

Presentation to the Hayek Group, Reno, Nevada  
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## **Whither Inflation Targeting?**

Good evening; it's a pleasure to be here to discuss the economy and monetary policy with the Hayek Group. I'll start with a quick overview of the U.S. economic outlook and what it means for monetary policy. Spoiler alert: The punch line is that the economy has climbed back to full strength, and it therefore makes sense to move monetary policy gradually back to normal. That brings me to the second topic of my talk: What is "normal" monetary policy? After nearly eight years of very low or even negative interest rates and massive doses of quantitative easing around the world, it's not clear that we can, or should, go back to the old ways of doing things. At this point I need to emphasize that the views I express here today are mine alone and do not necessarily reflect those of anyone else in the Federal Reserve System.

### **The economic outlook viewed through the lens of the dual mandate**

As is well known, the Fed's dual mandate is maximum employment and price stability. As a Fed policymaker, I see virtually everything through the lens of these two objectives: What does it mean for jobs, for inflation?

I'll start with maximum employment. Our goal is not to have an unemployment rate of zero. Instead, it's to be near the "natural rate" of unemployment: That's the rate we can expect in a healthy economy. It's impossible to know exactly what that number is, but economists

generally put it between  $4\frac{3}{4}$  and 5 percent today.<sup>1</sup> With the unemployment rate at 4.9 percent, we're right on target. Of course, the unemployment rate isn't the only measure of labor market health, and it's reassuring that a range of indicators have been improving and are sending similar signals. In particular, one measure of the labor market that I look to is what regular people—by that, I mean not just economists—say when they are asked how hard it is to find a job. Those responses are right in line with the signal we're getting from the unemployment rate.<sup>2</sup>

That's the good news about where we are, and I expect things will get even better. So far this year, we're on pace to add nearly  $2\frac{1}{4}$  million jobs, which is over twice the number that we need to keep up with the trend increase in the size of the labor force. Labor force growth depends on things like the number of people retiring this year or graduating from school and entering the workforce. I put the trend at somewhere around 1 million jobs per year.<sup>3</sup> With job gains far outpacing labor force growth, I expect the unemployment rate to continue to edge down over the next year, bottoming out near 4.5 percent—a very strong labor market by any standard.

Turning to the other side of the ledger, the Fed's monetary policy committee—the Federal Open Market Committee, or FOMC for short—has set a long-run goal of 2 percent inflation.<sup>4</sup> Inflation has been running persistently below that goal for several years. Over the past couple of years, the strengthening of the dollar and declines in energy prices have pushed inflation down, but these influences should fade over time. To cut through some of the noise, it's useful to look at measures of inflation that strip out volatile prices and provide a clearer view of

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<sup>1</sup> In the June 2016 Summary of Economic Projections, the central tendency of estimates of the long-run level of the unemployment rate ranged between 4.7 and 5 percent (Board of Governors 2016a). The Congressional Budget Office estimates the natural rate to be  $4\frac{3}{4}$  percent as of August (CBO 2016). The median estimate from the Survey of Professional Forecasters in August 2016 was 4.8 percent (<https://www.philadelphiafed.org/research-and-data/real-time-center/survey-of-professional-forecasters/2016/survq316>). The Blue Chip Economic Indicators estimate is 4.9 percent as of March 2016.

<sup>2</sup> Data are from the Conference Board Consumer Confidence Survey (<https://www.conference-board.org/data/consumerconfidence.cfm>). See Weidner and Williams (2011).

<sup>3</sup> Estimates range from 600,000 to 1.2 million. See, for example, Aaronson, Brave, and Kelley (2016).

<sup>4</sup> Board of Governors (2016b).

the underlying trend. These suggest that underlying inflation is in the 1½ to 1¾ percent range. We're not quite at our target yet, but the combination of fading transitory factors and a strong economy should help us get back to our 2 percent goal in the next year or two.

To sum up, I remain confident about the road we are on. Consumer spending is strong, the labor market is running apace, and household balance sheets are improving. All in all, I see a solid domestic economy with good momentum going forward.

### **What it means for interest rates**

So, what does this mean for interest rates? In the context of a strong economy with good momentum, it makes sense to get back to a pace of gradual rate increases, preferably sooner rather than later. Let me be clear: In arguing for an increase in interest rates, I'm not trying to stall the economic expansion. It's just the opposite: My aim is to keep it on a sound footing so it can be sustained for a long time.<sup>5</sup>

History teaches us that an economy that runs too hot for too long can generate imbalances, potentially leading to excessive inflation, asset market bubbles, and ultimately economic correction and recession. A gradual process of raising rates reduces the risks of such an outcome. It also allows a smoother, more calibrated process of normalization that gives us space to adjust our responses to any surprise changes in economic conditions. If we wait too long to remove monetary accommodation, we hazard allowing imbalances to grow, requiring us to play catch-up, and not leaving much room to maneuver. Not to mention, a sudden reversal of policy could be disruptive and slow the economy in unintended ways.

