
Recurring Themes for the New Year

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The views expressed today are my own and not necessarily
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Introduction and Summary

Thank you, Pat Deignan (chief executive officer of Banker's Trust) for that kind introduction. I am pleased to be back in Coralville for this annual forecast luncheon. My talk today will first cover the state of the economy and the outlook for growth and inflation. I'll then address five issues — that is, the five recurring themes for the New Year — that are key to my thinking about monetary policy. Before I begin, though, I'd note that the views I express are my own and do not reflect those of my colleagues on the Federal Open Market Committee (FOMC) or within the Federal Reserve System.

The Outlook

The recent data on economic activity generally have been encouraging. Importantly, the labor market has improved. True, the December jobs report was disappointing. But, taking a broader perspective, payroll employment growth averaged more than 200,000 jobs per month between August and November and the unemployment rate has fallen to 6.7 percent. According to surveys of consumer sentiment, household confidence is recovering from the drop that occurred during last fall's fiscal policy debates. These improvements in the job market and sentiment are helping to boost consumer spending, which has increased at a very solid 4-1/2 percent annualized rate over the past three months. The latest data also suggest that housing markets may be picking up again; as you know, the housing market stalled somewhat after the run-up in mortgage rates last spring and summer. News from the fiscal policy front has also been positive. Although the budget deal in Washington does not address long-term structural issues, the new budget agreement is a welcome development. Fiscal policy will be slightly less restrictive over the next couple of years, and the agreement has also reduced some of the uncertainty that has been weighing on the economy.

Now, as an economist, I am well aware that economics is often referred to as the dismal science. In this context, I won't paint too bright of a picture. At 6.7 percent, the unemployment rate is still well above the 5-1/4 percent rate I think is consistent with its normal longer-run level. Furthermore, much of the decline in the unemployment rate in 2013 reflected people dropping out of the labor force as opposed to finding new jobs. In addition, the level of activity in many sectors of the economy, while improving, still has some way to go before returning to what we would consider normal. Construction — both for housing and nonresidential buildings — comes to mind. And, as I will discuss in more detail shortly, growth still faces some important headwinds, meaning that it could be some time before we close the so-called resource gaps in the economy.

Moreover, the recent news on inflation has not been good. Inflation is too low and is running well below the FOMC's 2 percent target. This target is measured in terms of the price index for total personal consumption expenditures — or PCE — and this has increased less than 1 percent over the past year. Core PCE inflation — which excludes

the volatile food and energy categories and hence is a better predictor of where overall prices are headed — rose just 1.1 percent over the past 12 months and has been stuck at this low rate since last spring. Other inflation measures, like the well-known Consumer Price Index (CPI), are also well below their related benchmark levels.¹ I know it sounds strange to many, but persistently too-low inflation is a problem that monetary policy needs to address. I will also return to this issue later.

Given these observations on the most recent data releases, how does the economic outlook fare these days? Most private forecasters think growth in the fourth quarter of last year was well over 3 percent. This follows a robust 4.1 percent rate in the third quarter. A good deal of this growth during the second half of last year reflected a sharp pickup in inventory investment that undoubtedly was transitory and could be offset to some degree in coming quarters. But even after inventory volatility is accounted for, there appears to be improving underlying momentum in production and spending during recent quarters.

Looking further ahead, I anticipate highly accommodative monetary policy to continue to support the recovery, and I expect economic growth to be around 2-3/4 percent in 2014 and then run at a somewhat higher pace in 2015. I think this growth should bring the unemployment rate down to 6 percent or even a bit lower by the end of 2015. I'd note that forecasting the unemployment rate is unusually tricky right now because of the large decline in the labor force participation rate that I mentioned earlier. According to our analysis at the Chicago Fed, even accounting for structural factors (such as the aging workforce) that lower participation, the rate appears to be below its longer-run trend. The closure of this participation gap with an improved economy will dampen the decline in the unemployment rate. But the exact patterns are difficult to predict. As resource gaps close and the Fed maintains accommodative policy, inflation should begin to rise. I expect it to get closer to 1-1/2 percent by the end of next year. But the very low inflation in an environment of rebounding growth and highly accommodative monetary policy continues to be both puzzling and worrisome.

Policy

As I just noted, my forecast assumes that the Federal Reserve will maintain a highly accommodative stance for policy over the projection period. Now, some of you may ask how this squares with the fact that in December the Fed decided to cut back on its purchases of Treasury and mortgage-backed securities from \$85 billion to \$75 billion per month. Let me explain.

