

# The capital inflows problem: Concepts and issues

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Online at https://mpra.ub.uni-muenchen.de/13902/ MPRA Paper No. 13902, posted 10 Mar 2009 05:48 UTC **The Capital Inflows Problem: Concepts and Issues** Guillermo A. Calvo University of Maryland Leonardo Leiderman Tel Aviv University and Carmen M. Reinhart International Monetary Fund A revised version of this paper was published in: Contemporary Economic Policy, Vol. XII No. 3, July 1994, 54-66.

Since 1990 capital has flowed from industrial countries to developing regions like Latin America, and parts of Asia. Reentry into international capital markets is a welcome turn of events for most countries. However, capital inflows are often associated with inflationary pressures, a real exchange rate appreciation, a deterioration in the current account, and a boom in bank lending. This paper briefly examines how these inflows have altered the macroeconomic environment in a number of Asian and Latin American countries. The pros and cons of the policy options are discussed.

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## I. INTRODUCTION

After about a decade in which little capital flowed to the developing nations, the 1990s appear to have launched a new era in which capital has started to move from industrial countries, like the United States and Japan, to developing regions, like Latin America, the Middle East and parts of Asia. Already preliminary data indicate that, in most countries, the increased capital inflows have been accompanied by a resurgence in economic growth and by a marked accumulation of international reserves.

However, capital inflows are not an unmitigated blessing. Large capital inflows are often associated with inflationary pressures, a real exchange rate appreciation, and a deterioration in the current account. In addition, the history of Latin America provides ample evidence that massive capital inflows may also contribute to stock market bubbles and lead to an excessive expansion in domestic credit, placing in jeopardy the stability of the financial system. If the capital inflows are of a short-term nature, these problems intensify, as the probability of an abrupt and sudden reversal increases. Not surprisingly, therefore, effective buttressing of these capital inflows is one of the key economic policy issues of the day.

This paper has two main objectives. The first is to present the stylized facts of the current episode of capital inflows to Latin America and Southeast Asia and discuss how the inflows have affected the macroeconomic environment; an attempt is made to shed light on the reasons why there are important cross-country differences in the macroeconomic impact of the inflows. The analysis draws on Calvo, Leiderman, and Reinhart (1993, and 1994). The second is to summarize the main concepts and issues that have surfaced in the current policy debate. The relationships between capital inflows, changes is reserves and the gap between national saving and investment are outlined in Section II. A brief discussion of the causes of capital inflows is presented in Section III. The stylized facts are reviewed in Section IV. The role of credit is

examined in Section V, while Section VI discusses the policy response to the capital inflows. Concluding remarks follow.

## **II. DEFINITIONS AND CHARACTERISTICS**

Capital inflows are defined as the increase in net international indebtedness of the private and the public sectors during a given period of time, and are measured--albeit imprecisely--by the surplus in the capital account of the balance of payments. Therefore, except for errors and omissions, the capital account surplus equals the excess of expenditure over income (i.e., the current account deficit) <u>plus</u> the change in official holdings of international reserves. Thus, increases in capital <u>inflows</u> are identified with <u>wider</u> current account deficits and/or reserve accumulation.<sup>1</sup>

The official reserves account records purchases or sales of official reserve assets by central banks. Thus, this account measures the extent of foreign exchange intervention by the authorities, which is often referred to as the overall balance of payments. There are two polar cases of central bank response to increased capital inflows, which correspond to floating and fixed exchange rate regimes. If there is no intervention, as under a pure float, the increased net exports of assets in the capital account are financing an increase in net imports of goods and services--capital inflows would <u>not</u> be associated with changes in central banks' holdings of official reserves. At the other extreme, if the domestic authorities actively intervene and purchase the foreign exchange brought in by the capital inflow, the increase in the capital account is matched, one-to-one, by an increase in official reserves. In this case, there is no change in the gap between national saving and national investment, nor in the net foreign wealth of the economy.

#### **III. EXTERNAL AND INTERNAL CAUSES**

The incidence of capital inflows varies drastically over time. For example, capital inflows to developing countries were relatively large in the late 1970s and early 1980s; such inflows ended abruptly with the onset of the debt crisis in 1982. Private financing to the developing regions was nil or negative during most of the 1980s (see Calvo, Leiderman and Reinhart, 1992 and 1993). Therefore, a central issue for policymaking is ascertaining the degree of persistence of the capital inflows. To evaluate the persistence issue, as it is critical to identify the factors that lie behind those inflows.

