

John C Williams: Monetary policy strategies for a low-neutral-interest-rate world

Remarks by Mr John C Williams, President and Chief Executive Officer of the Federal Reserve Bank of New York, at the 80th Plenary Meeting of the Group of Thirty, Federal Reserve Bank of New York, New York City, 30 November 2018.

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As prepared for delivery

I would like to start by thanking Tharman for the invitation to participate in this panel of esteemed current and former policymakers. I am also pleased to continue the long tradition of hosting the Group of Thirty at the Federal Reserve Bank of New York and very much look forward to this morning's discussion.

In my remarks, I will focus on the following question: What long-run monetary policy strategy is best suited to anchor inflation expectations, foster price stability, and promote maximum employment? I emphasize the phrase "long-run" because I will focus on the features of a systematic policy framework, rather than tactical policy decisions. This topic is not only of academic interest: As was recently announced, the Federal Reserve is embarking on a review of its long-run monetary policy framework.¹ I will argue that the global decline in the neutral rate of interest over the past quarter century poses significant challenges to maintaining well-anchored inflation expectations in a standard inflation-targeting regime. I will then lay out some alternative policy strategies that have the potential of providing a solid anchor for inflation expectations—even with a very low neutral interest rate—while preserving broad continuity with current inflation-targeting practice. Now that I am already way out on a limb, I should emphasize that my remarks reflect my own views and not necessarily those of the Federal Open Market Committee or anyone else in the Federal Reserve System.

As a starting point, it's useful to travel back in time to the 1980s and 1990s, when inflation targeting was introduced. The problem at the time was high and variable inflation that contributed to macroeconomic instability and unmoored inflation expectations, which in turn fueled high and variable inflation. To break this vicious cycle, numerous central banks instituted inflation targeting, or variants thereof, with a focus on bringing inflation down to a low level and fostering the establishment of stable, well-anchored inflation expectations.

This strategy worked extraordinarily well in the decade preceding the global financial crisis, as central banks were able to achieve remarkably low and stable inflation, leading to a positive feedback loop between low inflation and well-anchored inflation expectations.

Today, we face an altogether different set of problems stemming from a very low neutral interest rate—that is, the short-term real interest rate consistent with an economy operating at its potential alongside low and stable inflation. Ironically, the problem we need to solve these days is the risk of inflation that is persistently too *low*, rather than too *high*.

Today's low neutral interest rates reflect the culmination of trends extending back 25 years. A quarter century ago, a typical estimate of the neutral rate in the United States was 2 or 2½ percent—consistent with historical averages over the preceding half century. Since then, however, there has been a clear downward trend in neutral interest rates in the United States and other advanced economies, with current estimates ranging from 0 to 1½ percent.²

Three main global trends appear to account for the bulk of the decline in the neutral rate over the past quarter century.³ One is demographics: populations are aging as people live longer and birth rates have fallen. The second is productivity growth, which has slowed around the world.

The third is the heightened demand for safe and liquid assets, which has led to a wider wedge between yields on safe government securities or central bank reserves and yields on riskier assets such as corporate bonds.

Importantly, the onset of these trends preceded the global financial crisis and they have continued even as countries have recovered. Although there is a great deal of uncertainty about the neutral rate, and conditions may change, a reasonable assumption is that it will remain low—not far from current levels—for the foreseeable future.⁴

What does a low neutral rate mean for monetary policy and the anchoring of inflation expectations? When a recession hits, central banks may not be able to reduce interest rates well below their neutral level to stimulate the economy as warranted because of the effective lower bound on nominal interest rates. This shortfall of monetary accommodation would result in less desirable economic outcomes during the recession and recovery. In particular, inflation would typically undershoot its desired target during these episodes. The persistence of below-target inflation rates in many advanced economies over the past decade is a testament to this dynamic.

As a result of the inherent asymmetry introduced by the lower bound on interest rates, an inflation-targeting central bank could experience inflation that is below target, once we consider the average inflation rate over periods when policy is constrained and those when it is not. With inflation on average below the target level, inflation expectations will likely slip below the target rate as well.⁵

A simple example helps illustrate this problem. Say that 80 percent of the time, the lower bound on interest rates does not constrain policy and the central bank aims for a 2 percent target inflation rate. During these “good” times, an inflation-targeting central bank aims to keep inflation near 2 percent. But, 20 percent of the time, the economy falls into a recession that’s severe enough that the lower bound constrains policy. Assume that during these periods, inflation averages only 1 percent. So, 80 percent of the time inflation averages 2 percent and 20 percent of the time inflation averages 1 percent. The resulting average rate of inflation is about 1.8 percent. As a consequence, inflation expectations are likely to become anchored at the long-run average of 1.8 percent, below the desired 2 percent target.

