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THE REVIVED BRETTON WOODS SYSTEM: THE EFFECTS OF PERIPHERY INTERVENTION AND RESERVE MANAGEMENT ON INTEREST RATES AND EXCHANGE RATES IN CENTER COUNTRIES

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ABSTRACT

In this paper we explore some implications of the "revived" Bretton Woods system for exchange market intervention and reserve management in periphery countries. Financial policies in these countries are seen as a component of a more general portfolio management policy in which the formation of an efficient domestic capital stock is a key objective. Because intervention in financial markets is an important part of their development strategy, intervention in exchange and financial markets has, and we argue will continue to be, large and persistent enough to generate predictable deviations of exchange rates and relative yields in industrial country financial markets from normal cyclical patterns. We argue that management of the currency composition of international reserves by emerging market governments and central banks is unlikely to alter these conclusions.

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In a recent paper (Dooley, Folkerts-Landau, and Garber, 2004) we argued that a sensible development policy might involve creating a distortion in the real exchange rate in order to bias domestic investment toward export industries. Sensible here means that the resulting capital stock will be superior to that generated by a badly distorted domestic financial system and other relative price distortions typical of emerging market countries.

In this paper we explore two related implications of this idea for portfolio choices of emerging market governments. The key to understanding such choices is that, for these governments, the domestic capital stock is an important component of the asset portfolio. Thus accumulations of financial assets and liabilities, in particular international reserve assets and domestic currency liabilities, that appear to be suboptimal when viewed in isolation, make sense when viewed as a part of a development strategy based on channeling investment to export industries[1].

In the next section we argue that portfolio choices by periphery central banks and governments have two important effects on the center. First reserve accumulations are a quantitatively important source of finance for the center's current account deficit. It follows that real interest rates in the center are lower than they would otherwise be. Second, because reserve accumulations are concentrated in short-term US Treasury obligations, yields on Treasuries are depressed relative to other instruments.

We then turn to the likelihood and effects of reserve diversification by periphery countries away from US dollars. Our conclusion is that diversification is inconsistent with a development policy based on export led growth. An attempt to diversify and maintain dollar cross rates would generate an increase in gross reserve assets and the gross domestic assets required to sterilize the reserve increase.

I Global Imbalances and Treasuries

Accelerating global imbalances are creating an important confrontation between governments and private international investors. This confrontation takes the form of official intervention in foreign exchange and US treasury markets. The clash between investors and governments is driving a menu of market anomalies, from exchange rates, to interest rates, to spreads.

Our usual presumption would be that the private side would win this contest quickly and decisively. The idea that it is profitable to position against central banks is deeply ingrained in the memories of those who lived through the demise of the old Bretton Woods System. But that system did last for twenty years, and we see very strong incentives for governments to commit vast resources to the battle to maintain what we have called the revived Bretton Woods System.

[1] See, Feldstein (1999), Greenspan (1999) and Aizenman and Marion (2002) for alternative interpretations and motives for accumulation of international reserves in emerging market countries.

The rapidly increasing domination of the official sector on the buy side of treasury markets is creating a technical factor that is separating benchmark yield curves from standard fundamental analysis. Current one-sided private sector positioning on future yield curve movements based on fundamentals are in fact gigantic risks taken against a phalanx of central banks and finance ministries engaged in a historically unprecedented intervention in foreign exchange and financial markets. These interventions serve the purposes of the foreign official sector, and there is no reason for them to stop in the near term—we believe that the official sector will continue to intervene heavily.

Continued foreign exchange intervention by Asian central banks and governments will have two important effects on financial markets. First, by supplying a substantial fraction of US GDP to US credit markets, real interest rates in general will, we believe, remain below their historical norm perhaps by as much as one percentage point. Since real interest rates in the US have averaged about 2.8% in post war data this is an important affect. Put another way, regardless of what the Federal Reserve needs to do in managing inflationary pressures, a withdrawal of Asian support would require a narrowing of the US current account deficit and long rates would rise.

