It's a pleasure to be with you today to discuss the economic outlook. It's a special pleasure to visit with my old friend, Jim Culberson. Those of you who know Jim, and I suspect that's right many of you, probably know him best as an outstanding local banker, and as the former chairman of the American Bankers Association in Washington, the foremost trade organization in the banking industry. Jim also served on the board of directors of our Charlotte branch, and he then went on to serve on the board of our head office in Richmond. We at the Richmond Fed greatly appreciate his service to the country in these roles. And I can assure you that public service was Jim's constant focus, because he took very seriously the proposition that the purpose of the banking system is to meet public needs. So thank you, Jim, for your service, and thank you for inviting me down to Asheboro.

I will be talking today about the outlook for the economy, but before I do, I should make clear that the views expressed are my own and should not be attributed to any other person in the Federal Reserve System.1

Let's start with a little background. For several years now, ever since the Great Recession of 2008 and 2009, most forecasts of overall economic activity have followed a common script. They essentially say that while growth has been modest recently, the economy is likely to pick up speed in the next couple of quarters when the headwinds that have been temporarily restraining growth diminish. My own forecasts have followed this script (at least until earlier this year), as have those of a broad range of forecasters who are polled for a publication known as the Blue Chip survey. Despite these optimistic forecasts, the reality has been more modest. Real GDP — our broadest measure of overall economic activity — grew by 2.0 percent in 2011, 2.0 percent in 2012, and it looks like GDP growth this year will again be 2.0 percent.

And yet, if you look at the latest compilation, you see that many forecasters are doing it again. The latest Blue Chip projection, for example, is for 2.8 percent growth in real GDP next year. As you may have guessed, I will share a different view in my remarks today. A growing number of economists have taken on board the disappointing forecasting record of the last few years and have come to believe that growth is more likely than not to remain low in the next few years. In fact, some have become quite pessimistic about U.S. growth prospects and have gone so far as to use the word “stagnation.” Personally, I don't think that's warranted. We are certainly living in a period in which improvements in standards of living are harder to come by. Yet new economic opportunities do keep emerging, and innovations are being implemented, although at a more temperate pace than in the past. Even though my near-term forecast is closer to 2 percent than to
2.8, I also see room for optimism regarding our fundamental prospects. So don't count me among the stagnationists.

A little more background: Before the Great Recession, we came to enjoy a period known as the Great Moderation. From 1983 to 2007, real GDP grew at an average annual rate of 3.3 percent. Over that 24-year period, we experienced only two short, shallow recessions that together lasted only five quarters. Real personal income kept pace with GDP, also growing at a 3.3 percent annual rate. And consumer spending advanced even more rapidly than income, growing at a 3.6 percent annual rate.

Part of the reason consumer spending was able to grow more rapidly than income over that period was the rise in household wealth. Stock prices, bond prices and housing prices all increased significantly during the Great Moderation. Another reason for the divergence was the increase in credit availability for most consumers. For example, the ratio of credit card debt to personal income rose from 2.4 percent in 1983 to 8.0 percent in 2007.*

During the Great Recession, GDP fell by 4.3 percent over a six-quarter interval, but other indicators document even greater hardship. Payroll employment fell by 8.7 million jobs in the recession and its immediate aftermath. The unemployment rate, which was below 5 percent in 2007, rose to 10 percent in October 2009. Real personal income fell by 3.1 percent from December 2007 to July 2009. The value of household holdings of stocks and mutual fund shares fell by $5 trillion, and the value of household equity in real estate fell by $3.9 trillion. The scale and scope of loss of income and wealth experienced by American consumers was far greater than anything seen in the previous 20 years.

Given that experience, lenders are bound to re-evaluate the riskiness associated with extending credit to a typical household. Indeed, consumers themselves appear to be re-evaluating the riskiness associated with indebtedness, no doubt reflecting a sense that their income and asset returns may be substantially riskier than they had come to believe during the Great Moderation. Under these conditions, it's no surprise that credit is no longer available on the same terms. And it's no surprise that consumers have been paying off debt and building up savings in order to restore some sense of balance to their household finances.

