



Crisis, Recession, and Recovery: 2007–16

Dennis Lockhart
President and Chief Executive Officer
Federal Reserve Bank of Atlanta

Huntsville Rotary Club
Von Braun Center
Huntsville, Alabama

February 14, 2017



- Atlanta Fed President and CEO Dennis Lockhart, in a February 14 speech at the Huntsville, Alabama, Rotary Club, looks at the economic story of the past decade.
- Lockhart says the complete narrative of the past 10 years involves a story of slow, but satisfactory, cyclical recovery.
- Lockhart states that some underlying fundamentals, including productivity, business investment, and labor force trends, have been restraining the pace of growth.
- Lockhart notes that many close observers of the economy have lowered medium- and longer-term expectations for long-run potential GDP growth, actual GDP growth in the nearer term, and the neutral policy rate setting.
- Lockhart continues to expect a gradual pace of interest rate increases.
- Lockhart believes the economy today is well positioned for moderate growth and steadily improving conditions.



It's a pleasure to be back in Huntsville. As I have traveled the Southeast as president of the Atlanta Fed, I've come to realize the uniqueness of Huntsville in Alabama and in the region. In many respects, Huntsville is one of a kind. Huntsville has an enviable economic position, and I salute you for that.

Huntsville and its environs have been well represented over the years in Federal Reserve citizen governance. Pam Hudson, CEO of Crestwood Medical Center, is a current director and chair of the board of our Birmingham Branch. Tom Stanton, CEO of Adtran, preceded Pam as chair and served for six years until 2014. Hundley Batts and Bobby Bradley served as directors before Pam and Tom. And Larkin Martin, of Decatur, has done everything your central bank could ask of her and more: Birmingham Branch director, Agriculture Advisory Council, chair of the Federal Reserve Bank of Atlanta, and chair of the conference of all the chairs. She also hired me just before the financial crisis. Thank you, Larkin.

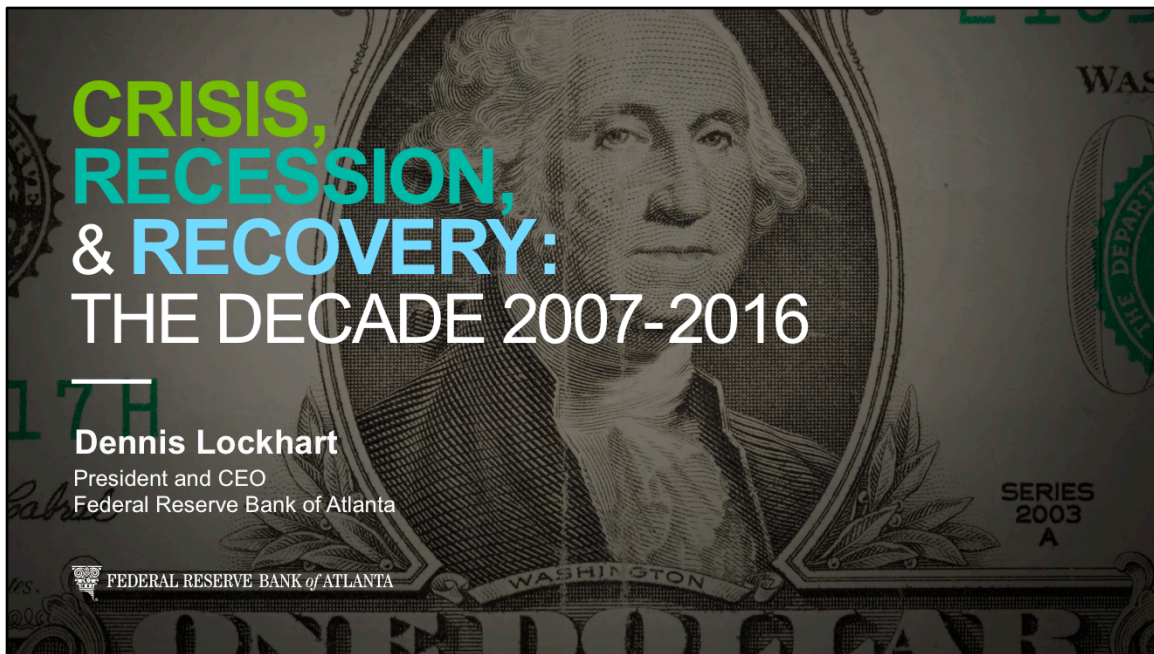
(Continued, next page)



I also want to introduce Lesley McClure, our regional executive for Alabama working from Birmingham. Lesley's job is to listen to contacts all over the state about how you are experiencing the economy.

Over the 10 years I've been a Fed policymaker, I seem never to have avoided the Chinese curse "may you live in interesting times." The current juncture is, well, interesting. Over the last several weeks, since the election, optimism about our economic prospects has increased. Many in the business community are expecting faster growth resulting from fiscal stimulus, infrastructure investment, deregulation, and tax reform. At the same time, anecdotal input from contacts across the Southeast reflects a "wait and see" posture as regards capital investment for growth.

(Continued, next page)

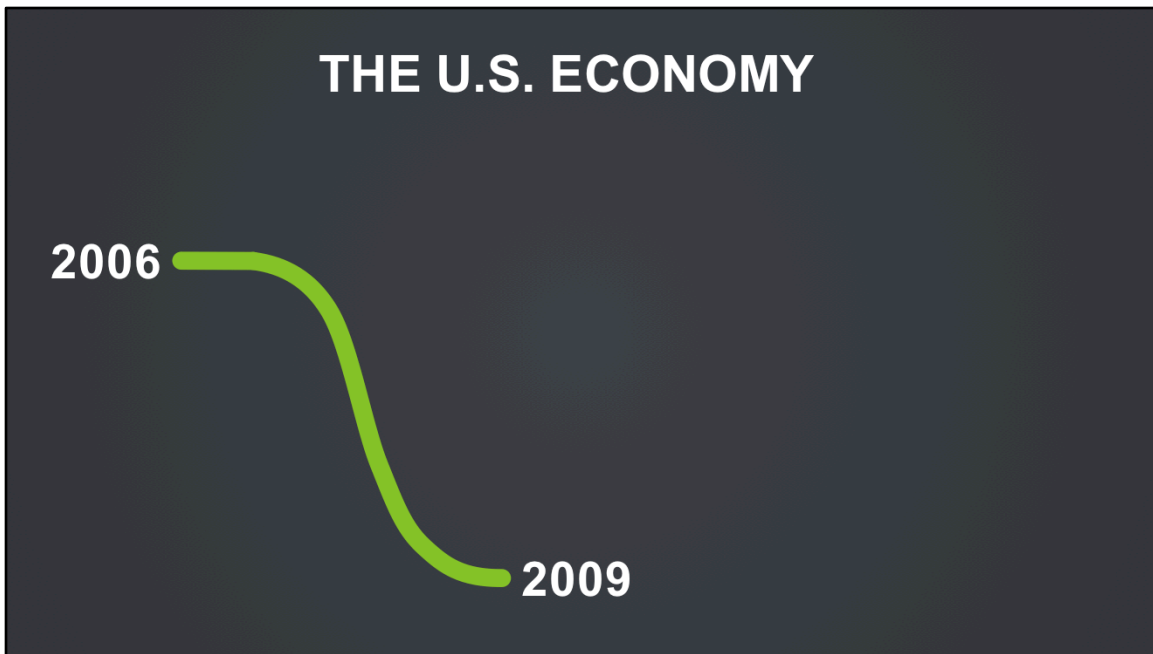


In a few days, I will be stepping down as Atlanta Fed president almost 10 years to the day of my arrival. Today I want to provide some perspective on the current situation by looking back at how we arrived at this particular economic moment. With that as background, I'll offer my views on the near- and medium-term outlook and comment on how our national economy is positioned for the future. How the economy is positioned, realistically, for the future is a pivotal question, it seems to me.

