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Working Paper No. 528

Financial Flows and International Imbalances—The Role of Catching-up by Late Industrializing Developing Countries

by

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ABSTRACT

While the traditional approach to the adjustment of international imbalances assumes industrialized countries at a similar level of development and with similar production structures, such imbalances have historically been the result of a process of catching up by late-industrializing developing countries. This may call for an alternative approach that assesses how they can be managed in order to support developing countries' efforts to achieve successful industrialization and integration into the global trade and financial system. In this light, the paper presents an alternative explanation of the existence and persistence of the currently high levels of imbalances and suggests reasons why they may persist in the medium term.

Keywords: Economic Development, Global Outlook, International Investment, Current Account Adjustment, International Policy

JEL Classifications: F01, F21, F32, F42, O11

INTRODUCTION

There are a number of different ways to consider the implications of the currently high level of international trade and financial imbalances across countries and regions. The most obvious is as the absence, or failure, of an automatic international adjustment to large external disequilibria in a number of countries. In this respect it is important to recognize that international imbalances have been the rule rather than the exception in the postwar period, but that at present they are exceptional by historical standards. Thus, the first question to be confronted is the cause of the increased magnitude of imbalances, rather than their existence.

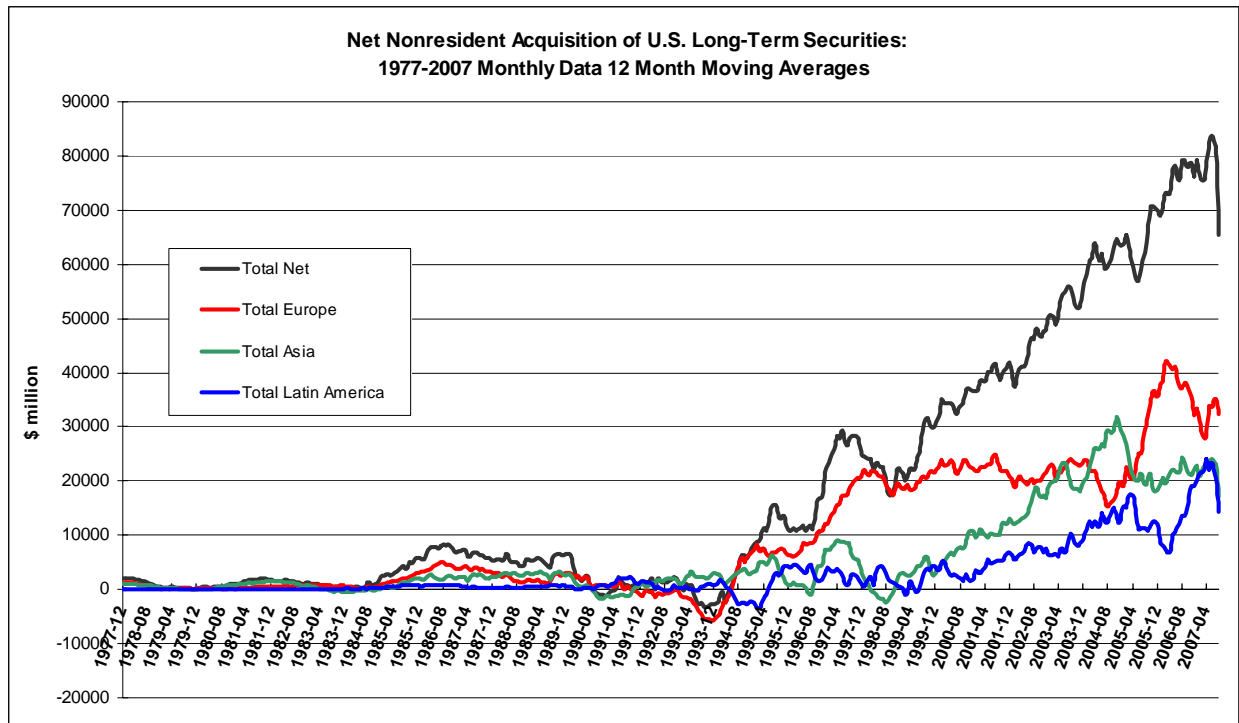
Second, imbalances have historically been the result of a process of catching-up by reindustrializing or late-industrializing countries. The initial postwar imbalances were related to the reconstruction of Europe and Japan, and then the emergence of newly industrializing developing countries, such as Korea and the NICs, followed by the Little Tigers, and currently the Big Dragon. Since traditional balance of payments adjustment theory deals with adjustment among industrialized countries at a similar level of development and with similar production structures, it is important to identify the differences that may occur when adjustment is between industrialized countries and developing countries that are following catching-up industrialization policies. Here, the most important question may not be either the existence or the magnitude of the imbalances, but rather how can they best be managed to support the policies of developing countries to achieve successful industrialization and integration into the global trade and financial system.

Finally, international imbalances are recorded by means of traditional balance of payments accounting that presumes national vertically integrated production of exports. However, this may not be the most appropriate method to measure imbalances in the modern era of multinational corporations operating global production chains geographically distributed across a number of national boundaries and financed by global financial institutions.

The three different aspects of the existing global financial and trade imbalances are not, however, mutually exclusive since they all involve the changes that have taken place in the international finance and trading system since the return of high levels of international capital flows and the increased integration of global capital markets. The first phase of this process

occurred in the 1970s, propelled the response of U.S. financial institutions to the 1966 credit crunch and was reinforced by the petroleum crisis of the early 1970s. The second took place in the 1990s after the U.S. recession early in the decade and the extremely low interest rates that prevailed in both the United States and Japan for extended periods. It was reinforced by the dot-com boom and the opening of many developing countries to the international trade and financial system. The argument presented below will attempt to explain the increasing magnitude of imbalances by the changes that the rising flow of international capital has produced in the global balance of payments adjustment mechanism and on the development strategies adopted by late-industrializing countries in this context. The greatly increased magnitude of flows in the 1990s compared to the earlier period may be seen in Figure 1.

FIGURE 1



THE INTERNATIONAL (NON)ADJUSTMENT MECHANISM

The rules of the game of the gold standard, when observed, provided an automatic international adjustment mechanism that operated across a small number of countries at a roughly similar level of development and within colonial or imperial systems at very different levels of development. The Bretton Woods System (BWS) that replaced the gold standard was to have provided a less automatic method of adjustment determined by the rational deliberations and negotiations of member states. A basic assumption underlying the BWS was to minimize the role of private financial institutions in the intermediation of capital flows and exchange rates. In the words of U.S. Treasury Secretary Morgenthau, the purpose of the postwar reform of the international monetary and financial system was “to drive the private money lenders from the temple of international finance.”¹ Paul Einzig (1944), in a book discussing the Keynes and White proposals, noted that Keynes’s plan would eliminate private-market currency trading. A well-known post-Bretton Woods United Nations (1949) expert panel that included Nicholas Kaldor proposed that all international development lending be done by national governments issuing domestic bonds, the proceeds of which would be administered through the World Bank.

However, as a result of pressure from U.S. financial interests, the BWS simply reinstated the gold standard, with the dollar replacing gold,² and preserved the role of private financial institutions in foreign exchange and international financial flows. There was, however, one important difference from the traditional gold standard, emphasized by Robert Triffin—the dollar was a national currency whose supply depended on the country’s external balance, while gold was the currency of no nation and had relatively inelastic supply.

¹ Quoted in Gardner (1956)

² Reports of the negotiations suggest that Keynes never approved the use of either gold or the dollar: “Putting the dollar next to gold at the centre of the postwar monetary system had been uppermost in Harry White’s mind ever since he started thinking about the subject. Early in 1943, before any plan was published, he had told a group of economists...The dollar is the one great currency in whose strength there is universal confidence. It will probably become the cornerstone of the postwar structure of stable currencies. ... in September 1943 Keynes told White that the United Kingdom did not contemplate going on to a gold or a dollar standard, but might be prepared to accept a unitas standard. Whenever the matter was brought up, he categorically rejected the idea that the dollar should be given a special status, and he continued to take the same line at Atlantic City when the subject briefly cropped up there. ... The change from ‘gold’ to ‘gold and U.S. dollars’ was lost in the ninety-six page document the chairmen of the delegations would sign a few days later. Whether or not any of them noticed it, or understood its implications, it seems that none of them expressed any reservations about it. Keynes would not find out until later, when he studied the Final Act.” See Van Dormael (1978).

Keynes's basic criticism of the gold standard was that its adjustment mechanism was asymmetric and thus contained an implicit bias against countries attempting to achieve full employment and, therefore, against global full employment. This difficulty was also present in the BWS, but with the additional complication of a national currency as the center of the system. As is well known, Keynes's proposed Currency Union would have imposed a negotiated symmetric adjustment mechanism with international transfers cleared via an international unit of account to replace gold.³ It would have thus avoided the drawbacks inherent in the gold standard and its revised BWS version.

