

# When the United States Sneezes...

Remarks by

## JOHN C. WILLIAMS

President and CEO

Federal Reserve Bank of San Francisco

At the

2017 Asia Economic Policy Conference: Monetary Challenges in a Changing Global Environment

Federal Reserve Bank of San Francisco November 16, 2017

## AS PREPARED FOR DELIVERY

#### INTRODUCTION

Good afternoon everyone. The more astute among you will have already noticed that I'm not Stan Fischer. As you undoubtedly know, Stan stepped down as Vice Chair of the Federal Reserve Board earlier this year. When I found out he was unable to attend this conference, I thought the natural thing to do was to invite myself to speak in his place, so here I am.



I've chosen a cheery topic for today. I'm going to talk about the next recession and what we should do to prepare for it. The timing of this topic may seem strange at first. After all, we're finally seeing the sustained rebound in global growth that we've long been hoping for.

But, history teaches us that a recession will come at some point, and prudence demands that we use this time of relative economic calm to plan for the storms ahead.

Economic realities for the world's developed economies have fundamentally changed and dealing with the challenges of the future is going to be much harder than it was in the past. Today I want to discuss how the world we live in has transformed. The global economy and the policy challenges that we face will be defined by slow trend growth, a very low natural rate of interest, and the lower bound on interest rates.

Befitting this conference, I'm going to frame this in an international context. The challenges ahead of us aren't unique to the United States. They're shared by many economies around the world. And a global challenge requires a global perspective that recognizes the interdependence of our economies and financial systems.

Austrian diplomat, Klemens von Metternich is credited with saying when France sneezes, Europe catches a cold. The same can be said about the United States and the global economy. We are painfully aware that a recession in the United States can have serious consequences for the rest of the world: When the U.S. economy contracted double pneumonia in 2008, the world's financial system stood on the edge of a precipice.



Given the new global realities, how can we all be better prepared for the next recession?

Before I ponder this question further, I think it would be wise to give the usual Fed disclaimer that the views I express are mine alone and do not necessarily reflect those of anyone else in the Federal Reserve System. In fact, it would probably have been even wiser to have said that five minutes ago!

#### A world of low r-star

To answer the question of how best to respond to future challenges, we first need to understand the ways in which economic fundamentals have altered the economic and policy landscape.

Most of the attention right now is on policy normalization. Central banks are pivoting towards unwinding monetary stimulus. From a monetary policy perspective, the world is starting to look more "normal." But what we're looking at is actually a "new normal," characterized by trend growth and interest rates much lower than we're used to.

Why is this? This is largely due to low r-star, the natural rate of interest, which is being held down by a number of structural issues largely beyond the control of central banks and monetary policy.

Several factors appear to be at play in driving down r-star around the globe. One is a lower sustainable growth rate, reflecting slower productivity and labor force growth.



A second is demographics: People are living longer and that is pushing up the supply of savings and depressing their returns.<sup>1</sup> Third, global demand for safe assets remains elevated, pushing down yields on central bank policy rates.<sup>2</sup> These trends predate the recession and are unlikely to turn on a dime. So what does that mean for r-star going forward?

Averaging across various estimates, r-star in the United States appears to be about 0.5 percent in real terms, and that's my view as well. Assuming inflation is running at our goal of 2 percent in the future, the typical, or normal short-term interest rate would be 2.5 percent. That's a full 2 percentage points below what a normal interest rate looked like 20 years ago.<sup>3</sup>

Very low r-star is not confined to the U.S. economy. We've seen it across other major developed countries: Demographics, slow productivity growth, and other influences have driven the average r-star across Canada, the euro area, Japan, and the United Kingdom below 0.5 percent.<sup>4</sup>

For many central banks, the near-term focus is still on the process of policy normalization. But the fundamental changes taking place in developed economies mean it's important we use this time to look at what's on the horizon and build resiliency for the future.

<sup>&</sup>lt;sup>1</sup> Carvalho, Ferrero, and Nechio (2017), Gagnon, Johannsen, and Lopez-Salido (2016), and Eggertsson, Mehrotra, and Robbins (2017).

<sup>&</sup>lt;sup>2</sup> Del Negro et al. (2017).

<sup>&</sup>lt;sup>3</sup> For comparison, the median longer-run value of the federal funds rate in the Federal Open Market Committee's most recent economic projections is 2.75 percent (Board of Governors 2017).

