

Comments on Kazumasa Iwata and Shinji Takenaka's paper "Central bank balance sheets expansion: Japan's experience"

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I would like to thank the organizers for inviting me to this interesting conference at such a wonderful site, and to discuss this interesting paper. Given the sharp downturns experienced during the global financial crisis, leading global central banks found themselves at the "zero bound", or close to it, ie close to minimal feasible nominal policy rates. Unfortunately, the long-term stagnation suffered by Japan implies that this country has experiences in unconventional monetary policies at the zero bound that potentially provide lessons for other countries currently pursuing such policies.

The paper examines the impact of unconventional monetary policies adopted by the Bank of Japan during Japan's experience with low output growth and low inflation, as well as the policies of other central banks. It pays particular attention to Japan's experiences with large-scale asset purchases of the type also recently pursued by both the Federal Reserve and a number of other central banks. The paper also reviews the Bank of Japan's experiences in giving forward guidance concerning future monetary policy. Finally, it investigates the scope for international transmission of these policies to other economies through its impacts on international terms of trade and exchange rate effects.

Interestingly, the paper argues that unconventional monetary expansions at the zero bound may inadvertently result in "beggar thyself", rather than "beggar thy neighbor", effects. The example given in the paper is one of potential adverse terms-of-trade changes for large commodity-importing countries. For example, as an oil importer, the United States, by driving down the value of the dollar, may actually be pushing up the prices of its imported commodities.

Figure 1 below is taken from Kobayashi, et al (2006). It can be seen that there were substantial movements into unconventional policies by the Bank of Japan (BOJ) during the period now commonly referred to as "QE1". Subsequent to policy meetings, the BOJ made a series of announcements of expansion both of its current-account targets for commercial banks and of targets for monthly purchases of longer-term Japanese Government Bonds (JGBs). In addition, the BOJ committed to maintaining its 0% policy until inflation registered an increase year on year. This provided an early example of "forward guidance", the policy of easing through manipulation of public expectations regarding future short-term policy rates. The BOJ achieved substantial expansion of its balance sheet during this period of unconventional monetary policy, with its top range between 30 and 35 trillion yen.

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Figure 1

Bank of Japan announcements during QE1 period

Date	Current Account Balances	Long-term JGB monthly purchase target	Other Changes
3/19/01	Increased Y 1 trillion to Y 5 trillion	Allowed to exceed Y 400 billion limit	
8/14/01	Increased Y 1 trillion to Y 6 trillion	Increased Y 200 billion to Y 600 billion	
9/18/01	Allowed to exceed Y 6 trillion limit		Discount rate reduced from 0.15 to 0.10, and maximum discount loan term extended to 10 business days
12/19/01	Increased Y 4-9 trillion to Y 10-15 trillion	Increased Y 200 billion to Y 800 billion	Broadened set of acceptable commercial paper and asset-backed securities
2/28/02	Allowed to exceed Y 10-15 trillion target	Increased Y 200 billion to Y 1 trillion	Suspended limit on number of business days for discount borrowing
10/30/02	Increased Y 5 trillion to Y 15-20 trillion	Increased Y 200 billion to Y 1.2 trillion; maturity limit for bills purchased increased to 1 year	
3/25/03	Increased Y 2 trillion to Y 17-22 trillion (After 4/1/03)		
4/30/03	Increased Y 5 trillion to Y 22-27 trillion		
5/20/03	Increased Y 3-5 trillion to Y 27-30 trillion		
10/10/03	Increased Y 2 trillion to Y 27-32 trillion	Renewed extension of maturity limit for bills purchased	Committed to maintaining quantitative easing until CPI registers a 0% or increase year on year
1/20/04	Increased Y 3 trillion to Y 30-35 trillion		

Source: Kobayashi et al (2006).

In their review of Japanese unconventional monetary policy, Iwata and Takenaka find that the policy did achieve a “substantial” narrowing of liquidity and credit premia, and a reduction in long-term rates, primarily from forward guidance. However, they find that the asset purchases in the recent round of quantitative easing had little impact on credit or aggregate demand. While there was an observable downward move in the value of the yen during this period, they ascribe this move primarily to the foreign exchange “great intervention” conducted by the Ministry of Finance.

I enjoyed the paper, and agree that important lessons from the Japanese experience are likely to be of use not only to other central banks contemplating similar policies, but also to the Japanese themselves in the current version of unconventional monetary policies. However, I do have a few comments that one might consider.

First and foremost, I think that the authors need to acknowledge the inherent difficulty of assessing the impact of policies undertaken during the crisis. Reasonable policies are by necessity endogenous, as they should respond to current conditions. Moreover, they are typically counter-cyclical, with policymakers intervening most when times are worst. In

practice, this implies that, at best, the acts of policymakers sometimes leave things merely “less bad”, not good.

Moreover, typically monetary policy is not conducted in isolation. A good example of this can be seen in the current paper, where the authors acknowledge difficulty in isolating the impacts of monetary policy by the Bank of Japan from the foreign exchange intervention conducted by the Ministry of Finance. This leaves it difficult to assess impact of QE on exchange rates. Ideally, one would like to have a model, as in the Chung et al (2011) paper cited by the authors.