In September 2012, the FOMC began its latest large-scale asset purchase program (LSAP). At the time, the unemployment rate was over 8 percent and the outlook for growth was quite subdued. The program (our third round of quantitative easing, or QE3) was put in place to help improve this situation, and was purposely open-ended; that is, we said we would keep purchasing long-term Treasury and mortgage-backed securities until we saw a substantial improvement in labor market conditions.

¹ Because of some differences in product coverage and statistical methodologies, total CPI inflation tends to average one-quarter to one-half percentage points higher than total PCE inflation.

When the Committee met this past December, with the unemployment rate at 7 percent and other labor market indicators showing improvement, we decided that the cumulative improvement to that point met the criteria for first scaling back purchases. This decision does not, however, mean we thought the economy needed less overall policy accommodation. Rather, the Committee agreed it was time to rebalance the mix of monetary policy. Large-scale asset purchases have been effective in stimulating activity, and their effects have shown more through to top-line gross domestic product (GDP) growth now that the most restrictive fiscal influences in the first half of 2013 have waned some. Nevertheless, QE3 is a nontraditional policy instrument. If in fact monetary policy and the recovery are now gaining better traction, it makes sense to rely more on our traditional short-term interest rate policy tool, the federal funds rate. We have a much better understanding of how changes in the funds rate affect the economy than we do of the benefits and potential costs associated with large-scale asset purchases, largely because we simply have more experience with the former policy tool.

In order to clarify that overall monetary policy will remain highly accommodative as long as necessary, we also decided to strengthen the forward guidance in our policy statement concerning the economic conditions likely to prevail when we might eventually first increase the federal funds rate.

Back in December 2012, the FOMC introduced conditional forward guidance by saying it would hold the funds rate at exceptionally low levels *at least as long* as the unemployment rate remains above 6-1/2 percent and the projection for inflation between one and two years ahead is less than 2-1/2 percent and longer-term inflation expectations remain well anchored. Let me emphasize the “at least.” As we often stated, the 6-1/2 percent unemployment number was a threshold and not a trigger. Crossing 6-1/2 percent would not automatically result in an increase in the funds rate. Exactly when we would begin to raise the funds rate once we hit 6-1/2 percent depends critically on whether we are expecting continued improvements in the labor market and on what the outlook for inflation is relative to our 2 percent target.

When evaluating the situation at our meeting this past December, we reasoned that conditions had evolved in a way that meant we could — and should — provide more specificity on what might happen with the federal funds rate when the economy reached this threshold. Importantly, in my mind, the low readings for inflation by themselves now suggest that it likely will be appropriate to keep the funds rate at its current level for quite some time. So I supported our change in language to say that the federal funds rate likely will remain in its current range “well past the time that the unemployment rate declines below 6-1/2 percent, especially if projected inflation continues to run below the Committee’s 2 percent longer-run goal.”² This elaboration of our forward guidance should more strongly communicate that we are in no hurry to raise rates: We will not prematurely reduce accommodation in an economy with elevated unemployment and very low inflation pressures.

² The full press release from the December 17-18, 2013, FOMC meeting is available at <http://www.federalreserve.gov/newsevents/press/monetary/20131218a.htm>.

This relationship between economic conditions and the policy rate shows up pretty clearly when you look at the forecasts made by FOMC participants, which are published in our *Summary of Economic Projections* — what we refer to as the SEPs. Last month, 15 of the 17 participants thought that it would be appropriate that the first increase in the funds rate would occur in 2015 or later, and all 17 thought the unemployment rate would be at or below 6.2 percent in the fourth quarter of 2015. Indeed, two-thirds thought it would be below 6 percent. So the “well past the time that the unemployment rate declines below 6-1/2 percent” is in our forecasts. Contrast this to when we first adopted the 6-1/2 percent unemployment threshold in December 2012. Back then, 14 out of 19 participants thought the first increase in the funds rate would occur in 2015 or later, but only six thought the unemployment rate would be below 6.2 percent at the end of 2015. To understand these changes, we also have to consider the inflation side of the ledger. In December 2013, 12 out of 17 participants thought inflation in 2015 would only be between 1.3 and 1.8 percent; back in December 2012, more than half thought inflation in 2015 would be 1.9 percent or higher. This lower current outlook for inflation certainly justifies maintaining policy accommodation, even though the unemployment picture looks brighter than it did a year ago.

