

# Low-for-ultra-long policy will not be enough for Japan\*



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J.P. Morgan

*Keywords: Natural rate of interest, QE, Negative interest rate policy, effective lower bound, economic growth, inflation.*

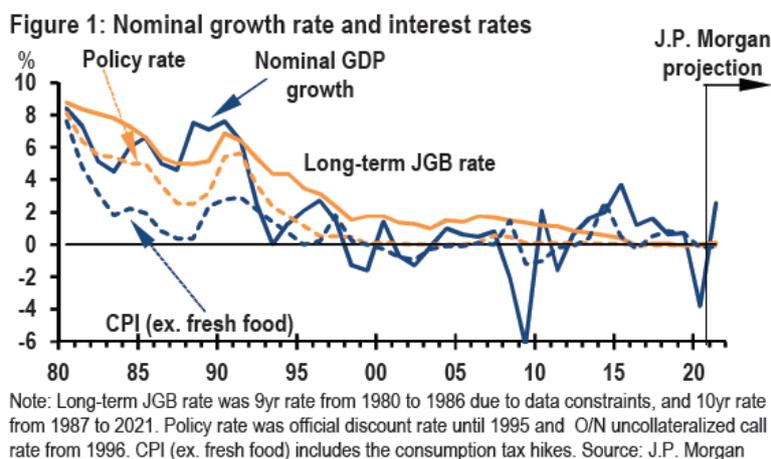
- *BoJ started zero-rate policy in mid-1990s when Japan was on the way to deflation*
- *Since then, on average  $r$  has been lower than  $r^*$  except in some cases, but the BoJ has failed to lower real rates sharply by raising inflation expectations*
- *Once inflation expectations have declined to a very low level, it is hard to raise them given the ELB constraint*
- *Low-for-ultra-long yield policy unlikely to succeed in a few years*
- *$r^*$  will need to rise for monetary policy to be effective*

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In the US the probability of the Fed exiting its zero rate policy in a few years has been rising. This owes much to the Fed's policy reaction function, and the stickiness of prices which allowed the Fed to lower real rates by cutting nominal rates, thereby boosting the economy. In addition, we can point to two more prerequisites. First, in the US, well-functioning capital markets provide risk money. When interest rates declined, money poured from bond markets into capital markets. Second, when the Fed introduced its zero rate policy, inflation expectations in the US remained slightly below 2%.



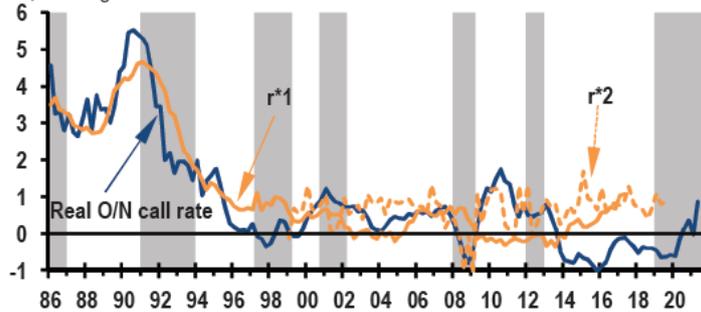
In Japan, the BoJ has had an almost-zero rate policy since 1995 (Figure 1). Powerful deflationary/disinflationary forces and policy rates at the effective lower bound have persisted for more than 20 years, much longer than is typically contemplated in economic analysis. When Kuroda's BoJ innovatively introduced QQE in 2013, [the BoJ tried to raise inflation expectations in an attempt to boost growth and exit persistent deflation, raising inflation to the target](#). It failed. The BoJ failed to raise inflation expectations and lower real rates persistently because it was constrained by rates at the effective lower bound (ELB) and underestimated the negative impact of the consumption tax rate hike, thus could not respond forcefully enough to inflation disappointments. As a result, markets lost confidence in the BoJ's ability and commitment to reach the inflation target. As a consequence markets now believe that the BoJ will conduct LULY (low-for-ultra-long yield) policy, longer than other DM CBs. [With Japan's low growth expectations and weak corporate productivity performance in mind](#), whether this policy stance can contribute significantly to achieving the 2% target is the main focus of this note.