Continued intervention by official Asia would also tend to depress short treasury rates relative to other short rates because of intense appetite for these securities. Of course, the Federal Reserve can always sell enough treasuries to hit whatever fed funds target it wants. If inflation begins to return, the Federal Reserve would raise the fed funds rate, which would also raise the short treasury rates. Heavy Asian buying of short treasuries may push the bill rate down significantly relative to commercial paper but a wide enough spread would at some point lead to a switch to different securities.

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Poised at the rapid growth phase of the US business cycle, the US economy displays massive imbalances in its current and fiscal accounts. A strong recovery would reduce the fiscal imbalance but would make the current account deficit much larger. Conventional analysis suggests that the deficits are inconsistent with low yields compared with euro rates and what still appears to many observers to be an overvalued dollar.

Similarly, any undergraduate macro textbook discussion on the business cycle and the Taylor rule for monetary policy would foresee an eventual rise in short term interest rates to about 5% (3% real growth plus 2% inflation), with similar though lesser rises in long rates. The yield curve might rise even more than usual because of the large supply of marketable paper falling on the market with a 5.5% of GDP on-budget fiscal deficit. Also, the USD would depreciate against undervalued Asia as well as the euro to bring the current account deficit to below a manageable 3% of GDP. The only question seems to be about timing, will this adjustment start mid-year or in the autumn?

Most private sector players have read the textbooks and currently are underweighting both the dollar and duration, counting on the business cycle to grind out the usual result. Others, perplexed by the persistence of low yields in the face of the fundamentals, have thrown in the towel and simply gone back to a neutral position.

But the private sector as a whole can become seriously one-sided in these positions only because of the eruption of the global official sectors as major buyers in the low-risk dollar asset sectors. An array of central banks and finance ministries has emerged to resist, for their own local reasons, the adjustment that the cyclical fundamentals seem to require. These are mainly the Asian central banks and ministries of finance, but the Federal Reserve is also a major buyer with the fed funds rate set for now at 1%. Even the ECB, if it acts to stem the rise of the euro through direct intervention, may join this group. That this is not a concerted or organized intervention in US treasury markets does not diminish its power. It has created both a large fundamental and a very large technical factor that is bolted onto the normal cyclical adjustment with such weight that it can muffle its normal response.

Since the private sector as a whole seems to be taking a one-sided position, there is a vast risk position outstanding against mainly the Asian official sector. A few facts and a little arithmetic highlight the size of the risk:

a. Supply of US Treasuries[2]

Stock, End-December, 2003	
Marketable debt held by "public"	\$3.50 trillion
Less Fed holdings	\$0.66 trillion
Less securities held by Fed for foreign official	\$0.85 trillion
Leaves less than	\$2 trillion in private hands

New Supply, Fiscal 2004

The CBO estimates a \$631 billion on-budget deficit and a \$154 billion off-budget surplus. So new supply of debt in the hands of the public for fiscal 2004 is about \$477 billion. If the ratio of non-marketable to marketable debt stays constant, the increment in marketable securities would be about \$420 billion.

b. New Official Sector Demand for Treasuries

The Federal Reserve acquired about \$64 billion of Treasuries in 2002 and \$37 billion in 2003. Let's assume it will acquire \$40 billion in 2004, especially if there is no interest rate increase before summer. In Japan, the Ministry of Finance is asking for authorization to sell ¥61 trillion (about \$575 billion) for exchange market intervention in the next year.[3] If this is not a bluff and if the buying-in attack on the yen continues, that is a potential \$575 billion of purchases of US treasuries at current exchange rates. Intervention by Japan so far this year through the first week of February has totaled \$78

[2] The debt held by the public includes Federal Reserve holdings. It also includes non-marketable debt like savings bonds, special series for state and local governments, and other issues. The Federal Reserve reports Treasury (\$0.85 trillion) and Agency (\$0.21 trillion) securities directly held on behalf of foreign official claimants. The foreign official sector also holds Treasury securities indirectly through bank custodians, which are not captured here. The Asian official sector, which is the source of the growth, holds its treasuries through the Federal Reserve, while some European central banks do not.

