

THE CAPITAL INFLOWS PROBLEM: CONCEPTS AND ISSUES

GUILLERMO A. CALVO, LEONARDO LEIDERMAN, and CARMEN M. REINHART*

Since 1990, capital has flowed from industrial countries to developing regions like Latin America and parts of Asia. Most countries welcome reentry into international capital markets. However, capital inflows often are 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, and discusses the pros and cons of the policy options.

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. Preliminary data indicate that in most countries, a resurgence in economic growth and a marked accumulation of international reserves accompany the increased capital inflows.

Capital inflows, however, are not an unmitigated blessing. Large capital inflows often are 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 also may contribute to stock market bubbles and lead to an excessive expansion in domestic credit, jeopardizing the financial system's stability. Short-term capital inflows intensify these prob-

lems as the probability of an abrupt and sudden reversal increases. Not surprisingly, therefore, effective buttressing of these capital inflows is a key economic policy issue today.

This paper addresses two main questions. (i) How has the current episode of capital inflows to Latin America and Southeast Asia affected the macroeconomic environment? The analysis discusses the important cross-country differences in the macroeconomic impact of the inflows and draws on Calvo, Leiderman, and Reinhart (1993, 1994). (ii) What main concepts and issues have surfaced in the current policy debate? Section II outlines the relationships between capital inflows, changes in reserves, and the gap between national saving and investment. Section III briefly discusses the causes of capital inflows. Section IV reviews the stylized facts of the current episode of capital inflows. Section V examines the role of credit. Section VI discusses the policy response to the capital inflows. Section VII contains concluding remarks.

II. DEFINITIONS AND CHARACTERISTICS

Capital inflows are 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 ac-

*Professor, Department of Economics, University of Maryland, Professor, Department of Economics, Tel Aviv University, and economist, Research Department, International Monetary Fund, respectively. The authors thank Kenneth Bercuson, Steven Dunaway, Susan Schadler, and Brian Stuart for helpful comments. The authors' views do not necessarily represent those of the International Monetary Fund.

count 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) *plus* the change in official holdings of international reserves. Thus, increases in capital *inflows* are identified with *wider* current account deficits and/or reserve *accumulation*. (National income accounting implies that the current account is equal to the difference between national saving and investment.)

The official reserves account records central banks' purchases or sales of official reserve assets. Thus, this account measures the extent of the authorities' foreign exchange intervention, which often is referred to as the overall balance of payments. Two polar cases of central bank response to increased capital inflows correspond to floating and fixed exchange rate regimes. (i) If the central banks do not intervene, 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, and capital inflows would *not* be associated with changes in central banks' holdings of official reserves. (ii) 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, no change occurs 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 has varied 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, 1993). Therefore, a central policymaking issue is ascertaining the degree of persistence of the capital inflows. Evaluating persistence is critical to identifying 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 outside a given country's control. Examples of such factors for "small" open economies include: (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, most often are related to domestic policy. Natural disasters and/or wars are part of the internal factors but are not relevant to the discussion here. Examples of policies that would attract long-term capital inflows are: (i) successful price stabilization programs that 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, such as tax credits and debt-equity swaps. But domestic policies also may attract highly "reversible" capital. Such policies include: (i) not-fully-credible trade liberalizations and price stabilization programs, which are likely to induce a consumption boom and increase international indebtedness in the short run, or (ii) tariff cuts under downward price rigidity, which induce (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 10 Latin American countries indicates that foreign factors have played an important role in the recent episode: Calvo, Leiderman, and

Reinhart (1993) find that, depending on the country, foreign factors accounted for 30 to 60 percent of the variance in real exchange rates and reserves. Chuhan, Claessens, and Mamingi (1993) find similar results for bond and equity flows from the United States and suggest that foreign factors explain 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 and that domestic variables are about three times more important than external variables in explaining the behavior of portfolio flows.