Without such a structural model, the papers’ characterization of the impacts of unconventional monetary policies such as the “QE2” policy pursued by the Federal Reserve as “disappointing” seems unwarranted. What should we have expected in terms of reductions in long-term interest rates or spurred economic growth? There were a number of other adverse shocks that hit the United States during the QE2 period, including the Japan earthquake, which caused severe supply disruptions in US manufacturing, and the uncertainty that arose during the debt ceiling debate, which acted against lowering US long-term debt.

A similar case can be made for commodity prices. The paper argues that commodity price increases, particularly increased oil prices, were primarily fueled by the Federal Reserve’s quantitative easing activities. However, higher-frequency data calls this into question. In a recent paper, Glick and Leduc (2011) find that commodity prices, including oil, fell on the dates of important quantitative easing announcements. While endogeneity makes it difficult to know what to make of these results as well, at a minimum they argue against a quick association between quantitative easing and the commodity price increases that followed the policy.

The paper also seems to give less than adequate consideration to the rise and fall of the yen carry trade over the QE period. There is little discussion of this phenomenon in the paper, but it seems to explain a lot. In particular, the surge in the yen that was observed during the quantitative easing period was more likely due to closing of carry trade positions than to US monetary policy. Recall that QE, an exceptional policy, was undertaken because of the exceptional turbulence in financial markets. These are precisely the periods where carry trade positions tend to do badly and be closed. I am also surprised by the claim in the paper that the use of the yen in invoicing was on increase during this period. Carry trade funding currencies would seem to make poor invoicing currencies in turbulent times due to their volatility.

I should turn briefly to the discussion of forward guidance in the paper. It is important to remember that the forward guidance issued by the BOJ differed from that issued by the Federal Reserve. The BOJ’s forward guidance contained an explicitly verifiable commitment to maintaining the zero interest rate until certain conditions were met. In contrast, the forward guidance pursued by the Federal Reserve was explicitly “conditional”, giving guidance on expected conditions and policy responses. In particular, the Fed statement said that conditions were likely to warrant exceptionally low levels for the Federal Funds rate at least through mid-2013. This statement gave no explicit conditions for moving away from exceptionally low rates, apparently leaving more discretion. Still, 10-year Treasuries fell about 20 basis points on the news, suggesting that the policy had real effects.

Forward guidance in the form of policy commitments (rather than guidance about expected policies) is controversial. Most standard theories would advocate such policies at the zero bound, since credible commitment to future policy can affect long-term rates through expectations. However, this comes at a price: The optimal policy would be to commit to something one would not choose to do ex post, and is therefore time-inconsistent. It should be noted that the forward guidance issued by the Federal Reserve concerned guidance about expected future policies, rather than commitments to policies that might not be desirable ex post.

It should also be acknowledged that the large-scale asset purchases by the Federal Reserve were also controversial. Most standard optimal portfolio theories say they won't work well in the absence of financial frictions or "preferred habitats". As mentioned in the paper, most studies find about a 15–20 basis point decline in 10-year treasury yields. However, as San Francisco Fed President John Williams noted in a recent speech (Williams, 2011), such a reduction in 10-year yields was roughly equivalent to what one would expect to get from a 75 basis point cut in the Federal Funds rate, which as monetary policy actions go is clearly "not small potatoes"!

Finally, the paper, and indeed most QE studies, concentrate on the average impact of the policy, as measured by movements in long-term Treasuries or similar assets. However, there is some evidence that these policies may disproportionately benefit the most distressed financial institutions and economies. In the Kobayashi et al (2006) paper mentioned earlier, we also found that QE announcements by the BOJ had only a modest impact on long-term rates, but we also found that the announcements had disproportionately high impacts on the most distressed Japanese commercial banks. Thus, these policies may have had exactly their intended impact. In assessing the impacts of these policies, it is important to allow for such heterogeneous effects, rather than solely looking at movements in yields of widely-traded government assets.

References

Chung, H., J. P. Laforde, D. Reifschneider and J. Williams (2011), "Estimating the Macroeconomic Effects of the Fed's Asset Purchases", FRBSF Economic Letters, 2011–03, Federal Reserve Bank of San Francisco.

Glick, R. and S. Leduc (2011), "Are Large-Scale Asset Purchases Fueling the Rise in 38 Commodity Prices?" FRBSF Economic Letter, 2011–10.

Kobayashi, T., M. M. Spiegel and N. Yamori (2006), "Quantitative Easing and Japanese Bank Equity Values", *Journal of the Japanese and International Economies*, 20(4), December, 699–721.

Williams, J. C. (2011), "Unconventional Monetary Policy: Lessons from the Past Three Years", speech to the Swiss National Bank Research Conference, Zurich, Switzerland, September 23, <http://www.frbsf.org/news/speeches/2011/john-williams-0923.html>.