The first signs of this structural flaw in the BWS came in October 1960, just after the BWS entered into effective operation with the declaration of Article VIII currency convertibility by major European country members in 1958–9 (the process for Europe was more or less complete by 1961, and in Japan in 1964), when gold closed at \$40, above the official parity of \$35. The difficulties caused by the divergent policy stances and payments positions of the United States and Europe led to the creation of all sorts of short-term fixes in the 1960s that tried to limit capital flows and shore up the dollar until they were abandoned in favor of the U.S. policy of "benign neglect." The basic difficulty in this period was the divergence in growth and inflation between Europe and the United States. In this case, a new form of symmetric nonadjustment emerged. As under the gold standard, the excess-saving, external-surplus continental currencies were able to refuse to adjust their domestic policies. However, in difference from the gold standard, the United States was able to refuse adjustment because the dollar was both the national and international currency of settlement. Thus, while the n-1, nondollar countries were subject to asymmetric adjustment, for the nth country, there was symmetric "nonadjustment." The lack of a functional symmetric adjustment mechanism thus led to the breakdown of the system, just as Triffin had predicted, and just as it had for the gold

³ The "Keynes Plan" envisaged an international clearing union that would create an international means of payment called "bancor." Each country's central bank would accept payments in bancor without limit from other central banks. Debtor countries could obtain bancor by using automatic overdraft facilities with the clearing union. The limits to these overdrafts would be generous and would grow automatically with each member country's total of imports and exports. Charges of one or two percent a year would be levied on both creditor and debtor positions in excess of specified limits. This discouragement to unbalanced positions did not rule out the possibility of large imbalances. Part of the credits might eventually turn out to be gifts because of the provision for canceling creditor-country claims not used in international trade within a specified time period.

standard.

However, the BWS would have collapsed for another reason. The architects of the BWS had envisaged a system in which private capital flows would be limited and the majority of international capital flows would be intermediated by the multilateral financial institutions, in particular the IBRD. However, by the mid-1960s private flows had already started to recover and by the early 1970s had already come to dominate the flows of goods in the system.

As the BWS system of adjustment was originally envisaged, the ability of a country to sustain an external deficit was limited by the level of its international reserve base. This was usually kept, as a rule of thumb, at about three or four months exports in value terms. Thus, the accumulated external deficit that could be achieved without breaching the commitment to exchange rate stability under Article IV was clearly limited in size. As reserves fell through support of the demand for foreign currency by domestic importers at the country's established par rate, restrictive policy would have to be introduced to reduce the demand for reserves, or the country would be driven to the IMF for conditional-support lending. In such a system, trade and financial imbalances were tightly constrained within the limits given by existing reserves and potential Fund lending. The objective of the BWS was not necessarily to eliminate bilateral imbalances for all countries, but to keep them within manageable limits negotiated through the IMF.

This IMF support was similar to a bridge loan that would allow the country to supplement its reserves and preserve exchange rate stability while the policy conditionality required by the Fund worked to restore external balance. These conditions generally imposed fiscal restraint to reduce domestic demand and employment in order to reduce income and imports. Since surplus countries had no need for additional reserves or Fund support, they were not required to take any action to contribute to adjustment in deficit countries by increasing their level of demand and imports. This was the basis of asymmetric adjustment. In cases of extreme structural imbalance, Fund conditionality might include devaluation of the exchange rate to induce expenditure switching to accompany the reduction in absorption. Although limited exchange rate adjustment was always available to countries without request to or permission from the Fund, this was rarely used.

The increasing availability of private financial flows enabled deficit countries to

circumvent the multilateral IMF adjustment process for coordinating national economic policies and exchange rate adjustments. Capital inflows could finance a much larger and persistent deficit, shielding a country from the necessity of adjustment and producing the paradoxical result of a real or nominal appreciation in the presence of increasing accumulated deficits. The most obvious episode of this nature occurred during the recycling of the surpluses generated by the 1970s petroleum crisis, and was repeated during the Reagan boom of the early 1980s (providing George Soros with his first international example of reflexivity and substantial profits from betting on the appreciation of the dollar even as the external deficit ballooned) that produced the first episode of international financial imbalances (in this case, joined by fiscal imbalances, something that is not the case today with the United States running a fiscal deficit that is lower than most European countries). Subsequently, private capital flows allowed a long list of countries such as Brazil, Argentina, Russia, and Estonia to combine extremely large external deficits with currency appreciation and avoid adjustment for long periods. When it came, adjustment was in the form of financial crisis.

As noted in the McCracken Report (OCED 1977), “The shift to increased reliance on private lenders for official financing purposes marked ... [a] transformation [that] had already been going on for some time. ... The events of 1974–76 simply confirmed and accelerated a trend in the process of liquidity creation that had been evident well before the oil price increases of 1973.” The reference here is the response of U.S. banks to the 1966 credit crunch and the tightening by the Federal Reserve of controls over bank liabilities that qualified for controls under Regulation Q. In order to gain flexibility, U.S. banks shifted from “asset management” to liability management practices, including funding through foreign branches operating in the nascent Eurodollar market in London. This was the real beginning of the return of private international capital flows, and became the primary vehicle for the recycling of petrodollars in the mid-1970s.

Guido Carli, Governor of the Bank of Italy, noted that as a result of the failure of the IMF to retain control over adjustment borrowing and the rising dominance of Eurodollar market financing:

“...there is at present no international monetary system, that is, there is no official institution capable of supplying the international payments system with the liquidity required for the further expansion of trade. This function has been taken over by the private banking system, and primarily by the U.S. banks, through operations carried out by their branches at home and abroad. The private banks have shown a greater ability than the official institutions not only to create the necessary liquidity for the development of trade but also to organize its efficient distribution. As a result, the IMF’s ability to enforce observance of rules of conduct has diminished; it should be remembered that, as originally conceived, the Fund’s prescriptive powers derived from its ability to exclude refractory countries from access to conditional credit. As almost all credit is now drawn from other than official sources, the Fund’s ability to lay down conditions has been correspondingly reduced. And as the function of creating international liquidity has been transferred from official institutions to private ones, so the task of supervision has passed from international bodies to national ones, whose surveillance, though keener than in the past, has nonetheless never reached beyond the boundaries of national interests.” (Carli 1976)

The result of this sharp increase in private market intermediation was a lapse in risk assessment on private loans and deficient national supervision that emerged in a liquidity crisis in the very year that Carli spoke and as a full-scale regional financial crisis was beginning in Latin America, starting with the Mexican default in 1982.

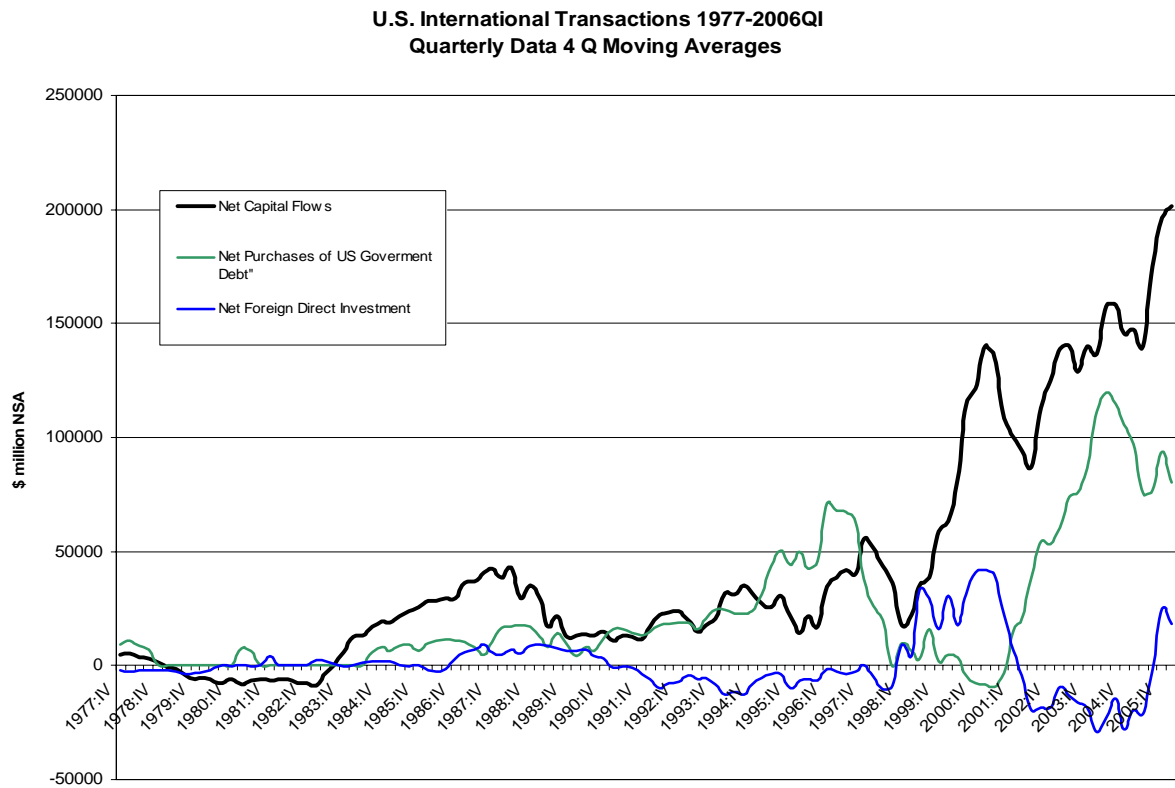
The rise to dominance of private international capital flows thus played an important role in eliminating the conflicting policy choices on growth and inflation across countries, circumventing the BWS asymmetric and symmetric “nonadjustment” adjustment processes and allowing for a substantial increase in accumulated international imbalances. This was basically because foreign capital flows provided a substitute for IMF conditional lending and allowed countries to maintain exchange rates without undertaking IMF conditions of structural adjustment to eliminate international imbalances. Instead of being limited by the size of international reserves, accumulated deficits were limited by the willingness of international financial markets to provide deficit financing.

