

GLOBAL IMBALANCES, TANKING DOLLAR, AND THE IMF'S SURVEILLANCE OVER EXCHANGE RATE POLICIES

Sitikantha Pattanaik

The exchange rate policies of the member countries of the International Monetary Fund could come under more intrusive scrutiny because of the June 15, 2007, decision of the IMF Executive Board on bilateral surveillance. This article highlights why the IMF decision cannot help in addressing the problem of global imbalances, even if it succeeds in delivering further appreciation of the exchange rates of surplus countries against the U.S. dollar. Moreover, there could be enormous challenges for effective implementation of the decision, which may further erode the credibility of the IMF. Even though disorderly correction of global imbalances remains a concern for every country, shifting the burden of adjustment entirely to surplus countries could have potentially damaging implications for international cooperation on global economic challenges. Past experiences of international cooperation to deal with global imbalances and currency misalignments suggest that countries rarely sacrifice their domestic economic priorities. Without appropriate macroeconomic adjustment measures, neither the high and growing U.S. current account deficit nor the savings glut of several surplus countries can be corrected solely by removing exchange rate misalignments.

The IMF's New Surveillance Decision

The IMF's new decision on bilateral surveillance over its members' exchange rate policies replaced the 30-year-old decision that was adopted in 1977 (De Rato 2007). The new decision clearly anchors the focus of bilateral surveillance of the IMF under Article IV to the

Cato Journal, Vol. 27, No. 3 (Fall 2007). Copyright © Cato Institute. All rights reserved.

Sitikantha Pattanaik is an international finance expert from South Asia. His views presented in this article are strictly personal.

goal of external stability, explains the concept of exchange rate manipulation with more clarity, and outlines the contours of the surveillance process, including the fundamental factors that could be taken into account for assessing the appropriateness of the exchange rate levels (IMF 2007). “External stability,” for this purpose, would refer to balance of payments positions that are not likely to give rise to disruptive exchange rate movements. Manipulation of the exchange rate would cover actions aimed at influencing the level of the exchange rate—either to cause the exchange rate to move or to prevent the rate from moving—that could prevent effective balance of payments adjustments or lead to unfair competitive advantage for a country. The actual surveillance process for a member country under the Article IV discussions would become more intrusive, focusing on factors such as the direction and magnitude of exchange market interventions, restrictions or incentives used for influencing current account or capital account flows, monetary and financial policies used for encouraging or discouraging capital flows, external vulnerabilities, current account surpluses, government and quasi-government foreign liabilities and assets, and even the very ambiguous concept of fundamental exchange rate misalignment.

The new decision comes in the face of several important developments in the world economy. On the one hand, increasingly unsustainable global imbalances and the falling dollar suggest clearly the need for a multilateral cooperative approach to correct exchange rate misalignments, given the growing interdependence of nations under the force of globalization. On the other hand, the disappearance of borrowers from the IMF and the waning credibility of the IMF among the emerging market economies have made IMF policy advice under Article IV bilateral surveillance a mere routine zero-value exercise. Every country wants to retain absolute freedom on the choice of its exchange rate regime, and any amount of external influence or persuasion or pressure can only be responded to with stiff resistance. The atmosphere for international cooperation has also been vitiated by the general perception that it is the U.S. unilateralism that guides multilateral institutions like the IMF on issues like global imbalances and exchange rate misalignment, as is evident from one of the recent bills introduced in the U.S. Senate.

On June 13, 2007, a bill was introduced in the Senate (“The Currency Exchange Rate Oversight Reform Act of 2007”), which proposes to identify and punish countries that may be found by the U.S. Treasury to be maintaining exchange rates that are “fundamentally misaligned.” The legislation requires Treasury’s biannual report to identify two categories of currencies: a general category of

“fundamentally misaligned currencies” based on observed objective criteria, and a select category of “fundamentally misaligned currencies for priority action” that reflects misaligned currencies caused by clear policy actions of the concerned governments. While the Treasury must engage in consultations with all countries cited in the report, as regards the “priority” currencies, the Treasury would seek advice from the IMF as well as key trading partners.

For priority currencies, if consultations fail to result in the adoption of appropriate policies to eliminate the misalignment, immediate action could involve opposition to IMF governance changes that may benefit a country whose currency is designated for priority action. After 180 days of failure to adopt appropriate policies, the Treasury could request the IMF to engage the designated country in special consultations over its misaligned currency, use anti-dumping measures for products produced or manufactured in the designated country, prohibit federal procurement of goods and services from the designated country unless that country is a member of the World Trade Organization’s Government Procurement Agreement, forbid Overseas Private Investment Corporation from financing or insuring projects in the designated country, and oppose new multilateral bank financing for projects in the designated country. If the misalignment is not corrected even after 360 days, the legislation would require the U.S. Trade Representative to request dispute settlement consultations in the WTO with the government responsible for the currency manipulation. IMF intervention, thus, is a key instrument proposed in the bill for correcting misalignment, and the Treasury will use its voice and vote at the IMF to that end.

Who Wants the IMF’s Bilateral Surveillance?

IMF Article IV discussions with the policy authorities of member countries on issues concerning exchange rates have mostly reflected the mere exchange of ideas, with no compulsive obligation on the members to pay any heed to the recommendations of the Article IV reports on exchange rates. It is a general presumption that each country should be free to choose its own exchange rate regime and that no country would stick to a regime if it realizes that an alternative could be more beneficial. External influence without any accountability has to be deflected by listening to the advice with a deaf ear.

The IMF’s emphasis on publication of the Article IV reports in the name of enhancing transparency has also led to a situation under which the IMF, instead of offering confidential advice to members on sensitive issues like the exchange rate regime, would make its

assessment public. It is as if the Fund's Article IV process is a "fault finding mission" and, by highlighting weaknesses in policies openly in the public domain, the IMF is in the race of gaining some market credibility. In some sense, therefore, it is like a "credibility gaining exercise" for the IMF. What the market feels about it is more important to it than the member country authorities' need for quality unbiased confidential advice from it.

From the standpoint of the IMF, the perception, however, could be completely different. As underscored by Aylward (2007:2), under Article IV discussions,

IMF staff are expected to provide an accurate description of the country's exchange rate regime (whether the currency is floating, pegged, or fixed), a candid appraisal of the regime's appropriateness and consistency with underlying policies, and a forthright assessment of the exchange rate level (the currency's value compared to other currencies) through the systematic use of a broad range of indicators and analytical tools to evaluate external competitiveness. IMF staff are also expected to assess policy spillovers . . . operating through exchange rate policies. . . . In performing this task, IMF staff face longstanding challenges, reflecting a combination of technical uncertainties and political sensitivities. . . . [E]xchange rate policy can be politically controversial as well as market-sensitive. This can constrain the depth and candor of the dialogue between the IMF and its members. It can also affect the reporting in documents that are subsequently published. To mitigate this risk and preserve the IMF's ability to serve as a trusted advisor to its members, its transparency policy includes safeguards to maintain the appropriate balance between transparency and confidentiality. This policy allows for deletions of highly market-sensitive material in country reports before they are made public.

