

## Intervention and the Bank of Japan

There has been much said and written about whether the BOJ should conduct sterilized or unsterilized intervention when it sells yen in the open market. This is an attempt to outline difference between the two. First some background information.

All money and banking courses recognize that Central Bank clearing balances (aka reserves) are a case of what is called 'inside money.' For example, a check drawn on one bank and deposited into another is accounted for via a debit for the former and a credit the latter. All that private sector activity can do is move balances from one account to another. The total remains the same. Bank lending does not change total clearing balances, though it could cause a shift from one account to another.

When the BOJ, however, buys \$ and pays for them with yen, payment is made by crediting the clearing account of a member bank. This is a net addition to the sum of the clearing balances held by all the banks with BOJ clearing accounts. Only the BOJ can so inject or remove net yen for its clearing system. It is the 'monopoly supplier' of clearing balances, which is the essence of Central Bank control.

Clearing balances are non interest bearing. Therefore banks strive to minimize them. They do this by lending to each other in the interbank market. An excess of desired clearing balances will therefore necessarily coincide with a 0% interbank bid for overnight funds. (Why would any member bank offer to pay another bank interest overnight if it has no choice hold the funds as excess clearing balances that do not earn interest?) Technically, maintaining a 0% bid condition as the BOJ has done is a simple matter of making sure there are any net excess clearing balances. Theoretically, one excess yen is sufficient. Mr. Okina, BOJ head of research, has made this point many times.

But what if a Central Bank, such as the Fed, does not want a 0% fed funds bid? The it must offer an alternative to excess clearing balances. Generally, the Fed's alternative offerings are \$US Treasury securities. \$US Treasury securities are nothing more than interest bearing time deposits at the Fed. The process of offering interest bearing alternatives is known as open market operations. The NY Fed offers to buy or sell \$US Treasury securities to offset operating factors that might cause an excess or deficiency of desired clearing balances, which in turn would cause the fed funds rate to deviate from the rate the Fed brass previously voted to maintain. So, in the US case, with its target rate of 5.25%, not offering securities for sale in the face of excess reserves would result in a 0% fed funds bid when the clear policy desire is for a 5.25% fed funds rate.

Back to Japan. As the BOJ sells yen, net yen clearing balances increase. This is unsterilized intervention. It results in 0% bid interbank rate. Sterilizing the intervention -offering yen government securities for sale- would give the non interest bearing clearing balances an interest bearing alternative, and thereby support a higher yen interbank rate. But the BOJ's policy is for a 0% rate at all times. So if the BOJ does decide to sterilize its intervention and maintain a 0% interbank rate, it must make sure it doesn't sell so many securities that all the excess clearing balances have interest bearing alternatives.

That raises the last question. Is the level of the yen a function of sterilized vs unsterilized intervention? The answer is, 'only to the extent that the level of the yen is a function of interest rates.' Again, members of the BOJ have told the west this many times, and they are absolutely correct. The amount of clearing balances per se have no economic effect. They play no part in the creation of loans and bank deposit money. Loans are accounted for as bank deposits. They do not alter the quantity of system wide clearing balances. And the decision of private sector agents to sell or not sell yen may be a function of interest rates, but it is not a function of member bank clearing balances.

### Conclusion

In the case of Japan, with the 0% bid interbank rate policy, for all practical purposes the level of the yen is not a function of sterilized vs unsterilized intervention. That being said, because sterilized intervention does result in more securities and fewer clearing balances, longer term rates could be a touch higher than otherwise. This would also depend on what maturities the BOJ offers for sale. So, to the extent that the yen is a function of the term structure of rates, the different intervention policies would have different outcomes.

In either case, intervention does keep the yen from rising and either case adds net yen nominal wealth to the private sector. Whether one's nominal wealth consists of overnight balances or longer maturity deposits, at the holders option (no one is forced to buy securities), can be expected to have no influence on actual spending patterns. Spending will most likely be a function of income and, to a lesser extent, interest rates.

There is no nominal limit to BOJ intervention. It can buy \$US, for example, at 105 yen per \$US for as long as the private sector is willing to sell \$US for yen at that exchange rate. There is no technical reason for the BOJ to 'fail' to keep the yen from rising. Yes, the BOJ's expenditure of yen for this purpose adds to the yen net nominal wealth of the private sector whether sterilized or unsterilized and is an inflationary bias, which presumably is the reason for the intervention.

**Warren B. Mosler**  
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