It is important to distinguish between the external and internal factors that gave rise to the capital inflows. External factors are those which are outside the control of a given country. Examples of such factors for "small" open economies are: (i) declines in international interest rates and, (ii) a rest-of-world recession, which may reduce profit opportunities in the financial centers. These factors are likely to have an important "cyclical" or reversible component. Internal factors, on the other hand, are most often related to <u>domestic policy</u>.<sup>2</sup> Examples of policies that would attract long-term capital inflows are: (i) successful price stabilization programs, as these may be accompanied by improved fiscal policy fundamentals and greater macroeconomic stability, (ii) institutional reforms, such as the liberalization of the domestic capital market, and (iii) policies that credibly increase the rate of return on domestic investment projects (tax credits, debt-equity swaps, etc.). But domestic policies may also attract capital of a highly "reversible" nature. Such policies include: (i) not-fully-credible trade liberalizations and price stabilization programs--these are likely to induce a consumption boom and increase international indebtedness in the short run, or (ii) tariff cuts under downward price rigidity-inducing (temporarily) excessively high prices of domestic goods and, hence, a current account deficit on the expectations that the relative price of importables with respect to domestic goods will increase over time.

Empirical evidence for ten Latin American countries indicates that foreign factors have played an important role in the recent episode; Calvo, Leiderman, and Reinhart (1993) find that foreign factors accounted for 30 to 60 percent of the variance in real exchange rates and reserves, depending on the country. Chuhan, Claessens, and Mamingi (1993) find similar results for bond and equity flows from the United States, with foreign factors explaining about half of such flows for a panel of Latin American countries. Their results also show, that external developments were less important than domestic factors for the Asian region, with domestic variables being about three times more important than external variables in explaining the behavior of portfolio flows.

Low short-term interest rates in the United States, decreasing returns in other investments, and a recession in the United States as well as in other industrial countries converged to stimulate capital flows to regions where ex-ante returns are higher. In addition, as noted by Fernandez-Arias (1993), the decline in U.S. interest rates also reduced the external debt servicing costs and <u>increased</u> the <u>solvency</u> of the debtor countries.

Domestic developments <u>alone</u> cannot explain why capital inflows have occurred in countries that have not undertaken reforms or why they did not occur, until only recently, in countries where reforms were introduced well before 1990. However, the crucial role played by reforms in attracting capital is evident in the differences across countries in the orders of magnitudes of the capital inflows. For example, Argentina, Chile, and Mexico have attracted capital in orders of magnitudes well in excess of those recorded for other countries in the region. Further, the role of domestic policies is also evident in the composition of flows with countries that have undertaken reforms attracting a higher proportion of long-term capital.

## **IV. THE STYLIZED FACTS**

#### A. Capital inflows: Orders of magnitude

Table 1 presents a breakdown of Latin America's balance of payments into its three main accounts. The capital inflows under consideration appear in the form of surpluses in the capital account, of about \$24 billion in 1990, about \$39 billion in 1991, and \$53 billion in 1992. Thus, in the past three years Latin America has received as much capital as it had during the entire 1982-1989 period. It can be seen that a substantial fraction of the inflows has been channelled to reserves, which increased by about \$52 billion in 1990-92. Considering 1990-92 as a whole, the net capital inflow was split into a widening in the current account deficit and an increase in official reserves. The former suggests that capital inflows have been associated with an increase in the gap between national investment and national saving. The sharp increase in reserves, in turn, indicates that the capital inflow was met with a heavy degree of foreign exchange market intervention by the various monetary authorities. Figure 1, which depicts monthly data on international reserves for selected countries in our sample, shows that there is a pronounced upward trend in the stock of reserves starting from about the first half of 1990. While part of the capital inflows is repatriation of flight capital, there are also new investors in Latin America. <sup>3</sup>

Latin America has not been the only region receiving sizable capital inflows in recent years. In effect, capital began to flow to Thailand in 1988 and to a broader number of Asian countries sometime in 1989-1990 (see Bercuson and Koenig, 1993). As the bottom panel of Table 1 shows, capital inflows amounted to \$144 billion during the 1989-92 period. While access to international credit markets was not as limited for most of the Asian countries as for their more indebted Latin American counterparts, the pace of inflows, particularly to southeast Asia has accelerated in the past four years.<sup>4</sup> As is the case for the Latin American countries, there is a marked accumulation of international reserves during the capital inflow period (see

Figure 1), indicating that also in these countries the capital inflow was met with a heavy degree of intervention.