Low short-term U.S. interest rates, 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. Fernandez-Arias (1993) notes that the decline in U.S. interest rates also reduced the external debt servicing costs and increased the solvency of the debtor countries.

Domestic developments alone cannot explain why capital inflows have occurred in countries that have not undertaken reforms or why until only recently inflows did not occur in countries that introduced reforms well before 1990. However, the crucial role that reforms played in attracting capital is evident in the differences across countries in the orders of magnitude of the capital inflows. For example, Argentina, Chile, and Mexico have attracted far more capital than have other countries in the region. Further, the role of domestic policies also is evident in the composition of flows. Countries that have undertaken reforms attract a higher proportion of long-term capital.

IV. THE STYLIZED FACTS

A. *Capital Inflows: Orders of Magnitude*

Table 1 divides 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 and were about \$24 billion in 1990, about \$39 billion in 1991, and \$53 billion in 1992. Thus, in those three years, Latin America received as much capital as it had received during the entire 1982–1989 period. A substantial fraction of the inflows was channelled to reserves, which increased by about \$52 billion in 1990–1992. For 1990–1992 as a whole, the net capital inflow was split between widening the current account deficit and increasing 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 various monetary authorities met the capital inflow with a heavy degree of foreign exchange market intervention. Figure 1, depicts monthly data on international reserves for selected countries in the sample and reveals 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. (On the role of policies to reverse capital flight, see International Monetary Fund, December 1992, and Mathieson and Rojas-Suárez, 1993.)

Other regions also have received 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). The bottom panel of table 1 shows that capital inflows amounted to \$144 billion during the 1989–1992 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. During the prior four years, total inflows to the region amounted to \$81 billion U.S. dollars. As is the case for the

TABLE 1
Balance of Payments, 1985–1992

Year	Balance of Goods Services, and Private Transfers ^a \$ Billion	Balance on Capital Account Plus Net Errors and Omissions ^b \$ Billion	Changes in Reserves ^c \$ Billion
<i>Latin America</i>			
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
<i>Asia</i>			
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

^aData for Western Hemisphere and Asia from IMF's World Economic Outlook.

^bA minus 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.

^cA minus sign indicates an increase.

