital and liquidity positions they need to substantially increase their participation in credit markets.

As I noted, we have taken important policy steps to support financial institutions and markets and to restart the flow of credit. Indeed, risk spreads in both short-term and long-term markets have narrowed since late last year, and equity prices, after a sharp decline earlier this year, have rebounded substantially in recent weeks. However, financial markets continue to be fragile, many risk spreads are still elevated, and investors appear to remain uncertain about the strength of some financial institutions. Some of the government programs I have discussed – those to restart markets, provide additional capital buffers, and open outlets for legacy assets – are just now being implemented. While these programs are promising, we will not be able to judge their success for a time. Thus, I suspect that credit conditions will ease only slowly and will continue to exert restraint on spending for a time.

The sharp drop in consumer spending since the middle of last year has been reflected in a noticeable upturn in the personal saving rate, which now stands above 4 percent after fluctuating between 0 and 1 percent for most of the period since 2005. I would not be surprised to see the saving rate rise somewhat further in coming quarters as the lagged effects of the steep declines in home values and equity prices over the past couple of years restrain spending relative to income. In addition, shoring up personal financial positions may trump a rebound in spending for a time – especially if unemployment continues to rise, as it did in the initial phase of the past two recoveries. Confidence about future economic prospects will be a critical influence on people’s willingness to spend. Confidence took a major hit last fall, and my best guess is that it will recover slowly along with the financial markets and the economy. But once financial conditions stabilize, the economy regains its footing, and households sense that better prospects lie ahead, confidence could rebound more vigorously, leading to a more rapid pickup in purchases at that point.

Business fixed investment has also fallen sharply since last fall, and it is likely to remain weak through the remainder of 2009. Indeed, businesses will probably be reluctant to undertake new projects in the absence of a substantial improvement in the outlook for sales and profitability and a lifting of uncertainty. And tight credit conditions – especially for

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3 See Perry and Schultze, "Was This Recession Different?" p. 149. For related evidence, see Paul Beaudry and Gary Koop (1993), "Do Recessions Permanently Change Output?" Journal of Monetary Economics, vol. 31 (April), pp. 149-63; and Sichel, "Inventories and the Three Phases of the Business Cycle."
commercial construction – likely will be a significant negative force. But here too, confidence
could bounce back more rapidly, and if credit conditions were to ease appreciably,
businesses might move ahead quickly with capital spending projects that had been
postponed during the recession.

Exports were an important source of strength for the U.S. economy in recent years.
However, the global nature of the current economic downturn means that they are unlikely to
provide much support for domestic production going forward. Activity in foreign economies,
taken together, contracted in the fourth quarter at a rapid pace – similar to that in the United
States. Recent indicators point to equally dismal outcomes in the first quarter and, although
there have been a few signs of stabilization, have yet to send a clear signal that the global
economy has hit bottom. The intensification of financial turmoil was global, and many of our
trading partners are also facing constraints on credit availability.

Although the recovery in the U.S. economy is likely to be gradual in its early stages, it should
gain momentum over time. As credit markets improve, the accommodative stance of
monetary policy will show through more clearly. And a rebound in confidence about the
future should help spur demand. As demand strengthens and financial markets improve,
some of the adverse feedbacks should reverse and begin working to bolster activity. In time,
as these forces come into play, economic growth will pick up, ultimately returning the
economy to its full productive capacity and bringing the unemployment rate down to a more
normal level.

Inflation prospects

If, as I have described, the economic recovery initially follows a relatively gradual track,
margins of slack in labor and product markets are likely to remain wide for a time, implying
some further downward pressure on inflation. The extent of a decline in inflation, however,
should be limited by the relative stability of longer-term inflation expectations. That said,
there are sizable risks on both sides of the inflation forecast.

On the one hand, we cannot rule out the possibility that adverse economic conditions will
cause deeper cuts in prices, a greater softening in wages, and a steep decline in inflation
expectations. Substantial declines in inflation would raise real interest rates, thereby
restraining the recovery even more. Moreover, the risk that inflation could be lower will be
exacerbated to the extent that economic activity falls short of the path that I have described.
In these circumstances, the Federal Reserve would continue to look for ways to relieve
financial pressures and encourage spending.

On the other hand, the Federal Reserve's actions to ease credit conditions have resulted in a
tremendous increase in its assets and in bank reserves. Some observers have expressed
concern that these actions, if not reversed in a timely manner, are sowing the seeds of a
sharp pickup in inflation down the road. As I just noted, near-term prospects appear to be for
a decline in inflation rather than an increase. But my colleagues and I are acutely aware of
the risk of higher inflation as the economic recovery gains speed. We are firmly committed to
acting in a way that preserves price stability, and we believe we have the tools to absorb
reserves and raise interest rates when needed. Moreover, we are working with the Treasury
to introduce legislation that would enlarge our tool kit for moving away from the extraordinary
degree of financial stimulus we have put in place when the time arrives.

Conclusion

To sum up, the uncertainty around the economic outlook is substantial. The path of the
economy will depend critically on how quickly the current stresses in financial markets abate;
these events have few if any precedents, and thus it is very difficult to predict how the
adjustment process will play out. But at the end of the process, our financial system will be
on firmer footing. Both markets and regulators will continue to press financial firms to employ less leverage and have more reliable sources of liquidity, and those firms will have every incentive to more effectively price, monitor, and manage risk. Improvements to the supervisory and regulatory framework will help create a more stable financial system. In addition, we will have a stronger economy. Businesses will have boosted the efficiency of their operations. And households will be less indebted and saving more. That greater saving will, all else being equal, support greater investment or allow domestic saving to displace foreign saving for a more sustainable international position. The U.S. economy has proven itself over the years to be flexible and resilient as well as innovative and productive, qualities that enable it to rebound from serious economic shocks, and I am confident that, in a like manner, we will rebound from our current economic and financial challenges.