# **B.** Macroeconomic effects

Several interesting <u>similarities</u> emerge from comparing the empirical regularities of the Latin American and Asian experience. <u>First</u>, as Table 2 illustrates, the swing in the balance on the capital account is of a similar order of magnitude for the countries under study in the two regions. For the Latin American countries in our sample the <u>change</u> in the capital account amounts to 3.3 percent of GDP; for the Asian countries the capital account surplus widens by 2.7 percent of GDP. <u>Second</u>, as discussed, there is a marked accumulation in international reserves across countries and across regions. <u>Third</u>, there are sharp increases in stock prices. During 1991 stock prices (in U.S. dollars) registered gains of 400 percent for Argentina and gains of about 100 percent for Chile, Colombia, and Mexico. Similarly, during the current inflow episode a number of the emerging stock markets in Asia outperformed U.S. and Japanese stock markets by considerable margins. <u>Fourth</u>, in both regions the capital inflows have been accompanied by an acceleration in growth.

There are, however, <u>differences</u> between Asia and Latin America in the macroeconomic impact of the capital inflows. As Figure 2 illustrates, in the majority of the Latin American countries in our sample, capital inflows have been accompanied by a real exchange rate appreciation; in Asia such an appreciation is less common (Figure 2). <sup>5,6</sup> While the reasons why the real exchange rate responds differently to the inward flow of capital in the two regions are likely to be numerous, important differences in the composition of aggregate demand may play a key role in determining whether the real exchange rate appreciates or not.

For the Asian countries investment as a share of GDP increases by about 3 percentage points during the capital inflows period (Table 2); for the Latin American countries, on average, (there are marked differences across countries) investment falls--the inflows during the 1990-92 are primarily associated with a decline in private saving and higher consumption. Very disparate initial conditions in excess capacity between the two regions may help explain why investment surges in Asia and not in Latin America. Most Asian countries enter the capital inflow episode closer to full capacity utilization than their Latin American counterparts (an exception is Chile), where growth had been sluggish or nonexistent. It has often been the case for these countries that the increase in investment falls primarily on imported capital goods. On the other hand, relative to investment, the increase in consumption is less tilted toward traded goods. Other things equal, the above observation would suggest that a real exchange rate appreciation is more likely when capital inflows finance consumption than when these finance investment.

The behavior of public consumption is another element influencing the real exchange rate by affecting both the level and composition of aggregate demand. In some of the Asian countries, most notably Thailand, the capital inflows coincided with a contraction in fiscal expenditure. <sup>7</sup> A number of Latin American countries have also had major fiscal adjustment programs, however, these predate the surge in capital inflows. These expenditure cuts may reduce or eliminate the real exchange rate pressures through two channels: First, the fiscal contraction tends to reduce aggregate demand; second, public consumption may be more biased toward nontraded goods than private consumption.

Another factor which may have limited the real exchange rate appreciation in Asia is the fact that, as will be subsequently discussed, a higher share of the inflows to that region is in the form of foreign direct investment. Since the latter is not usually intermediated through the domestic banking system, there is no accompanying expansion in domestic credit and money (see Section V). Hence, the potential for "overheating" is likely to be lessened. While in the Asian countries 44 percent of the <u>increase</u> in capital inflows came in the way of foreign direct investment, for the Latin American countries direct investment accounted for 17 percent of the increase in inflows. This difference may help explain why concerns over "hot money" and a

sudden reversal are more prevalent among Latin American policy circles than among their Asian counterparts. It may also, in part, explain why the increase in investment is much greater for most of the Asian countries.

#### V. THE ROLE OF CREDIT

While the impact of capital inflows on the real exchange rate, and therefore, international competitiveness is a major source of concern to policymakers, there are other areas of the economy that are vulnerable to changes in flows of capital which receive less attention. Specifically, the banking or financial system, which intermediates part of these inflows.