[3] The limit for foreign exchange intervention was ¥79 trillion for fiscal 2003. At the end of December 2003, the amount outstanding was about ¥70 trillion. In the fiscal 2004 budget plan, the Ministry of Finance intends to increase the limit to ¥140 trillion, including ¥20 trillion for a 2003 supplementary budget. The plan has to be approved by the Diet within the next few weeks. Note that the earmarking of the amounts seems to indicate an anticipation of yet another ¥20 trillion intervention in the last months of fiscal 2003, added on to the ¥21 trillion of calendar 2003, and a potentially matching ¥41 trillion in fiscal 2004.

billion, an annual rate of around $800 billion. Add intervention from China and the rest of Asia for perhaps $150 billion more.[4] Adding up, we find a potential official sector buy-in of some $750+ billion in the treasury market.

c. Supply vs. Demand

Suppose the buying-in attacks on Asian currencies and the euro continue from the private sector and the potential intervention actually occurs. Suppose also that the Fed continues its expansionary policy. Then the global official sector would absorb the entire new supply of treasuries and reduce the existing stock by $330 billion, i.e. by just about 17% of the stock.

The global official sector—with its preferences slanted to US treasuries at the short end—would then have engineered a significant shortage of treasuries, rather than the glut that fundamentals would cause us to expect. So we would expect forceful downward pressure on benchmark rates as these official-sector-technical factor hits, enough partly to counterbalance rising credit demand due to the recovery.

A belief that the large buying-in attack on Asian currencies will continue this year and that official Asia will continue the defense is a belief that there will be a supply shortage in the US treasury market. Then the situation to compare to the present is not the run up in rates from 1993 to 1994 as the macro textbook would imply. Rather, it is the supply shortage of the 2000 buybacks, when technical factors persistently drove swap spreads vs. treasuries up by 50 basis points or more. In a low inflation environment with real yields around 2.5%, this would be a significant differential.

Private sector players are now inviting the Asian central banks to be the first to blink and unwind their positions by appreciating their currencies or diversifying their reserves, using the macro textbook as their rhetorical device. Yet, in deflationary Asian countries, notably Japan, it is difficult to understand why external players think there is some limit on the ability or motivation of the authorities to create yen in stemming a buying-in attack on the currency.

With interest rates at zero, it is costless to create as much yen cash as is demanded, while dollar reserves produce a positive yield. Normally, a limit on foreign exchange acquisition is reached when the resulting monetary expansion causes excessive overheating and inflation. But this is still not in sight for Japan, and would, in any case, be the monetary policy that economists have begged for to end their economic stagnation.

The lessons of attacks on fixed exchange, weak currency countries seem to be the ones being applied by the global private financial sector here. For such countries, there is a limit on reserves or credit or the amount of pain they are willing to put the economy through, so more attacks against such currencies are simultaneously a ratcheting up of the probability that the currency will indeed collapse. Speculators against the yen seem to be holding a case study of the peso against a mirror and thinking that the more yen they buy,

[4] China increased reserves by $117 billion in 2003, but this number results after subtracting the $45 billion in reserves transferred in the recent bank recapitalization. These funds will apparently remain in USD assets. South Korea, Taiwan, and Singapore increased reserves by $34 billion, $44 billion, and $14 billion, respectively. This totals to about $255 billion. Even allowing for some tinkering with exchange rates, we expect Asian currency interventions on a similar magnitude to maintain the export driven development strategy. Setting aside some allocations for other currencies and securities such as agencies or corporates, we guess about $150 billion for treasuries for this exercise.

the more they ratchet up the pain in Japan. Yet quite the opposite is true in deflationary Japan. The more yen the Bank of Japan creates to counter this, the less the economic pain. If the Ministry of Finance wins and the yen depreciates, it even gets a financial gain. We will look at this end-game scenario in a subsequent essay.

