When I spoke at this gathering a year ago, the country was in some of the darkest days of the recession. We had lost a million and a half jobs in the previous two months. Industrial production had fallen by more than 2 percent in January 2009 and almost another 1 percent in February. Fear was rampant and stock prices were plummeting.

My topic last year was the American Recovery and Reinvestment Act, which had been passed just a few weeks earlier. I discussed its key features and my reasons for thinking that it would be effective at helping to end the worst recession in postwar history. One year later, the evidence has borne out my predictions. The Recovery Act has helped to change the direction of the economy dramatically. The decline and fear of a year ago have been replaced by growth and hope of continued progress. We are still in a very difficult situation, but the trajectory is vastly improved.

In my talk this morning, I want to discuss where we have been over the past year, where the economy is now, and some additional policy actions that are needed to put us more firmly on the road to recovery.

I. The Contribution of the Recovery Act

Let me start by discussing the contribution of the Recovery Act. The Act was the largest
countercyclical fiscal policy action in American history. Of the $787 billion total budget impact, roughly one-third was tax cuts for individuals and businesses, another one-third was payments to help those directly harmed by the recession and to state and local governments struggling to maintain employment and services, and the final one-third was direct government investments in everything from conventional infrastructure, to health information technology, to a smarter electrical grid. The action was explicitly temporary, with most of the budget impact spread roughly evenly over 2009 and 2010.

The most basic evidence that the Recovery Act and the other measures taken to heal the economy have been effective is that the trajectory of the economy has changed fundamentally. Figure 1 shows the growth of real GDP over the last three years.

We went from GDP falling at an annual rate of more than 6 percent in the first quarter of 2009 to rising at almost that same rate in the last quarter of the year. Most analysts, including the Administration and members of the Federal Open Market Committee, expect GDP to continue to
grow steadily this year and for growth to increase in 2011. This change in trajectory during the past three quarters is both much faster and much stronger than one would have predicted based on the behavior of the economy up to the passage of the Recovery Act.¹

A number of analysts, including both private forecasters and the nonpartisan Congressional Budget Office, have investigated the impact of the Recovery Act on employment. These estimates, given in Table 1, suggest that the Act raised employment as of the fourth quarter of 2009, relative to what it otherwise would have been, by between 1½ and 2 million.

Table 1. Estimates of the Effects of the ARRA on Employment

<table>
<thead>
<tr>
<th>Estimator</th>
<th>2009:Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEA: Projection Approach</td>
<td>+2,068,000</td>
</tr>
<tr>
<td>CEA: Model Approach</td>
<td>+1,772,000</td>
</tr>
<tr>
<td>CBO: Low</td>
<td>+1,000,000</td>
</tr>
<tr>
<td>CBO: High</td>
<td>+2,100,000</td>
</tr>
<tr>
<td>IHS/Global Insight</td>
<td>+1,248,000</td>
</tr>
<tr>
<td>Macroeconomic Advisers</td>
<td>+1,057,000</td>
</tr>
<tr>
<td>Moody's Economy.com</td>
<td>+1,586,000</td>
</tr>
</tbody>
</table>

Sources: CEA estimates; Congressional Budget Office; email correspondence with Macroeconomic Advisers, IHS/Global Insight, and Mark Zandi from Moody’s Economy.com.

This estimate is consistent with the reports filed by recipients of Recovery Act funds. The Act built in an unprecedented commitment to transparency, and as part of that commitment it requires recipients of grants, loans, and contracts to report quarterly on jobs created with the funds they have received. Only about one-third of the funds expended through the Recovery Act are subject to recipient reporting. Yet as of the third quarter of 2009, recipients had identified

II. **Current Conditions and Forecasts**

Because of the Recovery Act and the numerous other policy actions taken by the Federal Reserve, the Administration, and Congress, the American economy is growing again. But as last Friday’s employment report made clear, the labor market remains severely distressed. Most obviously, the unemployment rate is 9.7 percent, a terrible number by any metric. Consistent with this, total output is still far below its normal trend path. Moreover, we have yet to see GDP growth translate into employment growth. Instead, productivity has grown at roughly a 7 percent annual rate for each of the last three quarters—the largest rise in productivity over three quarters in more than 50 years.