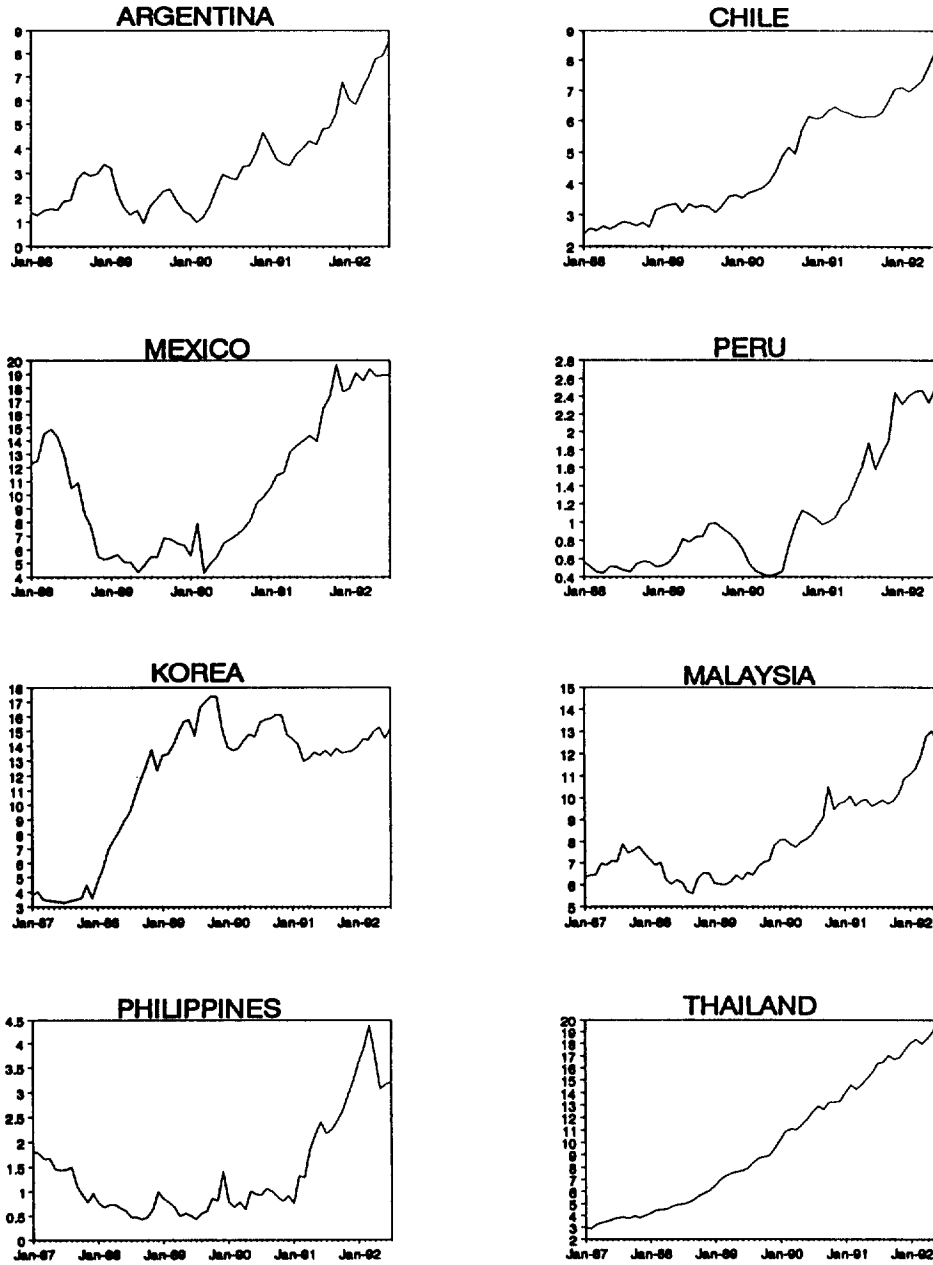
Latin American countries, there is a marked accumulation of international reserves during the capital inflow period (see figure 1), indicating that the capital inflow was met with a heavy degree of intervention in these Asian countries too.

B. Macroeconomic Effects

Comparing the empirical regularities of the Latin American and Asian experience, reveals several interesting similarities, (i) Table 2 illustrates that 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, the change in the capital account amounts to 3.3 percent of Gross Domestic Product (GDP). For the Asian countries, the capital account surplus widens by 2.7 percent of GDP. (ii) There is a marked accumulation in international reserves across countries and across regions. (iii) Stock prices experience sharp increases. During 1991, stock prices 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. (iv) In

FIGURE 1
Official Reserves minus Gold: Selected Latin American and Asian Countries
 (Billions of U.S. dollars)



Source: International Financial Statistics, International Monetary Fund.

