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“Following a Balanced Approach”

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*The Economic Policy Forum Fall 2017
Department of Economics, Northeastern University*

Boston, Massachusetts
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Good afternoon. I would like to thank the Department of Economics at Northeastern University for having me here today to share my views on the economy and monetary policymaking. At the outset, let me note as I always do that the views I express today are my own, not necessarily those of my colleagues at the Federal Reserve’s Board of Governors or on the Federal Open Market Committee (the FOMC).

Each year at the January meeting of the FOMC, the Committee adopts what is called the Statement on Longer-Run Goals and Monetary Policy Strategy.¹ This document represents the framework that the FOMC will use to achieve the dual mandate that Congress has set for the Fed: maximum employment and stable prices.

Let's consider those two elements of the mandate for a moment. For much of the recovery from the Great Recession, the unemployment rate has been too high, and the inflation rate too low – consistent with an economy facing serious difficulties. Those outcomes clearly justified the highly accommodative monetary policy that the Federal Reserve deployed. However, more recently, as economic conditions have improved, inflation has remained stubbornly below the Fed's 2 percent inflation target,² while the unemployment rate has declined so much that it is now well below the level viewed by most FOMC participants as a sustainable unemployment rate.³

Low inflation would, of course, justify more stimulative monetary policy, other things being equal, while quite low unemployment might suggest tighter monetary policy. How should the FOMC balance the dilemma implicit in the current readings on these two elements of the Fed's mandate?

Fortunately, the current Statement on Longer-Run Goals provides some guidance. Specifically, it states: "Under circumstances in which the Committee judges that the objectives are not complementary, it follows a balanced approach in promoting them, taking into account the magnitude of the deviations and the potentially different time horizons over which employment and inflation are projected to return to levels judged consistent with its mandate."

In this, the Statement provides some useful guidance for navigating the current circumstances. First, Committee participants must determine the *magnitude of the deviations* of the dual mandate variables from their desired levels. Simply put, how far is inflation from the 2 percent goal, and how far are we from maximum sustainable employment? Calculating the inflation deviation is straightforward; the personal consumption expenditures (PCE) measure of total inflation in the U.S. is currently 1.6 percent, and the Fed's inflation goal is 2 percent, so the

deviation is 0.4 percentage points. The unemployment deviation, however, is more difficult to assess, as maximum sustainable employment and the related concept of the natural rate of unemployment are only estimates. Central bankers must infer the level indirectly, using information in wages, prices, expectations, and labor market conditions. What's more, estimates of the natural rate of unemployment in the economy vary over time, due to demographic and other changes in the workforce, or changes in the efficiency with which workers find jobs.

As a result, there is unavoidable uncertainty in gauging whether the economy is at maximum sustainable employment, and how large the gap is – unlike the situation with the inflation gap. Still, today I will show a few indicators that suggest to me that even with some inherent uncertainty in estimating maximum sustainable employment, the economy seems to have moved beyond that point in recent quarters, and will likely continue to move further away – since most forecasters expect real GDP growth to exceed potential for the next several quarters.

Returning to the guidance offered in the FOMC's Statement on Longer-Run Goals, the Committee must also estimate *how long* employment and inflation will deviate from the Fed's goals. This is a bit more difficult. Monetary policy works with lags, typically long and variable, and there are many factors – other than monetary policy – that impact inflation and unemployment. In part for these reasons, forecasts of unemployment and inflation are subject to substantial error. Nonetheless, forecasts are the only means policymakers have for assessing how long we are likely to deviate from the Fed's dual mandate, so we must rely on them.

At the same time, policymakers must also be alert to systematic errors in forecasts that may reflect changes in underlying relationships. In this regard it will be important to consider why inflation has recently been coming in lower than projected.

Deviations from the Federal Reserve's Mandate Goals

Figure 1 provides total and core PCE inflation since 2012. Total PCE inflation is currently 1.6 percent, which – as mentioned earlier – is 0.4 percentage points below the Federal Reserve's 2 percent target.