## Zero rate policy has not lowered real rate sufficiently until now

We start by assessing the effectiveness of the BoJ's easing policy. We assess the degree of monetary easing by the difference of the real policy rate ( $r$ ) and the natural rate of interest ( $r^*$ ) taking into account the difficulties in estimating  $r^*$  (Figure 2). After the burst of the asset price and credit bubble in 1990, the BoJ continued to ease, and generally  $r$  was lower than  $r^*$ . That said, there were two phases of financial tightening: In 1995 when the BoJ first shifted the policy rate to the O/N uncollateralized call rate and cut rates to almost zero (0.5%) but the yen appreciated rapidly, and in 2000 and 2001, when the BoJ lifted the true zero rate policy (2000) but faced the burst of the global IT bubble and shifted to QE (2001). On the other hand, during the domestic banking crisis in 1997 the BoJ maintained accommodative financial conditions. Core CPI inflation (excluding fresh food) dropped to zero at the end of 1990s, Japan slipped into deflation in the early 2000s (Figure 1), suggesting that the BoJ had not eased enough to counteract the deflationary shocks of the 1990s and prevent the slide into deflation. After that, facing the ELB, the BoJ lowered the long-term nominal interest rates through the CE (2010-) after the GFC when  $r$  clearly exceeded  $r^*$ , followed by QQE (2013-), adding stimulative effects, which cannot be measured by a simple comparison of  $r^*$  and  $r$  (see [here <appendix>](#)).

Figure 2: Real policy rate and  $r^*$

%, shading shows recessions



Note: Real O/N call rate is uncollateralized O/N call rate - BoJ core CPI (ex. fresh food & energy and consumption tax rate hike).  $r^*$ s are the rate where savings are equal to investments.  
Source: Okazaki and Sudou (2018), Hirose (2020), J.P. Morgan

With QQE starting in 2013 the BoJ committed to doing whatever it takes to achieve the 2% target in two years. Though it succeeded in lowering  $r$  clearly below  $r^*$ , given that it was constrained by the ELB, it still failed to respond aggressively to inflation disappointments. After that, the BoJ shifted from QQE to YCC to secure the sustainability of the easing, but did not ease further. This experience suggests that with both short- and long-term yields at zero it was very difficult to raise inflation expectations.

Figure 3: Medium-term inflation expectations

Inflation swap rate (10yr), %



Source: Bloomberg Finance L.P.

Partly because Japan's inflation expectations was already at a low level when the BoJ adopted the almost zero rate policy and turned toward more pessimism thereafter, and because Japan's inflation expectations are strongly backward looking, the policy's impact on inflation expectations has been small except for 2013-15, when QQE sparked yen depreciation and the consumption tax hike raised prices (Figure 3). The real bond yield has been only slightly negative and not much below the low real return on capital, resulting in limited stimulus (Figure 4).

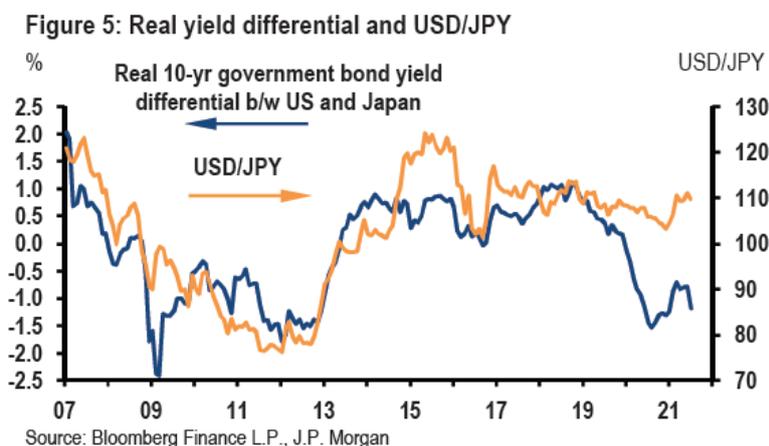
Figure 4: Real 10-yr government bond yields

Government bond rate (10yr) - inflation swap rate (10yr), %



Source: Bloomberg Finance L.P., J.P. Morgan

The influence of the monetary easing on the exchange rate is another channel to affect the economy. The real long-term yield differential between the US and Japan, usually affects the USD/JPY exchange rate strongly (Figure 5). This relationship and the steep drop in the US the real yield and Japan’s almost unchanged real yield since the start of the pandemic suggests significant appreciation pressure on the yen, which might force the BoJ to respond. However, fortunately, recently this relationship has not held, reflecting Japanese firms investing abroad and offshore investors selling of Japanese stocks on disappointment in Japanese firms (Sasaki, et al.). On the other hand, since Japanese households have a strong belief in the yen, there is no sign of broader capital flight or subsequent further yen depreciation.



Let us compare the real rate and inflation expectations in Japan with those in the US (Table 1). The original purpose of the BoJ policy is that by maintaining the policy rate at zero, inflation expectations should rise to the 2% objective, while the real rate should decline to -2% to stimulate the economy and prices. However, since the BoJ adopted QQE and YCC, inflation expectations have turned positive but have not risen much, and the real long-term interest rate has not declined much. This is quite a contrast with the US, where the zero rate policy has succeeded in maintaining inflation expectations at over 2%, thereby decreasing the real rate to boost the economy. When this policy change is recognized as a decisive and limited-term action, people would not tend to store money and would invest more without lowering inflation expectations.

