

Interest Rates and the “New Normal”

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Introduction

Good morning everyone. Today I’m going to talk about interest rates... in a lot of detail... so I hope you all got yourselves an extra large cup of coffee before you found your seats this morning.

Why am I talking about interest rates? First, as President of the San Francisco Fed it’s a favorite subject of mine! Second, there are a lot of misperceptions out there about what’s going to happen to interest rates, when they’ll rise and by how much. As bankers, interest rates play a pivotal role in your lives, so I thought that you might appreciate a deeper dive into the current thinking.

I frequently hear people say, “as things return to normal, and rates rise, we’ll be able to do A, B, or C.” It’s true that, post-financial crisis, things *are* returning to

normal. But normal may look and feel quite a bit different from what you're used to, so I want to talk about this "new normal".

Since it's clear I'm going to be talking about interest rates, now is the perfect time to insert 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.

First, the good news: The economy is growing at a moderate pace. In fact, we're now in the ninth year of the expansion. As a result of the progress we've made getting our economy back on track, we're in the process of slowly moving interest rates back up to more normal levels. But what does "normal" mean?

I know that for many in finance the word normal conjures memories of the '90s, when interest rates were often above 4 percent. But like the pager, the Walkman, and the Macarena, we're unlikely to see such rates return. Bottom line: In the new world of moderate economic growth, banks need to plan for lower rates.

Why is this? To explain why, I'm going to talk a bit about something called r^* , which is shorthand for normal interest rates. Then I'm going to talk a bit about growth, a bit about inflation, and discuss some interesting factors behind why

inflation's remained stubbornly low (despite strong employment).

Finally, I'm going to switch tacks and talk about the Fed balance sheet and what it means for longer-term rates.

Please pay attention, because I'm looking forward to a lively discussion afterwards about the new normal and what that means for community banking.

R-star

With that road map in mind, let's dive into r-star. R-star is what economists call the natural rate of interest; it's the rate expected to prevail when the economy is at full strength, and it's a helpful way to understand the new normal both in the short and longer term. While a central bank like the Fed sets short-term interest rates, r-star is a result of structural economic factors beyond the influence of central banks and monetary policy.

My own view is that r-star today is around 0.5 percent. 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.¹ We've seen this trend across other major economies: Average r-star across Canada, the euro area, Japan, and the United Kingdom is a bit below 0.5 percent.²

A variety of factors have pushed r-star to this low level, and they appear poised to stay that way.³ The major one is that the *sustainable* growth rate of the economy has slowed dramatically from prior decades.⁴ I put that growth rate at 1.5 percent for inflation-adjusted GDP, the slowest pace we've seen in our lifetimes. This slowdown reflects a one-two punch of a sharp decline in labor force growth and slower productivity growth.⁵

What's caused the decline in labor force growth? Two main things: First, the baby boomers are retiring in droves. Second, the fertility rate in the United States has been declining and recently reached an unusually low level.⁶ Monetary policy can only go so far, and it's beyond my job description to encourage people to have more babies!

¹ For comparison, the median longer-run value of the federal funds rate in the Federal Open Market Committee's (FOMC) most recent economic projections is 2.75 percent (Board of Governors 2017b).

² Holston, Laubach, and Williams (2017), Fujiwara et al. (2016).

³ Williams (2017).

⁴ Population aging and longer lifespans also have contributed; see Carvalho, Ferrero, and Nechio (2017).

⁵ Fernald (2016).

⁶ Hamilton et al. (2017).

The same thing is true about productivity growth, which has also slowed in contrast with earlier decades. In the 1990s and early 2000s, annual productivity gains averaged 2 to 3 percent. Productivity gains since the recession have generally hovered below 1 percent.

Productivity growth is influenced by technological innovation, investments in education, research and development. I know that productivity in San Francisco would rise by leaps and bounds if there were fewer hipster coffee shops. But this, like policy decisions on education, are beyond the scope of the Federal Reserve System.

This very low r -star rate has two implications: For bankers, a new normal of moderate growth and lower interest rates will have a significant bearing on lending growth and profitability.

Stepping back, the broader implication is that conventional monetary policy has less room to stimulate the economy during an economic downturn. Looking through this lens, we will need to lean more heavily on unconventional tools, like

central bank balance sheets, keeping interest rates very low for a long time, and potentially even negative policy rates.⁷

Thank you for indulging my foray into r-star and what it means for rates. Of course, I can't talk about interest rates without discussing its bedfellows: growth, inflation, and employment.

Growth, inflation, and employment

Despite the terrible human tragedy caused by recent hurricanes, the economic expansion appears to remain on track. I see the economy over the next few years continuing on the same moderate path.