The recent jobs report did contain signs that employment growth could commence in the next few months. As many analysts have noted, February’s snowstorms likely artificially reduced the February payroll employment figures. Workers who missed a paycheck because of the snow do not show up in the statistics. Based on the number of workers in the household survey who said they had a job but could not work because of bad weather, the CEA and others have estimated that this impact may have been substantial. As a result, February’s headline number of relatively modest job loss is an encouraging sign of gradual labor market healing.

But, it is essential that job growth not just turn positive, but that it be as robust as possible. It takes employment growth of roughly 100,000 per month just to keep up with normal labor force growth and hold the unemployment rate steady. To bring the unemployment rate

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2 This potentially understates the employment impact even of the funds subject to recipient reporting because it excludes jobs at subcontractors and the “Keynesian” impact of the funds that operates through their effect on the overall demand for goods and services. Thus, the recipient reports suggest that the various estimates of the employment impact of the Act summarized in Table 2 are, if anything, on the conservative side.
down quickly, much faster job growth is needed. Most forecasts, however, project relatively moderate GDP and employment growth over the next year. Some analysts are slightly more optimistic, others are somewhat less. But, virtually no one is predicting the kind of strong rebound that would fill the employment gap quickly.

III. Additional Policy Actions

It is for this reason that job creation remains the President’s top priority. He has proposed a number of targeted measures designed to have the maximum impact on accelerating job creation at the minimum necessary cost. Indeed, the fiscal year 2011 Budget submitted in early February set aside $100 billion for new job creation initiatives, and in the weeks since, the President has been offering more details on the high-impact proposals he wants to see enacted into law. The Budget also included more than $150 billion for continued relief measures to maintain demand and provide essential support for those most directly hurt by the recession. The President has also proposed important additional steps to increase lending to small businesses.

Many of these proposed measures are being debated by Congress right now. I thought that I would take some of my time this morning to highlight the case for three particular ones.

A Hiring Tax Credit. Let me start with a hiring tax credit. The Administration proposed a $30 billion program that would give firms a fixed amount for each additional worker hired in 2010 and an extra credit for some fraction of the increase in their payrolls.\(^3\) Both the House and the Senate have passed a somewhat different jobs credit proposed by Senators Schumer and Hatch. Their proposal waives the employer side of the payroll tax for newly-hired employees who had previously been unemployed, and would provide employers with a $1000

\(^3\) See “Small Business Jobs and Wages Tax Cut.”
bonus for workers retained for more than a year. For a new worker earning $60,000 a year, the benefit for a firm that retained the worker for a full year would be about $4000.

At its most basic level, a hiring tax credit follows the core economic principle that if you want to increase the consumption of something, lower its price. In this case, we want to encourage firms to hire more workers. To do this, the government is proposing to absorb part of the cost of new workers in their first year.

Of course, when one lowers the price of something to attract extra consumers, some people who would have purchased the good at the old price get the benefit. This is true of a hiring tax credit, just as it is with an investment tax credit, the cash for clunkers program, and all other tax incentives. What matters are the relative costs and benefits. Will a hiring tax credit generate enough extra hiring that it is a cost-effective way to jump-start job creation?

Here I believe the answer is unquestionably yes. Based on estimates of labor demand elasticities in the professional literature, analysis by the Council of Economic Advisers suggests that the cost per net new job of a hiring credit such as the one we proposed is lower than for other available job creation strategies. This is also the finding of a recent study by CBO. Table 2 shows CBO’s estimates of the additional jobs created per million dollars of budget cost for different initiatives. A payroll tax reduction for firms increasing payrolls is one of the most cost-effective job creation measures.

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Table 2. CBO Estimates of the Employment Effects of Policy Options

<table>
<thead>
<tr>
<th>Policy Option</th>
<th>Low Estimate</th>
<th>High Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing Aid to the Unemployed</td>
<td>8</td>
<td>19</td>
</tr>
<tr>
<td>Reducing Employers’ Payroll Taxes</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>Reducing Employers’ Payroll Taxes for Firms that Increase Their Payroll</td>
<td>8</td>
<td>18</td>
</tr>
<tr>
<td>Reducing Employees’ Payroll Taxes</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Providing an Additional One-Time Social Security Payment</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Allowing Full or Partial Expensing of Investment Costs</td>
<td>2</td>
<td>9</td>
</tr>
</tbody>
</table>

Source: Congressional Budget Office.

