Introduction
In my nearly eight years as president of the Federal Reserve Bank of Cleveland, I can't recall a policy action that has received as much attention and rigorous debate as the decision made at the Federal Open Market Committee meeting on November 3. I am referring, of course, to the decision to purchase an additional $600 billion of U.S. Treasury securities by the middle of next year—a decision I voted for and continue to endorse.

In my remarks today, I will discuss how the recovery is unfolding, focusing on the stubborn nature of high unemployment and my concern about our uncomfortably low rate of inflation. I will then explain why I supported the decision to purchase additional Treasury securities.

The State of the Recovery
Let me begin by telling you something you are already painfully aware of—the economy has been through its worst recession since the Great Depression in the 1930s. The downward spiral began with the housing crisis, which led to the financial crisis. Financial markets froze, production collapsed, and employment plummeted.

The Federal Reserve responded aggressively and creatively to the crisis. The Federal Open Market Committee, the Federal Reserve's monetary policymaking body, quickly reduced short-term interest rates to near zero and helped lower long-term rates by purchasing approximately $1.7 trillion worth of mortgage-backed securities, government agency debt, and Treasury securities.

Overall, this resulted in what we at the Federal Reserve refer to as "an extremely accommodative monetary policy stance." I believe this stance has been effective. We avoided the worst possible scenario—a repeat of the Great Depression worldwide—yet many challenges remain.

Today, the economy is growing and has officially emerged from the recession, but the recovery has been exceptionally gradual. Research indicates that when recessions are preceded by financial crises, the downturn is more severe and the recovery period takes longer than normal. In fact, this has been the slowest economic recovery we have experienced in the post-World War II era. For recessions since 1948, the average length of time it took for real GDP to return to its pre-recession peak level was just over 12 months. We are already 33 months into this business cycle and in the third quarter, real GDP still remained nearly a full percentage point below its 2007 peak.
In our case, the remnants of the financial crisis are still holding back economic progress. Households have become more cautious in this environment. Consumers have sharply cut back on spending, and they continue to lower their debt burdens by saving more. And, of course, housing markets remain stressed. Finally, in the face of weak demand companies are still hesitant about adding people back onto their payrolls.

Although the economy is growing, it just does not feel like much of a recovery. Our economy is digging itself out of a deep hole and continues to perform far below its potential. In fact, based on real GDP estimates that were revised in July, we now know that output growth for 2007, 2008 and last year was actually worse than previously reported. In other words, the economy began its recovery deeper in the hole - and has more ground to make up than everyone thought earlier this year.

Nowhere is the depth of this hole more evident than in labor markets. Right now, nearly 15 million Americans are unemployed and the unemployment rate stands at 9.6 percent. While it was encouraging to hear that the economy added another 150,000 jobs in October, we still have a long way to go just to reach 2007 employment levels. In normal times, about 150,000 new workers enter the labor force every month. That means to even start making a serious dent in the unemployment rate, we would need to add substantially more than 150,000 jobs every month.

Troubling as these numbers are, what is even more troubling is how long people are remaining out of work. About half the people who are unemployed have been out of work for at least six months. In another severe recession, back in 1982, the average duration of unemployment peaked at 21 weeks, but today the average duration is 34 weeks. These long spells of unemployment can lead to some unfortunate consequences. Labor economists have repeatedly shown that the longer people are out of work, the harder it is for them to find a job.

Research also tells us that workers lose valuable skills during long spells of unemployment that are not recovered until many years later. When people do return to work after a downturn, they are generally most productive if they can go back to the same jobs they had. But in today's economy, that has not been the experience for many people. Employers made deep cuts in their workforce during the recession, and the rate of new job openings has been meager. And some people returning to work are forced to take jobs that pay less or aren't as well-matched to their skills as the ones they have lost. When this erosion of human capital is repeated millions of times over, it can dampen long-term economic productivity, which has adverse implications for our future living standards.