While it is not surprising that inflation was below the Fed's target early in the recovery period, when there was significant labor market slack, policymakers had expected inflation to gradually return to 2 percent as the economy reached or surpassed full employment – as long as inflation expectations remained well-anchored around the central bank's inflation goal. Recall that while the Fed's inflation objective is expressed in terms of *total* PCE inflation, readings on *core* PCE inflation, which exclude volatile food and energy prices, are important because they generally provide a more reliable indicator of the underlying trends in inflation. Earlier this year, *total* inflation exceeded the Federal Reserve's 2 percent inflation target. But *core* inflation has remained below that target for the past five years.

Figure 2 shows the widely reported U-3 unemployment rate, along with an estimate of the natural rate of unemployment from the Summary of Economic Projections (SEP). As the figure indicates, the unemployment rate has fallen steadily over the past five years, and is now below FOMC participants' most recent 4.6 percent median estimate of the natural rate of unemployment. It should be noted that this current estimate of the natural rate is about 0.2 percentage points below the estimate that was published at the time of the December 2016 FOMC meeting. At 4.1 percent, we are currently 0.5 percentage points below the FOMC's median estimate of the natural unemployment rate. My own estimate of the natural rate of unemployment, 4.7 percent, has not fallen over the past year, and implies an unemployment rate 0.6 percentage points below what I view as the sustainable rate.

Hence it appears that the weak inflation number is in opposition to (rather than consistent with) the strong employment number. However, as mentioned earlier, the natural rate of unemployment is not measured, but rather is estimated; as a result it is of course possible that there may be more labor market slack than is implied by Fed policymakers' estimates of the natural rate based on the U-3 unemployment rate. I will turn to that question now.

How Much Labor Market Slack Do We Currently Have?

One way to assess whether the unemployment rate (the widely reported U-3 rate) is actually below its sustainable rate is to see if other labor market indicators also indicate a lack of slack in the labor market. To preview the punch line, the data I will walk you through seem consistent with labor markets being quite tight.

For example, initial claims for unemployment insurance (which are derived from individuals filing for unemployment compensation in their state, rather than from the household survey that serves as the basis for the unemployment rate), provide an indication from an alternative data source. **Figure 3** shows the four-week moving average of initial claims for unemployment insurance.⁴ Despite the spikes in the weeks around hurricanes, initial claims are currently at lows last seen over 40 years ago. These lows could reflect firms' reluctance to fire workers given the difficulty to hire replacements, or workers ability to quickly find jobs so that they never actually file for unemployment. Either explanation is consistent with unusually tight labor markets.

Figure 4 shows similar information from another source. The Bureau of Labor Statistics (BLS) designates all working-age persons as either employed, unemployed (not working and

searching for employment), or outside of the labor force (not working and not looking for employment). The BLS provides data on *gross flows* among these conditions beginning in 1990 – and the figure shows that the gross flow from employment to unemployment, scaled by the size of the labor force, is at its lowest point in decades. This fact is consistent with the message from the initial claims data: separations from employment to unemployment are now rare.

Figure 5 shows the flow of people moving from not in the labor force to unemployed, scaled by the size of the labor force. This flow results from new entrants to the labor force and from individuals who had previously stopped working, or stopped looking for work, but who have begun to search for employment again. The current value is the lowest point since the start of the Great Recession and close to the overall low over the more than 25 years. Such a low reading may reflect firms actively seeking and employing workers who are not currently searching, or who just began their search – or individuals who search and quickly find work.

Figure 5 shows that the flow of workers who are outside of the labor force moving to *unemployment* is low, but **Figure 6** shows that the flow of sidelined workers moving to *employment* is high (Figure 6 shows the flow of people from not in the labor force moving to employed, scaled by the size of the labor force). These patterns are good news for individuals who might have left the labor market when it was weaker, or who were discouraged from looking for jobs at that time. But the patterns also suggest that the labor market is getting quite tight.