Domestic intermediation of capital inflows is not strictly necessary; for example, foreign direct investment rarely relies on domestic intermediation. In addition, a domestic consumer or investor could borrow in international markets in order to purchase the desired goods and services. However, in practice, domestic credit markets (in particular, banks) play a key role in the intermediation of capital inflows, a role which is enhanced if they are allowed to offer competitive interest rates, and reserve requirements are not large. <sup>8</sup>

Banks play a central role in cases where the monetary authority sterilizes, all or part of, such inflows by issuing treasury bills. As many sterilization examples show, banks have ended up being the major investors in treasury bills. However, banks may also play an important role in non-sterilization episodes. Bank deposits are attractive to short-term investors who, typically, "park" their funds in a local bank waiting for better opportunities abroad or, on occasion, at home. Banks, in turn, invest those funds; usually these funds will be loaned at home.

The two major concerns about the intermediation of capital flows through the domestic banking system are (i) that interest rates reflect "country risk," and (ii) unpaid-for explicit or implicit insurance on bank deposits. The first factor implies that domestic interest rates are higher than international ones. Hence, when the central bank intervenes and sterilizes it issues

high-yielding treasury bills and acquires low-yielding international reserves (e.g., U.S. Treasury bills); such an operation increases, what is often called, the quasi-fiscal deficit. This fiscal cost could be substantial when massive sterilization of inflows takes place, as the recent experiences in Egypt and Colombia illustrate.

Free implicit bank deposits' insurance, point (ii) above, is a cause of concern because it induces banks increase their risk exposure and to pay little attention to loan quality and to matching the maturities of deposits with that of loans--the former being normally shorter than the latter. A surge in lending may thus create or exacerbate a maturity (and/or currency) mismatch between banks assets and liabilities. Hence, sudden capital <u>outflows</u> may result in a financial crisis. The problem is magnified if the capital inflows are not sterilized and are lent by banks to the private sector to invest in non-liquid assets or use them to finance current expenditures and if banking supervision is poor. However, insurance has to be financed by someone in society, which probably means that such schemes increase country risk-preventing domestic interest rates from converging to international levels.

There are other reasons besides banking sector vulnerability why inadequate intermediation is a source of concern. For example, the private sector may overborrow for one of the following three reasons: first, static distortions (e.g., wage rigidity, imperfect competition); second, dynamic (or capital market) distortions, which include unpaid-for deposit insurance (as discussed) and lack of credibility in policy announcements; and third, income distribution considerations. Thus, distortions can induce inadequate financial intermediation; static distortions may lead to a wrong choice of technology, its deleterious effects being magnified by access to foreign credit. In turn, dynamic distortions directly induce the wrong kind of intermediation. The last point corresponds to the case in which the market outcome is not optimal from the policymaker's point of view because of unwanted effects on income distribution (either across members of the same generation, or across different generations).

In sum, any deleterious effects of domestic intermediation are likely to increase in the face of massive capital inflows. And these effects are likely to be greater if the inflows are primarily of a short-term nature.

#### **VI. MANAGING CAPITAL INFLOWS**

The optimal policy response to capital inflows is very much a function of the anticipated persistence of capital inflows and the nature of domestic credit markets. In addition, the prevailing "policy environment," and the extent of credibility enjoyed by the authorities are also key determinants of the form and timing of the appropriate policy response.

The rationale for policy intervention emerges from the main concerns of policymakers: (1) since capital inflows are often associated with real exchange rate appreciation, it is feared these may adversely affect the export sector; (2) capital inflows may not be properly intermediated and may lead to a misallocation of resources; (3) the "hot money" variety of inflows could be reversed on short notice and possibly lead to a domestic financial crisis. These concerns have often led the authorities to react to the capital inflows by implementing a broad variety of policy measures. The remainder of this section examines the relative merits of some of the macroeconomic policies as well as some of the more relevant microeconomic issues. <sup>8</sup>

# A. Monetary and exchange rate policy

A country with poorly functioning domestic credit markets and concerns about inflation and banking sector vulnerability is likely to prefer sterilization unless, or until, the fiscal costs become exorbitant. Sterilization may allow a tighter grip on liquidity (see Calvo and Végh, 1992), and sudden capital outflows can be met by a loss of reserves without affecting credit to the private sector. In addition, if the credibility of the monetary authorities is not well established and is linked to the performance of the monetary aggregates, there may be grounds for sterilizing in order to curb the growth of these aggregates. The sharp across-the-board

accumulation in reserves (Section III) attests to an active policy of intervention; in most instances, the intervention was sterilized. Indeed, sterilized intervention has been by far the most common policy response to the surge in capital inflows in both Asia and Latin America.

