The first recession I really remember was that in 1981-82. I began graduate school just as the economy peaked. Over the next year and a half, output plummeted and unemployment rose dramatically.

That recession was personal. My father lost his job at a chemical plant in the spring of 1983, shortly after the trough of the recession. I vividly remember the phone call where he told me that he had “been sacked.” He was careful to say that I shouldn’t worry about my wedding, which was scheduled for that summer -- there was money put aside for that. Just before the wedding, my mother learned that her teaching job was also uncertain for the next year. David and I nevertheless got married as planned -- and the wedding was all the more special because my mother and her two sisters did much of it themselves.

I remember the tremendous sense of relief when I returned from my honeymoon to hear that my mother’s school district had found the money to continue her position. Soon after, my father found a less well-paying but very stable job. By Christmas, our family’s economic health was almost fully restored.

1981-82 was a terrible recession, but it was a recession economists understood. Like many other postwar recessions, it was started by the difficult decision by monetary
policymakers to raise interest rates to bring inflation down. The suffering of ordinary families like my own was real and costly. But once inflation had been reduced and the Federal Reserve lowered interest rates, construction spending, purchases of durable goods, and business investment came surging back. Unemployment, which peaked at 10.8 percent at the end of 1982, fell to 8 percent by early 1984.

The current recession has been fundamentally different from other postwar recessions. This is not my father’s recession. Rather than being caused by deliberate monetary policy actions, it began with interest rates at low levels. It is a recession born of regulatory failures and unsound practices that contributed to a housing bubble and eventually a full-fledged financial crisis. Precisely what has made it so terrifying and so difficult to cure is that we have been in largely uncharted territory. An all-out financial meltdown in the world’s largest economy and the center of the world’s financial system is something the world has experienced only once in the past century -- in the 1930s. Thus, the President took office in the midst of a recession of historic proportions, but for which history provided little guidance.

This afternoon, I want to talk about the tremendous economic challenges the country faced in January 2009 and the challenges we continue to face as we reach the second half of 2010. I want to discuss what I think we have learned over the past twenty months about the causes of our economic difficulties, what we have accomplished through extraordinary policy actions, and the tremendous work that remains before the economy is fully recovered.

**Uncharted Territory**

According to the National Bureau of Economic Research, the recession began in
December 2007. It is now clear that the popping of the housing bubble had serious consequences. The dramatic decline in house prices and the related drop in stock prices destroyed $13 trillion of wealth in 2008. Not surprisingly, the fall in house prices and the decline in wealth reduced consumer spending and investment, particularly in residential construction. As a result, even before the collapse of Lehman Brothers in September 2008, the U.S. economy had lost over a million and a half jobs and GDP had fallen by more than the average in the previous two recessions.

But the worst was yet to come. By the fall of 2008, investors had woken up to the now-obvious reality that slicing and dicing mortgages into mortgage-backed securities and other instruments didn’t reduce the aggregate risk associated with investment in housing. As declines in house prices accelerated, fears about the solvency of firms holding mortgage-backed securities set off a genuine financial panic. The collapse of Lehman sent credit spreads skyrocketing and credit availability plummeting. Had the Federal Reserve not responded as rapidly and creatively as it did, the crisis would have been catastrophic. As it was, it was as severe as anything we have experienced since the Great Depression.

Though it was clear that the strain on our financial markets was intense, what was not clear at the time was how quickly and strongly the financial crisis would affect the economy. Precisely because such severe financial shocks have been rare, there were no reliable estimates of the likely impact. To this day, economists don’t fully understand why firms cut production as much as they did, and why they cut labor so much more than they normally would, given the decline in output. Are firms so dependent on short-term finance that a temporary freezing of credit flows forces them to scale back immediately? Or, did the fear engendered by a wholly unknown type of recession lead
firms to hunker down in a way they hadn’t previously? These are questions that economists should and surely will be investigating over the coming years. But, in any event, almost all analysts were surprised by the violent reaction.