Figure 7 shows average hourly earnings and the employment cost index, excluding incentive-paid occupations. Both series have clearly been trending up over the past five years. They are now at levels roughly consistent with a long-run full-employment benchmark, the sum of the inflation rate plus productivity growth. However, because most forecasters expect that the

unemployment rate will continue to fall – and remain well below the natural rate for some time – one can reasonably expect further increases in wages and salaries.

Overall, the data seem quite consistent with labor markets being quite tight. All of the data we have just surveyed – U-3 unemployment below its sustainable rate, historic lows in initial claims, labor flows that avoid spells of unemployment, and gradually rising wages and salaries – are consistent with tight labor markets.

How Long Will Deviations from the Dual Mandate Persist?

Turning to the expected longevity of deviations from the dual mandate goals, I would first acknowledge that these, like all forecasts, are subject to uncertainty. As suggested above, it is well-known that forecasts of economic variables have been subject to sizeable errors. Still, FOMC participants' forecasts from the most recent SEP can provide an idea of the expected duration of deviations, as well as the uncertainty surrounding these forecasts.

Figure 8 provides the unemployment forecast from the September SEP. The chart shows that the median forecast for the unemployment rate remains below the Committee's estimate of the longer-run unemployment rate of 4.6, and continues to do so through 2020. In addition, the upper end of the shaded area, which represents the range (or central tendency) of forecasts, excluding the top and bottom three forecasts, also remains below 4.6 through 2020. Clearly, FOMC participants expect the unemployment rate gap to be fairly persistent.

Figure 9 shows similar information for total PCE inflation. The inflation rate closes in on 2 percent next year, and the median forecast hits 2 percent in 2019. In addition, some

members of the Committee expect to reach 2 percent in 2018 and to overshoot the target in 2020.

Figure 10 shows similar information for core PCE inflation, which follows a similar pattern.

In summary, the forecasts of FOMC participants imply that the current and expected deviations from the inflation target are likely to be relatively *short-lived*. However, the deviations of unemployment from its sustainable rate are likely to be *persistent*. If one assumes these forecasts are reasonable, then the “balanced approach” outlined in the Committee’s framework document likely implies a continued gradual removal of accommodation to reach a level of the federal funds rate that is closer to its longer-run value. Indeed, these forecasts of inflation and unemployment deviations generally assume some further increase in interest rates, which strengthens the case for additional tightening going forward.

Are FOMC Participants Wrong About the Inflation Forecast?

While the forecasts of most participants imply a return to 2 percent, it is possible that these forecasts are based on faulty assumptions about inflation dynamics. If one believes that inflation dynamics have changed, one might prefer to wait to learn more about how – and perhaps why – inflation will actually evolve.

One explanation for persistently low inflation is the role of more globalized markets. Increased competition from abroad might make it difficult for domestic firms to raise prices. While a significant proportion of the United States economy consists of goods and services that are non-tradeable, and thus less subject to such pressures, a significant increase in competition from abroad could compress margins for those sectors most impacted by foreign competition.

Figure 11 shows the annual imports to the U.S., measured relative to GDP. While there was a large decline in imports relative to GDP as a result of the financial crisis, imports picked up in the immediate aftermath of the crisis. However, over the past four years, imports have been playing a less significant role relative to GDP. The falling share of imports seems to argue against foreign goods significantly replacing U.S. demand recently.

Another reason sometimes cited for changed inflation dynamics is the notion that the enhanced competition created by emerging technologies has left firms with no pricing power.

Figure 12 provides a measure of after-tax corporate profits, after capital consumption and inventory valuation adjustments, over the past 50 years. What is striking is how profitable firms are now relative to the past, which seems inconsistent with increased competition and a resulting inability to raise prices to maintain profit margins.

An alternative view is that there have been idiosyncratic price changes that have had the effect of artificially lowering measured inflation in a manner which should abate over time.

Figure 13 shows four Consumer Price Index (CPI) categories – communication, food away from home, rent of primary residence, and owners’ equivalent rent. The communication component of the CPI dropped significantly last spring as a result of changes in wireless pricing that are likely to be a one-time event – and thus will not have a persistent effect on inflation.