However, difficulties arise when the fiscal costs of sterilization are large and threaten to jeopardize the credibility of existing policies. In addition, in some instances (Colombia and Malaysia) sterilization policies have driven up domestic interest rates, further stimulating capital inflows. Under those circumstances, there are three major monetary policy options: (i) allow the exchange rate to float, (ii) increase marginal cash/deposit requirements, and (iii) resort to unsterilized intervention.

Option (i), floating exchange rates, has the advantage of making money supply and domestic credit exogenous with respect to capital inflows. While none of the countries discussed have switched to a floating exchange rate system, some countries such as Chile and Mexico have widened the bands in which the exchange rate is allowed to fluctuate. The greater exchange rate uncertainty, it is argued, may discourage short-run speculative inflows. The main disadvantage of a pure float is that massive capital inflows may induce a steep nominal and real appreciation of the domestic currency. The latter may hurt strategic sectors of the economy, like nontraditional exports. This is clearly the case if the real appreciation is persistent. But, even when the latter does not hold, the greater real exchange rate volatility may have negative effects on tradable-goods sectors. To avoid the exchange rate volatility associated with a pure float while still limiting the impact of capital inflows on the money stock, several countries (Chile, Colombia, Malaysia, Singapore among others) have allowed for some appreciation of the nominal exchange rate. This policy has the advantage that, to the extent that there is an appreciation in equilibrium real exchange rate, it allows the real appreciation to be effected all at once through the nominal appreciation of the exchange rate rather than gradually through increases in inflation.

Option (ii), increasing marginal reserve requirements, which has been used by Chile and Malaysia, lowers the capacity of banks to lend. This policy would be especially relevant in those countries where capital inflows have taken the form of substantial increases in local bank accounts. The higher reserve requirement limits the expansion in the monetary and credit aggregates without the quasi-fiscal costs associated with sterilized intervention. A drawback of this policy is that over time it may promote disintermediation, as new institutions may develop so as to bypass these regulations. Eventually those institutions could grow so large that they end up being under the insurance umbrella of the central bank (by the principle that they are "too large to fail"), recreating all the problems associated with non-sterilized intervention. Therefore, increasing marginal reserve requirements is unlikely to be effective beyond the short run. Moreover, increasing bank reserve requirements amounts to a reversal of the underlying trends of financial liberalization in developing countries, which have recently resulted in sharp reductions in these requirements.

Option (iii), non-sterilized intervention (the case of Argentina), runs the risk of generating a vulnerable financial system, as pointed out above. Such an option becomes more attractive, the smaller are the capabilities (or willingness) of the banking system to increase lending to the private sector. Nonsterilized intervention, however, does allow capital inflows to exert a downward pressure on domestic interest rates. This will have the advantage of slowing down capital inflows and of lowering the fiscal cost of the outstanding domestic credit.

# B. Fiscal policy

Taxes on short-term borrowing abroad were imposed in some countries--Israel in 1978 and Chile 1991. Although this policy is effective in the short run, experience suggests that the private sector is quick in finding ways to dodge those taxes through over- and under-invoicing of imports and exports and increased reliance on parallel financial and foreign exchange markets.

Another policy reaction to capital inflows could be to tighten fiscal policy. This policy was adopted by Thailand. While this policy is not likely to stop the capital inflow, it may lower aggregate demand and curb the inflationary impact of capital inflows. In addition, to the extent that it reduces the government's need to issue debt, a tighter fiscal stance is also likely to lower domestic interest rates. In that context, higher taxes may be less effective than lower government expenditure. Often when credit is widely available--as is the case when the country is subject to massive capital inflows--individuals' expenditures can be largely independent of their tax liability. This is especially true if higher taxes are expected to be transitory--a somewhat plausible expectation since higher taxes would be associated with transitory capital inflows. In contrast, lower government expenditure--particularly when this expenditure is directed to the purchase of nontraded goods and services--has a direct impact on aggregate demand, which is unlikely to be offset by an expansion of private sector demand. However, contraction of government expenditure is always a sensitive political issue. Overall, it is hard to provide a strong case for adjusting fiscal policy--which is usually set on the basis of medium or long-term considerations--in response to what may turn out to be short-term fluctuations in capital flows. However, if the authorities had envisioned a tightening of the fiscal stance, the presence of capital inflow may call for earlier action in this respect.