Even our statistical agencies appear to have been surprised. The advance estimate of GDP growth in the fourth quarter of 2008 was a decline of 3.8 percent (at an annual rate). The most recent estimate is nearly double that, a drop of 6.8 percent. Likewise, the first estimates of job losses in the last five months of 2008 turned out to be more than a million jobs smaller than the final estimates.

The other development that few anticipated was the degree to which the recession would be worldwide. I remember early discussions within the economics team about whether economic stability in the rest of the world would help to shore up our economy. Previous financial crises in Sweden, Japan, and East Asia had had largely localized effects. It was only as the data for fourth quarter GDP for countries such as Japan, Korea, and the United Kingdom started being reported in late January and February of 2009, that it was clear almost every other economy was also declining, in many cases at a more rapid rate than we were.

Despite the fact that we were in uncharted territory, the new economics team back in December 2008 was painfully aware that the economy was facing a terrible downturn and that we were fast approaching the edge of a cliff. At a meeting we had with the President-Elect in Chicago in mid-December, I began by saying: “The economy is very weak and deteriorating fast.” The weekend before the meeting, the team had sent a memo to Rahm Emanuel echoing this sentiment and laying the groundwork for a larger stimulus package. Whereas most analysts and Congressional policymakers had been contemplating a stimulus of $500 billion or less, we urged that it grow
substantially because of the severity of the downturn.

**Unprecedented Policy Response**

Just as the recession was unprecedented in postwar American history, so was the policy response. The American Recovery and Reinvestment Act was passed less than a month after the inauguration. The legislation was large, well diversified, temporary, and fast-acting.

Many would have liked to make it a more iconic bill -- a moon shot that concentrated spending on a single activity, such as building a nationwide smart electrical grid or a comprehensive high-speed rail network. But, as happened with many decisions, pragmatism won out. We agreed that many of the things that would improve the economy fastest were unglamorous measures, such as state fiscal relief and tax cuts for working families. Because the final bill was a mixture of hundreds of measures, many of which don’t come with Recovery Act signs or easily identifiable links to the Act, it has been hard for people to see what the Act has done. But it is precisely because it works through existing programs and spreads funds widely that it could get out quickly and reap large benefits.

Despite its pragmatism, the Recovery Act reflects many of the President’s top priorities for forward-looking investment. It invests more than $90 billion in clean energy, and so provides a down payment on the transition toward renewable energy and greater efficiency. The aid to state and local governments struggling with terrible budget difficulties is focused on health and education, and the education funds include incentives that are encouraging greater accountability and widespread quality improvements. And the middle class families who have gotten the short end of the stick
for the past decade are getting tax cuts, unemployment relief, and support that have helped keep food on the table and the mortgage paid as the economy slowly recovers.

Our policies for financial stabilization were similarly pragmatic. One of the first things the President-Elect did was work behind the scenes to ensure that Congress did not block the release of the second tranche of TARP funds. By December 2008, TARP and keeping financial institutions from collapsing were already deeply unpopular. But the President-Elect understood that it was irresponsible to be standing at the edge of a cliff without the safety net that the additional funds would provide. He also understood that a stress test of our financial system would only be believable and reassuring if the government could credibly commit to filling any identified capital shortfall.

The Financial Stability Plan was forged over the next few months. We opted for continued system-wide support through bond guarantees and joint credit provision plans with the Federal Reserve, but not an aggressive Federal takeover of troubled institutions. The stress test formed the centerpiece of the response. Implemented as scientifically as possible by the Federal Reserve and the other regulators, it was designed to give an honest accounting of the state of our largest financial institutions, and to determine what further actions were needed to ensure solvency and stability.

The Administration took a wide range of other recovery actions. In the automobile industry, the President demanded concessions from all stakeholders in return for giving this deeply troubled but vital sector the resources needed to restructure for the 21st-century. In the housing sector, the Administration directed $50 billion of TARP funds to a range of programs designed to keep responsible homeowners in their homes. We also worked with the Federal Reserve and the GSEs to bring down mortgage rates and encourage refinancing, to put much needed extra funds in the hands of
struggling families. The actions in particular sectors were designed to complement other actions, not to be a cure in and of themselves. More general recovery measures such as the Recovery Act and the Financial Stability Plan would play the key role in restoring demand.