The other three categories in the figure – food away from home, owner’s equivalent rent, and rent of primary residence – are areas that have been growing faster than 2 percent. However, a recent Federal Reserve Bank of Boston policy brief by Luengo-Prado, Rao and Sheremirov (2017) indicates that these three sectors have normally grown even faster during periods of tight labor markets. Their work finds evidence of a structural break in the inflation-unemployment relationship described by the Phillips curve. **Figure 14** shows their results of running a statistical

model (more precisely an augmented sectoral Phillips Curve) through the third quarter of 2010 and then forecasting what would happen to prices if the historical relationship between unemployment and sectoral prices was unchanged in the subsequent seven years.⁵

As shown in Figure 14, on average, inflation readings for the three categories are undershooting their historical relationship by about 0.5 percentage points, due to their smaller response to tight labor markets. It is worth noting that these are not sectors that are likely to be particularly impacted by global pricing pressures or new technologies.

Thus, my own conclusion is that temporarily lower prices in the communication sector – along with the more restrained, but still noticeable, response to low unemployment in these three sectors – help explain the recent misses in the Federal Reserve’s inflation target. These findings suggest that while inflation has been low, due to temporary factors, the pattern of observed inflation is still consistent with SEP forecasts of a gradual rise toward the 2 percent target in coming quarters.

Concluding Observations

Inflation remains below the Federal Reserve’s target, which might suggest added patience in removing accommodation, given that the economy is below the equilibrium rate of interest. At the same time, the unemployment rate is currently below the level most FOMC participants think will be sustainable, which would suggest the additional removal of accommodation. How should the FOMC balance these somewhat conflicting factors? The Statement on Longer-Run Goals and Monetary Policy Strategy provides guidance for following a balanced approach.

While these so-called “misses” in the mandate are of relatively similar magnitudes currently, most forecasts expect the inflation “miss” to be temporary, but the unemployment “miss” to be more persistent. While low inflation allows monetary policymakers to remove accommodation gradually, it remains the case – in my view – that a gradual increase in interest rates is the balanced approach to reaching both of the Federal Reserve’s mandates in the next several years.

While it is possible that there is still slack in the economy, most labor market indicators seem quite consistent with tight labor markets. While it is also possible that inflation dynamics are changing, globalization and technology changes do not seem as compelling an explanation for recent inflation misses as temporary idiosyncratic factors, coupled with a somewhat flatter Phillips Curve. This inference is consistent with FOMC participants expecting to see a return to the 2 percent inflation target within the next two years. However, the unemployment rate is likely to remain below its sustainable rate for a good deal longer.

My own view is that it is quite likely that unemployment will fall below 4 percent, which is likely to increase pressures on inflation and asset prices. In my view, that suggests the need to continue to gradually remove monetary policy accommodation, which is quite consistent with market expectations of another increase in December.

Thank you.

¹ See <https://www.federalreserve.gov/faqs/statement-on-longer-run-goals-monetary-policy-strategy-fomc.htm>.

² The Federal Reserve associates a 2 percent level of inflation with price stability and a well-functioning economy.

³ For additional discussion of what the Federal Reserve considers to be full employment, see January 2017 remarks by Chair Janet L. Yellen [*The Goals of Monetary Policy and How We Pursue Them*](#).

⁴ The four-week moving average is used because it can be a noisy series – for example, if disruptions from recent hurricanes caused short-term spikes in filing for insurance.

⁵ See Federal Reserve Bank of Boston policy brief, [*Sectoral Inflation and the Phillips Curve: What Has Changed since the Great Recession?*](#) by María José Luengo-Prado, Nikhil Rao, and Viacheslav Sheremirov (2017). The authors pick 2010 Q3 because they find a significant flattening of the Phillips Curve at that time, and then identify the sectors that account for that flattening. The model is then used to forecast what would happen to these prices over the next seven years.