Published Article IV reports, thus, are at best negotiated documents, and in that sense they are no different from the plethora of country reports that are being manufactured every year by different private and public agencies. Even if the bilateral surveillance over exchange rate related issues from now on becomes more rigorous and intrusive for every member country as per the June 15 decision, the end result is not going to be very different from what has been happening so far. The IMF is attempting to assume a new role in a very complex area at a time when its credibility among a majority of its members may not be as high as it may possibly be assuming.

The most difficult challenge to the IMF in implementing the June 15 decision would be the internal analytical differences that may be persisting within the IMF on exchange rate related issues. As noted

by Aylward (2007: 3), in the past few years “the IMF has on average issued over 30 working papers a year on exchange rate-related issues.” How do the IMF’s internal researchers feel about the June 15 decision?

The IMF’s work on exchange rate surveillance draws considerable analytical support from the Consultative Group on Exchange Rates (CGER), which offers assessments on appropriate exchange rate levels for the advanced countries, and which has also started to expand its coverage to include all major emerging market currencies. As per the IMF Press Release No. 06/266 dated November 29, 2006, the CGER has revised the methodology for exchange rate assessment under Fund surveillance, and has suggested three methodologies that could be used along with country-specific information for assessing a country’s exchange rate. Those methodologies (as mentioned in the Press Release) are (1) the macroeconomic balance approach, (2) the reduced-form equilibrium real exchange rate approach, and (3) the external sustainability approach (IMF 2006b).

Unlike the 1985 Plaza Accord that focused on “exchange rate levels,” the general policy emphasis since the 1987 Louvre Accord has rightly been on managing “exchange rate volatility.” While exchange market interventions by the central banks have generally been ineffective in terms of achieving any exchange rate level, interventions have a better track record in containing volatility (Pattanaik and Sahoo 2001). It is not very clear why the IMF goes back to the exchange rate level again, particularly when its internal analytical work is becoming increasingly more pro-market. Intervention policies driven by official views on the right level of the exchange rate could be clearly antimarket. A revisit to the debate on “fundamental equilibrium exchange rate (FEER)” could at best have an academic value, but the FEER-derived exchange rate level as part of surveillance could certainly make the IMF staff even more “workless workaholics,” as they would be required to work on something futile and unnecessary, which more likely could be resisted and frowned upon by the member country policymakers as well as the market.

The IMF, however, is more optimistic about the work of the CGER, as evidenced from the assessment of the Executive Board (IMF 2006a):

The quality of staff’s analysis was mostly adequate in three of the four dimensions reviewed—namely the description of the exchange rate regime, the assessment of the regime, and the consistency of policies with external stability—but that there was room for improvement in the analysis of exchange rate levels and external competitiveness. . . . In the fourth dimension—assessment of exchange

rate levels—weaknesses were found in about one third of the cases. They mostly relate to the limited scope of the discussion: while an assessment on the exchange rate level is provided in all but a few cases, the depth of the analysis could be improved. . . . [A] more comprehensive description of intervention policies in floating regimes was needed.

Based on this optimistic assessment, the Executive Directors concluded that “bilateral surveillance should focus on strengthening the assessment of the exchange rate levels.”

Global Imbalances: The Real Trigger for the June 15 Decision?

As highlighted by Little (2006), the U.S. current account deficit cannot grow faster than its GDP growth, particularly given the already high level of the imbalance that has been accumulated in past several years. The U.S. current account deficit has increased from 1.5 percent of GDP in 1995 to 6.5 percent in 2006, and is generally projected to cross 7 percent in the near future. The correction of this U.S. imbalance could require (a) faster growth in foreign demand, and associated prospects for higher U.S. exports; (b) further depreciation of the U.S. dollar, triggering import substitution and making production in the United States for exports to the rest of the world more attractive; and (c) higher U.S. savings relative to its investment rate (Little 2006: 14).

Three observed facts suggest that though desirable, the first option is unlikely to be realized because (1) U.S. productivity growth continues to be the highest among all major advanced as well as developing countries, which helps in attracting large inflows of foreign capital, notwithstanding the debate on the sustainability of the U.S. current account deficit that such capital inflows finance; (2) the surplus countries exporting capital to the United States clearly face domestic absorptive capacity constraints that cannot be addressed in the short run; and (3) some of the fast growing surplus economies are already overheating, with inflation pressures emerging as the more dominant issue in such economies (implying that allowing further overheating just to address global imbalance could be possible only at the expense of sacrificing internal balance objectives).

The more practical choice for policy consideration, therefore, has to be either significant dollar depreciation against the currencies of the surplus countries, or considerable narrowing of the U.S. saving-investment gap, preferably by expanding domestic savings (which is difficult to achieve in the near term unless the large and growing

U.S. fiscal deficit is contained and compressed) or by cutting down domestic investment rate (which would involve considerable slow-down in U.S. growth). For the United States, obviously, avoiding the second option would be the preferred goal, and hence, it has been so emphatic about the need for appreciation of the currencies of the surplus countries to correct the problem of global imbalance. Since the pass-through effects of currency depreciation on domestic core inflation has generally been declining world over, a higher order of dollar depreciation is also possibly perceived to be manageable from the standpoint of inflationary consequences for the United States. The IMF, without any sufficient assessment of the potential effectiveness of further dollar depreciation to correct the imbalance (not withstanding the exclusive chapter on the issue in the *World Economic Outlook* for April 2007), has taken over an expanded role in exchange rate surveillance that could only further weaken its credibility, because every country would like to retain its right and freedom to chose and conduct its exchange rate policy without any external intervention, whether persuasive or coercive.