That may seem disappointing, but as I've already said, changes in demographics and slow gains in productivity mean the economy's growth *potential* is moderate too. Given the current conditions, if growth were to increase too much, it could lead to an asset price bubble or other problems like high inflation. This is exactly what we want to avoid in order to keep the economy on an even footing and reduce the likelihood of another deep recession.

⁷ Reifschneider (2016).

Turning to inflation, I feel the agony of Sisyphus, as core inflation rolled back down the hill after being so near to our 2 percent goal earlier in the year. This low inflation, against a background of steady growth and strong employment, has been attracting a lot of attention from Fed commentators in recent months.

For context, the Fed's preferred measure of inflation has been running a little under 1.5 percent, below our longer-term goal of 2 percent. In July, the *Financial Times* described the Fed as being "baffled" by low inflation numbers.⁸

I assure you that Fed economists are rarely baffled, but when they do see something that doesn't make sense, they work hard to find out why it's happening.

My own staff at the San Francisco Fed recently took a closer look at what's been holding inflation down. They distinguished between prices of goods and services that tend to move up and down with the overall economy and those that mostly move in response to factors unique to their industry or sector.

⁸ Martin (2017).

They found that inflation rates for prices that tend to be sensitive to the state of the economy have moved back up to around pre-recession levels as the economy has recovered. So, no mystery there.

But, they also found that inflation rates for other categories that tend to be less sensitive to the economy had fallen a lot and have remained very low. Some of this is the result of outsize drops in prices for pharmaceuticals, airline tickets, cellular phone services, and education. In the past, such sharp price movements in these industries have proven to have a temporary effect on inflation, and I don't expect them to last this time either.

An even bigger contribution to low inflation has been coming from the health-care sector. Mandated cuts to Medicare payment growth, which also tend to be incorporated into payments for nongovernment health services, have kept inflation in overall health-care services unusually low for several years.⁹ These legislated changes have been a key factor holding inflation below the Fed's 2 percent target, despite a strengthening economy.

⁹ Clemens, Gottlieb, and Shapiro (2016).

As these effects wane and the strong economy pushes inflation higher for prices that tend to be sensitive to the economy, I am optimistic that inflation will move up to our 2 percent goal over the next couple of years. As inflation rises and the economic expansion continues, we will be able to move interest rates up to their *new* normal level.

Which brings me to employment – Congress has given the Federal Reserve two key monetary policy goals: maximum employment and price stability. When it comes to our employment goal, I think of this in terms of the unemployment rate relative to the natural or “normal” rate of unemployment – you might be shocked to hear that this is what economists call u-star, but I’ll save that topic for another day. We can’t know precisely what the normal rate of unemployment is, but I put it at about 4¾ percent.¹⁰

The unemployment rate is 4.4 percent – meaning that we’ve not only reached the full employment mark, we’ve exceeded it. Given the strong job growth we’ve been seeing in the United States, I expect the unemployment rate to decline over the next year, ultimately falling a bit below 4 percent. We’ve only experienced

¹⁰ For comparison, the Congressional Budget Office (2017) puts the natural rate at 4.7 percent, the median value from the Survey of Professional Forecasters (Federal Reserve Bank of Philadelphia 2017) is 4.5 percent, and the median projection from the FOMC (Board of Governors 2017b) is 4.6 percent.

such a low unemployment rate a few times during my lifetime, at the end of the 1960s and the end of the 1990s.

These favorable employment numbers, combined with the findings on inflation and the steady pace of growth, are all behind my confidence that rates will need to rise to their new normal levels.

Long-term interest rates and the Fed balance sheet

We've discussed the new normal of short-term rates, so as promised I'm now going to turn to longer-term rates and the Fed balance sheet.

In response to the recession and slow recovery, the Fed purchased trillions of dollars of long-term Treasury and mortgage-backed securities. The goal was to lower long-term interest rates and give the economy an extra boost. In the pursuit of getting interest rates back to new normal levels, we're now starting the process of gradually reducing these holdings.¹¹ This will tend to push long-term rates back up gradually over the next few years.

¹¹ Board of Governors (2017a)

With short-term interest rates likely to average around 2.5 percent in the future, what does all this mean for long-term rates? Historically, the yield on the benchmark 10-year Treasury note averaged about 1.5 percentage points above the federal funds rate.

This spread between long-term and short-term yields is an important source of banks' profitability, and it narrowed during the period of very low interest rates. The question is whether it will return to the old normal level or if there is a new normal spread as well.