This is a good time for my usual disclaimer. I'll present only my personal views. I'm not speaking for the Federal Reserve or the Federal Open Market Committee.

Let's go back a decade to the time just after Larkin Martin's fateful decision to hire me. There was plenty of drama early in the decade of my tenure. There was the financial crisis—it's fair to say "panic"—in 2007 and 2008. This turbulent period involved bank failures, bailouts, interventions to stabilize markets, government capital forced on banks, and understandable political and public outrage.

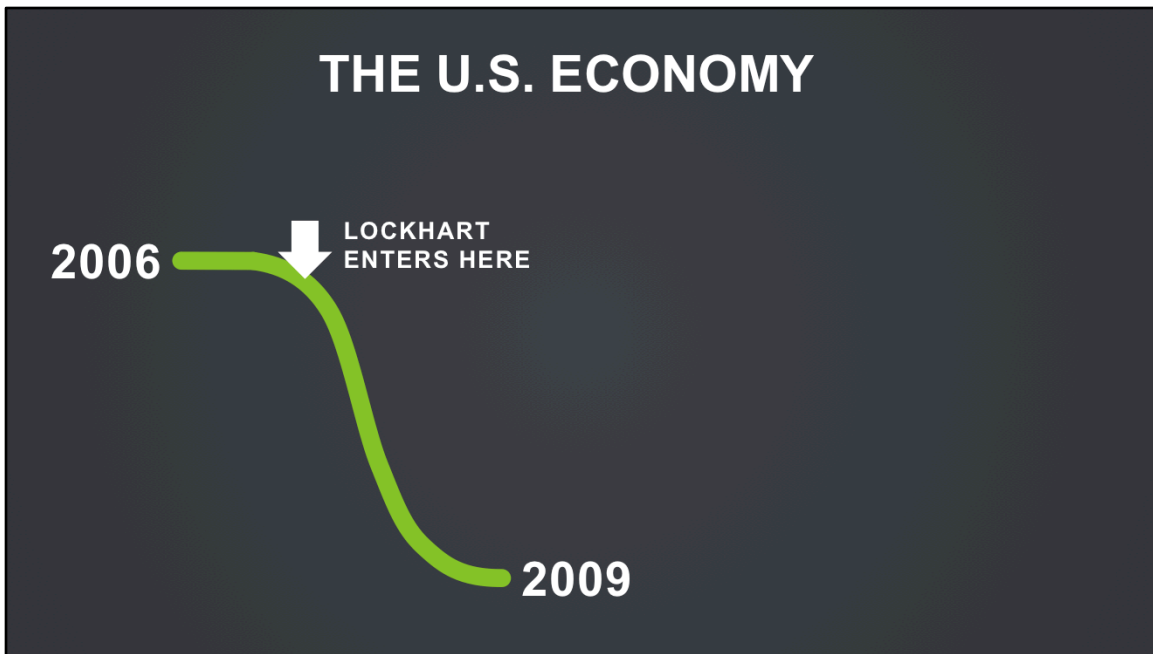
THE U.S. ECONOMY



If you prefer pictures to commentary, here, in general terms, is what happened to the economy from 2006 to early 2009. Let me mention that even in times of severe contraction, economic data can follow a sawtooth pattern. Over the next few minutes, I'm going to present some graphs where the month-to-month and quarter-to-quarter variability is smoothed out.

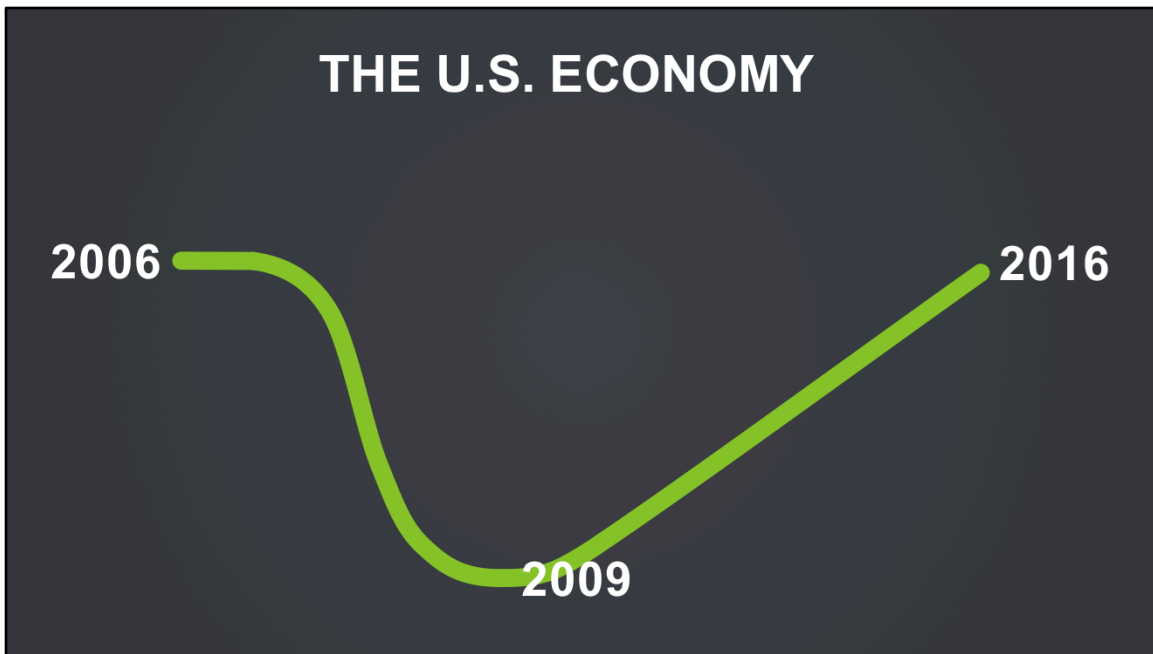
The curve you see on the screen is an apt depiction of a raft of economic indicators. It's a fair representation of overall economic activity, consumer spending, house prices, bank lending, and many other key data. Starting in 2007 and through 2009, virtually all key economic indicators took a dive (or the inverse—rose dramatically when that was a bad thing).