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

	<i>Latin America</i>										<i>Average of 10 Countries</i>	
	Argentina	Bolivia	Brazil	Chile	Colombia	Ecuador	Mexico	Peru	Uruguay	Venezuela		
Capital Account^a												
1984-1989	-1.6	0.6	-2.3	-1.7	2.0	-6.3	-0.4	-5.3	-2.5	-3.1	-2.1	
1990-1992	2.2	3.3	-0.3	5.9	1.0	-5.1	6.2	-0.3	0.5	-1.0	1.2	
Direct Investment												
1984-1989	0.9	0.5	0.5	0.5	1.5	0.6	0.8	—	—	0.1	0.5	
1990-1992	1.8	1.0	0.3	1.9	1.2	0.8	1.6	0.2	—	1.8	1.1	
Investment												
1984-1989	18.1	10.1	17.2	16.0	19.7	18.7	20.1	19.4	12.2	17.7	16.9	
1990-1992	15.1	13.5	15.8	20.1	17.7	20.2	21.7	16.4	13.8	14.1	16.8	
Public Consumption												
1984-1989	12.4	11.3	11.1	10.9	10.3	11.6	11.1	9.6	14.4	10.4	11.2	
1990-1992	14.2	11.6	12.4	8.8	10.1	8.4	10.3	9.0	13.3	11.1	10.9	
	<i>Asia</i>								<i>Taiwan</i>		<i>Average of 8 Countries</i>	
	Indonesia	Korea	Malaysia	Philippines	Singapore	Sri Lanka	Taiwan	Thailand	Prov. of China			
Capital Account												
1984-1988	2.2	-2.0	-0.4	-3.8	5.0	4.6	0.1	4.2	0.1	1.2		
1989-1992	5.0	1.3	8.7	1.9	3.3	4.8	-4.9	11.0	-4.9	3.9		
Direct Investment												
1984-1988	0.5	0.3	2.7	0.8	9.4	0.6	-0.3	0.8	-0.3	1.9		
1989-1992	1.2	—	6.2	1.7	11.3	0.5	-1.7	1.5	-1.7	2.6		
Investment												
1984-1988	23.8	28.9	26.0	18.3	38.9	23.0	19.3	21.8	19.3	25.0		
1989-1992	25.4	36.3	32.8	20.8	39.0	19.5	22.7	28.2	22.7	28.1		
Public Consumption												
1984-1988	10.0	9.8	12.5	6.8	12.8	9.6	15.0	13.6	15.0	11.3		
1989-1993	10.2	9.7	10.6	8.0	10.9	7.6	16.5	9.9	16.5	10.4		

Source: World Economic Outlook; International Financial Statistics.

^aIncludes errors and omissions.

both regions, an acceleration in growth accompanies the capital inflows.

There also are differences in the macroeconomic impact of the capital inflows into Asia and Latin America. Figure 2 illustrates that in the majority of the Latin American countries in the sample, a real exchange rate appreciation has accompanied capital inflows. In Asia, such an appreciation is less common (figure 2). The appreciation of the Won during 1988–1989 predates the surge of capital inflows. (The analysis here uses the IMF indices of the real effective exchange rate, and thus an appreciation is represented by an increase in the index.) The reasons why the real exchange rate responds differently to capital inflows in the two regions likely are numerous, but 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). Marked differences occur across the Latin American countries, but on average investment falls. The inflows during the 1990–1992 period are associated primarily with a decline in private saving and with 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 do their Latin American counterparts, where growth had been sluggish or nonexistent (an exception is Chile). Often for these countries, 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, this observation suggests that a real exchange rate appreciation is more likely when capital inflows finance consumption rather than investment.