The second phase of increasing international private flows was generated by the Brady Plan, which sought to resolve the 1980s debt crisis that was the result of the first wave by creating conditions in emerging market economies that would allow them to return to international capital markets to borrow the funds required to meet their outstanding indebtedness. The rapid opening of these economies to trade and finance at the time when the United States and Japan were both fighting recession with extremely low interest rates

reinforced the attractiveness of portfolio investments in these countries. The difficulties faced by U.S. corporations and the attraction of the opening of developing countries due to their internal opening and the reduction of tariffs in the Uruguay round led to a further increase, concentrated on direct investment flows.

Just as adjustment in the 1980s came through default, adjustment in the 1990s was not in the form of domestic policy adjustment or IMF lending programs and policy conditionality, but in the form of sharp capital flow reversals and financial crisis—first in Mexico in 1994, then in Asia in 1997, in Russia in 1998, Brazil in 1999, and Argentina in 2001. As a result of the inability of the IMF to provide funding sufficient to the size of the crisis, and the inability to provide appropriate policies to prevent financial and economic collapse, a number of countries have sought alternative means through the build up of substantial foreign exchange reserves resulting from sustained current account surpluses. At the same time, new developing countries (either through decisions to develop on the basis of export strategies, of developed country firms to globalize production chains, or because of the associated improvement of primary commodity prices) have also experienced large current account surplus balances and stocks of international reserves.

FIGURE 2



Thus, the current international system, driven by private international capital flows, seems closer to that proposed in Keynes's Clearing Union with these developing surplus countries automatically providing the financing required by deficit countries to sustain growth and employment. Indeed, the current system is characterized by the highest levels of overall growth since the creation of the BWS. On the other hand, the current "system" differs from Keynes's original proposal since the financing of global imbalances does not take place through a central, multilateral organization, but rather is intermediated through private financial institutions dealing in international financial markets. As a result, there are no institutional or economic limits imposed on individual country imbalances as had been envisaged in the original Keynes plan. The second major difference is that the countries with the highest growth rates are in external surplus, in contrast to the typical 1960s configuration in which surplus countries had lower relative rates of growth and inflation, and higher fiscal surpluses than the deficit countries. Indeed, as already mentioned, the largest deficit country, the United States, now has a

fiscal position that is better than the major surplus regions.

Thus, the conclusion is that an international trading and financial system that is characterized by private capital flows will have much larger international imbalances. Indeed, another way to look at this problem is through the attempts to measure the degree of capital market liberalization through the correlation between domestic saving and investment. The so-called Feldstein-Horioka puzzle suggests that if the domestic saving-investment correlation is high, then countries are not using borrowing in international capital markets for consumption smoothing. One explanation is that capital movements are not sufficiently free to allow this to occur. However, if international current account imbalances are implicitly limited then international borrowing will be similarly limited, no matter how free capital movements may be. On the other hand, if current account imbalances are unlimited, capital markets will appear to be more perfectly integrated. The recently observed decline in these correlations suggesting increasing international capital market integration and mobility are simply the reflection of the reduction in the limits placed on international imbalances, although still limited by periodic correction through capital reversals and crises. The real question then is not the degree of freedom of international capital markets or the degree of integration, but rather whether there are any natural limits on the level of imbalances in a global system dominated by private international capital flows.

An early view on the limits to imbalances is given by Keynes (1946) in his last published paper that is commonly considered as having accepted the traditional balance of payments adjustment process: "It is obvious that no country can go on forever covering by new lending a chronic surplus on current account without eventually forcing a default from the other parties." However, Keynes is referring to the policy discussions then current in the United States concerning the possibility of sustaining the large postwar net export balance as an alternative means of demand stimulus to more traditional Keynesian policies of debt-financed government expenditure.⁴ The policy discussion turned around the question of whether it was possible to maintain a constant share of surplus to GDP, since the increasing size of the absolute surplus

⁴ The subject of a special session at the 1945 annual meetings of the American Economic Association that included contributions by Randall Hinshaw (1946), "Foreign Investment and Full Employment"; and Hal B. Lary (1946), "The Domestic Effects of Foreign Investment," with discussion by Raymond F. Mikesell, Jacques J. Polak and John Parke Young.

would require ever-increasing foreign lending and thus, in the context of the present discussion, an ever-increasing external imbalance.

It was quickly noted that the foreign lending would soon generate return flows of interest and profits remittances, which would create a surplus on the factor services balance of the current account that would quickly eat into the trade surplus. The answer to the sustainability question was given by Evsey Domar's (1950) adaptation of an argument that he had already used to determine the sustainability of debt-financed public investment. As long as capital outflows increased at a rate that was equal to the rate of interest received from the outstanding loans to the rest of the world, the inflows created on the factor service account by the interest and profit payments would just be offset by the increased capital outflows and the share of the surplus to GDP would stabilize at a level that depended on the rates of interest. On the other hand, if interest rates were higher than the rate of increase in foreign lending the policy would become self-defeating and the trade balance would eventually become negative to offset the rising net capital service inflows. For the borrowing country, the opposite would be the case—if the borrowing rate was lower than the rate of increase in new debt, debt service would converge to a constant share of the current account. If the rate of interest was higher, then debt service would eventually engulf the current account and become unsustainable.

Domar's answer would appear to suggest that there is no limit to the size of the cumulative imbalance and that the surpluses and deficits should stabilize as a share of GDP given appropriate conditions on interest rate differentials. However, this is not the case for inspection of the Domar conditions for sustained external imbalances are equivalent to the conditions required for a successful Ponzi financing scheme. As long as the rate of increase in inflows from new investors in a pyramid or Ponzi scheme is equal or greater than the rate of interest paid to existing investors in the scheme, there is no difficulty in maintaining the scheme. However, no such scheme in history has ever been successful—they are bound to fail eventually by the increasing size of the net debt stock of the operator of the scheme. The resolution is likely to be a crisis caused by the breakdown of the Ponzi financing scheme,⁵ which is precisely what Keynes had suggested.

The conclusion is that while increased private capital flows have made larger imbalances

possible, they have also replaced the traditional adjustment mechanism of reduced absorption and expenditure switching through exchange rate adjustment with financial crisis. The limit on the size of the surplus is thus given by the point at which capital reversal and crisis occur because capital markets are no longer willing to financing increasing deficits.

DEVELOPING COUNTRIES AND THE SUSTAINABILITY OF INTERNATIONAL IMBALANCES

This conclusion has to be considered against the background of the current international economic environment. As noted above, traditional balance of payments adjustment analysis is designed primarily to deal with imbalances across industrialized countries at roughly similar levels of development, and presumes sufficient income and price elasticity to allow for successful adjustment through policies of reduction in domestic expenditures and expenditure switching.⁶

However, since the 1960s, the major periods of imbalances have been the result of incompatibility of national policy objectives in the absence of an effective adjustment mechanism, forcing policy coherence and compatibility in the presence of increasing global capital flows that make such adjustment easily avoidable. The same divergence of national policies appears to be at the root of the present imbalances. Thus, it is important to recognize that the current international system is not only characterized by increasing private capital flows, it is also characterized by a number of developing countries that have chosen the path of supporting demand for domestic resource mobilization through external demand. There are two standard methods available to achieve domestic resource mobilization. A country may use

⁵ The point is discussed at length in Kregel (2004).