Table 1: Fisher equation in Japan and the US

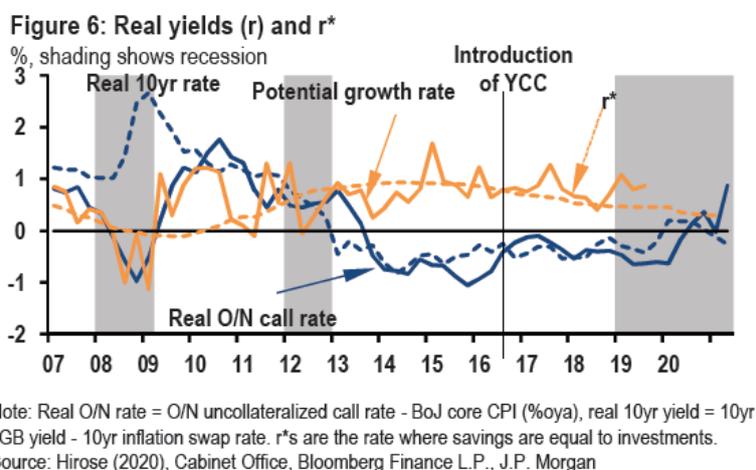
|                         | Nominal 10yr rate | Real 10yr rate | 10yr inflation expectations |
|-------------------------|-------------------|----------------|-----------------------------|
| * proxied by actual CPI |                   |                |                             |
| <b>(Japan)</b>          |                   |                |                             |
| Policy purpose          | 0.0               | -2.0           | 2.0                         |
| Recent                  | 0.1               | -0.2           | 0.3                         |
| 2013-2019               | 0.2               | -0.4           | 0.6                         |
| 1999-2012               | 1.4               | 1.6            | -0.3*                       |
| <b>(US)</b>             |                   |                |                             |
| Recent                  | 1.5               | -1.0           | 2.5                         |

Note: Inflation expectations are 10yr inflation swap rate. Actual CPI inflation is core CPI (ex. fresh food and consumption tax hike) growth. Source: Statistics Bureau, Bloomberg Finance L.P., J.P. Morgan

## LULY policy facing ELB cannot achieve the inflation target

If the BoJ lowers the policy rate sharply, it could stimulate the economy, but we think the ELB constrains its ability to raise inflation. The [existence of the reversal interest rate \(the rate at which lowering the policy rate further becomes contractionary – around -0.5%\) and of the likely threshold for depositors shifting from deposits to cash \(-0.5% to -1.0% range\)](#), limits the size of possible further rate cuts.

Then the next question is whether the continuation of the LULY policy would prompt a rapid economic recovery and raise inflation to 2%. First of all, the first-round impact of monetary easing in shifting demand from the future to the present likely has been exhausted over the past 20 years. Next, as Figure 6 indicates in more detail, while the BoJ has trouble lowering the real O/N rate and the real 10-year yield ( $r$ ), Japan's natural rate of interest ( $r^*$ ) where savings are equal to investments or its potential growth rate as the proxy of  $r^*$  in the long run could decline further unless firms can be incentivized to reduce their savings and invest aggressively to raise productivity growth.

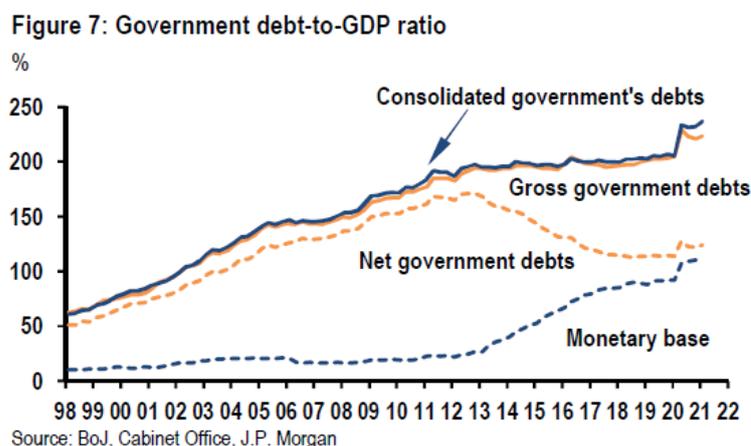


Fortunately, unlike the US, where  $r^*$  is declining partly due to excess external savings in addition to the gradual decline in the potential growth rate, Japanese markets do not rely on foreign investors like US markets. As a result Japan has not experienced downward pressure on  $r^*$  from external savings. However, if the potential growth rate declines further and negative shocks come,  $r^*$  likely will also decline further. If this materializes, it would reduce the easing effect of monetary policy ( $r^* - r$ ), tightening financial conditions and lowering inflation expectations. Furthermore, simple continuation of the LULY policy with no prospect of achieving the 2% inflation target could further hurt the BoJ's credibility, which would work against a possible rise in inflation expectations.