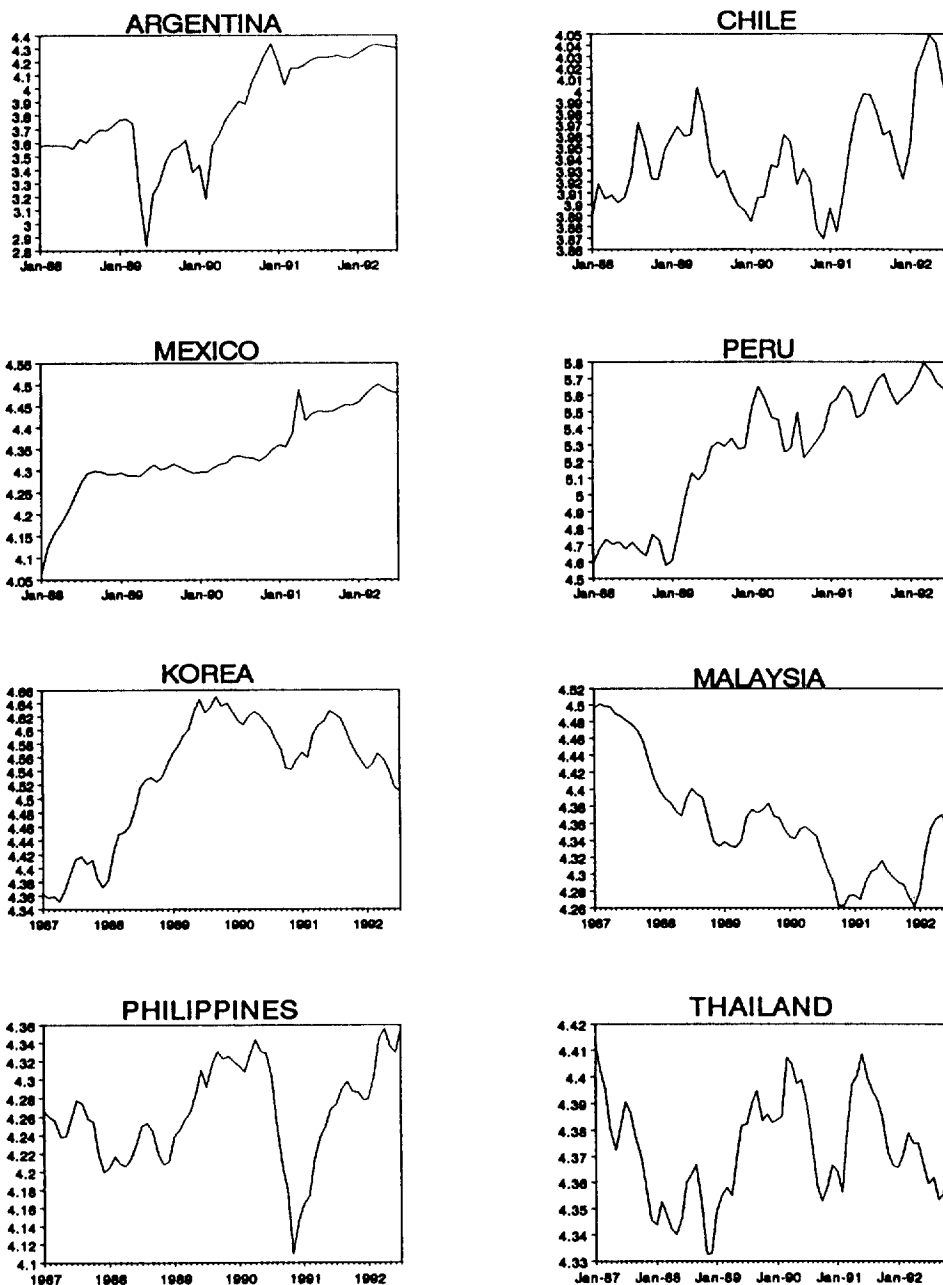
The behavior of public consumption also influences the real exchange rate by affecting both the level and composition of aggregate demand. In some of the Asian countries, most notably Thailand, the capital inflows coincided with a contraction in fiscal expenditure. However, this early contraction was not sustained (see Bercuson and Koenig, 1993). A number of Latin American countries also have enacted major fiscal adjustment programs. However, these predate the surge in capital inflows. These expenditure cuts may reduce or eliminate the real exchange rate pressures in two ways: (i) The fiscal contraction tends to reduce aggregate demand, and (ii) public consumption may be more biased toward nontraded goods than private consumption.

Another factor possibly limiting the real exchange rate appreciation in Asia is the fact that a higher share of the inflows to that region takes the form of foreign direct investment. Since direct investment usually is not intermediated through the domestic banking system, no accompanying expansion in domestic credit and money occurs (see section V). Hence, the potential for “overheating” likely is lessened. In the Asian countries, 44 percent of the increase in capital inflows came from foreign direct investment. In 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 also may partially explain why the increase in investment is much greater for most of the Asian countries.