<sup>&</sup>lt;sup>4</sup> Holston, Laubach, and Williams (2017), Fujiwara et al. (2016).



## Monetary policy and the zero lower bound

If interest rates are only around 2 to 3 percent when the next recession hits, conventional monetary policy will have lost much of its punch. We won't be able to cut interest rates by the typical 5 percentage points to stimulate the economy because we'll quickly hit the zero lower bound. The Fed, alongside other central banks, will again have to consider unconventional monetary policy to stimulate the economy: whether forward guidance, negative interest rates, and quantitative easing, to get the economy back on track.<sup>5</sup>

In the United States, we managed to avoid using negative interest rates, but plenty of others have used this unconventional tool to manage the crisis. Denmark, Sweden, Switzerland, and Japan have all pushed interest rates below zero. Of course, there are limits to how low you can go before people start stuffing their mattresses with cash.

Given the persistent challenge of the lower bound created by this world of low r-star, what are the options for monetary policy to tackle the next recession?

## A brief history of monetary policy

Before getting to the options, it's important to understand the current framework for monetary policy and how we arrived at it.

<sup>&</sup>lt;sup>5</sup> Williams (2014, 2016).



I recognize that it's now fashionable to communicate in 140 characters or fewer. I can't give you a 150 year history of international monetary policy frameworks in 140 characters, but I can do it in just seven sentences.

During the late 19<sup>th</sup> century, most economies were on the gold standard, the first monetary policy framework where currency was valued at a fixed amount of gold. Following the First World War and the Great Depression, countries started to move off the gold standard, and policymakers started to think about what might replace it. Out of that came the Bretton Woods system in 1944, which also tied the currencies of developed economies to the price of gold. But the cost of the Vietnam War and inflation that followed led to the collapse of Bretton Woods in the early 1970s.

Once again policymakers looked around for a solution, and in 1989, the small country of New Zealand announced the main objective of its monetary policy was to target the inflation rate. In the subsequent quarter century, nearly all central banks in major economies coalesced around this approach of aiming for a low inflation rate, and, indeed, inflation targeting is the monetary policy framework *du jour*. But even New Zealand has admitted this framework was more "by default than by high design," and one must ask if it's the right approach for the future we have before us.<sup>6</sup>

<sup>&</sup>lt;sup>6</sup> Archer (2000). See also Williams (2015) for a longer version of this history of monetary policy.



## An international approach

I quoted Metternich earlier by saying, "When France sneezes, Europe catches a cold." One of the major challenges of the interconnectedness of the global economy is that, when one major player gets a virus, the rest of us tend to catch it too, and central banks need to react rapidly to reduce the seriousness of the contagion.

While it may not be an epidemic, most major economies are grappling with the consequences of a lower natural rate of interest. So a reexamination of the monetary policy framework needs to happen in that context, rather than each central bank considering its problem in isolation. Policies that may work if only one country is at the lower bound may not succeed if all are. To take one example, not all countries can depreciate their currencies at the same time.

We will all be better able to contain the next economic recession if we develop approaches that succeed even when many countries are simultaneously constrained by the lower bound. And that means taking into account the nature of monetary policy spillovers.

Let me be clear: This is not about creating a formal agreement, because as you learned from my rapid history of monetary policy in seven sentences, these don't tend to be very successful. This is more about recognizing the global nature of today's economy and developing a framework and strategies that work well together, rather than at cross-purposes.



So, what are the options? In the best of all worlds, fiscal and other policies would be put in place that propel long-run economic prosperity and boost r-star on a sustained basis.<sup>7</sup> But I fear that those changes may not arrive soon enough, if at all, and we need to prepare for a world of low r-star for the foreseeable future.

Absent such a reversal in r-star, there are a number of potential alternative strategies to cope with a low natural rate of interest. One approach is to plan on relying on unconventional policy tools, that is, follow the same playbook as during this past decade and hope that suffices.<sup>8</sup> A second is to find ways to make the lower bound more negative, giving conventional monetary policy more room to maneuver.<sup>9</sup> A third is to raise the inflation target.<sup>10</sup> And fourth is to modify inflation targeting by moving to a price level or nominal income target.<sup>11</sup>

Each of these alternatives has significant advantages and disadvantages, which need further careful study and discussion. I'm talking about these choices today not because I advocate an abrupt about-face in policy, but to advance a conversation about what a different international framework might look like.<sup>12</sup> Of course the major problem with some of these approaches such as price level targeting is that no one's tried it yet! And experiments where the safety of the world's financial system is at stake are high risk, to say the very least.