Why Dollar Depreciation Cannot Correct the Global Imbalance

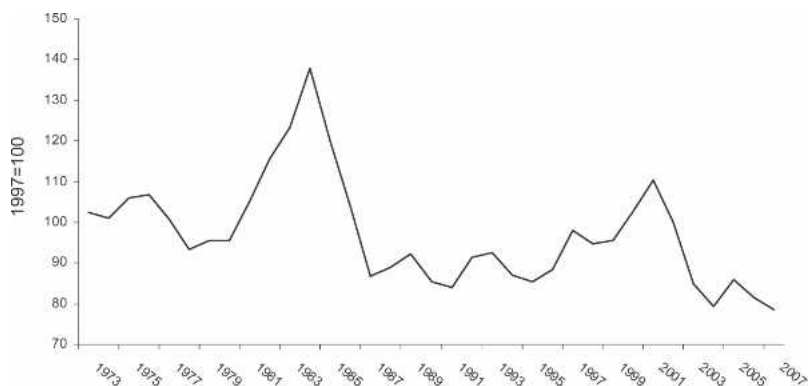
A fundamental undertone of the IMF's macroeconomic analyses for years has been that the exchange rate is at best a stabilization instrument, and unless the underlying structural factors that cause the current account deficit are addressed, the exchange rate instrument would not only become ineffective but may also prove costly in the form of high imported inflation (Pattanaik and Misra 2003). The key structural factor behind the persistently high U.S. current account deficit has been its large and growing fiscal deficit, and the associated saving-investment gap, and unless the fiscal deficit is contained, no amount of dollar depreciation can help in addressing the global imbalance. As noted by McKinly (2006: 5), with a view to averting a millennium recession,

At the first signs of a slowdown in 2001, the U.S. government pulled out all the stops by running huge fiscal deficits. The Bush administration chose hefty tax cuts (mostly for the rich), combined with a big boost in military and security spending. Although these measures were an inefficient means to stimulate the economy, their sheer volume had the intended impact. . . . The speed in applying this fiscal stimulus was unprecedented.

If the United States continues to grow at 3 to 3.5 percent per annum to avoid any major economic slowdown, then by 2008, according to McKinly (2006), the U.S. fiscal deficit could rise to 9 percent of GDP and the current account deficit to 7 percent of GDP.

The clear disconnect between dollar depreciation and the current account deficit is evidenced from the fact that despite significant depreciation of the dollar (in both trade-weighted nominal and real terms), the current account deficit keeps growing. Figure 1 shows that the dollar's trade-weighted nominal exchange rate, as per data reported by the Federal Reserve, has depreciated by about 30 percent since early 2002 up to June 2007. The depreciation after the Plaza 1985 period was, however, much sharper, and the extent of depreciation was also higher, which at times is highlighted to justify why the dollar may have to depreciate further. Moreover, many countries have already tolerated very high rates of nominal appreciation of their respective currencies against the dollar, as can be gleaned from Figure 2. How far could they go?

FIGURE 1
TRADE WEIGHTED NOMINAL EXCHANGE RATE OF THE U.S. DOLLAR
(1973–June 2007)

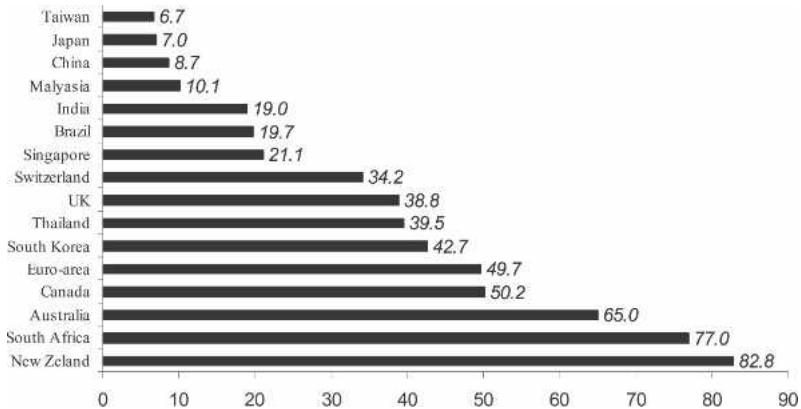


SOURCE: Federal Reserve.

According to the IMF's *World Economic Outlook* for April 2007, an assessment based on the experience of 42 past episodes of large and sustained current account deficit reversals would suggest that the correction of the imbalances required an average real depreciation of the exchange rate by about 12 percent, and an average slowdown in GDP growth by 1.5 percentage points. Episodes in which a decline in

FIGURE 2

CUMULATIVE NOMINAL APPRECIATION AGAINST THE U.S. DOLLAR
(% appreciation by end-June 2007 over early-January 2002)



SOURCE: Federal Reserve.

growth was avoided, the correction of the imbalance required real depreciation of about 18 percent. The United States has already experienced a real depreciation of about 15 percent since 2002, but its current account deficit has increased consistently in every year as a percentage of GDP.

What order of real dollar depreciation then may have to be engineered through cooperation from surplus countries to correct the imbalance? The IMF estimates suggest that for reducing the current account deficit by 1 percent of GDP, a 10 to 20 percent real depreciation could be necessary, and adjusted for several factors, the required real depreciation could be less than 10 percent. One could infer then that to reduce the U.S. current account deficit from 6.5 percent of GDP to about 4.5 percent, another minimum 20 percent real depreciation could be necessary. But given that the 15 percent real depreciation already achieved has not helped in reversing the rising trend of the U.S. current account deficit, 20 percent additional real depreciation may turn out to be equally ineffective.

Goldberg and Dillion (2007) explain in detail why dollar depreciation alone is unlikely to close the U.S. trade deficit. According to their findings, a 10 percent (trade-weighted) nominal depreciation of the dollar could lower the dollar price of U.S. exports by 7 percent (making U.S. exports competitive), and raise prices of imports by 4 percent (triggering some reduction in import demand). Given the estimated

price elasticities of demand, U.S. exports could increase by 10 percent, and imports may decline only by 1 percent after 6 quarters from the date of effective depreciation. Assuming unchanged imports and terms-of-trade, exports must grow at 52 percent to close the trade gap. One must note in this context that despite the depreciation of the dollar since 2002, favorable trade-balance effects have been more than offset by high oil prices and rising income payments on the large and growing U.S. external liabilities. The U.S. current account deficit, therefore, may not revert to more sustainable levels even after a heavy dose of dollar depreciation.

There are other obvious reasons why one may not expect dollar depreciation to cause any improvement in the current account deficit. The first argument could suggest that nominal dollar depreciation need not lead to equivalent depreciation of the dollar's real effective exchange rate (REER), because the nominal depreciation could lead to imported inflation, and depending on the magnitude of the price pass-through effects, a large part of the REER depreciation triggered by nominal depreciation of the dollar could be offset by rising domestic inflation (Pattanaik 1999).

To improve U.S. exports, it is the depreciation of the REER that may be essential, and nominal depreciation of the dollar need not give rise to depreciation of the REER because higher imported inflation resulting from nominal depreciation of the dollar can lead to appreciation of the REER. One recent Federal Reserve study (Campa and Goldberg 2006) questions the mainstream thinking gaining ground in the policy circles that "pass-through effects are low and declining." For 16 developed countries, Campa and Goldberg estimated the average pass-through coefficient to be about 0.59, and the pass-through coefficients varied across industry-sectors, from as high as 0.90 for raw materials to 0.62 for manufacturing. Thus, the higher the pass-through effect, the lower the beneficial effect of a nominal depreciation in boosting export growth. Moreover, compared with price elasticity, it is the income elasticity that may be more relevant for U.S. export growth, which implies that faster relative growth in the rest of the world is essential for improving U.S. export prospects. While Japan and the Euro-area can and must grow faster, several leading emerging market economies are dealing with the challenge of overheating and associated consequences for inflation. The scope for faster noninflationary growth in rest of the world benefiting U.S. exports is not limitless in the long run, and the limits seem to be very tight in the short run.