THE U.S. ECONOMY

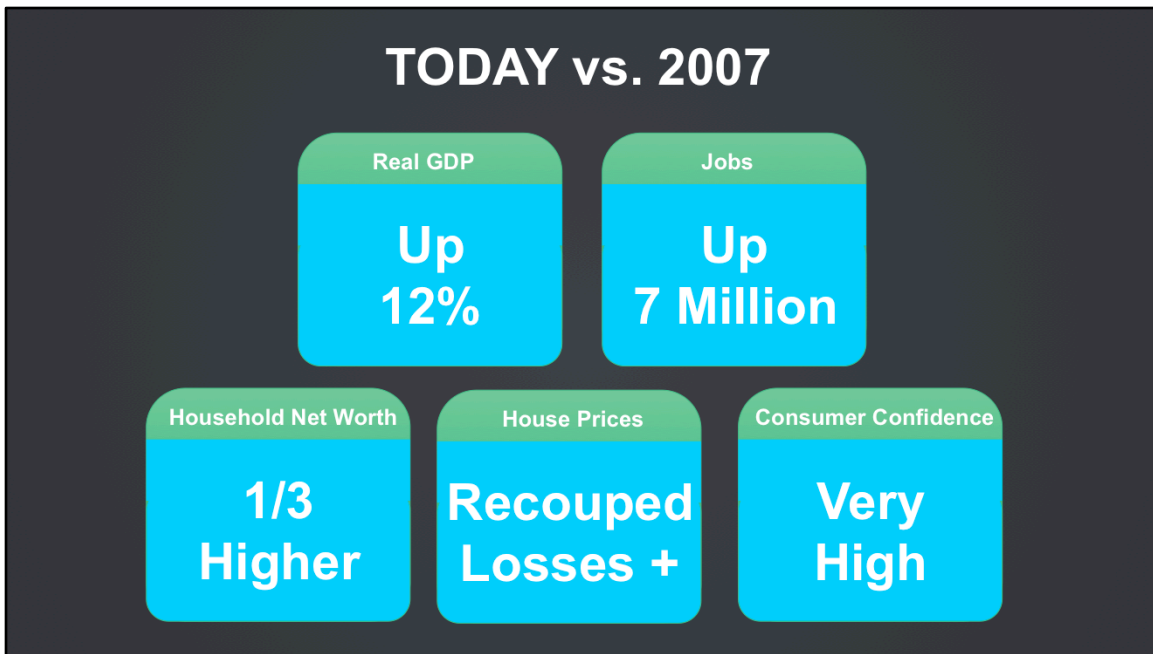


This is where I came on the scene. I know what you're thinking. In my defense, I'll point out—as economists often say—correlation does not equal causation.

One account of the last 10 years involves a story of slow, but satisfactory, **cyclical** recovery. After a deep and damaging recession—officially dated from December 2007 to June 2009—the economy got on a recovery path that has lasted to today.



If I add the years since 2009 to the earlier chart, this curve is a good representation of much of the cyclical story of the last decade.



Let me back that up with some details.

Real gross domestic product, or total output, now stands at 112 percent of the 2007 level.

In a two-year period during the recession, the economy lost more than 8 1/2 million jobs. Over 15 million jobs have been added since the labor market hit bottom, roughly 7 million above the level before the crisis.

The net worth of U.S. households and nonprofits fell by more than \$12 trillion during the recession. Household net worth has rebounded by more than \$34 trillion since then and is now approximately a third higher than prior to the crisis.

(Continued, next page)

TODAY vs. 2007

Real GDP

Up
12%

Jobs

Up
7 Million

Household Net Worth

1/3
Higher

House Prices

Recouped
Losses +

Consumer Confidence

Very
High

A big share of the growth of household wealth came from recovering house prices. After falling nearly 30 percent during the crisis, house prices in the aggregate have fully recouped those losses plus a little more.

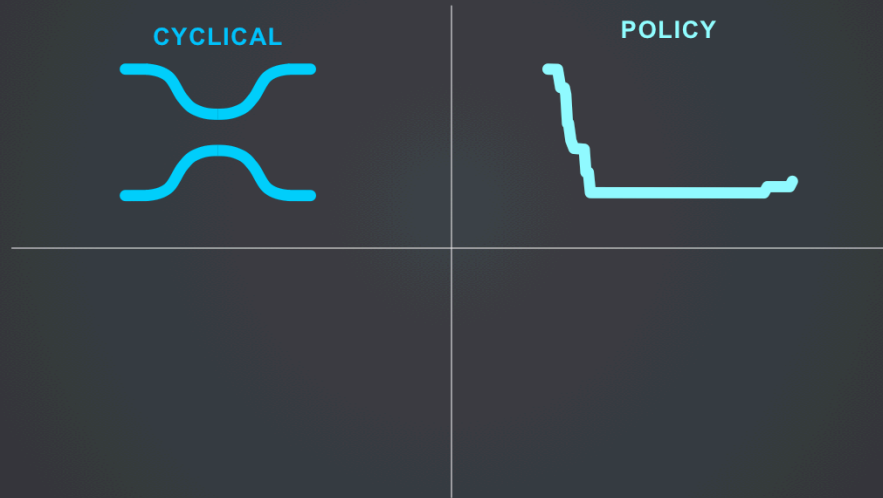
Perhaps as a result, measures of consumer confidence are at their highest levels since 2007.

DEFINING “NORMAL”

- In equilibrium
- At full employment
- Annual inflation at 2%
- Sustainable

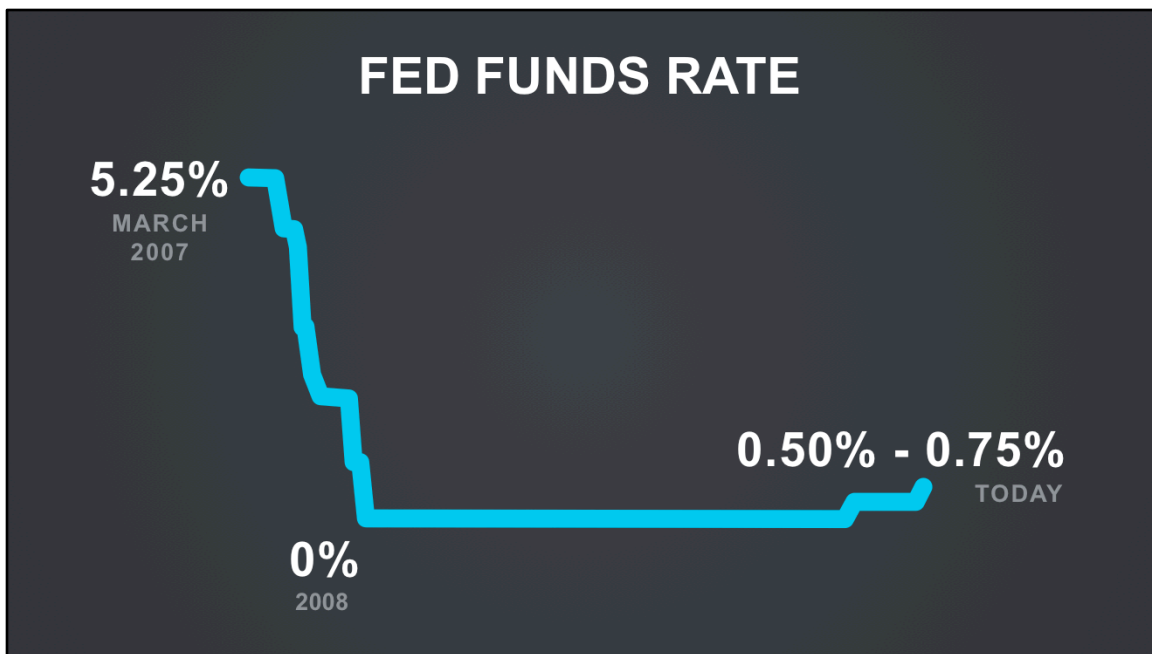
Have we returned to normal? I feel some need to resist calling this recovery a return to normal. Even though the economy has been through what looks like a full cycle, the economy is “returning,” if you will, to a new place. I think of “normal” as a code word for a desired state of the economy—in equilibrium, at full employment, with inflation running at an annual rate of 2 percent, and all this sustainable. That’s what “normal” means to me.