Academics have been debating about whether the deep extent of the recession has fundamentally changed the structure of our country's labor markets, for example through a mismatch between the types of skills employers seek versus the skills the labor force actually has to offer. Some economists have argued that the deep recession has significantly raised the so-called natural rate of unemployment—that is, the unemployment rate we would see when the economy is firing on all cylinders. They say monetary policy is not effective for addressing a large change in the natural rate of unemployment, which is essentially structural in nature. So as a policymaker, I need to understand how much of the sharp rise in unemployment has been driven by cyclical versus structural factors.

Economists at my Bank have studied this question, and they conclude that most of the rise in unemployment our country has experienced is...
If there has been any rise in the natural rate of unemployment, it is likely to be small. Put another way, the most important reason employers are hiring so slowly is that their business activity has been slow to pick up, not because there has been a sudden mismatch between worker skills and available jobs.

The Federal Reserve has a dual mandate from Congress to pursue conditions that will lead to maximum employment and price stability. It is certainly clear that our economy is not yet close to maximum employment, and because I expect hiring to strengthen only gradually, the unemployment rate is likely to remain elevated for quite some time. In fact, I do not expect it to fall below 8 percent before 2013.

The Significance of Today's Very Low Rate of Inflation

Let me now turn to the second part of our dual mandate - price stability. In my view, price stability is an inflation rate running at 2 percent over the longer term.

Today, there is more uncertainty about the direction of the price level than at any time I can remember. Some think we are set to see inflation take off, while others worry about the risks of deflation. Given the range of views, I'd like to walk you through some of my thinking about the inflation outlook.

When I consider where inflation is headed, I focus on three elements: core inflation, unit labor costs, and inflation expectations. I'll comment on each of those elements and explain how they fit into my inflation outlook.

First is core inflation, which today stands at record lows. I rely on core inflation measures because they are better predictors of future inflation than the CPI itself. A critical challenge in gauging where inflation stands now is to get beyond the noise that is always present in the CPI data and look at the underlying core inflation trends. The most widely referenced core inflation measure, known as the core CPI, simply excludes food and energy prices.

The October CPI data became available yesterday. They show that the core CPI was flat last month, and that the 12-month percent change in the core CPI fell to a record low of 0.6 percent. When you really drill down into the numbers, as my staff and I always do, you will find that nearly 40 percent of the items in the consumer's market basket showed price declines, while just 12 percent of the consumers' market basket showed price increases above 3 percent.

Of course, in any given month a component other than food or energy may have moved in a way that is not connected to the underlying inflation trend. For that reason, the Federal Reserve Bank of Cleveland publishes what we call the median CPI, which eliminates much more of the noise in the price data than the core CPI. The median CPI also does a particularly good job of predicting the future trend in inflation than the CPI itself. I am not the only one who relies on the median CPI, because it is one of the most popular features on my Bank's website. Currently, the median CPI is at a record low of 0.5 percent on a 12-month basis.

The second element that shows the direction of inflation is unit labor costs, or output per labor hour. It consists of two components: labor compensation and labor productivity. While higher productivity is always good for long-run prosperity, it is also critical for the near-term inflation outlook. Higher rates of productivity growth reduce the amount of labor needed to produce a given amount of goods and services. In today's labor market, wages are likely to be restrained by...
the unemployment situation - labor supply far exceeds labor demand. Combining rising productivity with restrained wages causes the cost of producing goods and services to fall. In fact, the data show that over the past year, unit labor costs have fallen by 2 percent.

The third element in assessing the direction of inflation is inflation expectations. This element is especially helpful for forecasting longer-term inflation. For some time, we at the Federal Reserve Bank of Cleveland have been assessing inflation expectation measures drawn from the broader financial markets. In the latest release of our inflation expectations model—which we developed in collaboration with Peter Ritchken here at Case— inflation expectations remain below 1.5 percent for 10 years, and below 2 percent as far as the eye can see.

Given the momentum toward lower inflation rates and sizable amounts of labor market slack already evident in today's pricing decisions, I expect core inflation to remain quite subdued through 2013. Although I do not expect an outright decline in the general level of prices, with demand in the economy still weak and unemployment so high, further disinflation remains a risk to my outlook. I take this risk seriously, because in periods of significant economic slack, very low inflation risks tipping into deflation. Admittedly, deflation is rare in the modern experience of industrialized economies. Nevertheless, Japan's economy has been struggling for several decades, and scholars point to deflation as a root cause.

