Daiwa Securities

# Daiwa's View

## The Fisher Equation warns of Japanification of US interest rates

➢ In the near term, US interest rates are more likely to decline than Japanese interest rates

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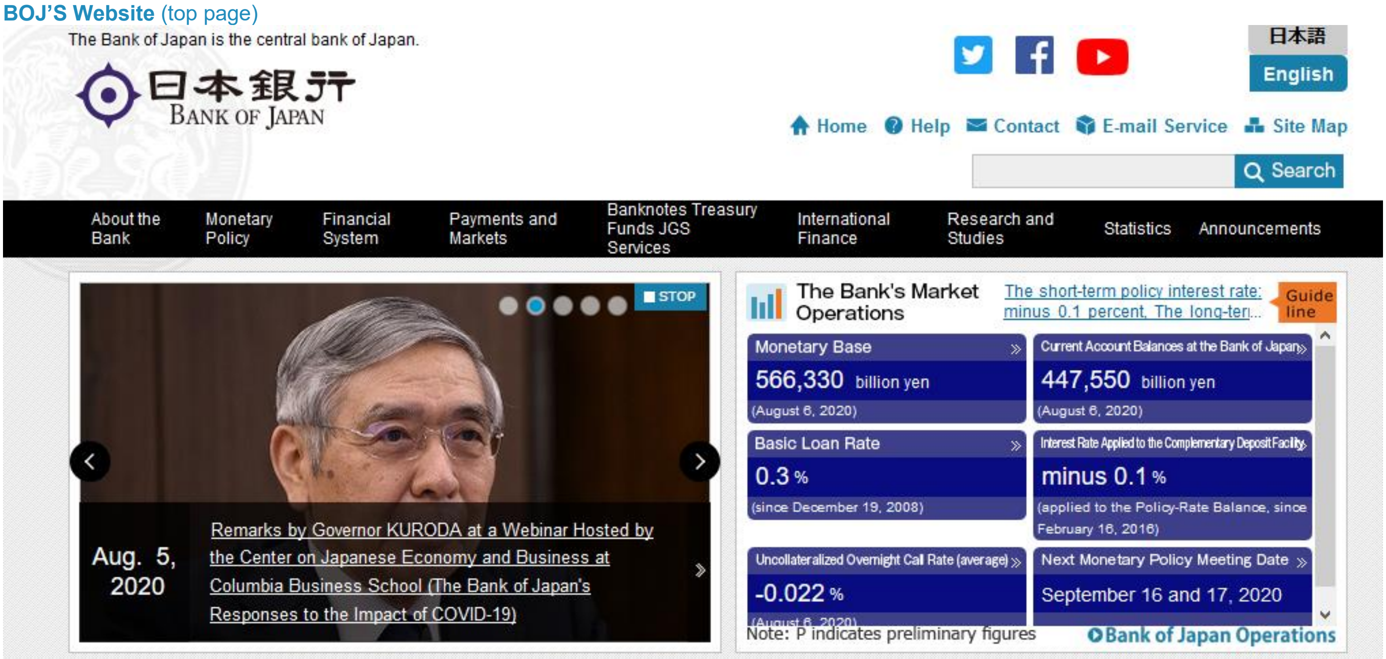
### The Fisher Equation warns of Japanification of US interest rates

**In the near term, US interest rates are more likely to decline than Japanese interest rates**

Recently, our senior economist Kenji Yamamoto pointed out that a decline in money velocity is a warning of a drop in interest rates. This is suggestive when examining US interest rates, implying that US interest rates may be more likely to decline than Japanese interest rates in the current phase. I would like to consider what this means in concrete terms.

Currently, Japan's monetary base (Y566.3tn as of 6 Aug) is posted front and center at the top page of the BOJ website. This clearly shows that the BOJ is focusing on its monetary base.

**BOJ'S Website** (top page)



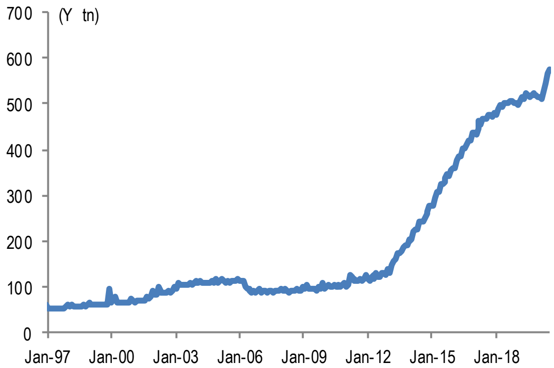

*Source: BOJ.*

As an actual policy, when the BOJ made its Comprehensive Assessment in September 2016, it adopted an "inflation-overshooting commitment" in which expansion of the monetary base is linked with the y/y increase in the observed CPI. What is the purpose of this? The answer was given by Governor Haruhiko Kuroda, who explained that the BOJ "aims to work on people's perceptions of inflation in a more forceful manner."

■ ◆**BOJ governor Haruhiko Kuroda "QQE with Yield Curve Control" (8 Oct 2016)**

・In light of these achievements, the Bank of Japan further strengthened this approach recently with the introduction of an inflation-overshooting commitment, in which the expansion of the monetary base is linked to the year-on-year rate of change in the observed CPI. By committing to continuing to expand the monetary base until the observed CPI inflation exceeds the price stability target of 2 percent and stays above the target in a stable manner, the Bank aims to work on people's perceptions of inflation in a more forceful manner.