FOUR SUBPLOTS



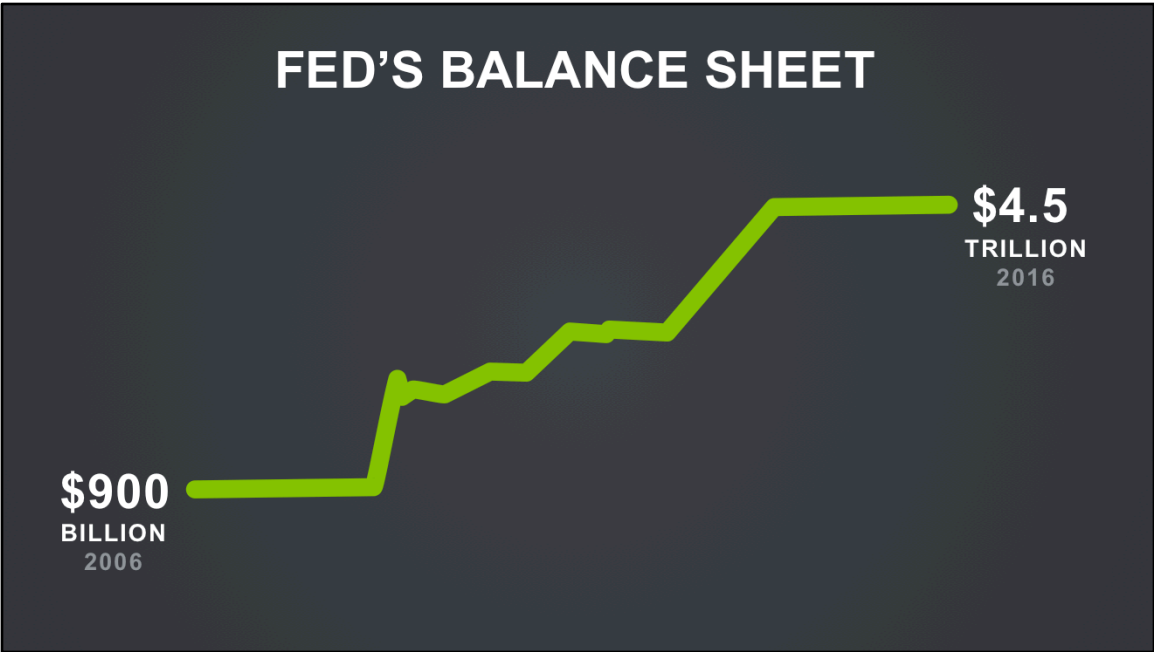
As I said, this cyclical recovery is a satisfactory story, but it is a subplot, not the whole story. A more complete story of the economy includes three other subplots.

There's a *policy* subplot. The policy response to the financial crisis and ensuing recession was extraordinary.



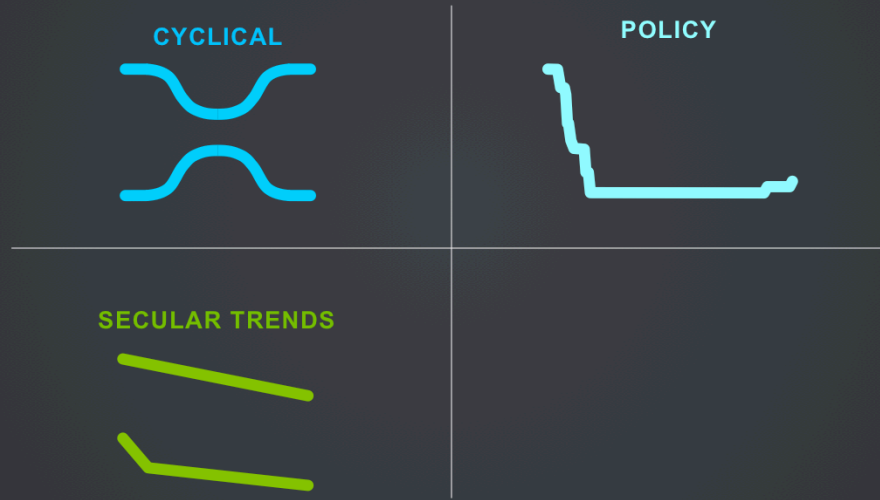
The Fed's policy interest rate—the rate that highly influences all other interest rates—went from 5 1/4 percent on the day I started in March 2007 to zero, in effect, by December 2008. The policy rate stayed there for seven years. Today—after only two quarter-point increases over the past 14 months—the policy rate target range rests at 1/2 to 3/4 percent.

When interest rate policy goes as low as it can go and central bankers want to add stimulus to a sluggish economy, they sometimes resort to unconventional measures. One aspect of the Fed's unconventional policy was a controversial measure known as QE, or quantitative easing, in central bank jargon. The Fed created new money and bought long-maturity Treasury and mortgage-backed securities, and did this three times. The aim was to put downward pressure on long-term market interest rates to make mortgages, car loans, business term loans, and bond financing cheaper.



As a consequence of these policy actions, the balance sheet of the Federal Reserve grew from \$900 billion before the crisis to around \$4.5 trillion today, a quintupling.

FOUR SUBPLOTS



There is a *secular trends* subplot. It underlaid the cyclical behavior of the economy and the policy reaction that accompanied it. Secular trends are aspects of the economy that did not behave cyclically. Many predated the financial crisis and recession. Some of these may reflect ongoing structural changes in an evolving economy and society.

The distinction between secular trends and structural factors in economics is not always crystal clear. Secular trends may amount to deep-seated structural problems. Or they may not. They may be reversible. Or they may be irreversible. I'll simply say such trends tend to move persistently in one direction for a long while, sometimes in an unhelpful or undesirable direction.