These developments have led consumers to be somewhat cautious in their spending behavior. Over the last three years, real consumer spending has increased at an annual rate of 2.2 percent. Given the traumatic events in past few years, it strikes me as quite likely that consumer caution is not a temporary headwind and is likely to be very persistent.

Businesses also appear to be quite cautious about their investment and hiring plans. A widely followed index of small business optimism averaged just over 100 during the Great Moderation and fell sharply during the recession. Since then it has only partially recovered and was 91.6 last month. Interestingly, when asked about the single most important problem they face, the most frequent answer in the latest survey was “government regulations and red tape.” This result accords with reports that I have been hearing from business contacts for several years now. There appears to have been a substantial increase in the pace of regulatory change, which in itself seems to be limiting investment and hiring. Moreover, it appears that there is also greater
uncertainty about the exact requirements of current regulations and the likely impacts of new regulations that are coming along. That uncertainty provides an additional reason for firms to postpone expansion plans.

Adding to the uncertainty is the ongoing fiscal drama in Washington. Even with last January's tax increases and with the sequester holding down federal spending, the deficit was about 4 percent of GDP for the 2013 fiscal year. That level is unsustainably high over the long run. Moreover, if you take into account the rising costs of medical entitlements and Social Security, it's clear that current federal budget plans are unsustainable over the long run. So at some point we can expect some combination of a lower trajectory of federal spending than is given by current law, or higher taxes. In the meantime, businesses and households are unsure about how their tax liabilities will evolve over time, and firms doing business with the federal government are uncertain about their prospects as well. Although it's hard to quantify, I believe this budget uncertainty is weighing on business hiring and investment decisions.

So far I've mentioned consumer spending and business investment, which together account for about four-fifths of the economy. Residential investment is one area in which we have seen strong growth. Last year, real residential investment increased by more than 15 percent, and so far this year it has increased almost 14 percent at an annual rate. Despite that, however, housing market indicators, such as housing starts and new home sales, remain well below levels that might be considered normal, so there seems to be room for residential investment to continue to grow. But since this is only 3 percent of GDP, it has only a marginal effect on the overall outlook.

Government spending has been weak recently, and my guess is that it will make little, if any, contribution to GDP growth next year. And that leaves net exports, which for various reasons are also likely to make little contribution to GDP growth next year. Adding up all these categories of spending yields a forecast for GDP growth next year of just a little above 2 percent — not much different from what we've seen for the last three years.

That's my forecast for next year, but I believe it's important to look at the longer-run trend as well. To do that, it's useful to do a little economic arithmetic — I promise this will be relatively painless. Real GDP is the total output of goods and services in the economy. We can break down real GDP growth into two components. One is growth in the number of workers. The other is growth in the amount of output per worker, also known as productivity. Real GDP growth is just the sum of productivity growth and the growth in the number of workers. It turns out that both of these components have slowed since the Great Moderation.

Starting first with productivity: From 1983 to 2000, productivity grew at a 1.8 percent annual rate. But toward the end of the Great Moderation, productivity growth slowed and over the last three years, productivity has increased at a very modest 0.9 percent annual rate. There are two ways to look at this, of course. The first is pessimistic — productivity growth is half of what it was during the Great Moderation. The second perspective — the glass-half-full story — is that productivity growth is continuing. This is important because productivity growth ultimately drives the growth in real wages and incomes.
Looking ahead, forecasting trends in productivity growth is exceedingly difficult. Having said that, it's hard to see why productivity growth would improve dramatically; there's no sign of a major surge of technical innovation in the pipeline, significant educational improvement or substantial deregulation — the kind of developments that would lead to major efficiency gains. By the same token, it's hard to see why productivity growth would fall any further. The most likely outcome, in my view, is more of the same, and thus my outlook is that productivity growth will be about 1 percent for a considerable period.