⁶ These assumptions lie behind the proposals for China to appreciate its exchange rate or to increase wages sufficiently to reduce exports and allow consumers to import more from the United States. But, it may be the case that wage differentials between Chinese producers and the rest of the world are so high and the current U.S. production structure so inappropriate to Chinese consumption patterns (or that U.S. companies have outsourced the production of those goods that China might choose to import) that the impact of expenditure switching via exchange rate adjustment might occur in some third country rather than in recorded U.S. imports and exports. Adjustment may thus depend more on the location of production and the location of the firms that direct globally-dispersed production chains.

domestic or foreign debt financed deficit expenditure, or it may use foreign lending to finance external surpluses. Because of underdeveloped domestic production capacity, low incomes, and underdeveloped domestic capital markets, government borrowing to finance demand is not a viable alternative. The alternative of foreign borrowing has been used by a number of countries with a range of results. Malaysia has used strictly controlled foreign direct investment as a basis for development of domestic resources, while Latin America's experiment with foreign-financed development has followed the analysis above of Ponzi finance with the result of financial crises that more than offset any increase in domestic demand, income, and employment. As a result, most developed countries have now adopted a policy of foreign lending (in the form of the accumulation of large foreign exchange reserves held in U.S. dollars) rather than foreign borrowing. Thus, in the present context there are also large official financial flows, resulting from a choice of strategy for domestic resource mobilization, that have joined private flows in rendering traditional balance of payments adjustment ineffective.

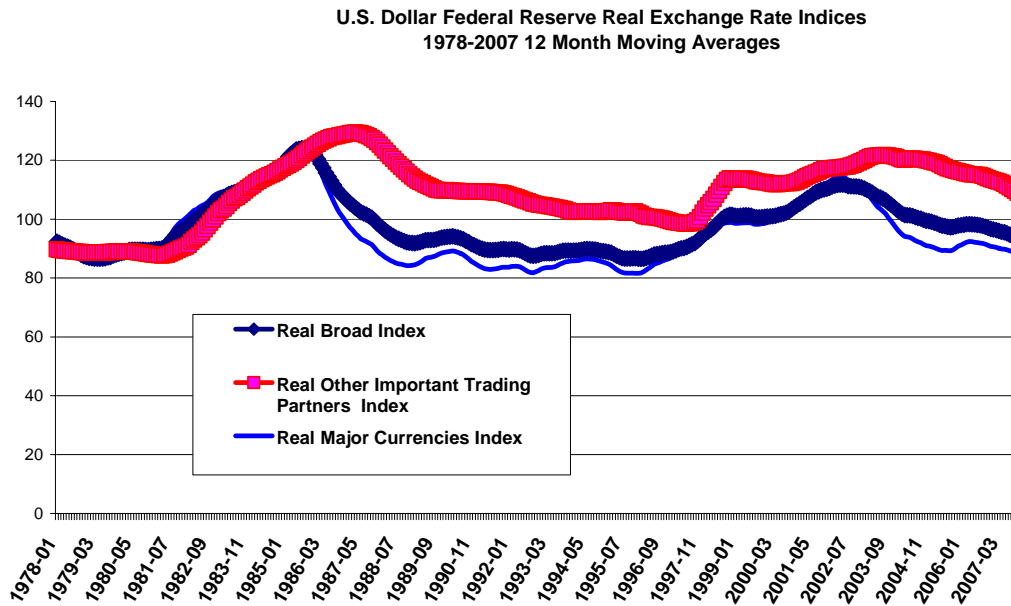
Finally, the group of formally reconstructing and developing (now mature) industrialized countries that reindustrialized on the basis of this same strategy of foreign lending to support external demand—Europe and Japan—have been unable to shift to a strategy of growth driven by domestic demand and foreign or domestic borrowing. This inability has also contributed to the absence of international adjustment.

To simplify the discussion of the policy differences that currently are driving private and official international capital flows, consider the world as represented by three regions—the United States, Japan and Europe, and developing Asia and Latin America. Although most of the attention in the discussion of international imbalance is given to the U.S.–China bilateral imbalance, this is not the most important in understanding the global imbalances. Broadly, Asia represents developing countries that are applying domestic policies that create export surpluses to support domestic demand and employment growth, and thus generate domestic savings. They finance these policies by capital exports. Many Latin American countries have also been able to adopt such policies. Europe, on the other hand, has decided to introduce binding regulations to ensure that restrictive domestic fiscal and monetary policies keep demand at the level that keeps the economy from growing more rapidly than the two percent level that is believed to be compatible with two percent inflation, the resulting demand deficiency being met by external

demand.

The Asian developing countries, traditionally and currently, favor stable intraregional exchange rates, as well as with respect to their major extraregional export market in the United States. But, since the Japanese yen and the euro both fluctuate relative to the dollar, Asian developing countries have a de facto dual exchange rate policy—flexibility relative to the yen and the euro, and relative stability against the dollar and within the Asian region. The results of these Asian and European domestic policies on bilateral regional exchange rates can be seen in Figure 3.

FIGURE 3



Despite the fact that over the last four years substantial dollar exchange rate adjustment has taken place in the euro-dollar exchange rate (represented in the figure by the Major Currencies Index), the U.S.–Europe bilateral trade balance has improved only marginally, while the trade balance of Asia with Europe has tended to improve. It also shows the relative stability of the exchange rates of Asian developing countries (given by the other important trading partners index) relative to the dollar. While the U.S. trade balance with these countries has also started to stabilize, the balance with China has tended to accelerate despite the introduction of some flexibility in the Chinese exchange rate policy. In both Europe and the developing Asian countries, the trade surpluses are balanced by capital outflows that generate counterflows of capital service earnings that strengthen their current account balances.

FIGURE 4

China Merchandise Trade Balances 1994-2005

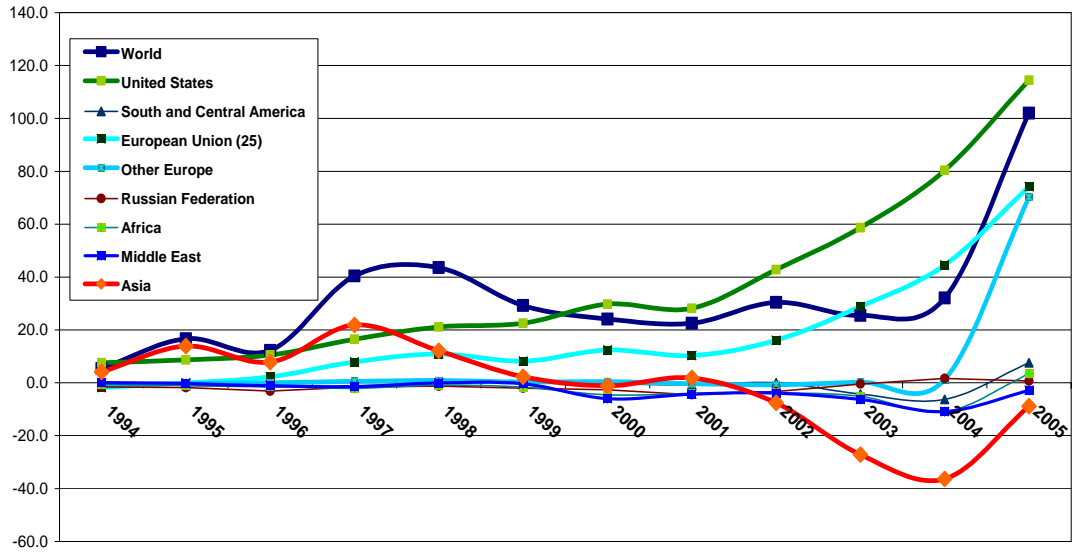
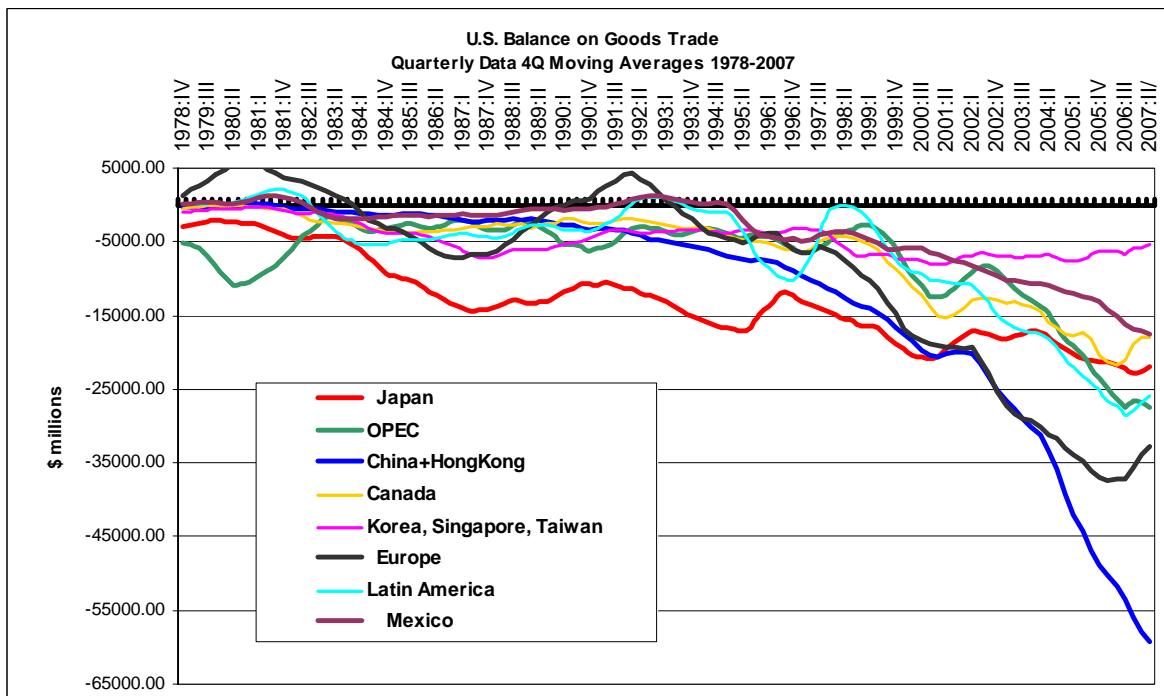


