Japan remains in the dark about when it is likely to achieve 2% inflation. There is growing speculation that the Bank of Japan might again expand its quantitative and qualitative easing, or QQE, by the end of this year. It would mark a second such expansion, after one in October 2014. With this in mind, it is sensible to ask what exit or normalization strategy the BOJ has in mind. As far as the minutes of the BOJ’s policy board meetings are concerned, there is no trace that the central bank has discussed a scenario on how it exits easing, as the U.S. Federal Reserve did. The economy will likely be exposed to huge risks if the BOJ simply continues to buy Japanese government bonds.

The BOJ first conducted quantitative easing between 2001 and 2006, ahead of other central banks. Soon after announcing the end of QE, it managed to quickly normalize the monetary situation by adjusting fund provisions in the money market through open-market operations and guiding market interest rates toward key interest rates.

Comparison between the rough summaries of the BOJ’s balance sheets as of the end of 2005 and as of the end of 2014 shows that the sizes of its assets are largely different: about 156 trillion yen ($1.3 trillion) as of the end of 2005 vs. about 300 trillion yen as of the end of 2014. But the most striking difference is that the relation between its JGB holdings and the outstanding balance of banknotes (Table 1). At the end of 2005, the BOJ bought about 63 trillion yen in long-term JGBs but kept the amount of banknotes in circulation below 79 trillion, meaning that the BOJ was in compliance with a self-imposed “banknote rule,” which limits its outstanding amount of long-term JGB holdings to the amount of banknotes in circulation.

On the asset side of its balance sheet, the BOJ had 44 trillion yen in the outstanding balance of short-term funds supplied through operations, specifically bill-buying operations. It succeeded in absorbing 44 trillion yen of funds about four months after March 2006, when it started letting all these bills it purchased fall due. Through the action, it absorbed more funds than the 33 trillion yen in the outstanding balance of current deposits listed on the liability side of its balance sheet.

The recent situation is in stark contrast with the above, as the BOJ scrapped the banknote rule at the same time as it started QQE. As of the end of 2014, the outstanding balance of its JGB holdings reached 250 trillion yen, nearly triple the amount of banknotes in circulation (93 trillion yen), and has continued to rise sharply.

The BOJ has 31 trillion yen in the outstanding balance of short-term funds supplied (outstanding balance of loans extended by the BOJ to private banks through operations with collateral) on the asset side. But it has 178 trillion yen in current deposits and most of them, excluding required reserves of some 8 trillion yen, are excess reserves. Currently, the BOJ pays a 0.1% interest rate to excess reserves, which means that about 140 trillion yen of net excess reserves might put a drag on the conduct of its monetary policy.

Fed’s exit strategy

The BOJ is not the only one that was prompted to give up the banknote rule and will have difficulty conducting monetary policy in the coming years due to the use of an unconventional strategy. The U.S. Federal Reserve is also struggling with a similarly tough situation. In 2011, before it launched its third round of QE, it was seriously concerned whether it would be possible to apply flexible monetary policy, including monetary tightening, once it entered the stage to normalize the situation. It made a number of discussions on possible options in monetary policy and their effects and risks at the Federal Open Market Committee, or FOMC, meetings and sincerely and honestly clarified the details of the discussions to the public and markets by releasing minutes and other means. It then disclosed the content of its normalization strategy in September 2014 before ending its third round of QE.

Selling assets such as government bonds and mortgage-backed securities that the central bank purchased through operations would not be easy, given negative effects on market interest rates. Let alone conducting selling-operations, it would take a long time for the Fed to simply scale down the size of its assets by not reinvesting the bonds that matured. It would take nine years based on the average maturity of its assets, namely the time required to halve the assets, which was calculated using its official data.

For this reason, the Fed must take up the challenge of guiding market interest rates higher while having a huge balance sheet. The main tool to achieve this goal is to raise the interest on excess reserves, or IOER, and also conduct overnight reverse repo facility (ONRRP; similar to bill-selling operations by the BOJ) and other operations. The Fed said it would stop reinvesting its government bond holdings and other assets to reduce its assets after it started bringing interest rates higher.

http://asia.nikkei.com/print/article/89850
Meanwhile, the minutes of the FOMC meetings get concerns out in the open about whether the IOER rates would be successfully led higher, especially in times of stress, underscoring the Fed's heightened awareness about the difficulty it was facing in adjusting monetary conditions.