#### C. Trade policy

Trade policy measures can help to insulate the export sector from real exchange rate appreciation. A possibility is an increase both export subsidies <u>and</u> import tariffs in the same proportion--so as to avoid creating further relative discrepancies between internal to external terms of trade--<u>and</u> announce that those subsidies/tariffs will be phased out in the future. Indeed, if the private sector perceives these measures as transitory, agents are likely to substitute future for present expenditure, contributing to cool off the economy and to attenuate the real exchange rate appreciation. The fiscal cost of this package need not be large and static distortions are not

increased, since such trade policy does not change initial relative price distortions between exports and imports. However, this policy can be criticized on several grounds. First, its effectiveness depends on the private sector believing that those subsidies/tariffs will be phased out in the future. Second, these policies deviate from the worldwide trend towards commercial opening. And as past experiences have shown, such protectionist moves have often led to retaliation and reductions in welfare.

#### D. Banking regulation and supervision

As discussed earlier, attempting to insulate the banking system from short-term capital flows is an attractive goal in cases where most of the inflows take the form of increased short term bank deposits. Regulation that limits the exposure of banks to the volatility in equity and real estate markets could help insulate the banking system from the bubbles associated with sizable capital inflows. In this vein, risk-based capital requirements in conjunction with adequate banking supervision to insure such requirements are complied with could help insulate the domestic banking system from the vagaries of capital flows.

#### **V. FINAL WORDS**

The above discussion has probably erred on the pessimistic side, by emphasizing the risks associated with capital inflows. The overall picture is less bleak. As argued earlier, several Asian countries have experienced capital inflows similar to those in Latin America without associated sizable appreciations of the real exchange rate perhaps, in part, because a large share of capital flows into these countries has taken the form of direct investment. This, of course, renders moot many of the concerns raised above. The key question, however, is how to achieve this favorable composition of capital flows. In this connection, we feel there are no policy "tricks" that can do the job. In order to induce investors to bolt down their capital, policymakers must be able to muster a high degree of credibility, and be prepared to support clear, simple, and

market-oriented policies. Even then, it may be a while before substantive direct investment takes place.

Therefore, until credibility is achieved, countries are well advised to be cautious about the intermediation of capital flows, especially if these are perceived to be primarily short-term and easily reversible. The countries that have successfully managed (to date) the surge in inflows have not relied on a single policy measure; the approach has been eclectic and has combined a number of the policy options discussed in the prior section. Thus, a reasonable sequencing of policies would consist of initially limiting the intermediation of those flows--by a combination of sterilized intervention, greater exchange rate flexibility, and possibly increasing marginal reserve requirements. This could be followed by a gradual monetization of these flows (non-sterilized intervention), and perhaps by an appreciation of the currency.

# REFERENCES

Bercuson, Kenneth and Linda Koenig, *The Recent Surge in Capital Inflows to Asia: Cause and Macroeconomic Impact*, SEACEN Occasional Paper, 1993.

Calvo, Guillermo A., "The Perils of Sterilization," *IMF Staff Papers 38*, December 1991, 921-26.

Calvo, Guillermo A, and Carlos A. Végh, "Currency Substitution in Developing Countries: An Introduction," *Revista de Análisis Económico* 7, 1992, 3-27.

Calvo, Guillermo A., Leonardo Leiderman, and Carmen M. Reinhart, "Capital Inflows to Latin America: The Role of External Factors," *IMF Staff Papers 40*, March 1993, 108-51.

Calvo, Guillermo A., Leonardo Leiderman, and Carmen M. Reinhart, "Capital Inflows to Latin America: The 1970's and the 1990's," Working Paper 92/85, IMF, 1992. Forthcoming in Edmar Bacha, ed., <u>Development, Trade and the Environment</u>, Macmillan Press, London.

Calvo, Guillermo A., Leonardo Leiderman, and Carmen M. Reinhart, "Capital Inflows to Latin America: With a Reference to the Asian Experience," forthcoming in Sebastian Edwards, ed., <u>Capital Controls, Exchange Rates, and Monetary Policy in the World Economy</u>, Cambridge University Press, Cambridge and New York, 1994.

Chuhan, Punam, Stijn Claessens, and Nlandu Mamingi, "Equity and Bond Flows to Latin America and Asia: The Role of External and Domestic Factors," mimeo, World Bank, May 1993.