What limits yen creation in defense against a strengthening yen? Nothing. The other side of the coin of unlimited yen intervention in FX markets is unlimited buying of US treasuries. An ever greater Ministry of Finance intervention is an ever greater support of US treasuries. That is why this is a fundamental confrontation. Who can stand the most pain from their unbalanced positions this year—the central banks or the private sector? Who is likely to blink first?

If official Asia does blink, we expect two things to happen. First, the Federal Reserve would be more likely to see higher interest rates as necessary to control inflation in the face of a smaller supply of cheap Asian goods and cheap Asian savings. Second, long rates would rise more steeply because of the higher fed funds rate and because treasuries would not be scarce.

If Asia does not blink and inflation stays low, perhaps because of the supply of cheap foreign savings, we expect to see lower short and long interest rates, with short treasuries well below other short rates. Suppose that, in spite of continued Asian intervention, labor market tightness and incipient inflation triggers Fed action anyway. Then the rise in US rates would be less than normal business cycle history would suggest, mitigated by Asian intervention

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II Is Asian Reserve Diversification a Threat to the Dollar Pegs?

Asian central bankers have been incessantly peppered with advice to diversify their foreign exchange reserves[5]. Early on, such advice was based on the soundest of textbook risk-return optimization concepts, notably to diversify from the predominant USD share. As if this were not enough, in recent months the obvious trend strengthening of the euro and the lack of sufficient yield spread vs. the dollar has intensified such advice. As a last straw, international financial experts, eyeing the huge U.S. imbalances on current and fiscal accounts, are nearly screaming at the Asian central banks to sell off dollar reserves, before they have to absorb what the experts forecast as an ever larger disaster. Even if they may be talking their own book, such advice follows from conventional analysis of international macroeconomics, especially as it has been applied to small emerging market economies in recent years.

It is useful, therefore, to evaluate the likely effects of a rebalancing of these important asset portfolios away from USD and toward the euro or other currencies. The problem is

[5] See Dooley et al (1989) for a statistical analysis of the currency composition of international reserves and Eichengreen and Mathieson (1999) for an update of the facts and a discussion of the choice between the dollar and the euro.

that these official sector investors are much too large now to be price takers in foreign exchange and fixed income markets[6]. Moreover, changes in the allocation of existing holdings will clearly influence market expectations about future flows of investments by these central banks and governments.

Our bottom line is that any important change in the investment choices across currencies would likely:

- Threaten their USD peg.
- Require an even higher rate of accumulation of total gross reserves in the future.
- Increase pressure on the ECB to intervene to support the USD against the euro.

The first two seem inconsistent with the revealed interests of the Asian governments. So an application of the most basic principles of portfolio management would require a fundamental change in basic macro and development policy. The third cannot be ruled out: it would represent a major shift in ECB policy, but it is now being widely signaled by statements from EU finance ministries and by ECB board members.

Analysis.

First, let us note what amounts to an accounting identity. Suppose Asia significantly reallocates existing reserve portfolios away from USD to euros. This is equivalent in impact on private holdings of base currencies and securities to sterilized intervention in support of the euro by either the US or Europe. That is, there is no change in monetary conditions, i.e. monetary base, in any of the three countries due to the reallocation alone. It follows that private investors will have to adjust to the mirror image change in their asset allocation, that is more USD-denominated assets and fewer euro-denominated assets. For private investors to accept this portfolio shift, the USD should weaken against the euro, a result of the standard portfolio balance view.

The less transparent issue is what happens next? Intuition suggests that the dollar should weaken against the Asian currencies while the Euro firms against Asia. Indeed, both standard portfolio theory and historical evidence suggest this is the case. Starting from a mix of Asian currencies, USD, and euros in their portfolios, global private investors are suddenly confronted with fewer euros and more USD. At old exchange rates, they would want to get rid of USD and get more euros. This would tend to bid up the price of Asian currencies and the euro vs. USD, with the euro rising more. The case study on European interventions during the 1970s described in the included box provides the historical color.