A great number of factors influence growth, inflation and the execution of monetary policy. I'd now like to turn to five broad issues that have been and continue to be important in shaping my thinking about the economy and monetary policy. These five themes are reasons why I support our current policy approach and believe it will be necessary to maintain a highly accommodative policy for some time to come.

Theme 1: Fiscal Restraint Has Been a Powerful Headwind

Heightened fiscal austerity has been front page news in 2013. The year began with both tax hikes and automatic spending cuts known as sequestration. The Congressional Budget Office (CBO) estimates that federal fiscal restraint reduced real GDP growth by about 1-1/2 percentage points last year.³ In other words, to get to 2-1/2 percent real GDP growth, the rest of the economy had to generate 4 percentage points of growth.

The overall role of the government sector since the recession ended is complicated. Tax and spending actions by the federal government provided an important boost to the level of activity in 2009, 2010 and 2011. However, at the same time, flagging state and local tax revenues caused those governments to pare back on employment and spending. These state and local budget pressures have been gradually easing around the country, and state and local purchases stopped falling in 2012 and began to rise in 2013. In contrast, federal fiscal policy turned to restricting growth in 2011 through 2013, as temporary stimulus measures, such as the payroll tax holiday, expired and spending cuts due to earlier budget deals came on line.

If we look at the entire 2009 through 2013 period, real GDP increased at an average annual rate of 2.2 percent. However, excluding state, local and federal government purchases, private spending grew at a 3.2 percent pace. This isn't the stellar rate of

³See chapter 2 of the CBO report at <http://www.cbo.gov/sites/default/files/cbofiles/attachments/43907-BudgetOutlook.pdf>.

growth for private spending that one would hope for given the magnitude of the Great Recession, but it is a much healthier number than the 2.2 percent rate of growth for real GDP: At some level, this reflects how private sector strength supported by monetary policy accommodation offset the contraction in government purchases.

Of course, government restraint has not been the only headwind the economy has faced. The fallout from the financial crisis has been large. Many financial institutions have had to recapitalize, and households have needed to rebuild balance sheets following the sharp declines in stock market and housing wealth. These debt overhangs have been major factors holding back growth. In addition, global economic growth has been weak, because of the European crisis and slower growth in emerging markets, notably in China. But the restraint from the federal government sector has been a self-inflicted wound, and it has been unusual relative to other historical episodes.

Let me give you an example. In 1981-82, the economy experienced a severe downturn, but it rebounded rapidly. One reason was that increases in government purchases contributed nearly a percentage point to growth, on average, in 1983 and 1984. Large tax cuts also helped fuel the recovery. Contrast that to the fiscal restraint that we've seen recently.

In addition to fiscal policy impetus, the Federal Reserve was able to reduce the federal funds rate as much as was necessary to get growth back on track. With the federal funds rate at nearly 15 percent in 1982, it was possible to drop the rate by 6 percentage points. However, in the current environment, monetary policy has less room to maneuver because short-term interest rates are already pushed to their lowest possible limits. We have had to work harder and turn to unconventional tools to help counteract the fiscal restraint and other forces holding back growth. This leads me to the second theme.

Theme 2: The Zero Lower Bound

Today, the federal funds rate is effectively pushed as low as it can go. It stands near zero and has been at that rate since December 2008. Central bankers refer to this as the zero lower bound. Operating near the zero lower bound has limited the Fed's ability to use its traditional tools to offset the ferocious impediments to growth that I just outlined. We have tried to overcome this obstacle with nontraditional policies. The main two are the ones I discussed earlier — our large-scale asset purchase programs and, separately, forward guidance regarding the economic conditions under which we would consider to begin to raise rates. Let me go into a bit more detail about how these work.

Given that we can't lower current short-term rates any further, our strategy is to promote a faster recovery by lowering long-term interest rates. A classic textbook decomposition of long-term rates is to view them as the average of expected future short-term rates and a so-called term premium, which compensates for a number of factors that affect the riskiness of holding a long-term bond relative to a short-term note. The new tools are aimed at influencing both of these components of long-term rates.

Forward guidance provides some information on the length of time that short-term borrowing rates will remain low. By credibly indicating that we will keep the federal funds rate low in the future, we directly lower the component of long-term rates that reflects the average expectations for short-term rates. Furthermore, to the degree that we can articulate how we will respond to changes in economic conditions, we can reduce uncertainty over future interest rates and also the risk premium that enters long-term rates.