El-Erian M.A., "Restoration of Access to Voluntary Capital Market Financing," *IMF Staff Papers 39*, March 1992, 175-94.

Fernadez-Arias, Eduardo, "The New Wave of Capital Inflows: Push or Pull?," mimeo, World Bank, November 1993.

International Monetary Fund, Policy Development and Review Department, *Private Market Financing for Developing Countries*, World Economic and Financial Survey Series, International Monetary Fund, Washington D.C., December 1992.

International Monetary Fund, Research Department, *Determinants and Systemic Consequences of International Capital Flows*, Occasional Paper 77, International Monetary Fund, Washington D.C., March 1991.

Mathieson, Donald J., and Liliana Rojas-Suárez, *Liberalization of the Capital Account: Experiences and Issues*, Occasional Paper 103, International Monetary Fund, Washington D.C., March 1993. Rodriguez, Carlos A., "Situación Monetaria y Cambiaria en Colombia," mimeo, CEMA, Buenos Aires, November 1991.

Zahler, Roberto, "Política Monetaria en un Contexto de Apertura de Cuenta de Capitales," *Boletín Mensual 771*, Banco Central de Chile, May 1992, 1169-80.

# FOOTNOTES

\* Professor, Department of Economics, University of Maryland, professor, Department of Economics, Tel Aviv University, and economist, Research Department, International Monetary Fund, respectively. The authors wish to thank Kenneth Bercuson, Steven Dunaway, Susan Schadler, and Brian Stuart for helpful comments. The views expressed in this paper are those of the authors and do not necessarily represent those of the International Monetary Fund.

1. National income accounting implies that the current account is equal to the difference between national saving and investment.

2. Of course, natural disasters and/or wars are part of the internal factors, but these will be excluded from further discussion.

3. On the role of policies to reverse capital flight, see International Monetary Fund, December 1992 and Mathieson and Rojas-Suarez, 1993.

4. During the prior four years total inflows to the region amounted to \$81 billion U.S. dollars.

5. The appreciation of the Won during 1988-89 predates the surge of capital inflows.

6. The IMF indices of the real effective exchange rate are used, hence an appreciation is represented by an increase in the index.

7. This early contraction, however, was not sustained (see Bercuson and Koenig 1993).

8. By domestic banks we refer to banks operating in the country in question, although their headquarters may be located elsewhere.

9. For a discussion of these issues from the perspective of Chilean monetary and exchange rate policies, see Zahler (1992).

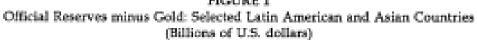
Year	Balance of Goods Services, and Private Transfers <sup>#</sup> \$ Billion	Balance on Capital Account Plus Net Errors and Omissions <sup>b</sup> \$ Billion	Changes in Reserves <sup>e</sup> \$ Billion
	L	atin America	
1985	-5.5	6.5	-1.0
1986	-19.8	13.2	6.6
1987	-11.8	15.0	-3.2
1988	-13.4	5.7	7.7
1989	-10.1	12.7	-2.6
1990	-8.5	23.6	-15.1
1991	-20.5	38.9	-18.4
1992	-34.6	53.4	-18.8
		Asia	
1985	-18.7	22.7	-4.0
1986	-1.1	25.5	-24.4
1987	14.8	24.7	-39.5
1988	2.6	8.7	-11.3
1989	-8.1	17.1	-9.0
1990	-10.0	31.7	-21.7
1991	-10.2	48.9	-38.7
1992	-25.2	46.3	-21.1

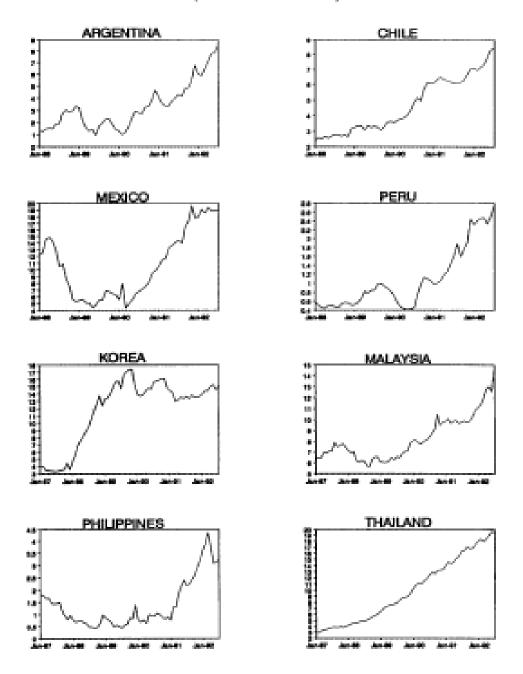
TABLE 1 Balance of Payments, 1985–1992

\*Data for Western Hemisphere and Asia from IMP's World Economic Outlook.