### **What is normal monetary policy?**

Although the U.S. economy has managed to recover from the global financial crisis and subsequent events, it has been a painfully long and hard struggle, necessitating extraordinary

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<sup>5</sup> See Williams (2016a) for further discussion.

monetary policy actions. Many other countries have not been as fortunate and are still in the midst of prolonged economic challenges, calling forth even more aggressive policies, including negative interest rates and expanded quantitative easing programs.

Even after the present problems are overcome, new realities pose significant challenges for the conduct of monetary policy in the United States and elsewhere. Foremost is the significant decline in the natural rate of interest, or  $r^*$  (r-star), over the past quarter-century to historically low levels. The natural interest rate is the short-term real (inflation-adjusted) interest rate that balances monetary policy so that it is neither accommodative nor contractionary in terms of growth and inflation. While a central bank sets its short-term interest rate,  $r^*$  is a function of factors beyond its influence.

The daunting challenge for central banks is how to deliver stable inflation in a low  $r^*$  world. This conundrum shares some characteristics and common roots with the theory of secular stagnation; in both scenarios, interest rates, growth, and inflation are persistently low.<sup>6</sup>

### **How low can rates stay?**

A variety of economic factors have pushed natural interest rates very low and they appear poised to stay that way.<sup>7</sup> This is the case not just for the United States but for other economies as well. In a recent paper, Kathryn Holston, Thomas Laubach, and I estimated the inflation-adjusted natural rate for four major economies: the United States, Canada, the euro area, and the United Kingdom.<sup>8</sup> In 1990, estimates ranged from about 2½ to 3½ percent. By 2007, on the eve of the global financial crisis, these had all declined to between 2 and 2½ percent. By 2015, all four

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<sup>6</sup> Summers (2015).

<sup>7</sup> See Williams (2015), Hamilton et al. (2015), Kiley (2015), Lubik and Matthes (2015), and Laubach and Williams (2016).

<sup>8</sup> Holston, Laubach, and Williams (2016). Estimates are available at: [http://www.frbsf.org/economic-research/economists/jwilliams/Holston\\_Laubach\\_Williams\\_estimates.xlsx](http://www.frbsf.org/economic-research/economists/jwilliams/Holston_Laubach_Williams_estimates.xlsx)

estimates had dropped sharply, to 1½ percent for Canada and the United Kingdom, nearly zero for the United States, and below zero for the euro area.

The underlying determinants for these declines are related to the global supply and demand for funds, including shifting demographics, slower trend productivity and economic growth, emerging markets seeking large reserves of safe assets, and a more general global savings glut.<sup>9</sup> The key takeaway from these global trends is that interest rates are going to stay lower than we've come to expect in the past. This does not mean they will be zero, but when juxtaposed with pre-recession normal short-term interest rates of, say, 4 to 4½ percent, it may be jarring to see the underlying r-star guiding us towards a new normal of 3 to 3½ percent—or even lower. Importantly, this future of low interest rates is not due to easy monetary policy; instead, it is the rate expected to prevail when the economy is at full strength and the stance of monetary policy is neutral.

The critical implication of a lower natural rate of interest is that conventional monetary policy has less room to stimulate the economy during an economic downturn, owing to a lower bound on how low interest rates can go. This will necessitate a greater reliance on unconventional tools like central bank balance sheets, forward guidance, and potentially even negative policy rates.<sup>10</sup> In this new normal, recessions will tend to be longer and deeper, recoveries slower, and the risks of unacceptably low inflation and the ultimate loss of the nominal anchor will be higher.<sup>11</sup> We have already gotten a first taste of the effects of a low r-star,

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<sup>9</sup> Council of Economic Advisers (2015), International Monetary Fund (2014), Rachel and Smith (2015), and Caballero, Farhi, and Gourinchas (2016).

<sup>10</sup> Some commentators advocate trying to eliminate or significantly reduce the lower bound on interest rates by eliminating paper currency or effectively making currency bear a negative interest rate at times. See Marvin Goodfriend (2016) and references therein. In my remarks, I assume that paper currency and other considerations continue to put a lower limit on interest rates.

<sup>11</sup> See Reifschneider and Williams (2000) and Chung et al. (2012) for discussions of the effects of the lower bound. Reifschneider (2016) provides an assessment of the ability of unconventional monetary policies to mitigate the effects of the lower bound in the future. Cœuré (2016) discusses these issues in the European context.

with uncomfortably low inflation and growth despite very low interest rates. Unfortunately, if the status quo endures, the future is likely to hold more of the same—with the possibility of even more severe challenges to maintaining price stability and full employment.