CYCLICAL & SECULAR

CYCLICAL



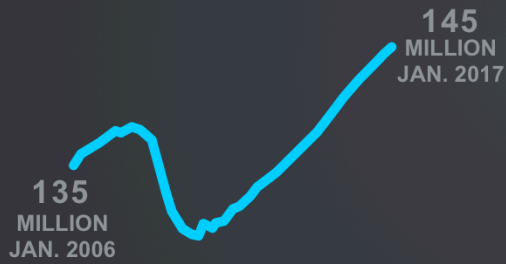
SECULAR



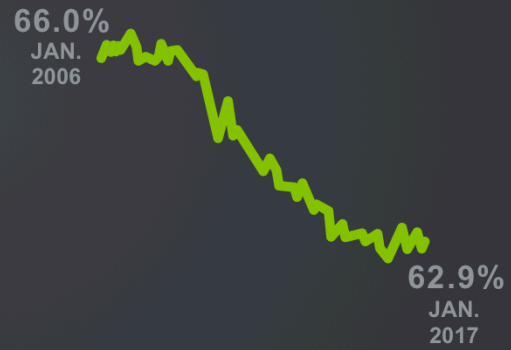
The point I want to make is while we enjoyed a cyclical recovery, there were secular factors holding back expansion. To illustrate the secular versus the cyclical, I'll show some of these persistent secular trends side-by-side with associated cyclical factors. I do this to make the point that, while the economy has recovered in many respects, it has also evolved to a different place today. This is the point I made earlier when talking about what "normal" means. And again, I've smoothed the data fluctuations to present a simple trajectory for each trend.

EMPLOYMENT

NONFARM EMPLOYMENT



LABOR FORCE PARTICIPATION



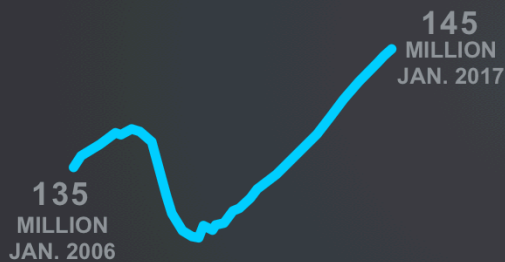
I'll start with employment. Employment has substantially recovered. I think we're close to a state of full employment.



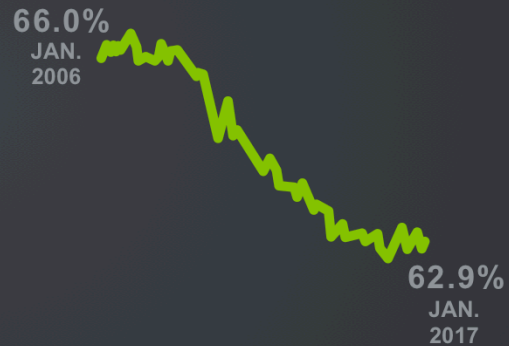
Here's the employment cycle in terms of **un**employment.

EMPLOYMENT

NONFARM EMPLOYMENT



LABOR FORCE PARTICIPATION

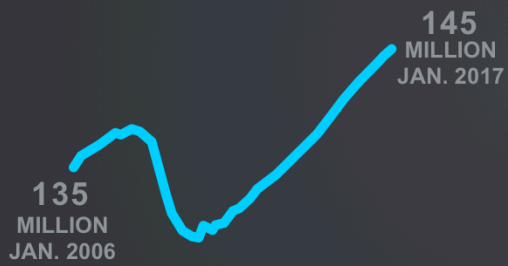


Going back to the previous slide, while we've seen employment recover, we've also seen a secular decline in labor force participation.

Employment-related secular trends are highly influenced by demographic trends. It's well known that the United States has an aging population distribution. The baby boom generation is reaching retirement age, and the number of retirees is growing. Age demographics, and demographic trends broadly, affect the economy in a number of ways. I'll cite just a few: consumption patterns including health care consumption; wealth distribution, savings levels, and investment patterns; and workforce growth, composition, and labor market dynamism. The concept of labor market dynamism captures worker geographic mobility, job creation and destruction, and worker churn. It, too, has been in secular decline.

EMPLOYMENT

NONFARM EMPLOYMENT



AVERAGE HOURLY EARNINGS GROWTH (YEAR-OVER-YEAR)



There's one more point related to employment: while employment has returned...



...wage growth fell and then stagnated for much of the decade until recently. This slide highlights this stagnant period. In addition, as is well known, income and wealth inequality have increased.

GROWTH ↔ PRODUCTIVITY



To widen the lens, the employment recovery can be attributed to the resumption of growth of gross domestic product, or GDP. Think of GDP as total output or total economic activity. GDP growth has averaged a little over 2 percent since the recession officially ended in the summer of 2009. The recovery has been slow compared to earlier post-recession episodes. That said, as mentioned earlier, GDP has regained all the ground lost during the recession and more.

However, for much of the recovery period, productivity growth has languished. Growth of productivity is a key driver of overall economic growth. And it is a basis of wage growth. It has been extremely weak by historical standards, and the reasons are a matter of debate.

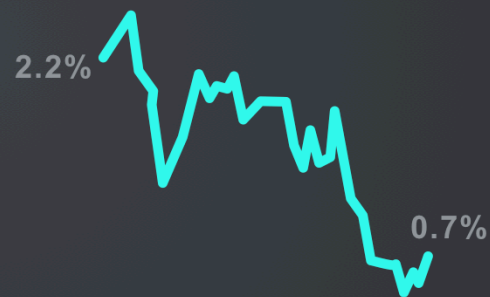
(Continued, next page)