**Beginning of Recovery**

These unprecedented, pragmatic policy actions have made an enormous difference. On the financial side, the stress test reassured investors and set off a wave of private capital-raising that was exactly what the system needed. Credit spreads -- an indicator of perceived risk -- have returned almost to pre-crisis levels. And while credit remains tight for consumers and small businesses, lending standards have stopped tightening and are gradually starting to loosen. Large firms are able to borrow at favorable rates and get the credit they need for investment and day-to-day operations. And the financial industry has paid back U.S. taxpayers at a rate few thought possible.

In the automobile industry, Chrysler and GM have emerged from bankruptcy; and in the first half of this year, all three of the American automakers operated at a profit for the first time in six years. Employment in motor vehicles and parts has increased by almost 80,000 since its low point in June 2009. On the housing front, mortgage rates are at historic lows and some 6 million homeowners have refinanced at these low rates over the past twenty months. More than 1.3 million homeowners have received trial mortgage modifications under the HAMP program. This is not yet as many as we hope to help, and it is concerning that a substantial fraction of trial modifications are not turning into permanent ones, but, it is slow, steady progress.

For the real economy, the turnaround has been dramatic. Real GDP went from
falling at an annual rate of nearly 6 percent at the end of 2008 and the beginning of 2009 to growing steadily over the past four quarters. Likewise, employment went from falling at a rate of 700,000 jobs per month to growing at the beginning of 2010. These swings from horrifying negatives to positives are a testament to the speed and effectiveness of the policy response.

But compared with the problems we face, the turnaround has been insufficient. Though the unemployment rate has come down six-tenths of a percentage point, it is still 9½ percent -- an unacceptable level by any metric. Real GDP is growing, but not fast enough to create the hundreds of thousands of jobs each month needed to return employment to its pre-crisis level.

It is clear that the Recovery Act has played a large role in the turnaround in GDP and employment. In a report that Jared Bernstein and I issued during the transition, we estimated that by the end of 2010, a stimulus package like the Recovery Act would raise real GDP by about 3½ percent and employment by about 3½ million jobs, relative to what otherwise would have occurred. As the Council of Economic Advisers has documented in a series of reports to Congress, there is widespread agreement that the Act is broadly on track to meet these milestones. The nonpartisan Congressional Budget Office, CEA’s own estimates, and estimates from a range of respected private sector analysts suggest that the Act has already raised employment by approximately two to three million jobs relative to what it otherwise would have been. These estimates are also consistent with the direct job-creation reports filed by a subset of recipients of Recovery Act funds.

What the Act hasn’t done is prevent unemployment from going above 8 percent, something else that Jared and I projected it would do. The reason that prediction was so
far off is implicit in much of what I have been saying this afternoon. An estimate of what the economy will look like if a policy is adopted contains two components: a forecast of what would happen in the absence of the policy, and an estimate of the effect of the policy. As I’ve described, our estimates of the impact of the Recovery Act have proven quite accurate. But we, like virtually every other forecaster, failed to anticipate just how violent the recession would be in the absence of policy, and the degree to which the usual relationship between GDP and unemployment would break down.

By February 2009, before the Recovery Act was passed, unemployment was already over 8 percent; and by June, before the Recovery Act could have had much of an impact, it was 9½ percent. That is, our projection turned out to be wrong even before the Recovery Act had a chance to get off the ground, which is about as clear-cut evidence as one could imagine that the problem was in our assessment of the baseline, and not in the effects of the Act.

Now, the report was very clear that there was great deal of uncertainty about the no-policy baseline, and noted that some private forecasters anticipated unemployment as high as 11 percent in the absence of action. Yet the chart we presented did not show that uncertainty, and so allowed critics to take it out of context, and falsely claim that the spike in unemployment early in 2009 is somehow evidence that the Recovery Act didn’t work. If I were doing it again, I would not focus on the policy and no-policy projections. Instead, I would emphasize the important part of the analysis, which was the estimated impact of the Recovery Act -- a part that has been broadly accepted and corroborated.