### **Low r-star and strategies for mitigation**

There are actions that central banks and governments can undertake to avoid this fate. These include fiscal and other policies aimed at raising the natural interest rate, as well as alternative monetary, fiscal, and other policies that are more likely to succeed in maintaining a strong economy and stable inflation in the face of a low natural rate. In these remarks, I will focus on options related to monetary policy.<sup>12</sup>

Some historical context is in order. The inflation wars of the 1970s and 1980s led to a broad consensus regarding monetary policy among academics and policymakers that central banks are responsible and accountable for price stability. This was often acknowledged through the formal adoption of an inflation targeting framework with an explicit numerical inflation goal.<sup>13</sup> Over the past 25 years, over two dozen central banks around the world have adopted a variant of inflation targeting. Although inflation targeting central banks that aimed for a low inflation rate generally have been successful at stabilizing inflation in the past, such an approach is not as well-suited for a low r-star era. There simply may not be enough room for central banks to cut interest rates in response to an economic downturn when both natural rates and inflation are very low.

Given this reality, central banks and governments should critically reevaluate their monetary policy frameworks to identify potential improvements in the context of a low r-star.

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<sup>12</sup> See Williams (2016b) for further discussion of the roles of fiscal and other policies to affect the level of r-star and its effects on the economy.

<sup>13</sup> See Williams (2014) and references therein.

Although there are many potential alternative approaches to consider, I will focus here on two, which can be considered together or in isolation to address this issue.

The most direct attack on low  $r$ -star would be for central banks to pursue a somewhat higher inflation target. This would imply a higher average level of interest rates and thereby give monetary policy more room to maneuver.<sup>14</sup> The logic of this approach argues that a 1 percentage point increase in the inflation target would offset the deleterious effects of an equal-sized *decline* in  $r$ -star. Note that raising the inflation target by 1 or even 2 percentage points would *not* imply a return to the high rates of inflation of the 1970s. Instead, it would be a return to inflation rates that prevailed in the early 1980s through the early 1990s, when inflation tended to run between 3 and 4 percent in the United States. Of course, consideration of this approach would need to balance these benefits against the costs and challenges of achieving and maintaining a somewhat higher inflation rate.

A second alternative would be to replace the inflation target with a flexible price-level or nominal GDP target, where the central bank targets a steadily growing level of prices or nominal GDP, rather than the rate of inflation. These approaches have a number of potential advantages over standard inflation targeting. For one, they may be better suited to periods when the lower bound constrains interest rates because they automatically deliver the “lower for longer” policy prescription the situation calls for.<sup>15</sup> Because they provide a clear metric by which to judge whether the economy is above or below the stipulated goal, they may help improve the systematic conduct of policy and its communication and public understanding, especially when interest rates are constrained by the lower bound.

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<sup>14</sup> Williams (2009), Blanchard, Dell’Arricia, and Mauro (2010), Ball (2014).

<sup>15</sup> Reifschneider and Williams (2000), Eggertsson and Woodford (2003).

In addition, these alternative approaches are better designed for a world where  $r$ -star changes over time. For example, in a nominal GDP targeting regime, a decline in  $r$ -star caused by slower trend real GDP growth is offset by higher average inflation, mitigating the effect on the interest rate buffer available to respond to economic downturns. More generally, these approaches appear to be more robust to unpredictable and hard-to-measure movements in  $r$ -star.<sup>16</sup>

Finally, price and nominal GDP targeting have a built-in protection against debt deflation.<sup>17</sup> These approaches aim to return prices or nominal GDP to a predictable, steadily growing path, meaning that borrowers have more assurance about the value of the dollars they pay back. Of course, like a higher inflation target, these approaches also have potential disadvantages that must be carefully scrutinized when considering their relative costs and benefits.

## **Conclusion**

Although it has been a long, hard road back from the recession, the American economy is finally back in good shape and headed in the right direction. We're at full employment, and inflation is well within sight of and on track to reach our target. Given the progress we have made and signs of continued solid momentum in the economy, and consistent with our agreed-upon monetary policy approach, it makes sense for the Fed to gradually move interest rates toward more normal levels.

Looking toward the future, I have stressed the need to study and consider new approaches to monetary policy better suited for a low  $r$ -star world. Any shift in monetary policy strategy requires extensive analysis, consideration, and debate. But, time is not on our side. We have

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<sup>16</sup> See Orphanides and Williams (2002).

<sup>17</sup> Koenig (2013), Sheedy (2014).

witnessed the extreme difficulties of achieving price stability and full employment with a low  $r$ -star. I firmly believe that *now* is the time for experts and policymakers around the world to actively study and assess the pros and cons of alternative proposals, so that we are better prepared for the challenges related to persistently low natural real rates of interest.

Finally, thoroughly reviewing the key aspects of inflation targeting is certainly necessary, and could go a long way towards mitigating the obstructions posed by low  $r$ -star. But that is where monetary policy meets the boundaries of its influence. We've come to the point on the path where central banks must share responsibilities. There are limits to what monetary policy can and, indeed, *should* do. The burden must also fall on fiscal and other policies to do their part to help create conditions conducive to economic stability. Thank you.

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