Open Market Operations, Debt Management and Exchange Market Intervention: The General Case and the Japanese Case

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Introduction

—Open market operations, debt management and exchange market intervention have generally been done by three independent (or, semi-independent) authorities—namely, the monetary authority, the debt management authority and the foreign exchange authority—without much co-ordination among them.

—This happy situation has been brought about by the three authorities pursuing (apparently) independent objectives separately by utilizing their own (apparently) independent policy tools. The current situation in Japan is nothing like this, and shows how things are more complicated with lots of potential conflicts among them.

The General Case

—Open market operations are one of the three main tools of monetary policy (the other two are discount rate and reserve requirement policies). Basically, open market operations consist of the exchange of cash with short-term Treasury Bills (TBs). By selling or buying TBs in the market, the monetary authority (central bank) can control either the supply of cash (more accurately, base money, i.e. cash in circulation plus commercial banks' balances at the central bank) or the short-term interest rate. By so doing, it aims to attain price stability.

Some central banks also operate in the long-term Government Bond (GB) market. However, such operations are considered exceptional.

The monetary authority's objective might be more complex than simple price stability; asset prices could be a matter of concern, and general economic conditions

would be taken into account. Yet, price stability is surely the predominant objective of the monetary authority.

—Debt management aims to minimize long-run debt servicing cost by changing the mix of short-term debt and long-term debt given the outstanding stock of national debt. It is said that "the government should borrow short when interest rates are high, and borrow long when interest rate are low". Strictly speaking, the government should borrow short when the yield curve is steeper than normal, while it should borrow long when the yield curve is flatter than normal. In any case, by so doing, the debt management authority inevitably changes the shape of the yield curve toward the normal form. In other words, although the objective of debt management is minimization of debt service cost, its intermediate target could be the shape of the yield curve—or, the term structure of interest rates.

If minimization of long-term debt servicing cost is the sole aim of debt management, then governments would seldom, if ever, issue long dated bonds, since over time the long-term interest rate must be higher than the short-term interest rate. Debt management therefore must have additional aims including price stability and reduction of roll over risk; otherwise, government borrowing would be all short-term—in extreme cases, demand deposit or fiat money.

—Exchange market intervention is usually done in the following way: In order to depreciate the currency, the foreign exchange authority sells domestic TBs (or, finance bills) to acquire cash, which will be sold to buy the foreign currency in the market, which in turn would be invested in foreign TBs. In order to appreciate the currency, exact reversal must be made. Therefore, exchange market intervention can be seen as the exchange of domestic TBs with foreign TBs. Its objective is exchange rate stability, or more precisely, avoidance of misalignment and reduction of volatility.

If domestic TBs sold (bought) by the foreign exchange authority is bought (sold) by the monetary authority, or exchange market intervention is done by the monetary authority itself without any concomitant adjustment, then exchange market intervention is "not sterilized", and otherwise, "sterilized". It is frequently argued that non- sterilized intervention is more effective than sterilized intervention.

Some foreign exchange authorities invest in foreign GBs, corporate bonds and even

equities. But this is a matter of investment policy and not of intervention policy.

—In the (somewhat streamlined) general case, we have four assets (cash, TB, GB, foreign TB) and three relative prices (short-term interest rate, yield curve, exchange rate). So, the three authorities (monetary authority, debt management authority, foreign exchange authority) are pursuing the three objectives (price stability, debt service cost minimization, exchange rate stability) happily and independently.

The Japanese Case

—In the current Japanese case, where the short-term interest rate is practically zero, open market operations in the sense of the exchange of cash with TBs have completely lost the power to influence the short-term interest rate; the interest rate cannot be reduced below zero. As a result, the Bank of Japan (BOJ) switched its control target from the short-term interest rate to commercial banks' excess reserves at the BOJ (major part of base money). Some economists have argued that the excess reserve target must be substantially raised to further ease monetary conditions, but the BOJ has argued that cash and TBs are currently almost perfect substitutes and its efforts to buy TBs have sometimes failed due to the lack of demand for them. Then, those economists have argued that the BOJ can more aggressively buy GBs, since it has been buying them for some time anyway. To this, the BOJ has argued that a further increase of monthly purchase of GBs could undermine fiscal discipline and thus raise the long-term interest rate, and, in any case, it cannot bear so much market risk. Regarding the suggestion to buy equities or foreign TBs, the BOJ rejected the idea because of their risk and unorthodox nature. All in all, the BOJ contends that monetary policy is unable to stop price deflation.

—If monetary policy is as constrained as the BOJ claims in the Japanese case, i.e., if there are practically only three assets (cash=TB, GB, foreign TB) and two relative prices (yield curve, exchange rate), then, possibilities of two other policies to be used more imaginatively must be explored.

—The scope of debt management can possibly be widened so as to pursue price stability more explicitly. Since the short-term interest rate is safely anchored at zero, the Japanese debt management authority can lower the long-term interest rate by shifting government debt issue from long- to short-end. This would surely contribute to reviving

domestic demand and reducing deflationary pressure, though it might mean a compromise with the traditional objective of debt management.

If Japan's private sector is over-borrowed and must repay debt, then money supply will fall unless banks increase those assets which are public sector liabilities. They are doing this, but not enough to create sufficient monetary growth to stimulate the economy because of the maturity risk inherent in owning GBs. The policy to shift to short might alleviate the situation.

—Another possibility is to use exchange market intervention for price stability. If the Japanese foreign exchange authority sells the yen and buys the foreign currency in a massive way, it could depreciate the yen and stop price deflation. It is, however, doubtful that such a policy, without other supportive policies, is accepted in the international community.

It is generally accepted that the foreign exchange authority may intervene in the exchange market for exchange rate stability, and monetary policy might affect the exchange rate. However, it is not generally accepted that exchange market intervention can be utilized for price stability.

Concluding Remarks

—The Japanese case reveals a particularly difficult situation in Japan as well as potential difficulty in the general case. In any country, if price deflation continues and the short-term interest rate becomes near zero, the Japanese case will appear. If the short-term interest rate and long-term interest rate are perfectly aligned through expectations mechanism, the yield curve cannot be affected by debt management policy. . If domestic TBs and foreign TBs become perfect substitutes, sterilized intervention would become ineffective. Above all, the intricate relation among open market operations, debt management and exchange market intervention means a need for co-ordination among the three authorities despite their apparent independence.

—What should be done in the current Japanese situation? The most radical solution would be to completely change the institutional arrangement surrounding the three policy authorities, such as the abrogation of central bank independence, or even the amalgamation of the three authorities.

—However, it may be unwise to make such radical institutional changes because the current conditions of price deflation and zero interest rate may not continue indefinitely. Then, more serious rethinking of the three policies may be called for: First, the BOJ may adopt more non-traditional measures including accelerated purchases of long-term GBs and/or inflation targeting. Second, if they are rejected or not possible, the debt management authority may shift debt issue decisively to short-end. Third, if that is also difficult, the foreign exchange authority might be forced to utilize an internationally unpopular kind of exchange market intervention, which would be most unfortunate.