FIGURE 5



The primary aim of Asian developing countries is to preserve their internal expansion and employment growth, as well as to insure their economies from the volatility of international capital flows that produced crisis in 1997. In particular, China seeks to preserve the market-based, export-led transformation of the state sector into a market economy and the transfer of a large portion of the rural population to urban employment. Thus, Asian countries from Japan onwards have used acquisition of foreign technology and foreign lending to support export surpluses in order to achieve their domestic policy objectives. In the absence of alternative extraregional final export markets, the Asian economies would have to give up their policies to support domestic employment if they wanted to reduce their rate of increase in lending to the United States. Lending to the United States to support demand for exports can thus be seen as a substitute for public-sector domestic or foreign borrowing to support increased domestic expenditure. It is clear that this cost is considered less onerous than the cost of domestic or external borrowing. Indeed, if this cost is measured by the difference between domestic interest rates and external rates earned on reserves, the low level of interest rates in countries like China, Malaysia, and Thailand suggests that their reserves may have negligible costs or even provide net earnings. For countries with higher interest rates, such as India and Korea, costs could be in the range of a half percent of GDP (Genberg, et al. 2005). The recent increases in U.S. interest rates will further reduce the costs of excess reserves, while any further depreciation of the U.S. dollar would increase them. In the presence of policies to keep currencies stable against the dollar, or if U.S. interest rates provide support for the dollar, the former factor should offset the latter. In any event, the objective function of the government is clearly to maximize employment, with any foregone earnings on its foreign exchange holdings considered as an acceptable cost. As seen in Figure 6, as of yet, there has been little movement to substitute the dollar in official reserve holdings.

However, measuring the cost of holding excess foreign exchange reserves by means of differences in borrowing and lending rates or domestic rates of return and investment rates may not be appropriate for developing countries. The early development literature was based on the increased output that could be achieved by the transfer of labor with a negligible or negative marginal product in agriculture to employment in the manufacturing sector. Thus, the use of external lending and export-led growth provides increasing manufacturing employment.

Although the exports do not create domestic resources or well-being, the difference between productivity in agriculture and industry does provide a positive benefit to the economy in terms of the real wage differential, as well as the increased skill level of the labor force. Thus, the appropriate comparison should be the cost of excess reserves against the gains that accrue for the transfer of labor from the countryside to urban manufacturing employment. A priori, it would appear that current policies result in a clear net gain for the developing economies adopting this strategy.

As noted above, most attention in the international imbalance discussion has focused on the bilateral balance between China and the United States. However, this is particularly misleading in a multilateral trading system given the role that China increasingly plays as the center of regional trade growth and integration as a result of its increased processing trade, importing goods from the rest of the region (especially Japan), and exporting to developed-country markets. Since China has partially taken on the role of Asian export platform for multinational firms, the direction of Japanese trade has shifted from exporting final goods to other developed countries to exporting components and importing final goods from China.⁷ In Figure 5, China's trading position with its major extraregional partners shows a marked difference from its trade within the region, as shown in Figure 7. While it is running increasing surpluses relative to the United States and Europe, it has run nearly offsetting deficits with its regional trading partners.

⁷ For a more detailed analysis of the changes in the segmentation of production of multinationals operating in Asia and its impact on regional trade flows, see Gaulier, Lemoine, and Ünal-Kesenci (2006).

FIGURE 6

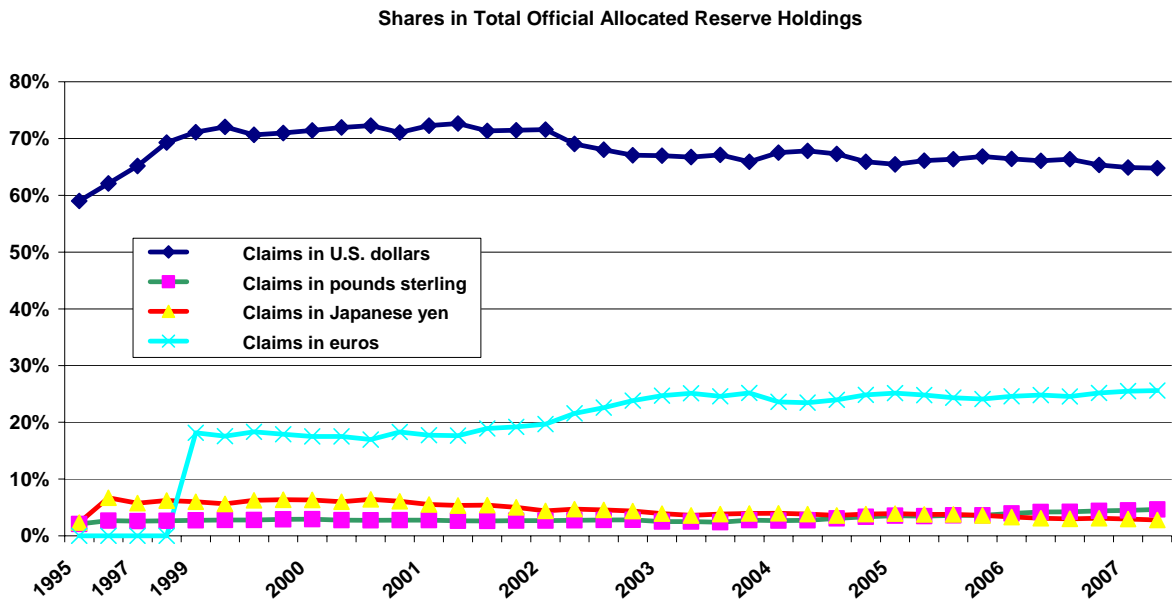
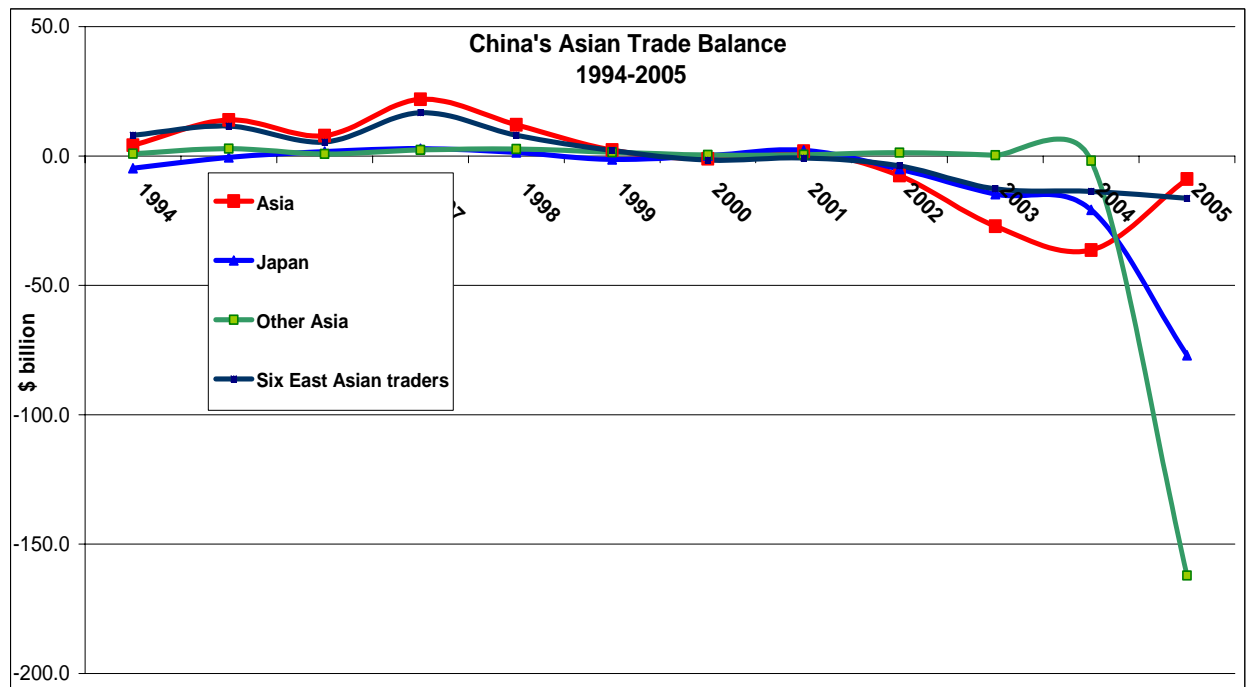


FIGURE 7



The extent to which this processing trade is through the integrated production chains of international companies can be seen from Table 1, with around fifty percent of China's total exports accounted for by processed exports of firms with foreign capital participation. The extremely high share of processed exports in total exports (over forty percent) and the extremely high import content of those exports (around two-thirds) means that exchange rate adjustment will have a much different impact than represented by simple expenditure switching in a world where final goods are wholly domestically produced for export.