<sup>b</sup>A mirus sign indicates a deficit in the pertinent account. Balance on goods, services, and private transfers is equal to the current account balance less official transfers. The latter are treated in this table as external financing and are included in the capital account.

"A minus sign indicates an increase.

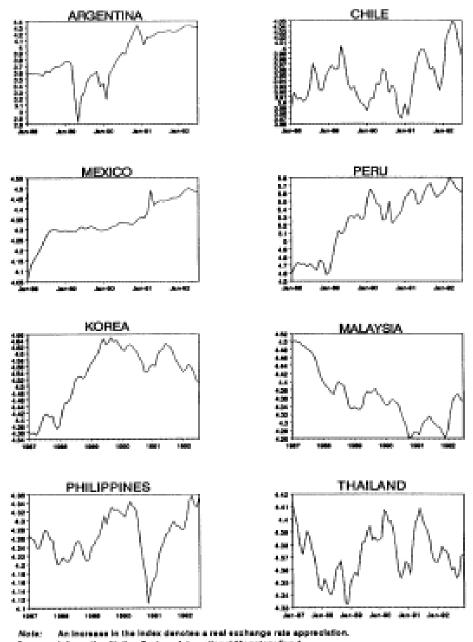




Source: International Financial Statistics, International Monetary Fund.

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FIGURE 2 Real Effective Exchange Rates: Selected Latin American and Asian Countries (Logs of Index Levels, 1960 - 100)



Seaver: Information Notice System, International Monetary Fund.

	Latin America										
	Argentina	Bolivia	Brazil	Chile	Colombia	Ecuador	Mexico	Peru	Uragasy	Venezuela	Average of 10 Countries
Capital Account" 1984-1989 1990-1992	-1.6 2.2	0.6 3.3	-2.3 -0.3	-1.7 5.9	2.0 1.0	-6.3 -5.1	-0.4 6.2	-5.3 -0.3	-2.5 0.5	-3.1 -1.0	-2.1 1.2
Direct Investment 1984-1989 1990-1992	0.9 1.8	0.5 1.0	0.5 0.3	0.5 1.9	15 12	0.6 0.8	0.8 1.6	0.2	=	0.1 1.8	0.5 1.1
investment 1984-1989 1990-1992	18.1 15.1	10.1 13.5	17.2 15.8	16.0 20.1	19.7 17.7	18.7 20.2	20.1 21.7	19.4 16.4	12.2 13.8	17.7 14.1	16.9 16.8
Public Consumptic 1984-1989 1990-1992	n 12.4 14.2	11.3 11.6	11.1 12.4	10.9 8.8	10.3 10.1	11.6 8.4	11.1 10.3	9.6 9.0	14.4 13.3	10.4 11.1	11.2 10.9
					Aria						
	Indonesia	Korta	Malaysia	Malaysia Philippines Singapore Sri La		Sri Lanka	Taiwan Prov. of China Thailand			Average of 8 Countries	
Capital Account 1984-1988 1989-1992	2.2 5.0	-2.0 1.3	-0.4 8.7	-3.8 1.9		5.0 3.3	4.6 4.8	04	11 19	4.2 11.0	1.2 3.9
Direct Investment 1984–1988 1989–1992	0.5 1.2	0.3	2.7 6.2	0.8 1.7		94 11.3	0.6 0.5	-0 -1		0.8 1.5	1.9 26
investment 1984–1988 1989–1992	23.8 25.4	28.9 36.3	26.0 32.8	18.3 20.8		18.9 19.0	23.0 19.5	19 22		21.8 28.2	25.0 28.1
Public Consumptic 1984-1988 1989-1993	n 10.0 10.2	9.8 9.7	12.5 10.6	6.8 8.0		12.8 10.9	9.6 7.6	15 16		13.6 9.9	11.3 10.4

TABLE 2 Key Indicators for Selected Latin American and Asian Countries (As percent of GDP)

Source World Economic Outlook; International Financial Statistics. Includes errors and emissions.