V. THE ROLE OF CREDIT

The impact of capital inflows on the real exchange rate and in turn on international competitiveness is a major source of concern to policymakers. However, other areas of the economy are vulnerable to changes in flows of capital. These areas

FIGURE 2
 Real Effective Exchange Rates: Selected Latin American and Asian Countries
 (Logs of Index Levels, 1980 = 100)



Note: An increase in the index denotes a real exchange rate appreciation.
Source: Information Notice System, International Monetary Fund.



receive less attention. Specifically, one must consider the banking or financial system that 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—banks in particular—play a key role in intermediating capital inflows. Domestic banks operate in the country in question but may have headquarters elsewhere. Allowing banks to offer competitive interest rates and ensuring that reserve requirements are not large enhances banks' intermediating role.

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 often ended up as the major investors in treasury bills. However, banks also may 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 until better opportunities arise abroad or, on occasion, at home. In turn, banks invest those funds—usually as loans at home.

The two major concerns about the intermediation of capital flows through the domestic banking system are that (i) interest rates reflect "country risk" and (ii) unpaid-for explicit or implicit insurance on bank deposits increase bank risk. 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 analysts often call the "quasi-fiscal deficit." This fiscal cost can be substantial when massive sterilization of inflows takes place, as the

recent experiences in Egypt and Colombia illustrate.

Free implicit bank deposits' insurance is of concern because it induces banks to 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 normally being shorter than the latter. A surge in lending may thus create or exacerbate a maturity (and/or currency) mismatch between bank assets and liabilities. Hence, sudden capital outflows may result in a financial crisis. The problem is magnified if banking supervision is poor and banks do not sterilize the capital inflows and lend these funds to the private sector to invest in non-liquid assets or to finance current expenditures. However, someone must finance insurance, and such schemes probably increase country risk, preventing domestic interest rates from converging to international levels.

Reasons other than banking sector vulnerability suggest that inadequate intermediation is a source of concern. For example, the private sector may overborrow for one of three reasons: (i) static distortions (e.g., wage rigidity, imperfect competition); (ii) dynamic (or capital market) distortions, which include unpaid-for deposit insurance and lack of credibility in policy announcements; and (iii) income distribution considerations. Thus, distortions can induce inadequate financial intermediation. Static distortions may lead to choosing the wrong technology, and access to foreign credit can magnify this problem's deleterious effects. 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 viewpoint 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 in-

crease in the face of massive capital inflows. And these effects are likely to be greater if the inflows are primarily short term.

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 authorities’ degree of credibility also are key determinants of the appropriate policy response’s form and timing.

The rationale for policy intervention emerges from policymakers’ main concerns. (i) Since capital inflows often are associated with real exchange rate appreciation, inflows may adversely affect the export sector. (ii) Capital inflows may not be properly intermediated and may lead to a misallocation of resources. (iii) The “hot money” variety of inflows could be reversed on short notice and possibly lead to a domestic financial crisis. These concerns often lead 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. For a discussion of these issues from the perspective of Chilean monetary and exchange rate policies, see Zahler (1992).

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 mon-

etary authorities’ credibility 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. One might argue that the greater exchange rate uncertainty 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 non-traditional exports. This clearly is 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. Several countries—Chile, Colombia, Malaysia, Singapore among others—have avoided the exchange rate volatility associated with a

pure float and still have limited the impact of capital inflows on the money stock by allowing for some appreciation of the nominal exchange rate. To the extent that the equilibrium real exchange rate appreciates, this policy has an advantage in that the real appreciation occurs all at once through the nominal exchange rate appreciation rather than gradually through inflation increases.

Option (ii), increasing marginal reserve requirements lowers the capacity of banks to lend. Chile and Malaysia have used this policy, which is especially relevant in 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 is that over time this policy may promote disintermediation, as new institutions may develop in an attempt to bypass these regulations. Eventually these new institutions could grow large and end up 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 likely will not be effective beyond the short run. Moreover, increasing bank reserve requirements amounts to reversing the underlying trends of developing countries' financial liberalization, which recently has resulted in sharp reductions in reserve requirements.