TABLE 1. Firms with Foreign Capital in China's Trade with Selected Partners (2002)
(percentage of total flows)

	World	EU-15	U.S.	Japan	Hong Kong	Singapore	Korea	Taiwan
China's Total Exports	100	100	100	100	100	100	100	100
FFC* Total Exports	52	50	58	62	63	65	49	57
FFC Processed Exports	41	40	48	47	54	54	35	45
China's Total Imports	100	100	100	100	100	100	100	100
FFC Total Imports	54	49	48	67	63	61	63	67
FFC Imports to Process	32	12	21	39	53	36	41	49

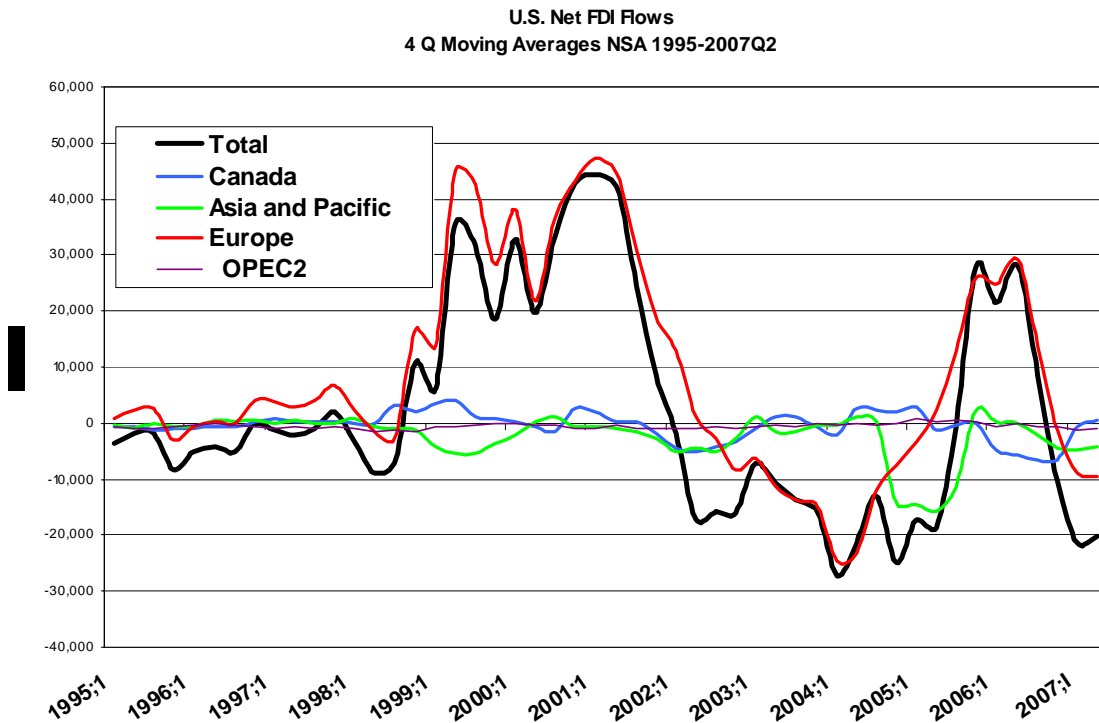
Note: * Firms with foreign capital.

Source: Gaulier, Lemoine, and Ünal-Kesenci (2006)

Policy in Europe, on the other hand, no longer has any formal or informal employment goal or express policy to support domestic demand; rather, policy is guided by an inflation target and a public sector borrowing and debt-to-GDP target. Given these targets, along with open capital markets, the EU can have no formal exchange rate policy. Indeed, it has no formal mechanism to implement such a policy, for much like the Federal Reserve in the United States, exchange rates are not included in its operational mandate. As a result, Europe has adopted by regulation the same policies employed in Asia; net exports are required to support demand and employment. If the Stability and Growth Pact and the ECB's inflation target prevent government borrowing to support domestic demand and private demand is insufficient to produce growth that provides satisfactory employment growth, the only alternative is foreign lending to support acquisition of European exports or the acquisition of foreign companies that

can produce exports. Thus, European lending to the United States has been dominated by European firms and investors acquiring U.S. assets and U.S. technology firms. These investments were driven by the recognition that European companies could not recover the information technology gap that became evident with respect to the United States in the mid-1990s except by buying the technology through takeover of U.S. companies. The flows were also driven by the attempt of European firms to use their U.S. subsidiaries to export technology to low-cost foreign producers whose products were then imported to Europe or the United States. Figure 8 shows the dominant position of European direct investors in the 1990s until the falloff in their direct investments just as the dot-com bubble was collapsing at the end of the decade. But recently, driven by the weakness of the dollar, direct investments are again increasing, as opposed to U.S. exports to Europe recovering. As Figure 1 (above) shows, European flows have not only been in direct investment, they have also been in long-term U.S. securities, being surpassed by Asia for only a short period after 2001.

FIGURE 8

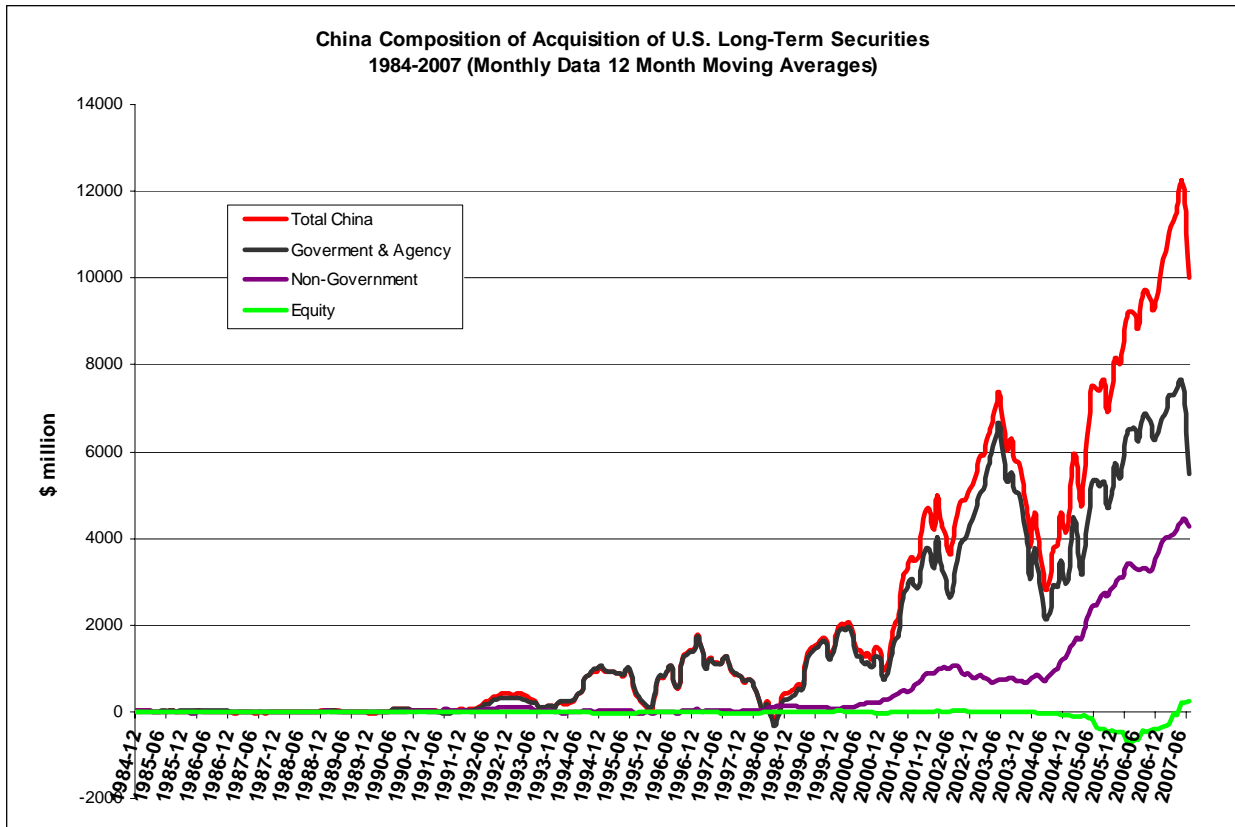


In difference from Asia, any reduction in EU lending to the United States would likely produce overshooting of the euro, relative to both the United States and, in particular, to developing Asia, which represents the only growing alternative market for European exports. Not only would this reduce the competitiveness of EU produced exports, undermining domestic demand, but given the large presence of European corporations in the United States, it would also reduce the domestic currency value of their U.S. subsidiaries' profits. If this feeds through into lower domestic share prices, it could further dampen investment and thus, the ability to grow through domestic demand.