The second most important reason why dollar depreciation cannot improve U.S. export performance is the excessive importance being

attached to appreciation of the Chinese yuan (also known as the renminbi) against the dollar to correct the global imbalance (like the emphasis that was placed on appreciation of the Japanese yen in the post-1985 Plaza Accord period to address the imbalance in the U.S. current account deficit prevailing at that time). Despite significant hypothetical appreciation of the yuan, unless U.S. aggregate demand is contained through fiscal contraction, the demand for imports will only get deflected towards other smaller countries that may not appreciate their currencies. Chinese appreciation, thus, may just raise the competitive advantage of smaller countries, without helping in any reduction in U.S. imports. As underscored by Stiglitz (2007: 8),

Assume that China revalued. Does that mean that the United States is going to start producing apparel or textiles that it was importing from China? No. It would mean it will import it from Bangladesh and Cambodia, that the U.S. trade deficit would probably not change in any significant degree, but there is a law of conservation, and what was a surplus with China will show up in other places and, in particular, those other places will be less willing than China has been to finance the huge U.S. deficits.

Moreover, China's bilateral current account surplus with the United States could be at best about 20 to 25 percent of the total U.S. current account deficit. So, even if yuan appreciation is engineered somehow to reduce China's surplus with the United States, 75 percent of the U.S. current account deficit will continue to exist. The more important consequence of a major yuan appreciation that the IMF should take note of is the growth implications for China and the global economy. Is yuan appreciation so relevant for promoting U.S. exports, despite the risk of triggering lower Chinese growth? What happens to the world economy if China is made to face the same consequences like Japan had to in the post Plaza-Louvre accord period?

Why Lessons from the Plaza and Louvre Accords Are So Important

The large appreciation of the Japanese yen that was achieved during the Plaza-Louvre interregnum, and the macroeconomic policy adjustments that Japan had to sustain in the post-Louvre period, clearly strengthened the forces that worked together later to deliver the lost decade for Japan. The fear of U.S. protectionism in response to rising and high U.S. current account deficit in the face of large appreciation of the dollar from 1980 to 1984 led to the G-5 Plaza agreement to coordinate their economic policies to talk as well as

drive the dollar down from its generally perceived appreciated level. And in the post-Plaza period, the dollar started depreciating. According to Eichengreen (2005: 1), “What is attractive about the Plaza precedent is that it makes it seem that the dollar can be stabilized without significant changes in national economic policies. . . . All that happened was that governments intervened in foreign exchange markets.”

The fall in the dollar following Plaza, without macroeconomic adjustments in the G-5, created a major moral hazard problem in international cooperation. The perception developed that domestic macroeconomic adjustment may not be necessary under Plaza-type international cooperation, and that the adjustment burden can be shifted from macroeconomic and structural policies to multilateral interventions in the foreign exchange market. The moral hazard problem created then continues even now. One of the important lessons from Plaza is that interventions alone should not be relied upon to deliver exchange rate levels, unless accompanied by key macroeconomic policy changes.

The steady fall in the dollar during the post-Plaza period created concerns by early 1987 that a further fall could be destabilizing. The downturn in the Japanese economy that started because of post-Plaza appreciation of the yen needed to be resisted. The Louvre Accord of February 21, 1987, established a narrow intervention grid for the G-7 currencies. With Louvre, the approach shifted from “high frequency” interventions to “low frequency interventions,” and the policy focus shifted from “exchange rate levels” to “exchange rate volatility.” Within two months of the Louvre Accord, the Japanese yen went out of the agreed range and resumed its appreciation, creating adverse growth impulses. Domestic policy compulsions of the G-7 also led to waning commitments to the Accord.

Three lessons emerge from what happened in the post-Louvre period: (1) Without U.S. macroeconomic adjustments, no amount of global cooperation like Plaza and Louvre could succeed; (2) If the burden of global adjustment is shifted to specific surplus countries (like China), that could contain the seeds of delivering a lost decade, as it happened with Japan; and (3) The appropriate national macroeconomic policy actions necessary for dealing with global imbalances could be ambiguous.

Policy ambiguity associated with commitments like Plaza and Louvre arise on account of unclear consequences of any specific policy action. For example, whether Japan should cut interest rates (that could raise Japanese demand, and hence improve U.S. exports) or

hike interest rates (so that the yen would appreciate, and associated dollar depreciation could help U.S. exports) may pose a difficult choice, and often it is the domestic considerations that may guide the actual course of policy action. The Plaza Accord did not mention what monetary policy actions were expected from the G-5 countries to ensure dollar depreciation. In this context, as underscored by Miller (2002: 2),

A decrease in Japanese interest rates might be considered consistent with the (Plaza) Accord, since it would tend to stimulate the Japanese economy and thereby increase demand for American goods. On the other hand, a decrease in Japanese rates would also tend to strengthen the U.S. dollar against the yen, in contravention to the spirit of the Accord (a reduction in Japanese rates would make dollars more attractive to foreign investors). The effects of interest rate policy were ambiguous.

Such ambiguity about the desirable course of policy action to be adopted by any member country of the Fund with regard to any international commitment for correcting the global imbalance could be equally relevant even today.

As regards the seeds of Japan's "lost decade," the deflationary impulses gathered momentum in Japan in response to the Plaza-Louvre delivered yen appreciation from 251 yen per dollar at the end of 1984 to 122 yen per dollar by the end of 1987—that is, an appreciation of more than 50 percent over just about 3 years. The Bank of Japan (BOJ) resorted to five consecutive cuts in the interest rate from January 1986 to February 1987, bringing the rate down to 2.5 percent (thus it is domestic needs of fighting deflationary forces that guided the interest rate action of the BOJ, rather than clarity on what needs to be done as per Plaza-Louvre commitments).

Two lessons from the Japanese experience merit a closer assessment: (1) Despite substantial yen appreciation, Japan continued to accumulate large bilateral surpluses with the United States (implying that exchange rates alone do not explain the current account positions of countries), and (2) Easy monetary and expansionary fiscal policy stances recommended to surplus countries so as to raise aggregate demand of the rest of the world for boosting U.S. exports should recognize at what stage of the economy such policies are being implemented. In the case of Japan, such policies—that is, easy liquidity in the face of very low domestic inflation and gathering deflationary pressures—created an unprecedented asset price bubble, whose subsequent collapse delivered the lost decade, and left little scope for effective monetary and fiscal policy to avoid the prolonged deflation.