Option (iii), non-sterilized intervention (the case of Argentina), runs the risk of generating a vulnerable financial system. The smaller the banking system's capabilities (or willingness) to increase lending to the private sector, the more attractive this option becomes. However, nonsterilized intervention does allow capital inflows to exert a downward pressure on domestic interest rates. This effect 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 quickly finds ways to dodge those taxes through over- and under-invoicing of imports and exports and increasing reliance on parallel financial and foreign exchange markets.

Another policy reaction to capital inflows could be to tighten fiscal policy. Thailand adopted this policy. Tightening fiscal policy is not likely to stop the capital inflow but may lower aggregate demand and curb the inflationary impact of capital inflows. In addition, to the extent that a tighter fiscal stance reduces the government's need to issue debt, such a stance also is 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 it is when a country experiences massive capital inflows—individuals' expenditures can be largely independent of their tax liability. This is especially true if higher taxes are transitory—a somewhat plausible expectation since higher the taxes would be associated with transitory capital inflows. In contrast, lower government expenditure—particularly when this expenditure is directed to purchasing nontraded goods and services—has a direct impact on aggregate demand. This impact is not likely to be offset by an expansion of private sector demand. However, contraction of government expenditure always is a sensitive political issue. Overall, it is hard to provide a strong case for adjusting fiscal policy, which usually is 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. How-

ever, if the authorities envision 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 to increase both export subsidies *and* import tariffs in the same proportion so as to avoid creating further relative discrepancies between internal to external terms of trade *and* to 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, thereby cooling off the economy and attenuating the real exchange rate appreciation. The fiscal cost of this package need not be large, and static distortions do not increase, since such a trade policy does not change initial relative price distortions between exports and imports. However, one can criticize this policy on several grounds. First, its effectiveness depends on the private sector's believing that those subsidies/tariffs will be phased out in the future. Second, these policies deviate from the worldwide trend towards commercial opening. As past experience shows, such protectionist moves often lead to retaliation and welfare reductions.

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 limiting banks' exposure 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 that ensures compliance could help insulate the domestic banking system from the vagaries of capital flows.

VII. FINAL WORDS

Emphasizing the risks associated with capital inflows may be too pessimistic. The overall picture is less bleak. The analysis here points out that 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 Asian countries has taken the form of direct investment. This finding renders moot many policy concerns. However, the key question is how to achieve this favorable composition of capital flows. No policy “tricks” can do the job. In order to induce investors to bolt down their capital, policymakers must muster a high degree of credibility and support clear, simple, and market-oriented policies. Even then, substantive direct investment may not occur for sometime.

Until credibility is achieved, countries are well advised to be cautious about the intermediation of capital flows, especially if these flows are perceived to be primarily short-term and easily reversible. Countries that have successfully managed (to date) the surge in inflows have not relied on a single policy measure. The approach has been eclectic, combining a number of the policy options. Thus, a reasonable sequencing of policies involves initially limiting the intermediation of those flows by combining sterilized intervention, greater exchange rate flexibility, and possibly increased marginal reserve requirements. Policymakers could then adopt measures to gradually monetize these flows (non-sterilized intervention) and perhaps appreciate 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, 921-926.
- 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, 108-151.
- _____, "Capital Inflows to Latin America: The 1970's and the 1990's," Working Paper 92/85, IMF, 1992, forthcoming in Edmar Bacha, ed., *Development, Trade and the Environment*, Macmillan Press, London.
- _____, "Capital Inflows to Latin America: With a Reference to the Asian Experience," forthcoming in Sebastian Edwards, ed., *Capital Controls, Exchange Rates, and Monetary Policy in the World Economy*, 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, 175-194.
- Fernandez-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.
- _____, 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, 1,169-1,180.