[6] Eichengreen (2004) argues that smaller emerging market countries might free ride on their larger neighbors by quietly diversifying their reserve portfolios. This is clearly a possibility but we have as yet seen no evidence to suggest this is a serious problem.

The Snake in the Tunnel

The evidence comes from the common practice in the 1970s of European central banks buying and selling dollars to influence their cross exchange rates during the "snake in the tunnel" period. The European cross-currency bilateral rates were supposed to be maintained in a band by the individual central banks, and the whole array was to be maintained in a band against the USD. But interventions to maintain cross rates within the snake were often done with the USD. For example, to support the franc against the DM, the Bank of France would sell USD to buy francs. Private investors, who for the usual portfolio reasons desired a mix of USD and DM but who received only dollars from the Bank of France, would then offer USD for DM. The DM then tended to appreciate against USD. When the DM was pushed to its intervention limit against the dollar the Bundesbank would then buy USD against DM. The net effect was an appreciation of the franc against the DM with both currencies moving up relative to USD. See Michael Dooley "Note on Key Currency Intervention Systems," Board of Governors of the Federal Reserve, IFDP #79 (February, 1976).

The important lesson from the 1970's is that portfolio diversification will have first order implications for exchange market intervention by both the ECB and Asian central banks. If Asian central banks rebalance their portfolios away from dollars, private investors will require a fall in the dollar against the euro and the ECB may be politically forced to stabilize the dollar euro rate. In effect the ECB would play the same roll as the Bundesbank in the 1970s except that there is no formal obligation to limit the euro's appreciation against the dollar. Statements currently coming from European finance ministries and ECB board members indicate the potential for intervention in order to preserve cyclical recovery even without the added pressure of Asian buying of euros.

Perhaps more important, pressure from portfolio diversification on the USD/Asian currency cross rate would generate new intervention by Asian central banks to preserve the current dollar rate. Even if this new intervention is less concentrated in dollars than in the past, it can still eventually stabilize the dollar/Asian currency cross rate. But this implies even more rapid growth of gross reserve assets in Asian central banks and larger gross private capital inflow to these countries.

It is most likely that, in trying to keep the old peg against dollar rate, Asian central banks would invest all the new intervention proceeds in dollars. This would avoid the juggling among the currencies and the large gross acquisition of reserves. It would thereby largely offset the initial portfolio adjustment, leaving only an additional acquisition of euros, the same amount of dollars, and more monetary base to sterilize.

In the end it comes back to the question we explored at length in Dooley, Folkerts-Landau and Garber, 2004. If the dollar peg and export led growth are the dominant policy considerations for Asia, it makes little sense to threaten the peg with a portfolio adjustment that may have solid micro-finance grounds, but undermines the broader policy framework.

Our guess is that even if such a portfolio adjustment is attempted it will be cautious, small and quickly reversed. Even this could initially shake the market badly given the strong weight of opinion that it is only a matter of time before Asian governments abandon their basic policy stance of export led growth. By jarring expectations, it might even trigger a buying-in attack on Asian currencies that would be counter-productive if Asian governments really intend to maintain their pegs to the dollar.

Adoption of a basket peg would certainly allow diversification away from dollars without requiring intervention since the decline of the dollar against the domestic currency would be (depending of weights assigned to different currencies) offset by appreciation against the Euro. This of course does not eliminate the problem faced by central banks and governments that want to underwrite their access to US import markets. If basket pegs are in the works it is more likely to signal a cautious and gradual move away from strict dollar pegs than a move to facilitate reserve diversification.

Conclusions

We are witnessing now a shift in global flows of historic proportions. The unwillingness to accept the inevitable downward slide of the USD, due to a massive labor surplus in much of Asia and cyclical fears in Japan, is leading to intervention flows that are unprecedented. Now even the ECB has begun to publicly express concern about appreciation of the euro. We are experiencing an official sector effort to reverse global private capital flows on a scale that we have never seen, even at the end of Bretton Woods. The emerging institutional arrangement, yet to be formalized, is a reconstitution of the Bretton Woods system that we have discussed in an earlier paper.

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