As against the focus on Japan and Germany in the post-Plaza period, now the focus has shifted to China, which of course has a completely different business cycle and economic structure compared to post-Plaza Japan. Its high growth is more important to the world economy than the appreciation of the yuan. The sacrifice of growth resulting from significant yuan appreciation is in the interest of neither China nor the world economy. If appreciation can temporarily ease overheating pressures on the Chinese economy, the option may look appropriate, but again it is internal domestic requirements of the economy that should guide the course of actual policy action for China. According to Robert Mundell (2006: 6), "A large yuan appreciation wouldn't help resolve global current account imbalances, but would devastate China, causing drastic deflation, impoverishing the rural sector, and cutting its growth rate by as much as half." Moreover, as noted by Ferguson (2005: 1), "If the dollar fell by a third against the renminbi, . . . the People's Bank of China could suffer a capital loss equivalent to 10 percent of China's gross domestic product. For that reason alone, the PBOC has every reason to carry on printing renminbi in order to buy dollars." Based on simulation of alternative scenarios, Park (2005) found that 20 percent revaluation of Chinese renminbi could give rise to a reduction in the U.S. current account deficit of just about 0.1 percent of GDP, and thus concluded that renminbi revaluation is not the instrument for correcting such high order of global imbalances.

In this context it is important to recognize that despite growing globalization and increasing interdependence of economies, national policy priorities are always driven by domestic economic interests, and when international commitments like Plaza or Louvre conflict with domestic economic goals, the magnitude of policy response of countries consistent with international agreements may start waning. The high and rising U.S. current account deficit, thus, has to be seen first as a U.S. problem, requiring credible U.S. actions to deal with it. U.S. policy of benign neglect of the exchange rate, however, has established a tradition among U.S. policymakers of not using macro-economic policies to correct any external imbalance situation.

As was witnessed during Plaza-Louvre period, the "U.S. Treasury Secretary Baker pledged to cut the U.S. budget deficit over time, much as the Bush administration pledges to do today. But since there was neither the political will nor the congressional support for doing so, the U.S. deficit drastically exceeded the target in Baker's pledge" (Eichengreen 2005: 2). Without tight U.S. monetary and fiscal policy, global imbalances could only persist and widen. In turn, tighter U.S. monetary and fiscal policy to address global imbalances could give rise

to a global slowdown, unless offsetting higher growth emerges in the Euro-area, Japan, and other surplus countries. In that sense the U.S. imbalance has global ramifications.

Why the U.S. Current Account Deficit Is a Global Problem

The mirror image of the high and rising U.S. current account deficit is the savings glut being encountered in other countries. What could be a problem of deficit for the United States, for others is a problem of surplus, and surplus management is equally essential to address the global imbalance. For the world as a whole there cannot be a savings glut, because world savings must match world investment. So it is a problem of lopsided distribution of savings and investments across countries. Unlike the U.S. deficit, the counterpart surpluses in many emerging economies have emerged in response to the way the IMF dealt with some of the crisis-affected emerging market economies in the last decade. Prior to the East Asian crises, for many of these countries investment rates exceeded saving rates. Post crisis, however, there has been excessive policy emphasis on “self insurance” through buildup of large foreign exchange reserves, not withstanding their exponentially rising costs for the economy.

Lack of domestic absorptive capacity, and the associated growth sacrifice, has yielded the savings glut. Reserves have been accumulated through sterilized interventions, even though unsterilized interventions, while strengthening self insurance, could have also improved absorption of the surpluses in each of these countries. Unsterilized interventions and the associated high growth in money supply could have led to lower interest rates and higher inflation. While the former could have raised investment demand and discouraged capital inflows, the latter, through real exchange rate appreciation, could have attracted more imports and discouraged exports. The self-correcting mechanism under unsterilized interventions could have led to automatic absorption of the savings glut in these countries. None of these surplus countries, however, wants high inflation, and hence, they have to sterilize their intervention purchases in the foreign exchange markets.

Moreover, despite having large and growing foreign exchange reserves, these countries continue to attract foreign capital, all of which cannot be absorbed domestically effectively. Such capital inflows, thus, often only finance capital outflows. The increasing inflation focus of monetary policy, and the absence of any limit to reserve-

building rapacity of central banks suggest that the savings glut problem may only continue. Extended and more intrusive IMF surveillance over the exchange rate policies of member countries cannot alter the position, particularly when the new surveillance does not impose any additional obligations on the member countries in relation to the 1977 decision.

A globalization process driven by market forces can give rise to imbalances, and as long as the markets tolerate the disequilibrium, the fear of a disruptive market-led correction should not lead to policy interventions that could be antimarket. Why should the national authorities and the IMF take the view as to what is the appropriate level of the exchange rate of the dollar, when the exchange rate of the dollar is very much market determined, and the dollar continues to be the key vehicle and reserve currency of the world? The job of recognizing the extent of misalignment in exchange rates and correcting that misalignment should be left to market forces. Avoiding a disruptive correction, however, could be the goal of national policymakers and their strong “self insurance” policy embodied in large foreign exchange reserves should help them in achieving that. The surplus countries in any case know that, at the extreme, the choice could be between a disruptive market-driven fall of the dollar or a major U.S. monetary and fiscal contraction. They have to respond to these eventualities, again, keeping the interest of the domestic economy at the forefront.

The global imbalances, thus, must be seen from a different perspective. It is the problem of unsustainability at a global level that is the key concern. The first concern relates to current U.S. demography, which suggests that the United States will dissave more in the future and, hence, it cannot improve the saving-investment gap without a massive contraction in the domestic investment rate. The other one relates to the pattern of capital flows, known widely these days as “water flowing uphill.” As emphasized by Stiglitz (2007: 7),

America is going through a process of aging baby-boomers. . . . And what that means is that this is part of the demographic pattern where we should be saving, not borrowing. And then later on, we should go on and dissave. So we are just doing the opposite. . . . The second problem has to do with the developing countries. You should think that money should be flowing from rich countries to poor countries, . . . just like water should flow downhill. If you saw water flowing uphill, you'd say, “Something is wrong.”

The commonsense policy options to deal with these two imbalances could involve higher public savings and lower investment rates in the

United States, and further appreciation of the exchange rates and greater domestic investment demand in all the surplus countries.

Those policies, however, cannot be achieved through a Plaza-Louvre type agreement, since instead of G-5 or G-7, now it has to be G-20 for any agreement to be effective, given the growing importance of non-G7 members of the G-20 in the world economy today. Many of these non G-7 members of G-20 have not reached a stage where they can assume global responsibility that may involve some sacrifice of domestic macroeconomic goals. Hence, international agreements involving clear policy actions from all G-20 members could be more difficult to arrive at, and there could be much greater violation of commitments than Plaza or Louvre because at every sight of any domestic economic problem the domestic goal could receive prominence for policy actions. The extreme positions taken by some of these countries on trade issues and the subsequent failure of the Doha round of trade negotiations can only suggest what could have happened if a Plaza-type agreement was to be attempted through G-20 for addressing global imbalances. The experience of Plaza-Louvre in any case suggests that despite commitments, countries do not change domestic macroeconomic policies to address global imbalances.