But I certainly don’t regret having done the study. During the Transition, the little paper helped to build the case both internally and externally for a stimulus of
unprecedented proportions. Only in retrospect does saying that our best guess was that unemployment would rise to 9½ percent without aggressive action look rosy. At the time, it was scary as hell. It helped convince both our team and the Congress to go for as big a program as possible. And laying down a firm marker that the legislation had to save or create 3½ million jobs helped prevent the package from shrinking greatly during Congressional negotiations.

More generally, I will never regret trying to put analysis and quantitative estimates behind our policy recommendations. Macroeconomic policymaking is incredibly hard. If policymakers, scholars, and private analysts can’t discuss design issues, impact estimates, and baseline forecasts, I can’t imagine how we will ever manage to get policy remotely close to right. We need more numbers, more policy papers, more competing analyses, not fewer.

**Unfinished Business**

The thing I do regret is that there is still so much unfinished business. I would give anything if unemployment really were down to 8 percent or lower. The American people are suffering terribly. Policymakers need to find the will to take the steps needed to finish the job and return the American economy to full health, and no one should be blocking essential actions for partisan reasons.

That the economy remains as troubled as it is despite aggressive action reflects the fact that this has not been a normal recession. Just as the downturn was uncharted territory, so is its recovery. Because the recession began with interest rates at low levels, we can’t just have interest rates fall and housing, investment, and other interest-sensitive sectors come roaring back as they typically do in recoveries. Rather, because of
overbuilding in housing and commercial real estate during the bubble, construction is likely to remain subdued for some time.

Indeed, the economy faces numerous headwinds not normally present in recoveries. In addition to the oversupply of housing, households have been through a searing crisis that is likely to make them more prudent for years to come -- in much the same way that the Great Depression gave rise to a generation of high savers and cautious investors. Likewise, the decline in wealth is likely to lead to increased saving to replenish retirement accounts and pay off debt. Such saving and prudence are healthy for the economy in the long run, but in the near term they mean that consumer spending will likely be less robust than before the crisis.

State and local governments have also been hit particularly hard by this recession. Their tax revenues are notoriously cyclically sensitive and the decline in house prices has further impacted property tax revenue. State and local budget-cutting reduced GDP growth over the past year and is likely to continue to be a drag on GDP going forward. And while the private sector has added jobs every month so far this year, state and local governments have reduced employment by 169,000 since last December.

The Administration understood that the recovery would be difficult precisely because many of the usual drivers of growth were missing. That is why we included $266 billion of additional temporary recovery measures in our 2011 budget. Congress has taken some important steps, including extending unemployment insurance, allocating funds to prevent teacher layoffs, and passing the HIRE tax credit to encourage firms to hire unemployed workers. However, it has enacted substantially less than what the Administration proposed. As a result, the economy has not had all the additional support that it needed.
Early in the spring, there was hope that new drivers of growth, particularly investment and exports, would substantially compensate for some of the headwinds. Business investment in equipment and software rose at an annual rate of more than 20 percent in the first two quarters of 2010 and exports grew rapidly. Unfortunately, both those sources of demand have taken a hit in recent months. The Greek debt crisis and anemic growth in much of Europe contributed to a decline in both stock prices and confidence, and to a rise in the value of the dollar. The latest data on durable goods shipments suggest that equipment investment is growing only modestly, and last Friday's GDP revision for the second quarter indicates that our exports are growing substantially less rapidly than our imports.

The result of these powerful headwinds and recent developments is that the United States still faces a substantial shortfall of aggregate demand. GDP by most estimates is still about 6 percent below trend. This shortfall in demand, rather than structural changes in the composition of our output or a mismatch between worker skills and jobs, is the fundamental cause of our continued high unemployment. Firms aren’t producing and hiring at normal levels simply because there isn’t demand for a normal level of output.