GROWTH ↔ PRODUCTIVITY

REAL GDP PER CAPITA



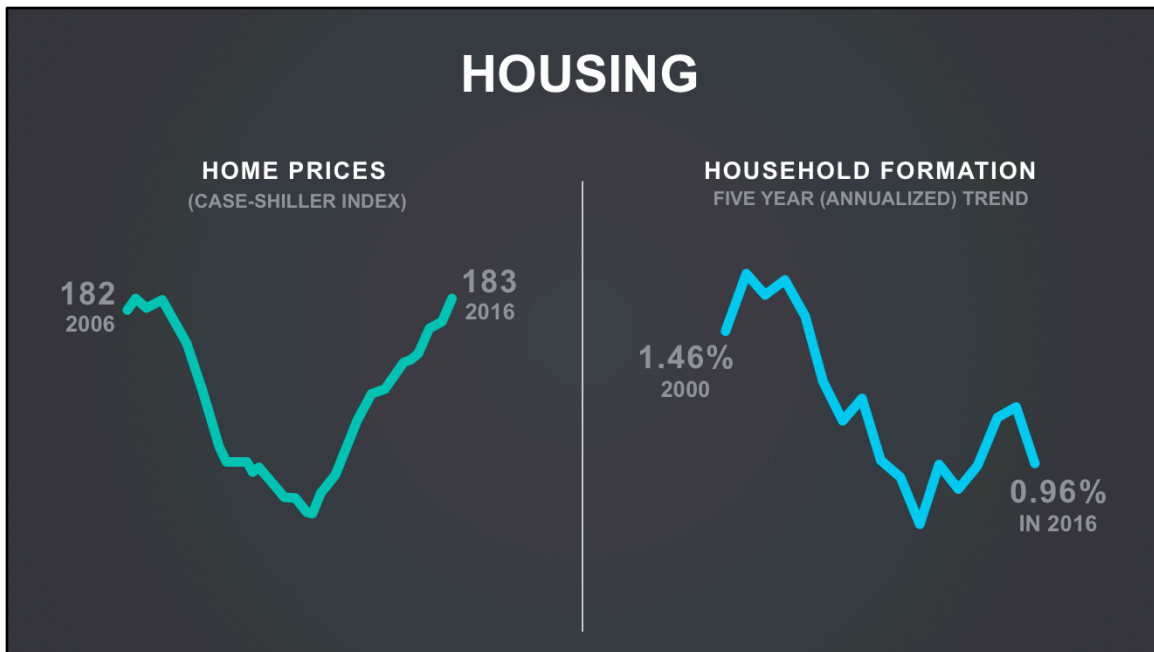
PRODUCTIVITY GROWTH
FIVE YEAR (ANNUALIZED) TREND



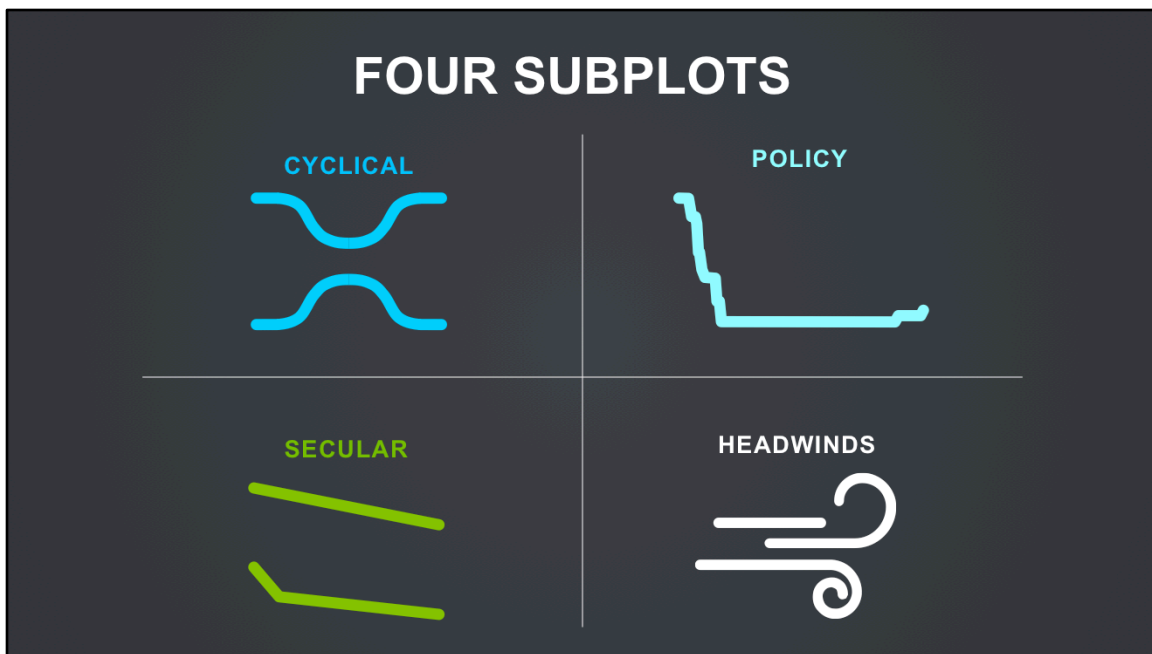
Also, while the economy overall has recovered, business investment spending has been weak through most of the recovery period to date. To generalize, the private sector has been spending to maintain and replace capital equipment and software, but not to build capacity for a rosier future. Businesses have spent to take costs out, but not to prepare for increased demand. I think this is one of the reasons for weak productivity growth.

Along with weak capital spending, business dynamism has been in secular decline starting before the recession and throughout the decade. A good indicator of business dynamism is new business formation.

HOUSING



I'll provide one more example contrasting the cyclical and the secular. The housing sector has made a nice comeback—as indicated by housing starts, house prices, multifamily residential development, and sales activity. At the same time, household formation seems to be in secular decline. The right-hand side is a picture of your grown kid living in your basement. I'm told the number of grown children living with parents is at the highest level since the 1940s.

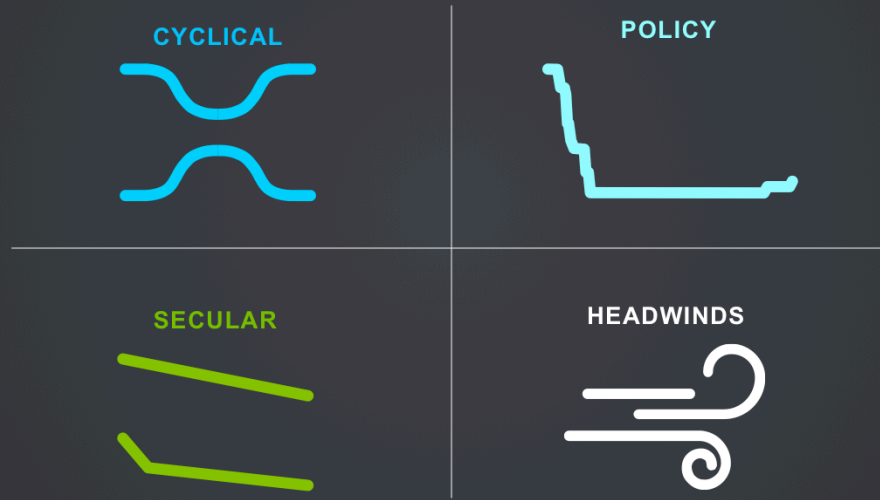


My final subplot is about headwinds. Headwinds, by my definition, are temporary developments that suppress economic activity. The spate of such episodes over recent years may partially explain the weakness in business capital investment. What headwinds do I have in mind? I'm referring to events and developments such as fiscal crises (government shutdowns, the fiscal cliff), uncertain effects of the Affordable Care Act, the Greek debt saga, European fiscal strains and European bank weakness, the slowdown in China, oil price volatility and decline, and last year, Brexit and the U.S. presidential election. Each of these, in its time, contributed to uncertainty and raised concerns about what the future held. These kinds of concerns evoked caution and influenced decisions to defer investment, hiring, and major household purchases. The heightened uncertainty shortened planning horizons and rattled financial markets.