Hence, giving an institution like the IMF a greater voice on a member country's exchange rate policy could have appeared more convenient to the United States than attempting international coordination through Plaza or Louvre type agreements. The IMF, thus, gets a new job that essentially resembles its old inception-time job, but with refinements to reflect the current global context.

IMF Is Back with Its Original Role: Rescue the U.S. Dollar

Joan Robinson had once viewed the creation of the IMF as an "episode in the history of the dollar" (Mundell 2006). In the postwar period, U.S. supremacy was to be thrust upon the world by establishing the dollar as the international currency, and the IMF did exactly that. As narrated by Mundell (2006: 3),

There was nothing fundamentally wrong with the kind of monetary system we had in the postwar world. It was a system in which other countries fixed their currencies to the dollar, while the U.S. fixed the price of gold. Gold was convertible but only for foreign monetary authorities . . . [I]t was an ingenious accommodation to the reality of the United States as an economic superpower . . . [T]he system broke down in the early 1970s because the U.S. rejected the

idea of increasing the price of gold—and thus made gold's relationship with the dollar untenable—not because fixed exchange rates were wrong. In fact, had the U.S. revalued gold, the system could have sailed along for another two or three decades.

The demise of the Bretton Woods arrangements actually implied transition to a full dollar-based global economy, with the advantage that the United States had no commitments on gold convertibility.

The dollar-based system has been so firmly established by now that despite the emergence of rival euro and the sustained depreciation of the dollar, the global economy continues to be dollar heavy. Starting from trade invoicing to international oil pricing to trading in the foreign currency market to holding reserves, the dollar continues to dominate. The importance of the dollar is better revealed from the fact that of the total dollars in circulation, about 85 percent are held outside the United States. As noted by Mundell (1997: 10),

A staff member at the IMF did a study to estimate how many United States dollars are abroad. . . . [It] turned out that only 10 percent to 15 percent of the \$400 billion in circulation would be held in the United States. The rest of it would be used outside—not just by central banks but by travelers, the drug cartel, tax evaders and foreign banks. The dollar is everyone's second currency in the same way that English is everybody's second language.

The dollar as a currency of global prominence does not need any further support from the IMF. But any exchange rate level of the dollar that can be beneficial to the U.S. economy could still be thrust upon the rest of the world through the IMF. As the only superpower, it can expect the rest of the world to bear the burden of adjustment of the global imbalances, since it cannot accept lower growth in the United States engineered through tight fiscal policy and monetary policy that may be essential to contain its excessive current account deficit. A strong economy has to support the military might of a superpower. Hence, countries that have accumulated large surpluses, benefiting from the high U.S. current account deficit and globalization, have to see to it that their exchange rates adjust appropriately to remove the large imbalances.

Moreover, after the June 15, 2007, IMF Executive Board decision, it is the IMF that will tell respective countries whether and to what extent the exchange rate of a country could be misaligned. If the misalignment is not removed, the United States could resort to protectionism targeted at the exports of such countries. So it will be unilateralism in a globalized world, where actions of one country will get validated through the analysis and influence of a multilateral

organization. The U.S. approach to the dollar, often bluntly put as, “It is our currency, but your problem,” shows that a dollar appreciation or depreciation is more of a concern to the rest of the world than to America.

Accordingly, if other countries fail to do enough to address the problem, the United States could enforce its views through the IMF. According to Ambrose (2007), the U.S. Under Secretary of Treasury for International Affairs Tim Adams had mentioned in a gathering in 2005 (with IMF Managing Director Rodrigo de Rato in the audience) that the IMF is “perceived as being asleep at the wheel on its most fundamental responsibility, exchange rate surveillance.” The IMF, thus, had to act in response, which is evident from what Ambrose (2007) noted about Treasury Secretary Lawrence Summers once viewing the IMF as “among the most effective and cost efficient means available to advance U.S. priorities worldwide.”

What Happened to the U.S. Treasury’s Strong-Dollar Policy?

It is not clear though whether the United States has dumped its strong-dollar policy, which was so often highlighted by Robert Rubin and Lawrence Summers in the second half of the 1990s. Kelly O’Meara (2003) wonders, “If this administration supports the so-called strong dollar policy—the same alleged policy as Rubin and Summers—why is the dollar tanking?” According to Liu (2003), Paul O’Neill had stated in February 2001 (before the dollar began to fall), “I believe in a strong dollar, and if I decide to shift that stance I will hire out the Yankee Stadium and some rousing brass bands, and announce that change in policy to the whole world.”

The strong-dollar policy, which started with Robert Rubin in 1995, was based on the philosophy that a strong dollar can ensure a surplus capital account, which in turn can finance the current account deficits. So, a strong dollar was enough to attract foreign capital, as for the foreign investors investing in America the dollar appreciation ensured a high return in domestic currency. Liu (2003: 3) aptly noted in this context, “Neo-imperialism works by making the world’s poor finance the high living of the world’s rich. It transcends the Marxist notion of class struggle and surplus value. In neo-liberal globalization, not just labor but even capital comes from the exploited.” As the dollar started its fall in 2002, the U.S. Treasury did not abandon the strong-dollar policy right away, but shifted its stance that the value of dollar—like any other currency—should be determined by market forces.

According to Liu (2003: 1), John Snow had noted in 2003, “What you want to be strong is that you want people to have confidence in your currency, you want them to see a currency as a good medium of exchange.” Thus, instead of a strong-dollar policy, what gained prominence was a sound dollar policy. For the United States it is difficult to explicitly abandon a sound dollar policy since that can undermine international market confidence in the dollar, making financing of U.S. deficits much harder.

Can the IMF Implement the June 15, 2007, Decision Effectively?

In implementing the June 15, 2007, decision, the capacity and competence of the IMF staff could emerge as a key constraint. The Report of the Independent Evaluation Office (IEO) on the IMF’s Exchange Rate Policy Advice raises serious questions in this regard. The IEO Report highlights clearly the failure of the IMF management and the Executive Board to provide adequate direction and incentives for high-quality analysis and advice on exchange rate issues, as well as lack of depth in IMF staff analysis and advice under Article IV discussions on the choice of exchange rate regimes. As noted by Anderson (2007: 2) in the *IMF Survey* magazine, “The rules of the game for exchange rate surveillance are unclear both for the IMF and for member countries.” According to the *Survey*, on a question relating to the impact of IMF advice in shaping the exchange rate policies of members, policymakers from advanced countries generally viewed the impact to be limited, and among the large emerging market economies only a few accepted the IMF’s role as somewhat instrumental. It is only the small emerging market and developing countries that considered the IMF’s advice as instrumental in influencing their decisionmaking.