In the presence of an increasing U.S. interest rate differential, increased factor service earnings would improve the European current account and could further reinforce the upward pressure on the euro exchange rate. Were Asian countries to decide to diversify away from the dollar into EU assets (as predicted by those who expect a sharp dollar collapse) this would further aggravate the pressure on the euro exchange rate and export competitiveness. Paradoxically, in these conditions, maintaining demand in Europe through net exports would require even greater lending to the United States. Indeed, it is interesting to note that European direct investment flows to the United States tend to increase with appreciation of the euro.

However, to the present time, instead of diversifying investment out of the dollar, Asia has diversified its holding of dollar assets, in particular, increasing holdings of nongovernment securities, as can be seen in Figures 9 and 10. Further, IMF data on central bank reserve composition suggest that there has been little diversification.

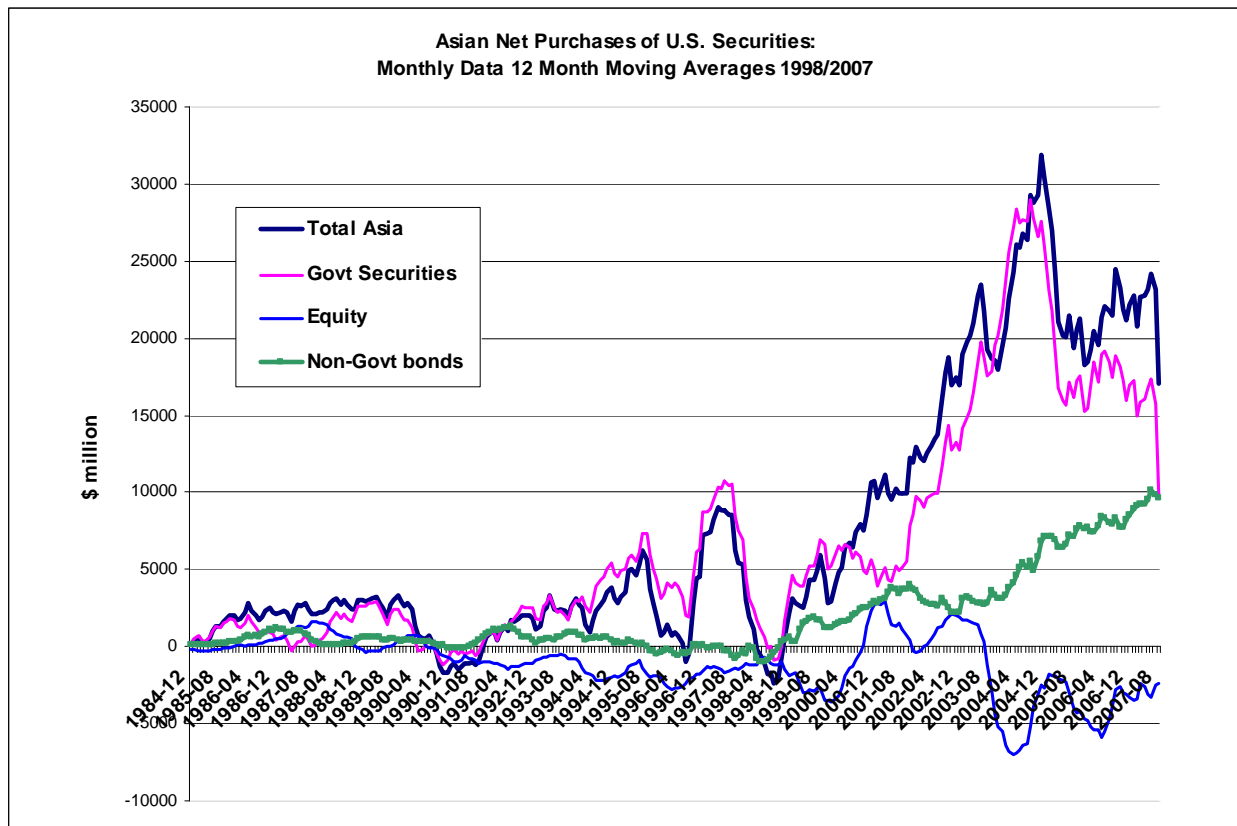
FIGURE 9



The policies being followed by developing countries appear similar to the “vendor” financing that characterized the dot-com era in the United States where successful internet companies actually earning bankable profits lent money or took equity positions in start-ups to finance the purchase of their equipment. All this tends to suggest that as long as Europe, Japan, and Asia are willing to put their money where their mouth is in support of their domestic policy choices of externally-led demand, the international adjustment mechanism will remain inoperative. From the point of view of the stability of the system and reducing asymmetric adjustment, it appears to be preferable to have the key currency country the major debtor rather than the developing countries. The key country can always meet its obligations, thus avoiding a financial crisis that occurs when a country cannot meet its foreign exchange denominated debt service. Instead, the financial crisis that traditionally accompanied excess imbalances will take

the form of a currency depreciation.⁸

FIGURE 10



ACCOUNTING FOR IMBALANCES IN A GLOBALIZED WORLD

The final aspect of the current international imbalances is the impact on how international accounts reflect international trade and payments flows. Existing external accounts presume the Bretton Woods System of fixed exchange rates designed to support the expansion of international exchange of final goods and services through exchange-rate stability. As already noted, this assumed that private international capital flows, and the build-up of international indebtedness, would be kept to a minimum and any international capital flows would be under

⁸ Although currency depreciation by an international borrowing is tantamount to default, it does not have the same balance sheet impacts.

the control of governments through their central banks and the international financial institutions.

Balance of payments accounts were thus based on the expectation of domestic policy management that would produce roughly balanced trade in goods supported by stable exchange rates, minimal private capital flows, low interest rates, and low international indebtedness. This also implied that, after postwar European reconstruction, trade flows would be dominated by exchange of manufactured goods between Europe and the United States, with trade between industrial and developing countries concentrated in primary materials. As a result, the international accounts emphasized exchange of final goods, and virtually ignored the dominant role of interindustry trade and the increasing importance of trade in semifinished intermediate goods, as well as the importance of private autonomous capital flows and their impact on factor service payments.

Thus, our international accounts have difficulty in reflecting the change in the productive structure of the U.S. economy—the geographical dispersion of different parts of the production process around the globe, or the existence of geographically integrated production and supply chains. For the United States, this is largely the result of the restructuring of the U.S. manufacturing after the profits crisis of the 1980s, the increased role of capital flows in the global economy after the deregulation and fall of Bretton Woods, and the opening of developing economies to trade after the Uruguay round, which sharply reduced their tariffs. This has meant that the most important components of trade are no longer final goods, but trade in semifinished intermediate inputs required by the production processes of transnational corporations, predominantly American. These corporations have geographically dispersed their production processes across various national economic systems.

In this process, the research and development for design and marketing of internationally traded goods has remained in the developed country headquarters of the multinational corporations, while the various stages of the actual production process are spread across low-wage developing economies.

These changes in the global structure of production within national firms have distorted recorded trade figures since the export of a single traded good may now be represented by a series of passages across national boundaries at various stages in the production process of its

various components, each recorded as an import and export, thus inflating the rate of growth of trade volumes and values. Indeed, much of the recently recorded increase in trade volumes in excess of national income growth is due to the dominant role of trade in semifinished goods.

But this geographical dispersion of production creates an additional distortion of the reported imbalances in trade. If a U.S. transnational company undertakes foreign direct investment through the creation of a foreign subsidiary to produce goods it had formerly produced in the United States, the payments balance shows a capital outflow from the United States to establish the foreign subsidiary and records the imports of the goods or services produced by the foreign subsidiary. If the increased profits that result from the lower production costs in the foreign subsidiary of the U.S. corporation are not repatriated, they are recorded as a credit in the factor services balance with an offset entry under foreign direct investment in the capital account. Rather than appearing as the export of the design technology for the production of the good by the foreign subsidiary, what appears instead is the profit of the foreign affiliate of the U.S. company in the factor services account.

Alternatively, if a U.S. corporation develops a new technology in the form of a new production design and transmits it via the internet⁹ to a foreign-owned production facility and then imports the output produced with the new design into the United States for final sale, the accounts would record the imports of the final goods incorporating the design or the technology, valued at only the foreign value-added—i.e., its low wage costs and the return to the foreign producer. Rather than appearing as the sale of fashion design, industrial design, or use of technology abroad, the value of the design technology only appears in the increased domestic profit reported by the U.S. company that will be represented as the difference between the low foreign production cost and the domestic selling price for the newly designed product.