Such a hiring tax credit has been tried on a large scale in this country only once before—with the New Jobs Tax Credit of 1977 and 1978. The research on this program’s impact is quite limited. The few available studies suggest that it did have beneficial effects.\(^6\) And private nonfarm payroll employment did increase more than 11 percent from December 1976 to December 1978, the fastest 24-month growth in the six decades since the Korean War. One factor that appears to have limited the effectiveness of the tax credit was that many firms did not even know about it, and so had no opportunity to respond. A modern credit would be accompanied by a greater publicity effort, aided by new technology and the widespread existence of payroll services that can convey the incentives to individual employers.

It is also likely that the effects of a hiring credit may be particularly large in the current situation. Because the economy is growing again, most firms are surely planning to hire in the next year or two, as demand for their products increases. In this situation, firms may be particularly responsive to a hiring tax incentive. Because of the reduced cost of employment,

they may bring hiring forward to start gearing up for future production and to get the best workers. By hiring sooner than they otherwise would have, firms will create jobs at a time when the economy needs them most. Importantly, because the economy is on the road to recovery, those jobs will remain long after the temporary credit expires.

Simply put, a hiring credit is a sensible, responsible policy uniquely well suited to the current situation. It has been endorsed by a long list of distinguished economists, including Alan Blinder, Lawrence Katz, Laura Tyson, and Nobel laureates George Akerlof and Joseph Stiglitz. Mark Zandi, a prominent forecaster, has also advocated such a credit and estimated that the Schumer-Hatch proposal will generate about 250,000 jobs for the $13 billion price tag.

**State Fiscal Relief.** The second recovery measure I want to highlight is additional fiscal relief to the states. The recession has had a devastating impact on state and local tax revenues. State and local income tax revenues have fallen by almost 20 percent in real terms since the recession began. Sales taxes revenues have fallen by almost 10 percent.

Because almost every state has a balanced budget requirement, states have no choice but to respond to their budget shortfalls. For this reason, fiscal support has a strong and rapid effect on their decisions about spending and taxes, and thus on the economy. One key contribution of the Recovery Act is that it is filling about one-third of states’ budget gaps.

Several types of evidence confirm that the funds provided to states by the Recovery Act have been highly effective. First, despite the sharp declines in revenues, state government employment has fallen much less than private employment, and much less than one would have predicted given their budget shortfalls. The same is true of employment by local governments (which receive much of their revenues from the states).

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Second, one major portion of the state fiscal relief, the State Fiscal Stabilization Fund, is subject to the direct reporting requirements of the Recovery Act. The direct reporting data indicate that the $12.2 billion of relief provided by this fund through September supported 318,000 jobs. These figures suggest that the relief is a particularly powerful tool for job creation.

Finally, the other major component of the state fiscal relief, the temporary increase in the Federal Medical Assistance Percentages (FMAP), transferred different amounts to different states based on the specifics of their Medicaid programs. Analysis by the CEA has found that employment performance has been better in states that received more funds through this channel.9

Unfortunately, the states face continuing budget shortfalls. As shown in Figure 2, the Center on Budget and Policy Priorities estimates that even after the injection of Recovery Act funds, states face a combined fiscal shortfall of $125 billion in fiscal 2010, $142 billion in fiscal 2011, and $118 billion in fiscal 2012.10

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Because of these continuing shortfalls, additional fiscal relief to the states is likely to be both particularly valuable and particularly effective. It is particularly valuable because states are now at the point where the steps they would have to take to balance their budgets would involve cutting spending on vital services or raising taxes on families who are already struggling.

Relief is particularly effective because it will alter states’ budget decisions quickly. States were able to meet very little of their shortfalls in fiscal 2009 by dipping into rainy day funds, and almost none at all so far in fiscal 2010. The vast majority of the adjustment is coming from changes in spending and taxes. Indeed, because states are looking at multi-year shortfalls, commitments of additional Federal support could lead to some changes in states’ budgets even before the relief is provided. By preventing tax increases and spending cuts, state fiscal relief raises income and employment relative to what it otherwise would have been.