For correcting global imbalances, however, it is the developed countries (like Japan) and major emerging market economies (like China) that have to value the bilateral surveillance advice of the IMF. Those countries, however, are having the strongest “self insurance” possible with large foreign exchange reserves, and as a result, they can afford to ignore completely the advice of the IMF, unless they themselves see merit in correcting the imbalance, particularly if the U.S. protectionist reaction becomes credible. The tepid enthusiasm expressed privately in several countries to IMF advice on exchange rate related issues is viewed by Anderson (2007) as a warning sign “that the IMF is seen by some as providing limited value added . . . and

that it needs to find a way to reenergize its contribution to members' ongoing policy discussions."

The second key challenge would emerge from the credible assessment of exchange rate misalignment by the IMF that could become acceptable to the member countries. Even though the concept of Fundamental Equilibrium Exchange Rate (FEER) and its application was suggested by John Williamson way back in 1984, prior to the 1985 Plaza Accord, no real progress has been made in operationalizing the concept in the sphere of policymaking. As per the FEER principle, countries are expected to target nominal (not real) exchange rates consistent with their FEER values, and these exchange rate targets, which could possibly have to change from time to time, must produce a current account position in the balance of payments that exactly matches the equilibrium medium-term capital flows. In practice, even the U.S. Treasury avoids clear misalignment analysis in its bi-annual foreign exchange reports to Congress, despite the fact that according to the Omnibus Trade and Competitiveness Act of 1988, "The Secretary of the Treasury shall analyze on an annual basis the exchange rate policies of foreign countries, in consultation with the International Monetary Fund, and consider whether countries manipulate the rate of exchange between their currency and the United States dollar for purposes of preventing effective balance of payments adjustments or gaining unfair competitive advantage in international trade."

In his May 2007 testimony on currency manipulation, U.S. Treasury Deputy Assistant Secretary Mark Sobel (2007) highlighted the problem of identifying the equilibrium exchange rate by referring to the findings of one recent Treasury working paper:

That paper reviewed many of the concepts of exchange rate equilibrium in use as well as many of the models used to estimate the over or under valuation of a currency. An important finding of the paper is the wide variance of views that exist with respect to misalignment, as well as the sensitivity of the results to various modeling assumptions. In fact, in some cases, depending on the price deflators used, currencies were found to be overvalued using one deflator but undervalued using another deflator. Another main message of the study is that, although the range of estimates can and often do vary considerably, it is possible to draw certain inferences about misalignment provided the results are drawn from a variety of models and the results are largely similar in magnitude and direction. This information must, however, be supplemented with assessments of other reasons why exchange rates, during relevant periods of time, might deviate from perceived equilibrium values.

The challenge of identifying fundamental misalignment was outlined clearly by *The Economist* (2007) with the title “Misleading Misalignment.” It referred to one IMF study that “examined eight different estimates of the yuan’s supposed undervaluation: they ranged from zero to almost 50 percent depending on the methods and assumptions used.” The assessments of misalignment conducted by market analysts are equally ambiguous. According to *The Economist*, “Morgan Stanley uses only four models to estimate the yuan’s fair value (as opposed to 13 models for key currencies), of which the median valuation suggests it is only 1 percent undervalued against the dollar—not the answer Congress wants. Another surprise is that most other emerging Asian currencies now look overvalued.”

The tricky dilemma that academic research could pose before national policymakers is evident further from the Bouvert, Mestiri, and Sterdyniak (2006) study of the yuan’s equilibrium exchange rate. According to that study, economists like Goldstein, Williamson, Bergsten, and Frankel “ask China to revalue its exchange rate from 15 to 40 percent. . . . [T]hey agree with the American Congress, which threatens China with commercial sanctions if it does not revalue significantly.” On the other hand, economists like McKinnon, Bosworth, and Dooley hold the view that “China should not yield to American pressures. Revaluing the renminbi would slow down its growth and involve a crisis similar to Japan’s after its *Endaka* (i.e., the rising yen).” The IMF’s newfound role—that is, assessment of fundamental misalignments under every bilateral surveillance—thus, could at best remain perfunctory, going by the extent of confusion that has been piled up from past research on the subject, conducted extensively by policymakers and academics as well as market analysts.

Conclusion

Large and growing global imbalances have coincided with five consecutive years of high global growth. The exchange rate option to deal with global imbalances aims at sustaining this high-growth phase, since the other option—contraction in U.S. aggregate demand brought about by tight fiscal and monetary policy—could potentially trigger a global slowdown, particularly if such measures coincide with a scaled-up U.S. protectionist response. The exchange rate option could allow the United States additional leeway in terms of avoiding any fiscal or monetary tightening, while still benefiting from gradual improvements in the U.S. current account deficit. For the major surplus countries, both advanced and emerging, greater appreciation

of their currencies tolerated as a policy to correct the global imbalances could trigger dual effects on economic growth, with one effect partly offsetting the other. While appreciation-induced effects on exports could weaken growth, which in turn could be particularly detrimental to countries whose exports represent a key engine of growth, appreciation could lead to better domestic absorption of the “savings glut” and improve the inflation environment through the price pass-through effects, both of which could increase economic growth.

The exchange rate approach to global imbalances, however, at best, could be a short-run solution since even after removing misalignment in exchange rates, the imbalances would not disappear immediately. The underlying factors behind the imbalances—easy U.S. fiscal and monetary policy and the “savings glut” in the surplus countries—have to be addressed. It is akin to the difference between a stabilization program and a structural adjustment program of the IMF, with exchange rate adjustment generally recommended as part of Fund conditionality under the stabilization phase, whereas tight monetary and fiscal policy along with structural reforms are recommended during both stabilization and structural adjustments phases. Exchange rate measures often fail even to stabilize an economy unless accompanied by demand management measures. The experience of Plaza and Louvre suggests that the need for domestic policy adjustments to correct a global economic problem would most likely receive a tepid response from national policymakers.

The emphasis on “external balance” under bilateral surveillance as per the June 15 decision suggests that along with exchange rate, macroeconomic and structural policy changes would also be covered under the Article IV discussions. But how many countries would take such advice seriously, when they do not need the IMF any longer even as a crisis-time lender? Large foreign exchange reserves and bilateral swap arrangements among central banks alongside sound macroeconomic and financial policies in most of the conventional IMF borrowers have also created a general perception that the IMF’s advice can be ignored, particularly when it is viewed as not in the interest of the domestic economy. Stronger self-insurance acquired through high foreign exchange reserves and the adoption of more disciplined macroeconomic and financial sector policies have clearly empowered the national policymakers to resist unwanted external influence. The option to deal with global imbalances through the scarce-currency clause has been there since the Bretton Woods days, but it has never been invoked formally as yet.

