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What If Foreign Governments Diversified Their Reserves?

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Pacific Basin Notes. *This series appears on an occasional basis. It is prepared under the auspices of the [Center for Pacific Basin Studies](#) within the FRBSF's Economic Research Department.*

World financial markets paid close attention when officials from both South Korea and Japan said that their governments were considering diversifying their holdings of foreign reserves (Dougherty 2005 and Koizumi 2005). Many analysts thought these announcements were partly in response to the past depreciation of the dollar; if true, then it seemed likely that those two governments would sell some of their dollar-denominated assets, putting further downward pressure on the dollar.

Since then, officials in both countries have insisted that they were not considering any major changes to the policy of reserve holdings. Nonetheless, the potential for a sell-off of dollar-denominated assets by foreign governments has raised some questions about the consequences of such a move. This *Economic Letter* attempts to put these issues into perspective. It begins with a review of recent trends in the holdings of such assets by foreign governments and a description of how these governments use them. Then it explores some of the risks the U.S. economy might face if foreign governments sold off large quantities of their dollar-denominated reserves. It concludes with a discussion of some of the costs such a sell-off would pose to foreign countries themselves.

Recent trends in holdings of foreign exchange reserves and how they are used

Foreign exchange reserves are holdings of foreign-denominated securities by foreign governments. One of the major uses of foreign exchange reserves is to

intervene in the foreign exchange market in order to influence the value of the domestic currency and to serve as collateral for foreign borrowing. Suppose, for example, that a country wants to see the value of its currency depreciate, so that the cost of its exports will be relatively lower and therefore more attractive to foreign buyers. The government would then buy foreign-denominated securities and pay for them with domestic currency, thus leading the domestic currency to depreciate. Governments may also intervene in the foreign exchange market to keep the local currency stable relative to another currency in order to reduce the risk of exchange rate fluctuations. By reducing exchange rate risk, foreign governments may promote greater foreign trade and financial flows. A more dramatic use of foreign reserves may occur when the domestic currency is under a speculative “attack.”

Reserves can be used as a “war chest” to defend the local currency and, by extension, the domestic financial systems, in case of future runs on their currency. Following the 1997-1998 Asian financial crises, many East Asian governments moved to accumulate large amounts of reserves to serve as collateral for their domestic financial systems and prevent future currency crises (Figure 1). At the end of 2004, South Korea held over \$200 billion in reserves, more than twice the level it held in 2000.

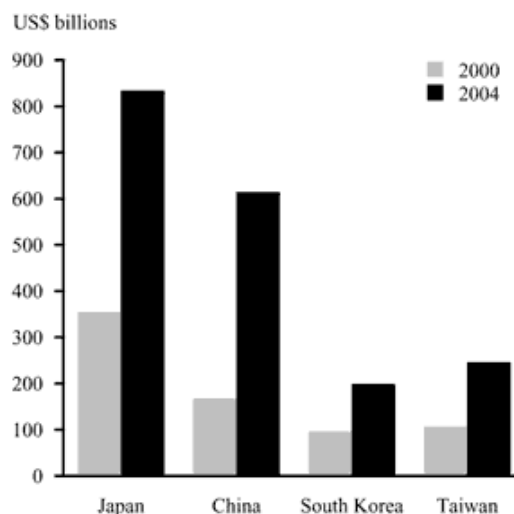
Total worldwide foreign reserves holdings reached \$3 trillion at the end of 2004, up from \$2.4 trillion in 2003, with the largest holders being Japan, at \$834 billion, and China, at \$615 billion. Most foreign exchange reserves are held in the form of dollar-denominated securities; one reason for this is that foreign governments like the highly liquid market for U.S. Treasury securities. As of December 2003, dollar-denominated securities accounted for roughly 70% of total reserves, while euro-denominated reserves accounted for about 20% (BIS 2004). At the end of 2004, foreign governments held \$1.2 trillion of U.S. Treasury securities, almost double the \$609 billion held in 2000.

Governments keep the composition of their reserves a well-guarded secret. Therefore, there are no data on the amount of dollars that individual foreign governments hold in their reserves. However, the U.S. Treasury does have estimates of total holdings—that is, official plus private—by country. According to those estimates, at the end of 2004, Japan held \$712 billion, China \$193 billion, and South Korea \$69 billion (Figure 2). Most of these securities are believed to be held by the central bank of each country.

Effects of a sale of dollar-denominated reserves on the U.S. economy

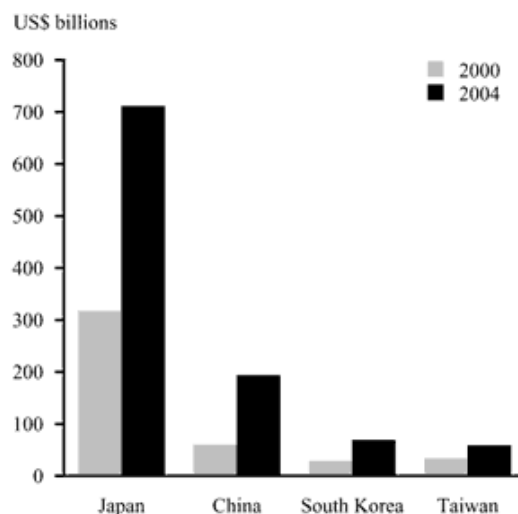
The sale of dollar-denominated reserves could have negative effects along several dimensions of the U.S. economy. First, it would tend to depress the value of the dollar vis-à-vis other currencies. A depreciation of the dollar in turn would tend to raise import prices, which

Figure 1
Official reserve holdings



Source: IMF International Financial Statistics.

