Economic Research:

The Bank Of Japan Breaks New Ground Yet Again--And It May Work This Time

(Editor's Note: The views expressed here are those of S&P Global's chief economist. While these views can help to inform the

Putting The BOJ's Latest Move In Context

The shift in policy at the BOJ after Haruhiko Kuroda took over from Masaaki Shirakawa as governor in March 2013 was the monetary policy equivalent of a Copernican revolution.

The Shirakawa-led BOJ professed that the cause of deflation in Japan was steadily declining real potential growth and, therefore, wasn't amenable to a monetary policy cure. Not believing that monetary policy could overcome deflation, the Shirakawa-led BOJ did not implement very aggressive monetary policy. Thus, for instance, at the time Mr. Kuroda took over as governor from Mr. Shirakawa, the BOJ's balance sheet was 53% larger than it was when the global financial system suffered a massive cardiac arrest in September 2008, compared to a 247% increase in the size of the Federal Reserve's balance sheet in the same period.

Mr. Kuroda, on the other hand, embraced the logic of the standard inflation-targeting framework and argued that the BOJ could use monetary policy to end deflation and achieve 2% inflation. The key would be to change the public's inflation expectations. To do that, first the BOJ would have to tell the public that it believed it could control inflation and then back up that new message with policy action. Thus the BOJ launched "Quantitative and Qualitative Monetary Easing" on Apr. 4, 2013--committing to expand the monetary base initially by ¥60 trillion-¥70 trillion per year and later (following the Oct. 31, 2014 decision) by ¥80 trillion. Since then, the BOJ's balance sheet has increased by 173%. The bank's thinking was that QQE would lower real interest rates substantially by simultaneously raising inflation expectations and lowering nominal interest rates. This would stimulate economic activity and raise actual inflation, which in turn would support a rise in the public's inflation expectations toward the BOJ's target. All sound thinking.

Although the Kuroda-inspired policy shift was to be applauded, three factors were always going to make it an uphill battle for the BOJ to achieve its inflation target, particularly in the ambitious time frame of "about two years." First, it started with a huge credibility deficit, which handicapped its ability to change the public's inflation expectations (2). Second, QE is not a very potent monetary policy tool (3). And third, critically, a fiscal tightening was looming in the form of the April 2014 hike in Japan's consumption tax, something that the BOJ's policy shift gave cover for the government to proceed with. In the event, that fiscal tightening pushed the Japanese economy into a mild recession, stymieing the BOJ's attempts to reflate.

The BOJ added a major tweak to its QQE framework in January of this year by announcing "QQE with a Negative Interest Rate," charging 10 basis points (bps) on a (relatively small) portion of the excess reserves that it creates with QQE (4). The thinking was that, in the spirit of the expectations theory of the term structure of interest rates (5), a negative overnight rate would put downward pressure on the entire yield curve, which it did, to the point of inverting it into negative territory out to 10 years.

There were two flies in the ointment, however. The flattening of the yield curve and its being pushed into negative territory put a squeeze on bank lending margins. Monetary policy works largely through the banking system, so this raised concerns, voiced more generally about negative interest rate policy, that the BOJ's attempts to ease monetary policy could turn out to be counterproductive if it ended up impairing banks' willingness to lend. And after initially weakening for a couple of days, the yen strengthened significantly, producing an unwelcome tightening of financial

conditions and reducing the competitiveness of Japanese exports.

All of this set the stage for the "comprehensive assessment of the developments in economic activity and prices under 'Quantitative and Qualitative Monetary Easing (QQE)' and 'QQE with a Negative Interest Rate'" that the BOJ announced on July 29.

Doubling Down, Not Throwing In The Towel

It wasn't clear before the BOJ released its comprehensive assessment what exactly it was up to. After all, if the BOJ was just going to assess the effectiveness of its policies--something that a central bank would be expected to do as a matter of course--why would it be necessary to announce that fact with such fanfare, keeping the markets on tenterhooks for close to two months? This led to speculation that the BOJ was going to use the comprehensive assessment to wriggle out of its QQE or abandon what many saw as its ill-fated experiment with negative interest rate policy. Indeed, while negative interest rates have survived, some have interpreted the outcome as signaling the end of QE or at least the beginning of the end.

targeting a point on the long end of the yield curve and committing to overshoot on inflation? There are two main substantive differences between the old and new framework. Yes, the BOJ is keeping the absolute level of yields very low, consistent with wanting to stimulate the economy. But in a nod to Japan's banks and the need to keep financial intermediation intact, the BOJ is now targeting a positively sloped yield curve, helping banks to maintain positive lending margins. Second, the commitment to overshoot the inflation target is an attempt to raise the public's inflation expectations, in line with the finding of the comprehensive assessment that "many indicators of inflation expectations have weakened" since summer 2015.