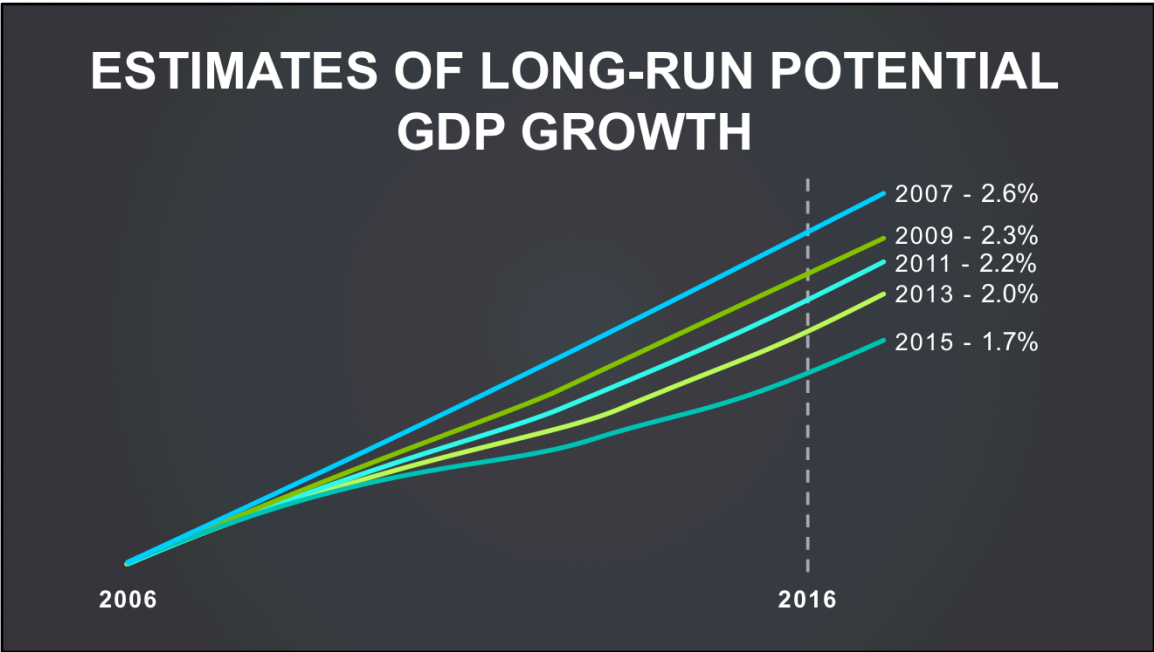
The economic story of the past decade, with its four subplots (cyclical recovery, policy response to crisis and recession, secular trends, temporary headwinds) is prologue to what we all care most about—our economic future.

(Continued, next page)

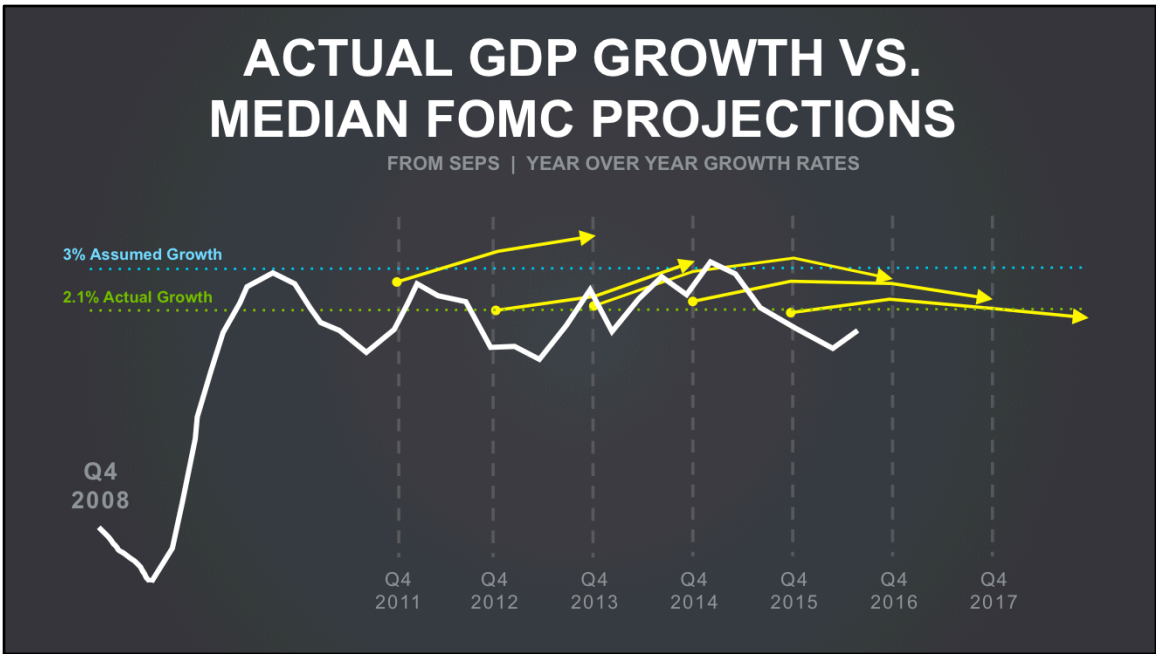
FOUR SUBPLOTS



I'll offer views on that future in a just a moment, but let me add still more context to the economic moment. The experience of the past decade has brought growing recognition of fundamental factors weighing on the economy. As a result, many economic analysts have lowered certain of their medium- and longer-term expectations. Recently, many Fed economists—among them, my team at the Atlanta Fed—have progressively lowered estimates of three critical forecast elements.



First, we have dropped our estimate of *long-run* potential GDP growth to reflect both demographic effects on the labor supply and a slower pace of productivity growth.



Second, we have reduced our forecasts of actual GDP growth *in the nearer term*, reflecting the negative impact of the slow business-investment recovery I referenced earlier.

ADJUSTMENTS TO PROJECTIONS

- Potential GDP growth
- Forecasted GDP growth
- Neutral rate

The third critical adjustment to our projections relates to where we think interest rates will settle out in a cycle of rising rates—where the Fed would stop, in effect. You might have heard the terms “neutral rate” or “equilibrium rate.” This is the policy rate setting where monetary policy can be judged to be neither accommodative nor restrictive, neither purposely applying stimulus nor tightening. Such a policy setting would fit an economy humming along at steady state—an economy operating at full employment and registering an inflation rate around 2 percent. Normal—in my sense of the word.

Based on our changing assessment of potential growth, we have lowered our estimate of the neutral rate, and along with it, the projected path to this stopping point. Knowing what I know today, I continue to expect a gradual pace of interest rate increases with a stopping point at a lower policy rate setting than in earlier rising rate cycles.