The U.S. external accounts would then only record a deterioration in the trade balance and would not reflect the nonrecorded increase in the export of technology that only appears in

⁹ This possibility is now explicitly recognized by the BEA, see “Globalization, Offshoring, and Multinational Companies: What Are the Questions, and How Well Are We Doing in Answering Them?,” presentation by Ralph Kozlow, Associate Director for International Economics, U.S. Bureau of Economic Analysis to the Allied Social Science Associations’ 2006 Annual Meeting, Boston, MA, January 6, 2006, p. 11: “Technology transfer may occur simply by an employee traveling to an overseas affiliate and discussing technology or through a series of e-mails rather than through an explicit royalty or licensing payment that would show up in companies’ financial accounting statements or foreign direct investment operations reports.”

the improved earnings of the U.S. company and the increase in wealth to its shareholders. Thus, it is possible that a deterioration of the recorded U.S. trade balance could be reflected in the increased profitability observed in the last ten years for U.S. companies operating in the global market.

These accounting problems are further complicated by the influence of national taxation regimes on the location of profit accrual. When national corporations operate their activities as if there were no national boundaries, keeping external payments accounts on the basis of national boundaries may no longer provide a good representation of either the size or the sustainability of trade imbalances.

The Bureau of Economic Analysis (BEA) of the U.S. Department of Commerce provides a measure of the U.S. trade account that takes the net earnings of the affiliates of U.S. companies operating abroad into account (see Figure 11). On this basis, the U.S. deficit on goods and services for 2005 was \$134.4 billion less than the \$716.7 billion deficit recorded in the conventional international accounts framework (BEA 2007). The size of the reduction has been on an increasing trend since the 2000–2001 recession.

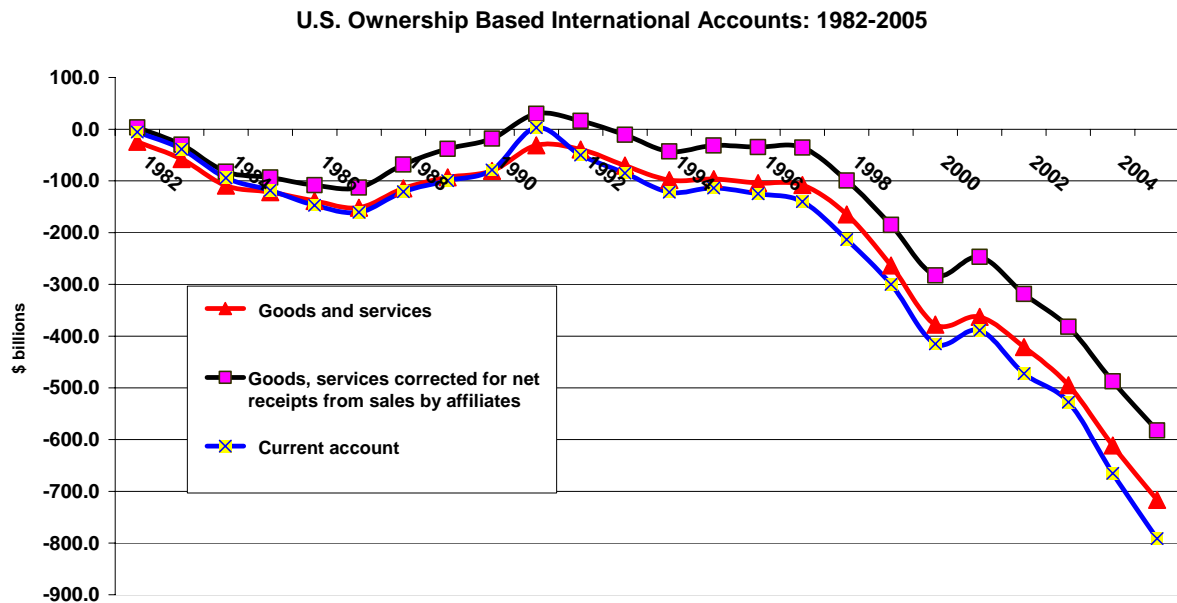
Further, as a result of the increased influence of capital flows on trade and the geographical dispersion of intermediate stages of production, the current account in many countries is increasingly determined by factor incomes representing interest, profits, and dividends on foreign production, and borrowing and lending. All of these capital factor incomes are fully recorded by national origin, while goods and factor services balances are no longer representative of real underlying flows. Paradoxically, in the modern world, capital flows may no longer represent transfer of resources or the financing of productive activity, and goods flows may no longer represent production of final goods for import or export.

The U.S. Department of Commerce (Anderson 2007) also provides data on the relative impact of foreign corporations operating in the United States and U.S. corporations operating abroad. For the period 1999–2004, the value-added of U.S. multinational corporations grew at an average annual rate of four percent to \$3,040.1 billion, but U.S. parents grew more slowly than their foreign affiliates. In 1999–2004, the value-added of parents grew at a rate of three percent, to \$2,215.8 billion, and value-added of majority-owned foreign affiliates grew at a rate of eight percent to \$824.3 billion. Parents' growth was slower than the growth of U.S. gross

domestic product (GDP) (five percent on average), but foreign affiliates' growth was faster than the growth of worldwide GDP (six percent on average). Further, exports by U.S. multinational corporations declined to \$428.8 billion in 2004 from \$441.6 billion in 1999, and imports rose to \$503.0 billion from \$391.0 billion, although both were a declining share of total trade. The decline in the export share—to 52.4 percent in 2004 from 62.5 percent in 1999—was particularly sharp. The ratio of MNC-associated exports to MNC-associated imports dropped to 85.3 percent in 2004 from 112.9 percent in 1999.

While the foreign operations of U.S. multinationals have traditionally been concentrated in developed countries, the value-added of foreign affiliates in Asia and Pacific in 1999–2004 grew at an average annual rate of nine percent, and the region's share increased 1.2 percentage points to 19.0 percent. The largest increases in shares were in China, India, and Japan. In China, value-added of affiliates in manufacturing accounted for more than two-thirds of the value-added of all Chinese affiliates in 2004, and in 1999–2004, value-added of Chinese affiliates in manufacturing grew at an average annual rate of 23 percent (Mataloni and Yorgason 2006).

FIGURE 11



Exports of goods by U.S. affiliates of foreign corporations rose nine percent in 2005 to \$169.2 billion, following a five percent rise in 2004, but total U.S. exports of goods also rose more substantially in 2005 to ten percent and, as a result, the foreign affiliate share of U.S. exports of goods decreased to 18.7 percent from 19.0 percent. Imports of goods by U.S. affiliates of foreign MNCs rose 15 percent in 2005 to \$453.0 billion, following an increase of 11 percent in 2004. Total U.S. imports of goods also rose substantially in 2005, but the rate of growth (14 percent) was slightly lower than that for U.S. affiliates of foreign MNCs. As a result, the share of U.S. imports accounted for by affiliates increased slightly from 26.8 percent to 27.1 percent (Anderson 2007).

For European companies operating affiliates in the United States, the figures for 2003 show that for countries such as the UK, the Netherlands, and Germany, the direct sales of their affiliates producing in the United States are around forty times the value of their direct goods and services exports to the U.S. market (Zeile 2005). Thus, direct exports of European goods for sale in the United States have been increasingly displaced by the production and sale of goods produced by affiliates of European companies operating in the United States.

However, the problem is made more difficult by the fact that, on average, foreign

affiliates operating in the United States import semifinished inputs for use in production. Figures for 2003 show that for all countries, affiliated company imports in value terms were nearly double the value of their exports. For Europe it was around 1.8 times and for Asian companies the ratio was well over three to one. These factors are important for policy purposes because, as noted above, under the Bretton Woods scheme, the most important policy variables were domestic income growth and relative prices of traded and nontraded goods. However, if the production and trade in goods is dominated by international capital flows, these variables have only limited impact, and monetary variables such as relative wages, productivity, interest rates, and profit rates become much more important. For example, a fall in domestic income would have little impact on the capital factor services balance of the current account represented by debt service; nor will it have much impact on the decision of a corporation to manufacture abroad and import rather than producing domestically.

For foreign companies operating affiliates in the United States, the initial impact of exchange rates is primarily on the translation of dollar profit remittances, and thus on the bottom line of the parent company's balance sheet rather than on the flow of imports of goods and services.

Since it takes much more time and it is much more costly to close a foreign production operation than to divert exports from one market to another, it is unlikely that these foreign affiliates will be closed even if dollar depreciation induces large increases in the costs of their imported inputs. Depreciation is thus unlikely to have much impact on the European share of the U.S. bilateral deficit accounted for by these operations.

Taking all these factors into consideration, it becomes clear that any analysis of the impact of the international imbalances on economic performance of countries and on the performance of currencies should take into account the fact that we do not have a good idea of the dimension of the problem. Second, it becomes clear that we need to analyze the impact of the increasing dominance of international investment flows on the behavior of the current account, the changes in the structure of international goods flows, and, finally, the existence of a much larger area than Japan in the Far East that is using a policy of export-led development to support full-employment policies and stable real exchange rates.

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