Recognizing the potentially damaging effects of global current account imbalances, and the strong possibility that market forces may not be very effective in enforcing adjustment measures on the surplus countries, Keynes suggested that the IMF should have the ability to influence surplus countries to play their part in resolving global imbalances, which later came to be known as the “scarce-currency clause.” Neither the market forces, nor the scarce-currency clause has helped in addressing global imbalances of the past, and despite the June 15, 2007 decision, member countries of the IMF having large surpluses are unlikely to introduce adjustment measures if they are not in the national interest.

The history on the real application of the scarce-currency argument would most likely be repeated, even though its philosophy may continue to be valid. Braithwaite and Drahos (2000: 98) noted in this context that after the breakdown of the Bretton Woods system,

Keynes’ vision of an international monetary system capable of disciplining both deficit and surplus nations, thereby bringing equilibrium to the economies of the world, faded. Instead states looked to fora like the G-7 and the G-5 to coordinate international monetary policy. . . . G-7 meetings were more about information exchange and consultation, conditional policy understandings, than about rule-based guarantees. Industrialized countries kept lines of communication open with each other and used the IMF to bring monetary and fiscal discipline to developing debtor nations.

Over time, the emerging economies, have realized the game. They are not ready anymore to bear the adjustment costs of a problem that they have not created. They are also convinced that information on the appropriateness of exchange rate levels is imperfect. The IMF’s advice to member countries based on its findings from more intrusive surveillance is neither going to make this knowledge more perfect, nor will it help in addressing the IMF’s own crisis of “relevance and credibility.”

References

- Ambrose, S. (2007) “The Decline (and Fall) of the IMF, or Chronicle of an Institutional Death Foretold.” Solidarity Africa Network. Available at www.globalpolicy.org/socecon/bwi-wto/imf/2007/03imfdecline.htm.
- Andersen, C. (2007) “IEO Questions IMF Exchange Rate Advice.” *IMF Survey Magazine* (May 17).
- Aylward, L. (2007) “IMF Exchange Rate Advice in Spotlight.” *IMF Survey Magazine* (May 17).
- Bouvert, A; Mestiri, S.; and Sterdyniak, H. (2006) “The Reminbi Equilibrium

- Exchange Rate: An Agnostic View.” OFCE Working Paper No. 2006–13 (July).
- Braithwaite, J., and Drahos, P. (2000) *Bretton Woods: Birth and Breakdown*. Cambridge: Cambridge University Press.
- Campa, J. M., and Goldberg, L. S. (2006) “Pass-Through of Exchange Rates to Consumption Prices: What Has Changed and Why?” Federal Reserve Bank of New York, Staff Report No. 261 (September).
- De Rato, R. (2007) “Keeping the Train on the Rails: How Countries in the Americas and around the World Can Meet the Challenges of Globalization.” Speech delivered in Montreal, Canada (18 June). Available at www.imf.org/external/np/speeches/2007/061807.htm.
- The Economist* (2007) “Misleading Misalignment.” *Economic Focus* (June 23): 86.
- Eichengreen, B. (2005) “The Dollar’s Fall: Time for a Grand Bargain?” *Swiss Review* 16 (January): 1–4. Available at www.econ.berkeley.edu/~eichengr/reviews/swissreview16jan3-05.pdf.
- Ferguson, N. (2005) “Our Currency: Your Problem.” *New York Times* (13 March).
- Goldberg, L., and Dillion, E. W. (2007) “Why a Dollar Depreciation May Not Close the U.S. Trade Deficit.” Federal Reserve Bank of New York *Current Issues in Economics and Finance* 13 (5): 8–15.
- IMF (2006a) “IMF Executive Board Discusses Treatment of Exchange Rate Issues in Bilateral Surveillance: A Stocktaking.” Public Information Notice (PIN) No. 06/131 (9 November).
- _____ (2006b) “IMF Strengthening Framework for Exchange Rate Surveillance.” Press Release No.06/266 (29 November).
- _____ (2007) “IMF Executive Board Adopts New Decision on Bilateral Surveillance over Members’ Policies.” Public Information Notice (PIN) No.07/69 (21 June).
- Little, J. S. (2006) “Global Imbalances—with a Focus on the U.S. and China.” Speech delivered on July 6 at the Global Economic Forum, San Antonio, Federal Reserve Bank of Boston. Available at www.dallasfed.org/educate/events/2006/06ecforum.html.
- Liu, H. C. K. (2003) “America’s Selective Strong Dollar Policy.” *Asia Times* (14 August).
- McKinly, T. (2006) “The Monopoly of Global Capital Flows: Who Needs Structural Adjustment Now?” International Poverty Centre, UNDP WP No. 12 (March).
- Miller, G. P. (2002) “The Role of the Central Bank in a Bubble Economy.” New York University Law School. Available at www.gold-eagle.com/editorials/cscb001.html.
- Mundell, R. A. (1997) “The International Monetary System in the 21st Century: Could Gold Make a Comeback?” Lecture delivered at St. Vincent College, Latrobe, Pa. (12 March). Available at www.robertmundell.net/pdf.
- _____ (2006) “Ahead of His Time.” Interview with Laura Wallace. *Finance and Development* 43 (3): 4–7.
- O’ Meara, K. P. (2003) “Strong Dollar Hides Weak Policy.” *Insight Magazine* (23 May).

- Park, Cyn-Young (2005) "Coping with Global Imbalances and Asian Currencies." ERD Policy Brief No. 37, Asian Development Bank (May).
- Pattanaik, S. (1999) "Real Effective Exchange Rate: The Leading Indicator." Reserve Bank of India *Occasional Papers*, Monsoon Issue 20 (2): 123–51.
- Pattanaik, S., and Misra, S. (2003) "The Spectre of IMF Conditionality: Some Streamlining Options." Reserve Bank of India Staff Studies, 2/2003 (January).
- Pattanaik, S., and Sahoo, S. (2001) "The Effectiveness of Intervention in India: An Empirical Assessment." Reserve Bank of India *Occasional Papers* 22 (1–3): 21–52.
- Sobel, M. (2007) "Testimony of Treasury Deputy Assistant Secretary Mark Sobel on Currency Manipulation and Its Effect on U.S. Businesses and Workers." HP-394 (May 9). Available at www.treas.gov/press/releases/hp394.htm.
- Stiglitz, J. (2007) "Global Imbalances, Power Shifts and the Future of Multilateralism." Event transcript of discussion of Ed Andrews of the *New York Times* with Joseph Stiglitz, José Antonio Ocampo, and Mark Weisbrot (12 April). Available at www.cepr.net/documents/publications/global_imbalances_transcript_04_07.pdf.