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For all these reasons, the Administration has proposed additional fiscal support to the states over the coming year. The CEA’s simulation model indicates that each $10 billion of additional state fiscal relief (spread evenly over the year) would support roughly an additional 100,000 jobs. The direct recipient reporting data suggest the effect could be even larger.\footnote{CBO also estimates that state fiscal relief is a relatively effective means of increasing economic activity and employment (Congressional Budget Office, “Policies for Increasing Economic Growth and Employment in 2010 and 2011,” January 2010, \url{http://www.cbo.gov/ftpdocs/108xx/doc10803/01-14-Employment.pdf}). CBO’s estimates of the effects are somewhat lower than the CEA’s, however. One reason may be that CBO assumes that the “timing of spending from new funding follows historical experience.” As noted above, there are reasons to expect a stronger and faster response than normal in the current situation.}

**Providing Capital to Small Banks.** The third recovery measure I want to highlight is providing capital to small banks. A key feature of this recession is the central role played by disruptions to credit markets and lending. We are all aware of the tremendous rises in credit spreads at the peak of the crisis, the seizing-up of key financial markets, and the many crucial interventions that were needed to keep lending going. Despite these actions, lending remains severely restricted. For example, nonmortgage consumer credit outstanding is now 5 percent below its peak; commercial and industrial loans have fallen by almost 20 percent; and commercial paper outstanding has fallen almost in half.

One particularly valuable indicator of credit availability is the Federal Reserve’s Senior Loan Officer Opinion Survey. For all types of loans, the survey shows dramatic and unprecedented tightening in lending standards over late 2008 and early 2009, and continued tightening over the remainder of last year. As Figure 3 illustrates, the survey shows severe tightening in the availability of loans to both small and large businesses.
Credit availability is critical to the health of the economy.\textsuperscript{13} Numerous studies have formally demonstrated this link at the microeconomic level. One recent study looks at Japan, where a unique data set makes it possible to link firms with the main banks they rely on for credit. The study found that when a bank’s financial condition weakens, the sales of the firms that depend on it for credit fall. And the firms’ exports, for which credit is particularly important, are hit especially hard.\textsuperscript{14}

Studies have also confirmed that these microeconomic links mean that lending is important to the performance of the overall economy. There is a substantial correlation between lending growth and GDP growth. Studies that try to disentangle whether it is lending causing GDP, GDP causing lending, or some third factor causing both, find an important causal role for

\textsuperscript{13} For a more complete description of the literature on the importance of credit for macroeconomic performance, see Chapter 2 of the 2010 Economic Report of the President (Washington, D.C.: U.S. Government Printing Office).

lending. In a paper David Romer and I wrote some years ago, we looked at episodes when the Federal Reserve intervened directly in credit markets to restrain lending, such as its imposition of credit controls in 1980. We found that within about nine months of such an intervention, industrial production had fallen about five percent below its prior path.\footnote{Christina D. Romer and David H. Romer, “Credit Channel or Credit Actions? An Interpretation of the Postwar Transmission Mechanism,” in Changing Capital Markets: Implications for Monetary Policy (Kansas City: Federal Reserve Bank of Kansas City, 1993), 71-116, \url{http://www.kc.frb.org/publicat/sympos/1993/s93romer.pdf}. A very different study establishing a causal effect on aggregate outcomes is Joe Peek and Eric S. Rosengren, “Collateral Damage: Effects of the Japanese Bank Crisis on Real Activity in the United States,” American Economic Review 90 (March 2000), 30-45.}

Because of the critical role that renewed lending can play in the recovery, the Administration is proposing concrete steps to help restart credit flows. One important measure would create a $30 billion small business lending fund to provide capital to small and community banks, which are a key source of lending to the small businesses that will be so critical to the recovery. The various restrictions accompanying the TARP funds that went to the large financial institutions are not appropriate for smaller banks. These banks, like so many American firms and families, were simply innocent bystanders in the crisis. Thus, the Administration is proposing that this fund be created outside of TARP, so that community banks across the country will face no barriers to participating. The government investments in these banks would include incentives to increase small business lending, thus further magnifying their impact. This program would complement the many other steps the Administration has taken to support creditworthy small businesses seeking to expand and create jobs.

Although there is considerable uncertainty about the precise relationships, we estimate that this $30 billion of capital will translate into several times that amount of additional lending and could help create hundreds of thousands of new jobs. And, crucially, because the government will be getting capital stakes that will lead to future repayments, this will be
accomplished at little long-run cost to taxpayers.\footnote{For more information about this proposal, see “Administration Announces New $30 Billion Small Business Lending Fund,” http://www.whitehouse.gov/sites/default/files/FACT_SHEET_Small_Business_Lending_Fund.pdf.}

The three recovery initiatives I have discussed are only a part of what the Administration believes needs to be done. The House has already passed a bill that includes an additional $50 billion of infrastructure investments that is consistent with the President’s call for increased investments in repairing our roads, bridges, and waterways. Last week, the President discussed the importance of another proposal—the Homestar Program. This program is designed to encourage homeowners to undertake energy retrofits right now, when the economy, and the construction industry in particular, has spare capacity. Another key initiative that I did not discuss, simply because it is so obviously important, is extending the unemployment insurance provisions from the Recovery Act. Nearly every analyst classifies unemployment insurance payments as one of the most cost-effective jobs programs. Continuing the Recovery Act provisions is essential both to help families struggling with unemployment and to sustain the recovery.