**Negative spread looming large?**

What about the BOJ? The BOJ has completely shut out the discussion on its exit strategy, claiming it is too early to do so. It has been a while since it gave up the banknote rule. Based on data released by the BOJ, the average maturity of its long-term JGB holdings is estimated at 5.6 years as of January 2015, meaning that it would take more than five years to halve the size of the assets by letting the bonds fall due. Under the situation, as is the case with the Fed, the BOJ will likely take time to normalize its monetary policy such as by bringing interest rates to excess reserves higher and conducting bill-selling operations.

Raising interest rates before reducing its assets means that the payments of interests on excess reserves by both the BOJ and the Fed would go up. Under this scenario, how much interest incomes they will receive from the asset side of their balance sheets will become an issue in the fiscal management of the central banks. Most assets purchased by the BOJ and the Fed are government bonds with a nominal yield. In other words, the interest rate to be paid to bond buyers is promised when bonds are issued. For example, the rate is fixed 10 years before the maturity of 10-year government bonds and 20 years before the maturity of 20-year government bonds.

A compound yield based on weighted average for the Fed's total assets is expected to be about 3.4% based on data as of late January 2015 by the Federal Reserve Bank of New York. In contrast, a compound yield based on weighted average for JGBs held by the BOJ, excluding short-term JGBs, would be estimated at a mere 0.91% (Table 2). If short-term JGB holdings are included, the figure would be lower than the estimate above.

The result shows that there would be very little wiggle room for the BOJ to guide short-term interest rates higher in the future. Although it set the 2% inflation target, if the BOJ tries to push up short-term interest rates to about 1%, the payment of interests on the liability side would exceed interest incomes on the asset side, driving up the risk of the BOJ’s balance sheet falling in a negative spread. If that happens, the BOJ would not be able to make payments to the government from profits from seigniorage or the government might even be forced to cover the loss.

**Effect on fiscal policy**

What effect will the BOJ's policy have on Japan's fiscal policy management when an exit strategy is put in place? The Japanese government's financing not only shows the huge outstanding balance of government debt but also points to the enormous size of new government bonds and refinancing bonds that it needs to issue because the percentage of short-term government bonds is considerably higher than that of other countries. New JGBs and refinancing JGBs account for 56% of Japan’s gross domestic product, twice or triple the percentage of European countries faced with debt crises, making Japan extremely vulnerable to the impact of an increase in interest rates.

Assume that due to changes to the economic and financial environment the BOJ has no choice but to aim for normalization of its money policy by guiding short-term interest rates higher in the money market through increased interest rates to excess reserves while having a massive balance sheet. Under this circumstance, short-term interest rates would be applied to a coupon rate on short-term JGBs and also push up interest rates on long-term JGBs. Given the huge outstanding balance of government debt Japan has, payments of interest rates will likely increase rapidly in the future.

According to the Japanese government’s budget management data in recent years, payments of interest rates totaled just 10 trillion yen, compared with more than 90 trillion yen in the general-account budget. If payments of interest rates total 17.5 trillion yen in fiscal 2020, on the assumption that interest rates on JGBs rise to 2.6%, as estimated by the Ministry of Finance, or if the payments go even higher than that, Japan would face an extremely difficult fiscal situation. The problem could not continue to be swept aside simply by the government covering the BOJ’s loss from a negative spread. On the other hand, if the BOJ does not tighten monetary policy at all after introducing an exit strategy, it is easy to imagine that the yen would weaken further and the Japanese economy would be swallowed up by high inflation in the not-too-distant future, causing a tremendous effect on people’s lives.

The word “side-effects” was mentioned in the minutes of the BOJ’s policy board meetings but there is no trace in the documents that all policy board members tackled the challenge of an exit or normalization strategy together. If the current situation continues, price stability in the medium and long terms, the original mandate central banks have, might end up being sacrificed for achieving the inflation target in the near term.

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