<sup>7</sup> Williams (2016).

<sup>&</sup>lt;sup>8</sup> Reifschneider (2016).

<sup>&</sup>lt;sup>9</sup> Bernanke (2016).

<sup>&</sup>lt;sup>10</sup> Williams (2009), Blanchard, Dell'Ariccia, and Mauro (2010), and Ball (2014).

<sup>&</sup>lt;sup>11</sup> Williams (2017), Bernanke (2017).

<sup>&</sup>lt;sup>12</sup> See additional discussion in Williams (2016).



That said, I am encouraged by the willingness of leading experts and policymakers to seriously discuss and develop these ideas in the context of low r-star in the United States. I and others have discussed the merits of price level targeting. Ben Bernanke recently built on this work by suggesting a temporary price level target, to apply only when short-term interest rates are at or very near the zero lower bound. These are the kinds of conversations we need to be having to put us in the best position possible to tackle the next recession. But these discussions need to happen across all countries to ensure that the next recession causes only coughs and colds rather than widespread pneumonia.

### Conclusion

Ladies and gentlemen, I am by nature an optimist. But even for a glass half-full kind of guy, it would be downright naïve to assume we won't face another economic downturn. So it's prudent to spend this period examining our monetary policy framework and considering how to make ourselves more resilient. No one's yet come up with a cure for the common cold, but we do know that good hand-washing, vitamin C, and rest can reduce symptoms and prevent it from spreading. Now is the time to stock up on tissues and make sure we're as well prepared as we can be for the next recession.

<sup>13</sup> Bernanke (2017).



#### References

- Archer, David J. 2000. "A Presentation to a Seminar on Inflation Targeting." International Monetary Fund, March. <a href="https://www.imf.org/external/pubs/ft/seminar/2000/targets/archer.htm">https://www.imf.org/external/pubs/ft/seminar/2000/targets/archer.htm</a>
- Ball, Laurence. 2014. "The Case for a Long-Run Inflation Target of Four Percent." IMF Working Paper 14/92, June. <a href="https://www.imf.org/en/Publications/WP/Issues/2016/12/31/The-Case-for-a-Long-Run-Inflation-Target-of-Four-Percent-41625">https://www.imf.org/en/Publications/WP/Issues/2016/12/31/The-Case-for-a-Long-Run-Inflation-Target-of-Four-Percent-41625</a>
- Bernanke Ben S. 2016. "What Tools Does the Fed Have Left? Part 1: Negative Interest Rates." Ben Bernanke's Blog, Brookings, March 18. <a href="https://www.brookings.edu/blog/ben-bernanke/2016/03/18/what-tools-does-the-fed-have-left-part-1-negative-interest-rates/">https://www.brookings.edu/blog/ben-bernanke/2016/03/18/what-tools-does-the-fed-have-left-part-1-negative-interest-rates/</a>
- Bernanke, Ben S. 2017. "Temporary Price-Level Targeting: An Alternative Framework for Monetary Policy." *Ben Bernanke's Blog*, Brookings, October 12. <a href="https://www.brookings.edu/blog/ben-bernanke/2017/10/12/temporary-price-level-targeting-an-alternative-framework-for-monetary-policy/">https://www.brookings.edu/blog/ben-bernanke/2017/10/12/temporary-price-level-targeting-an-alternative-framework-for-monetary-policy/</a>
- Blanchard, Olivier, Giovanni Dell'Ariccia, and Paolo Mauro. 2010. "Rethinking Macroeconomic Policy." *Journal of Money, Credit, and Banking* 42(s1), pp.199–215.
- Board of Governors of the Federal Reserve System. 2017. "FOMC Projections Materials, accessible version." September 20. <a href="https://www.federalreserve.gov/monetarypolicy/fomcprojtabl20170920.htm">https://www.federalreserve.gov/monetarypolicy/fomcprojtabl20170920.htm</a>
- Carvalho, Carlos, Andrea Ferrero, and Fernanda Nechio. 2017. "Demographic Transition and Low U.S. Interest Rates." FRBSF Economic Letter 2017-27 (September 25). <a href="http://www.frbsf.org/economic-research/publications/economic-letter/2017/september/demographic-transition-and-low-us-interest-rates/">http://www.frbsf.org/economic-research/publications/economic-letter/2017/september/demographic-transition-and-low-us-interest-rates/</a>
- Del Negro, Marco, Domenico Giannone, Marc P. Giannoni, and Andrea Tambalotti. 2017. "Safety, Liquidity, and the Natural Rate of Interest." *Brookings Papers on Economic Activity* (Spring). <a href="https://www.brookings.edu/bpea-articles/safety-liquidity-and-the-natural-rate-of-interest/">https://www.brookings.edu/bpea-articles/safety-liquidity-and-the-natural-rate-of-interest/</a>
- Eggertsson, Gauti B., Neil R. Mehrotra, and Jacob A. Robbins. 2017. "A Model of Secular Stagnation: Theory and Quantitative Evaluation." National Bureau of Economic Research Working Paper 23093. <a href="http://www.nber.org/papers/w23093">http://www.nber.org/papers/w23093</a>
- Fujiwara, Shigeaki, Yuto Iwasaki, Ichiro Muto, Kenji Nishizaki, and Nao Sudo. 2016. "Developments in the Natural Rate of Interest in Japan." *Bank of Japan Review* 2016-E-12 (October). <a href="https://www.boj.or.jp/en/research/wps\_rev/rev\_2016/rev16e12.htm/">https://www.boj.or.jp/en/research/wps\_rev/rev\_2016/rev16e12.htm/</a>