Figure 2
Top foreign holdings of U.S. Treasury debt



Source: U.S. Treasury International Capital System.

could feed through to higher consumer price inflation.

Since 2002, the dollar has depreciated by 25.7%, and import prices have increased by 6.6%. If the sale of dollar-denominated reserves took the form of a sale of U.S. Treasury securities, then the price of these securities would decrease, causing an increase in interest rates, which may also be harmful to the economy.

Furthermore, U.S. consumers have benefited from cheap imports from abroad, and many U.S. producers depend on imported raw materials and intermediate inputs for their production plans. Thus, both consumers and producers would be hurt by an increase in the price of intermediate inputs. Exporters, however, would benefit from a dollar depreciation, as it would make their goods cheaper in terms of other currencies.

A depreciation of the dollar would eventually lead to an improvement in the current account deficit—which reached a record 6.3% of GDP in the fourth quarter of 2004—through its negative impact on imports and positive impact on exports. An improvement in the current account would reduce the amount of additional external borrowing needed to finance this deficit. However, a rapid reversal of the current account may be disruptive to the U.S. economy, as either investment or consumption, or both, would need to contract to close the current account gap (for the argument, see Setser and Roubini 2005).

Diversifying reserves without selling dollar-denominated assets

One source of information on whether there are any instances of diversifying reserves without selling dollar-denominated assets comes from the Bank for International Settlements (BIS). The BIS (2005) reports data on the currency composition of deposits of BIS-reporting banks. These deposits include some foreign exchange reserves held outside the home country.

Figure 3 shows that banks in South Korea, Taiwan, and particularly China, have increased the amount of dollar deposits they hold, including holdings of reserves between 2000 and 2004. This is consistent with the data presented previously on the increase of reserves by foreign central banks and the predominance of the dollar as a currency of reserve.

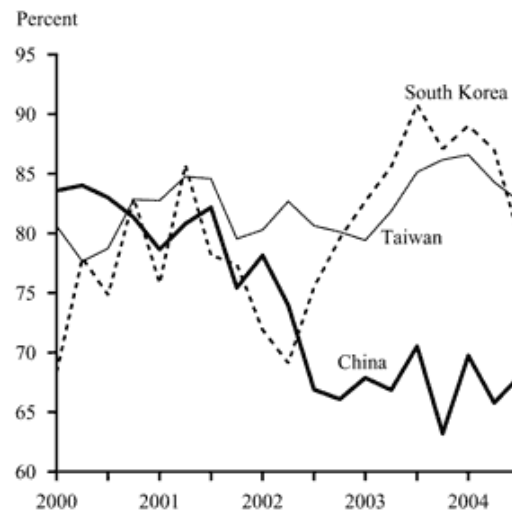
Figure 4 shows that while the fraction of dollar-denominated deposits in South Korea and Taiwan has remained mostly stable between 2000 and 2004, China has slowly diversified its holdings away from the dollar during this period. The fact that China increased its total holdings indicates that a diversification away from the dollar does not necessarily imply that central banks will sell their dollar-denominated assets. Foreign governments may be able to achieve diversification by purchasing larger amounts of securities denominated in other currencies in the future instead of by selling current holdings of dollar-denominated assets. For example, it is possible that the euro will grow in importance as an international reserve currency as the European

Figure 3
Asia-Pacific dollar deposits in BIS-reporting banks
US\$ billions



Source: Bank for International Settlements.

Figure 4
Share of dollar-denominated deposits
in BIS-reporting banks



Source: Bank for International Settlements.

Central Bank cements its low-inflation performance and as the euro financial market develops.

A sale of dollar-denominated reserves may be costly to foreign economies

In many Asian countries, economic growth has been led by the export sector, which would be hurt by an appreciation of the local currency vis-à-vis the dollar. In fact, the economies of Japan and South Korea would grow more slowly were it not for their dynamic export sectors. Thus, a significant move away from dollar-denominated reserves would entail significant costs to foreign economies.

A sale of dollar-denominated assets that leads to a large depreciation of the dollar would generate large capital losses for foreign governments, as the value of their assets would drop with respect to their domestic currency. On the other hand, since the United States borrows internationally mostly in terms of dollars and since most of its foreign assets are denominated in foreign currencies, it would receive most of the capital gains, as the value of its liabilities would drop relative to the value of its assets. Tille (2005) estimates that a 10% depreciation of the dollar leads to a valuation loss for foreign economies equivalent to about 4% of U.S. GDP.

Conclusions

This *Economic Letter* posed the question: What if foreign central banks diversified their reserves? The answer has several dimensions. A sale of dollar-denominated reserves would depress the value of the dollar vis-à-vis other currencies, thus raising import prices for U.S. consumers and feeding into higher consumer price inflation. If the depreciation is sudden and leads to a rapid reversal of the current account, it may depress investment and consumption. However, a sale of dollar-denominated securities would also be costly to foreign economies. Foreign governments would be exposed to large capital losses, and an appreciation of their currencies would make their exports less competitive. Finally, the case of China makes it clear that if foreign governments want to diversify their holdings of reserves, they can do so not only by selling dollar-denominated securities but also by buying into securities denominated in other currencies.

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