Large-scale asset purchases work on long-term rates by reducing the term premium. Our purchases of long-term Treasury and mortgage-backed securities shorten the duration of these assets held by the public, lowering the term premium built into rates. We effectively drive up the price and lower the yield. At times, LSAPs may also lower long-term rates if markets view them as reinforcing the idea that the Fed will keep short-term rates lower for a longer period of time.

By mitigating some of the headwinds I mentioned earlier, LSAPs and forward guidance have helped return the economy to better health. There is still a ways to go. Our two nontraditional policy tools have simply not been strong enough to overcome these headwinds and generate an early 1980s “morning in America” recovery yet.⁴ Moreover, inflation remains stubbornly low.

This low inflation environment is the third theme I’d like to cover today.

Theme 3: Inflation Is Running Under Our 2 Percent Objective

Since January 2012, the Fed has set an explicit goal for inflation of 2 percent. As the *Wall Street Journal* recently noted,⁵ there is no doubt that the lack of inflation has been the biggest surprise of the near-zero interest rate environment. Despite many earlier predictions to the contrary, as I noted earlier, current year-over-year total PCE inflation is only 0.9 percent and core PCE inflation is running just 1.1 percent.

Given these low inflation data, we are clearly missing our inflation objective today. And we have for some time — average annual total PCE inflation since December 2007 has been just 1 1/2 percent. Low inflation is not just a domestic problem: It is a worldwide issue. Inflation has fallen quite low in the eurozone area, Canada and the United Kingdom. In Japan, inflation has climbed to 1 percent — a victory for the Japanese — but still well below their target of 2 percent.

When I state the facts about U.S. inflation, some people look at me like I’m from Mars and question my grasp of reality, believing that inflation is higher than the numbers I just recited. While I sympathize with their concern — we all have experienced large individual price increases that cause hardships — the indexes that we rely on to

⁴ The “morning in America” recovery refers to economic policy carried out during the Reagan presidency. See http://cstl-cla.semo.edu/renka/modern_presidents/reagan_speeches.htm

⁵The *Wall Street Journal* article is available by subscription at <http://online.wsj.com/news/articles/SB10001424052702304866904579266571314353170?KEYWORDS=ack+of+inflation+surprise+near-zero>.

measure overall inflation are based on sound methodology. Moreover, other independent evidence points to the same conclusion. The Billion Prices Project at the Massachusetts Institute of Technology (MIT)⁶ collects prices posted online on a daily basis. These Internet transactional prices cover around 60 percent of the goods covered by the CPI. This MIT project's U.S. index tracks the CPI quite well and also points to inflation below 2 percent.

The Treasury yield curve also provides convincing evidence that inflation is low. When an investor purchases a bond, he expects compensation for any future inflation that would erode the real purchasing power of coupon and principal payments. Accordingly, nominal interest rates contain a premium for expected inflation and inflation risk. Sophisticated finance models that estimate these effects show that investors' inflation expectations at the three-year horizon are below 2 percent and have been below 2 percent for several years.

Persistently undershooting our 2 percent target is costly. When determining how much debt to take on, borrowers consider their ability to repay that debt. For example, households take on debt expecting that their income will be adequate to cover monthly payments. If inflation is surprisingly low, wage increases and other income gains are more likely to fall short of these expectations, and interest and principal payments will be more burdensome than what was planned for. A similar story will hold for business borrowing. When debt financing becomes more burdensome than borrowers originally expected, a period of deleveraging can occur, and the associated reduction in spending can weigh heavily on the overall pace of economic activity.

Just as undershooting our inflation target can be costly, overshooting our inflation target can also be damaging. Lenders are hurt if inflation exceeds the rate they anticipated when they made the loan, because the payments they receive can purchase fewer goods and services than they expected. Moreover, high inflation may be associated with more variable inflation; not only does this make it difficult for borrowers and lenders to anticipate the real value of future payments, this also can mask the signals contained in individual price changes about supply and demand conditions for particular products.

To avoid all of these costs on both sides of the inflation target, the Fed should aim to hit the inflation target! And we should seek to do so in a symmetric fashion — we should seek for inflation to average 2 percent. Under no circumstances should we consider our 2 percent target to be a ceiling for inflation.

So, inflation that is too low or too high is a problem. This leads me to the fourth theme regarding the Fed's strategy for achieving our goals.