But, that’s not the end of the story. This downward shift in inflation expectations has a second-round effect on real interest rates, the economy, and inflation. When policy is constrained by the effective lower bound, the downward shift in inflation expectations raises the real interest rate, further diminishing the degree of monetary stimulus, making the downturn worse and reducing inflation even more. Even in times when policy is not constrained, the expectation of below-target inflation in the future affects current decisions, putting additional downward pressure on inflation. In other words, monetary policy is always swimming upstream, fighting a current of too-low inflation expectations that interferes with achieving the target inflation rate.

A number of alternative monetary policy frameworks have been proposed that aim to tackle the problems associated with the lower bound on interest rates. Although they differ in many ways, it is useful to divide these proposals into three broad categories. The first option is to maintain the basic framework of inflation targeting and to rely on a combination of aggressive conventional and unconventional policy actions when facing economic downturns to limit the deleterious effects of the lower bound. This carries with it the risk that inflation expectations become anchored at too low a level.

The second option is “average-inflation targeting,” whereby the central bank purposefully aims to achieve an above-target inflation rate in “good” times when the lower bound is not a constraint. Properly designed and implemented, such an overshoot can offset the inflation undershoot during “bad” times so that the longer-run average inflation rate and inflation expectations are in

line with the target.

The third option is price-level targeting, including its various offshoots, such as nominal GDP targeting and temporary price-level targeting. In such a regime, the central bank commits to keep the price level near a steadily growing target path. Like average-inflation targeting, this strategy promises to overshoot the target inflation rate in “good” times to make up for the inflation undershoot when policy is constrained.

In theory, both average-inflation and price-level targeting can solve the problem of anchoring inflation expectations at the target rate while maintaining a low inflation target rate amid low neutral rates. Although price-level targeting is a bigger leap from inflation targeting than average-inflation targeting, each can be implemented in ways that are very similar to standard inflation targeting, either in terms of forecast-targeting or a policy rule.⁶ Importantly, neither will likely be effective in practice unless communicated clearly and carried out consistently over time. More broadly, all of these proposed strategies face potential costs and benefits—in terms of macroeconomic performance, communication, and robustness to uncertainty—which require careful study.

In considering alternative monetary policy strategies, academic experts, policymakers, and others from around the world have an important part to play, sharing and discussing ideas and comparing experiences to help all of us to think through these issues. This process of careful study and discussion proved highly valuable during the development and implementation of inflation targeting in decades past, and will be equally valuable in the present debates.

Thank you.

¹ See [Federal Reserve to review strategies, tools, and communication practices it uses to pursue its mandate of maximum employment and price stability](#), November 15, 2018.

² Shigeaki Fujiwara, Yuto Iwasaki, Ichiro Muto, Kenji Nishizaki, and Nao Sudo, [Developments in the Natural Rate of Interest in Japan](#), Bank of Japan Review 2016-E-12 (October 2016); Kathryn Holston, Thomas Laubach, and John C. Williams, [Measuring the Natural Rate of Interest: International Trends and Determinants](#), Journal of International Economics, Volume 108, Supplement 1, pp. S59–S75 (May 2017); Thomas Laubach and John C. Williams, [Measuring the Natural Rate of Interest Redux](#), Business Economics, Volume 51, Issue 2, pp. 57–67 (July 2016); John C. Williams, [Monetary Policy in a Low R-star World](#), FRBSF Economic Letter 2016–23 (August 15, 2016).

³ Carlos Carvalho, Andrea Ferrero, and Fernanda Nechio, [Demographic Transition and Low U.S. Interest Rates](#), FRBSF Economic Letter 2017–27 (September 25, 2017); Marco Del Negro, Domenico Giannone, Marc P. Giannoni, and Andrea Tambalotti, [Safety, Liquidity, and the Natural Rate of Interest](#), Brookings Papers on Economic Activity, Spring 2017.

⁴ John C. Williams, [The Future Fortunes of R-star: Are They Really Rising?](#) FRBSF Economic Letter 2018–13 (May 21, 2018).

⁵ Thomas M. Mertens and John C. Williams, [What to Expect from the Lower Bound on Interest Rates: Evidence from Derivatives Prices](#), Federal Reserve Bank of New York Staff Report No. 865 (August 2018).

⁶ John C. Williams, [Preparing for the Next Storm: Reassessing Frameworks and Strategies in a Low R-star World](#), FRBSF Economic Letter 2017–13 (May 8, 2017).