A second question is: Does the new framework make sense? On the surface, the BOJ appears to be trying to achieve the impossible: set both the quantity of JGBs in the hands of the private sector and their price (yield). When it comes to the overnight interest rate, a central bank like the BOJ can set both the quantity of reserves (deposits of financial institutions at the central bank) and the interest rate (7). Having set the amount of (excess) reserves, the central bank can also set the interest rate on those reserves by paying interest on reserves (8).

But this doesn't work further out the yield curve. A central bank can determine the amount outstanding of bonds of a certain remaining maturity by varying its bond purchases or sales (open-market operations or QE). It can (presumably) set a floor on the price (a ceiling on the yield) for such bonds by standing ready to buy unlimited amounts of those bonds at that price. It can (presumably) set a ceiling on the price (a floor on the yield) for such bonds by standing ready to sell unlimited amounts of those bonds at that price, until of course it runs out of those bonds (9). But it cannot do both: determine how many bonds (of a given maturity) there will be in the hands of the public and independently set their market price. One of those will generally have to give.

Up until now, under QQE and then under "QQE with Negative Interest Rates," the BOJ has controlled the amount of bonds outstanding (absorbing about ¥80 trillion a year since November 2014). It has done so hoping to influence long-term yields, but it has not set a level or attempted to do so. Long-term yields have been determined by the trading and investment decisions of market participants, taking into account the BOJ's actual and expected monetary policy and its actual and expected effects on the economy and inflation.

Quantity And Price: Is The BOJ Trying To Have Its Cake And Eat It Too?

The latest announcement of the BOJ is quite confusing on this point. As suggested by the name of the framework ("Quantitative and Qualitative Easing with Yield Curve Control"), it gives the impression that the BOJ believes that it can simultaneously set the quantity of long-term bonds (in the hands of the public) and their price (yield). That's also indicated by the BOJ's reference to targeting the 10-year JGB yield at around zero percent and continuing to purchase about of ¥80 trillion of JGBs. And in explaining the background to its introducing yield curve control, the BOJ states: "The experience so far with negative interest rate policy shows that a combination of the negative interest rate on current account balances at the Bank and JGB purchases is effective for yield curve control."

Abolishing the target for the average remaining maturity of JGBs purchased does give the BOJ flexibility in terms of how it distributes its JGB purchases across the entire yield curve, which should increase its ability to target 10-year yields. But the flaw in the above assertion is that the experience to date is not strictly relevant to the question of yield

curve control because the BOJ has not been attempting to control the yield curve, in the sense of setting a target for the 10-year rate.

All of this raises a third question: How will the framework operate in practice? To form a view on that, a couple of things are worth keeping in mind. First, although the BOJ doesn't make this point very clear, the yield-curve control (targeting of the two points on the yield curve) takes precedence over the JGB purchases and monetary base expansion, if one of them has to give, which is likely. The "guideline for market operations [between meetings] specifies a short-term policy interest rate and a target level of a long-term interest rate," said the BOJ. The amount of JGB purchases isn't a target but rather a tool to achieve the target, and it's an expected amount (akin to "guidance") not a commitment.

In this regard, here's a key footnote in the announcement: "In case of a spike in interest rates, the Bank stands ready to conduct fixed-rate JGB purchase operations--for example, those with regard to 10-year and 20-year JGB yields--in order to prevent the yield curve from deviating substantially from the current levels," the "current levels" being presumably the target level.

Further indication that BOJ is hoping to have its cake and eat it too when it comes to quantity and price is provided by its specification of "possible options for additional easing." "The Bank can cut the short-term policy interest rate and the target level of a long-term interest rate, which are two key benchmark rates for yield curve control. It is also possible for the Bank to expand asset purchases as has been the case since the introduction of QQE. Moreover, if the situation warrants it, an acceleration of expansion of the monetary base may also be an option." But these can't all be independent variables.

Second, the overnight and long-term interest rate targets the BOJ has set are in place only until the next policy board meeting, as is the guidance on the expected JGB purchases (and other asset purchases). At every meeting, the interest rate decisions are up for grabs, and the JGB purchase guidance can be tweaked. Again, this gives the BOJ additional flexibility. But this flexibility may come at the cost of frequent recalibration of yield targets and JGB purchase (monetary base expansion) guidance.