Theme 4: There Are Ample Safeguards in Place

Monetary policymakers must recognize the inherent uncertainties in how the economy may evolve and how our policies may influence those developments. Recognizing this, we have built ample safeguards and conditionalities into our unconventional monetary policy tools.

⁶ For details on the project, see <http://bpp.mit.edu/>.

With inflation being so low and projections indicating it is likely to remain below our 2 percent target for some time, I worry about the risk of inflation not picking up quickly enough. Here, new language in the FOMC's December statement provides an important safeguard. We are monitoring the inflation situation carefully, and if it doesn't start to rise, we will leave the funds rate at its current low level well after we hit 6-1/2 percent unemployment.

Others point to the risk that, instead of inflation being too low, inflation could start to quickly pick up and push us too far past our 2 percent objective. They fear the recurrence of a 1970s-style wage-price spiral. I view the current situation as much different from the circumstances we found ourselves in back then. For one, we see little pressure building for wage increases that we saw then. Furthermore, inflation expectations are well anchored.

But I could be wrong. Labor market slack could be smaller than I think. Or the U.S. economy could experience an unexpectedly large surge in lending that could be inflationary. We are vigilantly on the lookout for these factors, and at the moment we don't see anything even smoldering. In addition, our forward guidance has an explicit inflation safeguard built in; namely, there is our promise to keep rates unusually low for at least as long as the inflation outlook one to two years ahead is below 2-1/2 percent and longer-term inflation expectations remain well anchored. If these conditions are breached, we could raise rates. Our inflation safeguard of 2-1/2 percent is a major risk-mitigant against the possibility that accommodative policy leads to unacceptable and higher inflation.

Some critics are concerned about potential financial stability risks raised by our large balance sheet and our promise to keep rates unusually low for a long time. I think we have adequate safeguards in place against these risks as well. At the Federal Reserve, we are devoting considerably more resources than we did before the financial crisis to monitoring for nascent financial fragilities. For example, last year we saw a large expansion in leveraged loan syndications, and issued enhanced supervisory guidance to banks on underwriting standards and sound risk management expectations for such loans. More broadly, the Dodd-Frank Act provides for enhanced supervision and new macroprudential tools to address financial stability issues should they develop. I think judicious and diligent use of these tools will allow the Federal Reserve and other regulators to manage financial stability risks that may arise.

So far, I have argued that the substantial headwinds impeding growth and below-target inflation clearly dictate substantial monetary policy accommodation, and I have also contended that we have sufficient safeguards in place against potential downside risks. This leads me to my fifth and final theme regarding the Fed's strategy for achieving our goals.

Theme 5: Fed Credibility Is an Integral Part of Policy

How much is enough when it comes to accommodative policy? As unlikely as it sounds, the game of golf provides some clues. My older brother, Billy, is a scratch golfer. Billy

has two remarkable golfing achievements. First, he has had 14 holes-in-one. Second, he has had the great opportunity to play five rounds at Augusta National Golf Course where the famed Masters Tournament is held. During those five rounds, he had two holes-in-one. Think about it: That's 20 par-three opportunities and two aces at Augusta. That's a 10 percent success rate! I don't know many golfers who can top that. Clearly, when he is on the tee, he thinks differently from most everyone I know. So, how does he do it? I asked him what his strategy is. And he said, "Charles, whatever the distance, when you face a 120- or 175-yard hole, most people don't use enough club to get the ball to the hole! They come up short." In other words, you need enough club to get the job done.

In terms of monetary policy strategy, after four years of weak and inadequate growth with low inflation, we need extraordinary monetary accommodation to finish the task at hand. The public must have confidence in the Fed's ultimate resolve to successfully address economic challenges. We need to be both bold and committed to following through. Simply put, we have to use enough club and be willing to hit the ball with a full swing; a half-hearted effort will bring us up short.

We often talk about this in terms of credibility. Credibility means that we are clear about our goals, have the tools to achieve those goals and are committed to using those tools.

We have been clear about our goals. We are dedicated to achieving our statutory dual mandate of maximum employment and price stability. We certainly have turned to unprecedented actions to get the job done — near-zero short-term interest rates; strong forward guidance about keeping rates low for well after the economic recovery strengthens; and large-scale assets purchases that have boosted our balance sheet from about \$800 billion to more than \$4 trillion. And we must continue to be willing to use these tools to put us on a clear track back to full employment and inflation averaging our 2 percent target.