- Gagnon, Etienne, Benjamin K. Johannsen, and J. David Lopez-Salido. 2016. "Understanding the New Normal: The Role of Demographics." Board of Governors of the Federal Reserve System Finance and Economics Discussion Series 2016-080. http://dx.doi.org/10.17016/FEDS.2016.080
- Holston, Kathryn, Thomas Laubach, and John C. Williams. 2017. "Measuring the Natural Rate of Interest: International Trends and Determinants." *Journal of International Economics* 108(1, May), pp. S59–S75. Working paper version available at <a href="http://www.frbsf.org/economic-research/publications/working-papers/2016/11/">http://www.frbsf.org/economic-research/publications/working-papers/2016/11/</a>
- Reifschneider, David. 2016. "Gauging the Ability of the FOMC to Respond to Future Recessions." Board of Governors of the Federal Reserve System Finance and Economics Discussion Series 2016-068. http://dx.doi.org/10.17016/FEDS.2016.068
- Williams, John C. 2009. "Heeding Daedalus: Optimal Inflation and the Zero Lower Bound." Brookings Papers on Economic Activity 2009-2, pp. 1–37. <a href="https://www.brookings.edu/bpea-articles/heeding-daedalus-optimal-inflation-and-the-zero-lower-bound/">https://www.brookings.edu/bpea-articles/heeding-daedalus-optimal-inflation-and-the-zero-lower-bound/</a>
- Williams, John C. 2014. "Monetary Policy at the Zero Lower Bound: Putting Theory into Practice." Working paper, Hutchins Center on Fiscal and Monetary Policy at Brookings. January. <a href="https://www.brookings.edu/research/monetary-policy-at-the-zero-lower-bound-putting-theory-into-practice/">https://www.brookings.edu/research/monetary-policy-at-the-zero-lower-bound-putting-theory-into-practice/</a>
- Williams, John C. 2015. "Monetary Policy and the Independence Dilemma." Presentation to Chapman University, Orange, CA. May 1. <a href="http://www.frbsf.org/our-district/press/presidents-speeches/williams-speeches/2015/may/monetary-policy-independence-dilemma/">http://www.frbsf.org/our-district/press/presidents-speeches/2015/may/monetary-policy-independence-dilemma/</a>
- Williams, John C. 2016. "Monetary Policy in a Low R-star World." FRBSF Economic Letter 2016-23 (August 15). <a href="http://www.frbsf.org/economic-research/publications/economic-letter/2016/august/monetary-policy-and-low-r-star-natural-rate-of-interest/">http://www.frbsf.org/economic-research/publications/economic-letter/2016/august/monetary-policy-and-low-r-star-natural-rate-of-interest/</a>
- Williams, John C. 2017. "Preparing for the Next Storm: Reassessing Frameworks and Strategies in a Low R-star World." FRBSF Economic Letter 2017-13 (May 8). <a href="https://www.frbsf.org/economic-research/publications/economic-letter/2017/may/preparing-for-next-storm-price-level-targeting-in-low-r-star-world-speech/">https://www.frbsf.org/economic-letter/2017/may/preparing-for-next-storm-price-level-targeting-in-low-r-star-world-speech/</a>