**Monetary Base at BOJ**




*Source: Bloomberg; compiled by Daiwa Securities.*

Regarding whether this expansion in the monetary base has contributed to inflation, the answer is "No" at the moment. However, it would be short-sighted to conclude that expansion of the monetary base is meaningless because of this answer. Such a conclusion would indicate a lack of understanding of the BOJ's real intentions in adopting an inflation-overshooting commitment[1]. What is lacking here is a money velocity perspective.

In the aforementioned report, Mr. Yamamoto pointed out the decline in US money velocity based on the Fisher Equation (MV = PT)[2]. MV = PT is an identical equation. MV on the left-hand side represents money supply (money stock) x money velocity, while PT on the right represents nominal GDP. What is important here is that money velocity declines if nominal GDP does not grow despite expansion of the money supply.

This means an accumulation of an 'idle money supply,' which is not used for economic transactions. Where will this idle money supply go? Most of it would probably accumulate as the balance of bank deposits or MMF, which should be invested in safe assets. In short, a corollary of using the Fisher Equation to interpret the decline in Japanese interest rates since the start of Abenomics is that the idle money supply has flown into investment in JGBs.

However, the near-term conclusion in the case of Japan has already been made clear. The current focus is on the US. Mr. Yamamoto warned against the decline in money velocity in the US. This means that, from the perspective of the Fisher Equation, the US is coming to resemble Japan since the start of Abenomics. Recently, I have been asked if US interest rates are coming to resemble Japanese interest rates. However, this appears to be a natural phenomenon, given the Fisher Equation (MV = PT), the Fed's quantitative easing, and lower money velocity.

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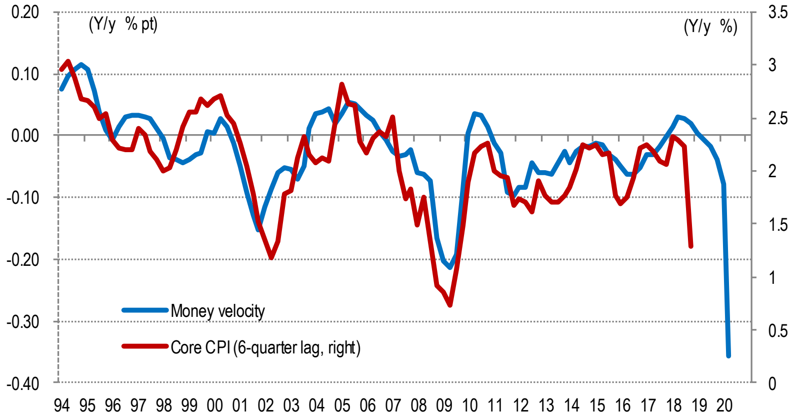
[1] It is widely known that money velocity declines at the initial stage of quantitative easing (QE). Money velocity does not rise (or recover) until QE has an impact on people's perceptions of inflation. As it is assumed that considerable time will be needed until then, it appears that the BOJ showed a persistent stance by adopting an "inflation-overshooting commitment" in which the BOJ commits itself to expanding the monetary base until the y/y increase in the observed CPI exceeds the 2% price stability target and stays above the target in a stable manner.

[2] M: Money supply; V: Velocity of circulation; P: Price; and T: Transaction volume of goods/services in one period.

US Core CPI, Money Velocity

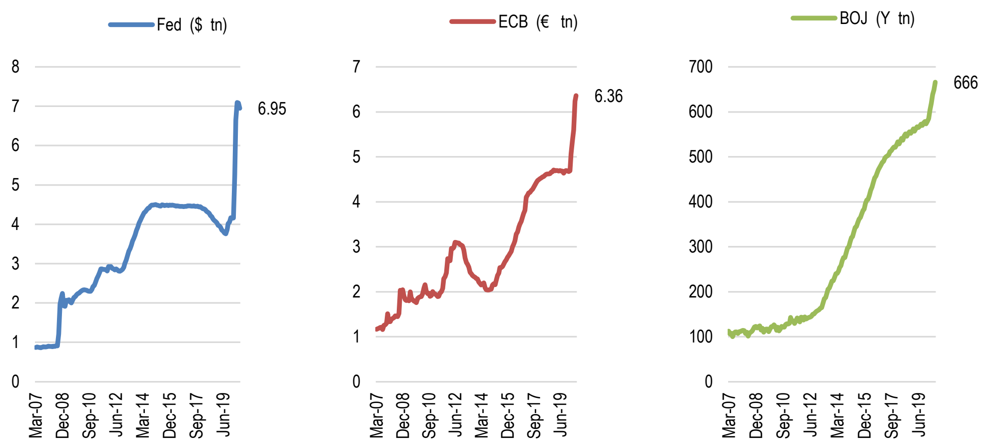



*Source: US Department of Commerce, Department of Labor, Fed; compiled by Daiwa Securities.*

If so, the current low money velocity in the US needs to be raised in order to prevent US interest rates from facing Japanification. In order to maintain/raise money velocity amid ongoing QE by the Fed, the US needs to expand the right-hand side of the Fisher Equation—i.e., expand nominal GDP at a faster pace than that of the money supply. If we assume that QE will not change the actual conditions of economic transactions, the key will be trends in the inflation rate (P).

In conclusion, now is a very important phase for US inflation trends. If inflation does not rise, it is highly likely that US interest rates will face Japanification. If the decline in money velocity (V) causes a drop in interest rates, US interest rates will decline despite Japanese interest rates remaining roughly flat. In the near term, US interest rates are more likely to decline than Japanese interest rates.

Balance Sheet at Major Central Bank: Expansion pace in US and Europe is faster than that in Japan




*Source: Bloomberg; compiled by Daiwa Securities.*

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**[Standard & Poor's]**

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February 2020

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