## How can macroeconomic policies help to exit this trap?

Of course, the strong global economic recovery and pent-up domestic demand backed by fiscal support can boost economic growth in the near future, but this should be transitory and inflation likely will remain subdued, different from in 2013-2015 when large fiscal spending and significant yen depreciation supported the Japanese economy and the yen depreciation and the consumption tax rate hike pushed up inflation expectations. [The mobilization of excess corporate savings for investment would have a stronger impact on the economy, in our view.](#) Below we look at potential options from this perspective.

1. **Will the BoJ's advance announcement of a future rise in interest rates be effective?** This is the measure neo-Fisherians recommend. They reverse the standard causality of the Fisher equation (from inflation expectations to nominal interest rates) and think a rise in interest rates would raise inflation expectations. Actually, there is empirical research that the BoJ's past exit from QE and ZIRP in 2006 raised inflation and output ([Hayashi and Koeda 2019](#)). However, there is no assurance that such causality works and standard analysis suggests this would tighten financial conditions in the short run. In addition, the rise in nominal rates rate would raise the cost of funding government debt. Above all, we think market participants are unlikely to find such a commitment from the BoJ credible.
2. **Will large-scale fiscal spending that lifts long-term rates reduce excess savings and high cash holdings?** In addition to the direct stimulus effect, if consolidated government debt (government debt net of the BoJ's purchases plus the monetary base) are seen to increase significantly, it could raise expected inflation, thereby lowering the real rate and stimulating real capital investment. Before the COVID-19 crisis came, consolidated government debt was stable at a high level, not expanding dramatically. But, since the start of the outbreak debt has increased significantly (Figure 7). However, unless people are concerned that the government may not be able to pay them back, this expansionary effect may be transitory, and end when this policy stops. If the rise in long-term rates increases the burden of interest payment significantly, it would raise the risk of the government shifting to aggressive fiscal consolidation.



3. **Raising Japan's growth expectations:** [If firms expect the domestic economy to expand and households expect a future increase in their income, unlike in the past 30 years, they would increase their spending,](#) and firms would become more aggressive in changing their prices. As a result, if  $(r^* - r)$  rises, monetary easing also will be more effective. The Suga administration is seeking structural reforms in terms of green growth, promoting DX, promoting restructuring of private firms through investment, and (a weak form of) investment in human resources for this reason. At least [the policy for promoting restructuring has started to work.](#) The BoJ also decided to [introduce a new fund-provisioning measure to address climate change to support such reforms from the funds allocation side.](#) We think the government's and the BoJ's efforts are moving in the right direction, amid ongoing efforts to improve corporate governance. However, the current measures that have been adopted or are in the planning stage likely will not be enough to raise growth expectations. We think the government needs to flesh out the specifics of its green growth strategy and DX promotion on an accelerated schedule and tackle them more aggressively. The next issue is how the BoJ will broaden this perspective to other reform areas, though the BoJ has denied this possibility at least for now because other reform areas don't directly correct market failure. We think more aggressive efforts to increase the number of foreign workers after COVID-19 to change the firms' views on the future working age population, and increased mobility of workers and worker access to education to support changes to their business models also will be needed. ■

## About the author

**Hiroshi Ugai** is a Managing Director and Chief Economist, Japan. He is responsible for outlining the firm's official view on Japanese economy and macroeconomic policies. He joined J.P. Morgan in May 2016. Prior to his arrival, he built a 30 year career at the Bank of Japan where he was a Deputy-Director General. He served in many key areas of the Bank including the Monetary Affairs, Research and Statistics, the Financial System and Bank Examination, and International Departments. He was a Japan's original delegate of Financial Stability Board during 2009-13. During 2014-16 he was seconded to the School of International and Public Policy of the Hitotsubashi University as a professor of Asian Public Policy Program. He wrote many papers on monetary policy including effects of the quantitative easing policy, transmission channels and welfare implications of the unconventional monetary easing policy in Japan, and cross-country transmission effect of the US monetary shock under global integration. He also published papers discussing about Japan's deflation, and optimal inflation for Japan's economy. He compiled the review series of New Keynesian Monetary Economics, and also co-wrote the paper about Financial Sector Assessment Program entrusted by IMF. Mr Ugai received a BA in Economics from the University of Tokyo in 1983, studied at the University of Chicago, Graduate School of Business in 1987-88, and received a Doctor of Economics from Saitama University in 2017.

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