\section*{IV. Dealing with the Budget Deficit}

Before I close, it is important to discuss the budget deficit. Last June, CBO released their long-run budget outlook.\footnote{Congressional Budget Office, “The Long-Term Budget Outlook,” June 2009, http://www.cbo.gov/ftpdocs/102xx/doc10297/06-25-LTBO.pdf.} Figure 4 is a graph of the projected budget situation over the next thirty years, using plausible assumptions about likely policy.
No one can look at these numbers and not be concerned. The deficit is large today, primarily because of the recession. It is expected to decline as the economy recovers. But over the long haul, it is predicted to grow tremendously, largely due to the effect of rising health care costs on government health expenditures. By 2040, given the current path, the Federal budget deficit will be 17 percent of GDP—a level that is obviously unacceptable and unsustainable.

Now, I won’t take you through the history of how we got on this terrible path—Chapter 5 of the Economic Report of the President does a good job of that—other than to say that the budget problem was years in the making. It is not, as some have suggested, due to actions taken this past year. As large as it was, the Recovery Act contributes less than a quarter of a percentage point to the budget deficit in 2020.\textsuperscript{18} But, regardless of its source, the deficit is a challenge that must be addressed.

The sensible way to address the deficit is with a long-run plan. It would be penny-wise but pound-foolish to deal with our long-run problem by tightening fiscal policy immediately or foregoing additional emergency spending to reduce unemployment. Immediate fiscal contraction would inevitably nip the nascent economic recovery in the bud—just as fiscal and monetary contraction in 1936 and 1937 led to a second severe recession before the recovery from the Great Depression was complete. Failure to take additional targeted actions to jump-start job creation would lead to slower recovery and higher unemployment for an extended period. High unemployment is not just bad for people, it is bad for the budget deficit. It is virtually impossible to get the deficit under control when the unemployment rate remains near 10 percent.

Rather than tightening the budget in the short run, we should focus on the sources of the exploding deficit in the long run. The single most important source is growing health care costs, so it is essential to focus on doing health care reform well. Only by slowing the breakneck pace of rising government health care expenditures can we hope to get the long-run deficit under control. According to CBO, the Senate version of reform legislation lowers the deficit in the first ten years and reduces it even more in the second decade. The CEA’s analysis finds that the Senate bill will likely slow the growth rate of health care costs by 1 percentage point per year, which is a hugely important reduction, especially when maintained for two decades or more.19 Because the key cost containment features are maintained in the President’s proposal, we expect it to reduce cost growth by roughly the same amount.

Another useful immediate budget strategy is to focus on the long-run amount and quality of spending. At the same time that the President has called for more emergency spending to help put people back to work, he has supported the recent reinstitution of PAYGO rules and proposed

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a three-year freeze of nonsecurity discretionary spending. The PAYGO rules will help prevent measures that could worsen the long-run budget outlook. The nonsecurity discretionary freeze will force policymakers to limit spending growth and to choose carefully which programs are allowed to grow and which are forced to shrink. These are decisions that need to be made, and it is good to start making them now.

Finally, the President issued an executive order creating a bipartisan fiscal commission. The commission is charged with proposing methods to shrink the deficit to a sustainable level in both the medium and long terms. The President has made it clear that nothing is to be off the table as the commission begins its investigation. He wants to give the commission the best chance possible to come up with a solution to our budget deficit that can be supported by both parties. This a concrete step that we are taking right now to forge the bipartisan consensus that will be necessary to truly get our fiscal house in order.

Over the past year, the Administration has taken some heat for supposedly trying to do too much. But, as my discussion this morning makes clear, the policy actions are all interrelated. To continue to move forward on jobs, we need to take additional targeted measures to help turn renewed growth into robust job gains. But, to do that in a responsible way, we need to put in place a plan for dealing with the long-run budget deficit. And controlling long-run health care costs is an essential part of doing that. It is all part of a package that will put people back to work and make sure that the American economy comes through this crisis even stronger than before.