In the long run, the transition to a higher-saving, higher-investment, higher-export economy can restore demand, and hence output and employment to normal. But at the moment, as the recent data emphasize, that process is operating painfully slowly.

The pressing question, then, is what can be done to increase demand and bring unemployment down more quickly. Failing to do so would cause millions of workers to suffer unnecessarily. It also runs the risk of making high unemployment permanent as workers’ skills deteriorate with lack of use and their labor force attachment weakens as
hope of another job fades.

Policymakers should certainly try innovative, low-cost policies. The President’s National Export Initiative is an excellent example. Given the fixed costs associated with exporting to a new market, small investments in information provision and commercial diplomacy could bring about a substantial increase in our exports. Likewise, responsible new trade agreements can help to open markets and increase trade in both the short run and over time.

Policymakers should also take sensible actions to increase confidence. While some in the business community talk about regulatory uncertainty as one reason they are cautious about hiring and investing, I suspect that uncertainty about future sales is a much larger determinant of firms’ actions. We can, however, do more to highlight and codify our pragmatic approach to regulation. As OIRA Administrator Cass Sunstein detailed in his recent Congressional testimony, the estimated net benefits (that is, the benefits minus the costs) of the Obama Administration’s regulatory actions during its first year far surpass those of the first year of the two previous administrations. For the health of the economy, we should continue and trumpet this prudent regulatory approach.

While we would all love to find the inexpensive magic bullet to our economic troubles, the truth is, it almost surely doesn’t exist. The only surefire ways for policymakers to substantially increase aggregate demand in the short run are for the government to spend more and tax less. In my view, we should be moving forward on both fronts.

The measures should be chosen carefully so that they have the highest bang for the buck possible. The state fiscal relief to prevent teacher layoffs that was just passed is
an excellent measure. The small business tax cut and lending bill is also likely to have excellent job creation effects and should be passed. As the President said in his Rose Garden remarks on Monday, there are a range of other sensible measures that deserve consideration, such as tax cuts for struggling middle class families and businesses willing to invest in the United States, and much needed investments in infrastructure. The key is that we need to take action and we need to do it quickly.

Given our long-run fiscal challenges, any additional support should be done in a responsible way. It makes sense to view some temporary support as emergency measures. Most actions, however, should be paid for over time with future spending cuts or appropriate future revenues. But concern about the deficit cannot be an excuse for leaving unemployed workers to suffer. We have tools that would bring unemployment down without worsening our long-run fiscal outlook, if we can only find the will and the wisdom to use them.

**Concluding Thoughts**

On election night almost two years ago, my husband and I did a most uncharacteristic thing. We’d had friends over to watch the returns and had celebrated the Obama victory with a sedate glass of champagne around 8:00 California time. By 8:30 our friends had gone home and we were left wondering what to do with our joy. I finally declared that I needed to be part of a crowd.

So, we hopped in the car and followed the sounds of honking horns into downtown Oakland. We stopped at the first street corner where people were gathering. There we were, two middle-aged economists, dancing in the street with the Oakland teenagers. Like so many that evening, we were celebrating the promise of a new
President who shared our values and our dreams for a better America.

What we didn’t realize that November evening was just how large an economic nightmare lay before the new President and the American people. It would require actions few would have contemplated that evening just to keep the unemployment rate from rising beyond low double digits.

It has been an honor beyond any I could have imagined to be part of the team President Obama selected to help diagnose the situation and craft the policy response. I am proud of the recovery actions we have taken. I believe they have made the difference between a second Great Depression and a slow but genuine recovery. And the passage of health care reform and financial regulatory reform are accomplishments that will be with us long after the recession is over. They will ensure that our children inherit a future in which families can afford the health care they need and where workers and firms never again have to face the specter of a cataclysmic economic meltdown.

But I desperately hope that policymakers on both sides of the aisle will find a way to finish the job of economic recovery. We have already navigated through miles of difficult, uncharted waters. Surely we can go the rest of the way. The American people deserve nothing less.