Employment growth also has slowed since the Great Moderation. From 1983 to 2000, employment increased at a 1.8 percent annual rate (as estimated in the survey of households). Over the last four years, employment growth has been 0.9 percent per year — so employment growth has fallen by half. An imminent acceleration in employment does not seem likely to me. Population growth is now only 0.8 percent per year. Moreover, much of that growth is in older workers who are near traditional retirement benchmarks. The so-called “prime working age population” — those aged 25 to 54 — is barely growing at all. My longer-run view is that the growth rate of employment is likely to equal the growth rate of population, which is 0.8 percent per year.

In the short run, it is possible that employment growth will be above 0.8 percent as we continue to recover from the recession. But we should also recognize some impediments to rapid employment growth. When the Affordable Care Act is fully implemented, it is likely to add to the cost of hiring an additional worker for many businesses, and firms are still trying to figure out just how costly that will be. Also, I've been struck by the large number of accounts I've heard recently about firms having difficulty finding workers with the appropriate skills, in many cases constraining production.

To summarize then, I think that in the short run, we are likely to see real GDP growth of 2 percent, or perhaps a bit higher. Over the longer run, we are likely to see growth average a bit below 2 percent.

Before I wrap things up, I'd like to make some brief observations on inflation and monetary policy. First, it's important to recognize that inflation has been well-behaved over the last 20 years. Since 1993, inflation has averaged 1.92 percent, which is remarkably close to the Federal Open Market Committee's goal of 2 percent. Second, we've seen some fluctuations in inflation over that time period, but they have all proven to be transitory. For example, inflation averaged 2.8 percent over the three years ending in December 2007. I mention this because many people have noticed that over the last 12 months inflation has only averaged 0.9 percent. My sense is that inflation will move back toward 2 percent over the next year or two, in part because measures of expected inflation remain well contained. This is not a certainty, however, and I believe the FOMC will want to watch this closely.

And that brings us to monetary policy, which has been particularly challenging of late. As you may recall, the Fed reduced its target for the federal funds rate to essentially zero at the end of 2008. Given the state of the economy, that was the appropriate response of monetary policy. But that brings us face to face with what economists refer to as the zero lower bound. This refers to the fact that it's generally not practical to reduce interest rates below zero. At times, we might
wish we could, though, because the interest rate that is relevant for most economic decisions is
the real, or inflation-adjusted, interest rate — the nominal interest rate minus the expected rate of
inflation.

We should be clear that an interest rate near zero does not mean the Fed is paralyzed. By
purchasing assets, we can increase the supply of monetary assets to the banking system, which in
some circumstances can have a stimulative effect. The Fed has purchased significant quantities
of assets since the end of 2008. The size of our balance sheet has gone from $2.2 trillion to
around $3.9 trillion, and it continues to increase by about $85 billion per month.

The key issue, in my view, is the extent to which the benefits of further monetary stimulus are
likely to outweigh the costs. Economic growth trends currently appear to be driven mainly by
population growth and productivity growth, in which case monetary stimulus will only have
limited and transitory effects. But further stimulus does increase the size of our balance sheet and
correspondingly increases the risks associated with the “exit process” when it becomes time to
withdraw stimulus. This is why I have not been in favor of the current asset purchase program.

In conclusion, I’d like to return to the theme with which I began. Yes, 2 percent growth is
disappointing relative to our experience during the period of the Great Moderation, and yes,
growth may continue at a rate that is slower than in the past. But productivity is rising, incomes
are growing, and innovation is occurring. Our institutions of higher learning are worldwide
leaders in research and education, and they continue to attract exceptional students from abroad.
Our markets remain flexible and resilient. The public policy problems we face may be difficult,
but they are certainly not insoluble. Consequently, when I take a broad view, I am fundamentally
optimistic about our future.

*An earlier version of this speech incorrectly stated the ratio of credit card debt to personal
income in 2007 as 5.5 percent. The text has been updated as of February 6, 2014 with the
correct number, 8.0 percent.

1 I would like to thank Roy Webb for assistance in preparing these remarks.