So at least over the next few years, my outlook leaves the economy falling short in both parts of the Federal Reserve's dual mandate of price stability and maximum employment. At the same time, it is important to recognize that all forecasts come with risks for some surprises both good and bad. There is plenty of room in my projections to accommodate good surprises, but relatively little room to act against negative shocks to either output or inflation at this stage of the recovery.

Why I Supported the Decision to Purchase Additional Treasury Securities

With this backdrop, the question I faced heading into the last FOMC meeting was whether further monetary stimulus could improve the situation, and improve it with a reasonable ratio of benefit to cost. In other words, could a more expansionary monetary policy ease financial market conditions in ways that would promote some additional growth in spending, output, incomes, and employment? And could this extra boost, modest though it might be, also act to counter any lingering disinflationary pressures? An important consideration for me was not just the potential costs of taking action, but also the risk of doing nothing.

Despite the prior actions of the FOMC up to that point, I concluded that there were enough negative risks to growth and disinflation in my outlook to merit taking steps that would protect the economy from those risks. Of course, since the federal funds rate was essentially at zero, further accommodation would need to come through another round of large-scale asset purchases, much like the one the Committee first initiated in 2009.

As I contemplated the potential benefits of further large-scale purchases of Treasury securities, I recognized several potential costs as well. Let me briefly describe two, and how I assessed them.

First, I considered the potential for an undesired increase in inflation and inflation expectations if the public came to question the Federal
Reserve's ability to manage our balance sheet in support of price stability. This risk has been recognized for some time, so the FOMC has spent much of the past year preparing for an orderly exit from our accommodative stance. Without much fanfare, we have developed tools that we expect to be very effective when the time comes to use them. If we do begin to see the buildup of undesirable inflationary pressures, I am confident that the FOMC is well prepared to counteract them. Consequently, I am not overly concerned that inflation will accelerate beyond my price stability objective of 2 percent. The FOMC has experience dealing with inflation above our objectives, but we have no experience dealing with outright deflation, and I'd like to keep it that way.

The second potential cost I considered is that there could be unintended consequences of these large-scale Treasury purchases, such as asset price bubbles. After all, we don't have a great deal of experience with this policy tool. Consequently, I wanted to be in a situation that enabled the Committee to regularly review incoming economic and financial data, update our outlook, and make adjustments to our purchase program if needed.

In the weeks before this month’s FOMC meeting, markets were already anticipating further policy accommodation. We saw evidence of the likely effect of additional purchases as investors began to move toward more attractive opportunities in assets other than Treasuries, such as stocks and bonds. These reactions are part of the process by which an easing of financial conditions channels more funds to borrowers who will then use them to purchase goods and services, hire people, and generally spur economic growth. I found these developments encouraging.

Putting it all together, my choice was clear. I voted to support additional asset purchases, and I am encouraged by some of the results so far. For example, inflation expectations moved closer to my longer-term inflation objective in anticipation of our announcement, and they have stayed that way. I think our policy action offers the right kind of insurance that the Federal Reserve’s monetary policy will support the economic expansion while stabilizing inflation and inflation expectations consistent with our price stability mandate.

**Conclusion**

In conclusion, I've studied the financial and economic situation carefully to determine the right policy actions to fulfill our dual mandate of price stability and maximum employment. I will continue to do so, constantly evaluating the costs, benefits, and results along the way.

At our meetings, FOMC members thoroughly debate policy options and sometimes differ in our opinions, but our commitment to the dual mandate is shared. We know that our economy faces a multitude of challenges, and a full recovery will take some time. We also know that the Federal Reserve cannot solve all of the economy's problems on its own. But responding to inflationary and disinflationary pressures gets to the heart of what a central bank can and must do. The main variable the Federal Reserve can control over time is the price level. Ensuring price stability is our job. My belief is that by promoting price stability, the Federal Reserve is following the best course for supporting the economic recovery.

2. "U.S. Inflation: Current Median CPI," Federal Reserve Bank of Cleveland web page. Available at: 