(Continued, next page)

ADJUSTMENTS TO PROJECTIONS

- Potential GDP growth
- Forecasted GDP growth
- Neutral rate

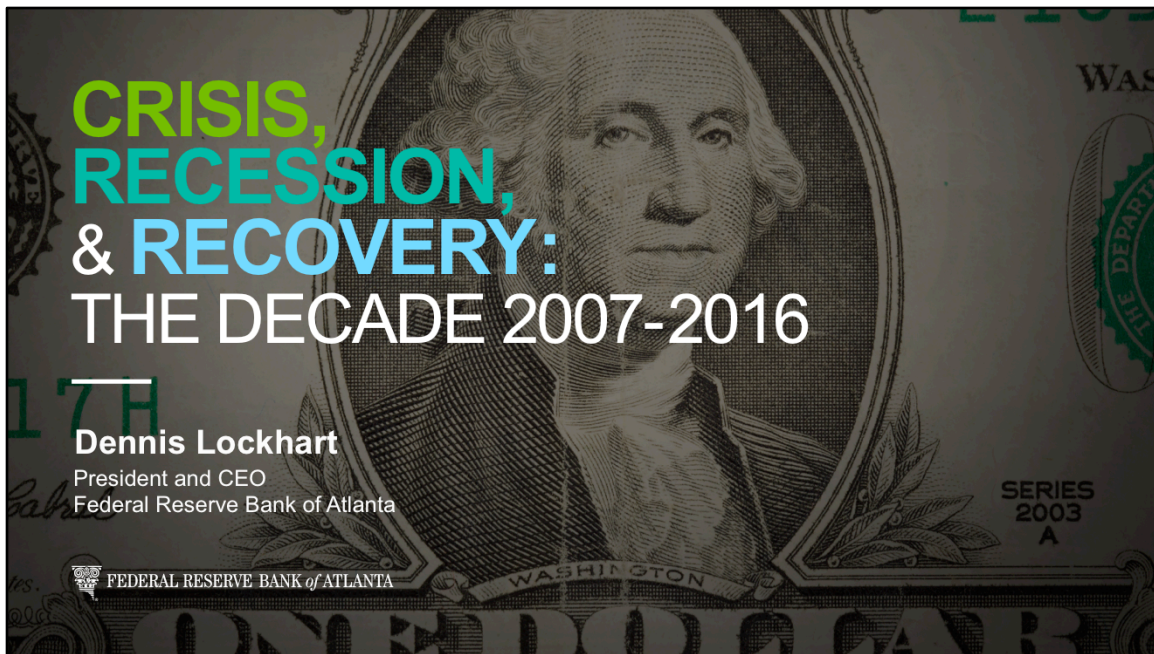
You may be asking, “So what?” I’ll answer this way. When I joined the Fed in March 2007, the official unemployment rate was 4 1/2 percent. The inflation rate was running about 2 1/2 percent. And, as mentioned earlier, the Fed’s policy interest rate was set at 5 1/4 percent.

Today, conditions are very similar—almost the same. Yet the target range of the Fed’s policy rate is set at 1/2 to 3/4 percent. How can this stark difference in policy be explained?

EXPLAINING THE POLICY DIFFERENCE



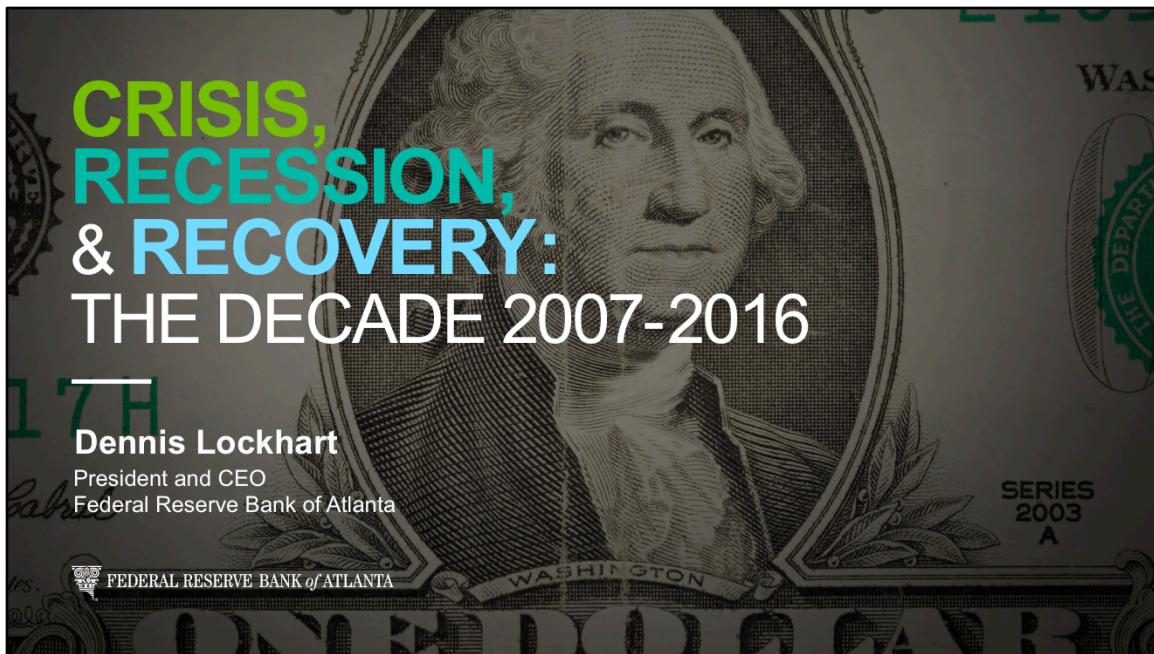
There was one answer to this question in the earlier cyclical-secular, side-by-side graphs—the weight of secular trends on the economy. While the economy has enjoyed cyclical recovery, certain underlying fundamental forces have been restraining the pace of growth. Most prominent among these are productivity, business investment, and labor force trends.



As we start 2017, the economy appears solid, growing steadily at a moderate pace—to put a round number on this moderate pace of growth, around 2 percent. I expect inflation, which is still below the Fed’s 2 percent longer-run target, to edge higher. I see inflation getting to a rate near the FOMC’s target this year or next. I expect employment to reach or even exceed most estimates of full employment. That’s my baseline outlook.

While I think we can expect a continuation of the moderate growth enjoyed over the recovery, I’m agnostic at this point in time about achieving a sustained pace of growth much above a range of 2 to 2 1/2 percent. While I believe the economy is well positioned for moderate growth and steadily improving conditions, it’s less certain that the economy is positioned for a breakout to markedly higher growth that will last. Accomplishing such a breakout requires offsetting demographic influences and accelerating productivity growth. These are heavy lifts.

(Continued, next page)



I mentioned demographic influences earlier. Demographic trends are strong forces. We see demographic trends expressed especially in labor force participation. For the next several years, the big labor force story will be the growth of retired workers over age 65. This story swamps the growth of prime-age workers age 25 to 54. In almost all plausible scenarios, participation will decline over the coming years. Even if the decline of participation stabilizes, labor supply growth will continue to slow because of the aging population. This puts the burden on productivity growth to achieve higher GDP growth rates.

(Continued, next page)



To boost productivity growth, we need a number of things on the supply side of the economy to come together, among them more business investment. The chances of a sustained productivity surge are an unknown.

The job of cyclical recovery is largely done. The Federal Reserve is quite close to achieving its mandated policy objectives of full employment and stable prices. The job of offsetting secular trends and implementing structural change lies ahead. This set of challenges will define the next economic phase.

During the Great Recession and the recovery phase, the Fed and monetary policy largely took the lead. Monetary policy will continue to be influential, but success in the next phase of economic advances depends greatly on the actions of the administration, Congress, and the private sector.

I'll end on that point. I'm very happy that one of my last official speeches could be here in Huntsville. Now let me entertain any questions or comments.