To answer that question, you need to take account of *two* major factors that affect the spread between short and long-term rates. The first is the Fed's expanded balance sheet. One estimate is that the Fed's holdings are currently pushing down long-term rates by a little less than 1 percentage point.¹² As the Fed unwinds its balance sheet, this should put increasing upward pressure on longer-term yields.

Second, there are reasons to believe that the spread between short and long-term rates will not return to levels we saw in the past. For one, these large

¹² Bonis, Ihrig, and Wei (2017).

spreads occurred during an extended period when interest rates were falling. This downward trend may have artificially widened spreads.

I don't claim to have a crystal ball, but a reasonable educated guess for the future normal spread between a 10-year Treasury note and the federal funds rate is somewhere close to 1 percentage point. In fact, this is the figure implied by the long-run Blue Chip forecast.

Conclusion

Ladies and gentlemen, the Fed is moving towards more normal monetary policy, and that means rising interest rates. But r^* , a slower sustainable pace of growth, and inflation all point to a new normal where interest rates are lower than the heady days of the 1990s and early 2000s. For those of you still listening to a Walkman, it may be time to get a smartphone. The new normal is likely to be 2.5 percent, and banks, and everyone else, need to prepare accordingly.

That is, of course, until the data tell us something different.

References

- Board of Governors of the Federal Reserve System. 2017a. "Federal Reserve Issues FOMC Statement." Press release, September 20.
<https://www.federalreserve.gov/newsevents/pressreleases/monetary20170920a.htm>
- Board of Governors of the Federal Reserve System. 2017b. "FOMC Projections materials, accessible version." September 20.
<https://www.federalreserve.gov/monetarypolicy/fomcprojtabl20170920.htm>
- Bonis, Brian, Jane Ihrig, and Min Wei. 2017. "Projected Evolution of the SOMA Portfolio and the 10-year Treasury Term Premium Effect." FEDS Notes. Board of Governors of the Federal Reserve System, September 22. <https://doi.org/10.17016/2380-7172.2081>
- Carvalho, Carlos, Andrea Ferrero, and Fernanda Nechio. 2017. "Demographic Transition and Low U.S. Interest Rates." *FRBSF Economic Letter* 2017-27 (September 25).
<http://www.frbsf.org/economic-research/publications/economic-letter/2017/september/demographic-transition-and-low-us-interest-rates/>
- Clemens, Jeffrey, Joshua D. Gottlieb, and Adam Hale Shapiro. 2016. "Medicare Payment Cuts Continue to Restrain Inflation." *FRBSF Economic Letter* 2016-15 (May 9).
<http://www.frbsf.org/economic-research/publications/economic-letter/2016/may/medicare-payment-cuts-affect-core-inflation/>
- Congressional Budget Office. 2017. "An Update to the Budget and Economic Outlook: 2017 to 2027." Report, June. <https://www.cbo.gov/publication/52801>
- Federal Reserve Bank of Philadelphia. 2017. "Survey of Professional Forecasters." Third Quarter (August 11). <https://www.philadelphiafed.org/research-and-data/real-time-center/survey-of-professional-forecasters/2017/survq317>

- Fernald, John. 2016. "What Is the New Normal for U.S. Growth?" *FRBSF Economic Letter* 2016-30 (October 11). <http://www.frbsf.org/economic-research/publications/economic-letter/2016/october/new-normal-for-gdp-growth/>
- 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). https://www.boj.or.jp/en/research/wps_rev/rev_2016/data/rev16e12.pdf
- Hamilton, Brady E., Joyce A. Martin, Michelle J.K. Osterman, Anne K. Driscoll, and Lauren M. Rossen. 2017. "Births: Provisional Data for 2016." *Vital Statistics Rapid Release* 2 (June), National Center for Health Statistics. <https://www.cdc.gov/nchs/data/vsrr/report002.pdf>
- 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 <http://www.frbsf.org/economic-research/publications/working-papers/2016/11/>
- Martin, Felix. 2017. "Back to the Future on Inflation." *Financial Times*, July 27. <https://www.ft.com/content/e2cdc6c0-72a3-11e7-93ff-99f383b09ff9>
- Reifschneider, David. 2016. "Gauging the Ability of the FOMC to Respond to Future Recessions." Finance and Economics Discussion Series 2016-068. Board of Governors of the Federal Reserve System. <http://dx.doi.org/10.17016/FEDS.2016.068>
- Williams, John C. 2017. "Three Questions on R-star." *FRBSF Economic Letter* 2017-05 (February 21). <http://www.frbsf.org/economic-research/publications/economic-letter/2017/february/three-questions-on-r-star-natural-rate-of-interest/>