Presumably, the BOJ will operate the new framework as follows. Say that 10-year yields are falling significantly below the target level (currently around zero percent). In order to maintain the target, the BOJ would need to raise the yield, that is, push bond prices down, which it could attempt to do by cutting back on the amount of JGB purchases. Although this is not mentioned in the announcement, presumably the BOJ could conduct "twist operations," selling long-term bonds and buying shorter-term ones in equal amounts. And if such twist operations didn't suffice, if necessary the BOJ could even potentially sell JGBs in order to push down bond prices and hit the yield target.

But what if, presumably as the BOJ hopes, the policy (on top of cumulative efforts to date) works, and there is upward pressure on 10-year JGB yields, as inflation and inflation expectations both rise toward the BOJ's target? In order to maintain the target, the BOJ would then need to put downward pressure on yields. That is, put upward pressure on bond prices, which (again, if twist operations did not do the trick) it could attempt to do by buying more JGBs (particularly long-term ones).

But the BOJ has another option. At the next policy board meeting, it could alleviate the upward pressure on yields by

raising the yield level target, thus mitigating the possible need to buy more JGBs. Likewise, if yields are falling below the BOJ's targets, rather than pulling back on JGB purchases to put upward pressure on (now negative) yields, something that might look like it was pulling back on easing amidst a weakening outlook, the BOJ could lower the interest rate targets, while maintaining a positive spread.

forward guidance observed to date can be considered to be time-consistent.

A central bank precommitting to overshoot an inflation target smacks of being time-inconsistent or, as economist Paul

in June 2003 (or arguably in October 2002, when the BOJ announced a scheme to purchase equities held by banks).

That the BOJ has now pioneered two new unconventional monetary policies does not necessarily mean that other central banks will do so when and if circumstances dictate their consideration. But, if history is any guide, the chances that one or more central banks does do so must be judged to be quite high. It does not feel like the curtain is going to come down on this historic period of policy experimentation, innovation, and diffusion any time soon.

The unemployment rate in Japan, at 3%, is at its lowest rate since 1995 and the job-offers-to-applicants ratio, a closely watched measure of labor market tightness, is at its highest level since mid-1991. The BOJ estimates that the output gap in Japan is now closed (that is, aggregate demand is in line with potential supply). This augurs well for reflation prospects as long as policymakers sustain a sufficiently "aggressive" monetary and fiscal policy mix. The inflation expectations of the Japanese public have proved to be devishly difficult to raise, but the government and the central bank should be able to succeed if they are prepared to use policy "brute force." As the Volcker experience of the 1980s showed in the U.S., when the public's inflation expectations are out of whack with what the central bank wants, earning the "credibility" to reanchor them is no mean feat.

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Endnotes

(1) Although the BOJ appears to be the first major central bank to target a long-term interest rate in the modern era, the idea has been around for a while. Notably, Ben Bernanke, then a member of the Board of Governors of the Federal Reserve System, floated the idea in a famous speech in Nov. 2002 ("Deflation: Making Sure 'It' Doesn't Happen Here"): "A more direct method [to lower rates along the yield curve when the overnight interest rate has fallen to zero], which I personally prefer, would be for the Fed to begin announcing explicit ceilings for yields on longer-maturity Treasury debt (say, bonds maturing within the next two years). The Fed could enforce these interest-rate ceilings by committing to make unlimited purchases of securities up to two years from maturity at prices consistent with the targeted yields. If this program were successful, not only would yields on medium-term Treasury securities fall, but (because of links operating through expectations of future interest rates) yields on longer-term public and private debt (such as mortgages) would likely fall as well."

(2) The "credibility deficit" stems from the fact the BOJ was switching its story about its ability to use monetary policy

to end deflation and target 2% inflation. Why would the public suddenly believe the story espoused by the new governor and not continue to believe the story they had heard from the previous governor for several years? In its comprehensive assessment, the BOJ found that inflation expectations in Japan have a bigger "adaptive" or backward-looking component than elsewhere, rather than being "forward-looking." This was bound to be the case and is just a reflection of the credibility deficit that Mr. Kuroda inherited. That the Japanese public's inflation expectations were not forward-looking, and have been slow to become so, is just another way of saying that the Kuroda-led BOJ has

reserves to meet their minimum reserve requirements but competition in the inter-bank market among banks with excess reserves will force the interest rate down (arbitrarily close to) 50 bps.

(9) The problem of the central bank running out of bonds can be solved if it coordinates with the government. The government can "manufacture" unlimited amounts of a bond any given maturity by issuing them to the central bank, which in turn could sell them as part of a price-keeping operation. This kind of operation would have no effect on the net debt of the government as the liability of the bond issued would be matched by the deposit it has with the central bank.

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