Inter-American Development Bank
Office of the Chief Economist
Working Paper 302

Inflows of Capital to Developing Countries in the 1990s: Causes and Effects

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Half a decade has passed since the resurgence of international capital flows to many developing countries. About US$460 billion of foreign capital has flowed to developing countries in Asia and Latin America in the five years 1990-94 or about three-and-a-half times the US$133 of the previous five years (Table 1), when there was a debt crisis and many of these countries had little or no access to international capital markets. However, large capital inflows are often associated with a rapid monetary expansion, inflationary pressures, real exchange rate appreciation, and widening current account deficits. Hence, a surge in inflows of the magnitudes seen in recent years may pose serious dilemmas and tradeoffs for economic policy.

This paper discusses the changing pattern of capital flows to developing countries. The analysis is heavily colored by recent events, in that we concentrate on the principal facts, developments, and policies that characterize the current episode of capital inflows to Asia and Latin America. The discussion draws on our own work--see Calvo, Leiderman, and Reinhart (1993, 1994a, b)--as well as on related research.

The recent surge in capital inflows was initially attributed to domestic developments, such as the sound policies and stronger economic performance of a handful of countries. Eventually, it became clear that the phenomenon was widespread, affecting countries with very diverse characteristics. This suggested the existence of important global factors. During this time short-term interest rates in the United States were declining steadily and by late 1992 they were at their lowest level since the early 1960s. In addition, a recession in several industrial countries made profit opportunities in developing countries appear relatively more attractive. The lower interest rates also improved the creditworthiness of debtor countries, reducing default risk; an improvement which is reflected in the marked rise in secondary market prices of bank claims on most of the heavily indebted countries. While this turn of events was heralded as good news in most developing countries, policymakers there became concerned about its sustainability.

As Figure 1 illustrates, the tightening of monetary policy in the United States and the resulting rise in interest rates in early 1994 has already affected developing country debt prices. In addition, the rising importance of portfolio flows (Table 1) may have made capital flows more sensitive to interest rate changes than in the past. Indeed, the rise in U.S. rates triggered marked corrections in several emerging stock markets. History has also shown that external factors tend to have an important cyclical component, which has given rise to repeated booms and busts in capital inflows. 1 These phenomena make developing capital-importing countries vulnerable to abrupt reversals; thus, an aim of policy is to reduce that vulnerability.

The paper proceeds as follows. The next section discusses the determinants of capital flows to developing countries, with emphasis on the causes behind the heavy inflow of the 1990s. The literature that examines this issue is briefly reviewed. The macroeconomic effects of the inflows are analyzed in Section III, while Section IV reviews the policy response. The final section concludes and discusses areas for future research.

II. Causes of the Capital Inflows

For small open economies fluctuations in world interest rates are a key factor inducing capital flows. Other external factors include terms-of-trade developments, the international business cycle and its impact on profit opportunities, and any regulatory changes that affect the international diversification of investment portfolios at the main financial centers.

Internal factors are most often related to domestic policy. For example, effective inflation stabilization programs can reduce macroeconomic risks and capital inflows. A similar outcome could result from the introduction of institutional reforms, such as the liberalization of the domestic capital market (Obstfeld (1986)) and the opening of the trade account (Calvo (1988)), and policies that result in credible increases in the rate of return

on investment (such as tax credits). 2 As the experience of various Latin American countries in the late 1970s shows, domestic policies may also attract speculative capital when policies are not fully credible. Often partial credibility of these policies leads to relatively high returns on short-term assets, which attract foreign capital on grounds of intertemporal speculation.

Several factors and trends interacted in the early 1990s to make developing countries a fertile territory for the renewal of foreign lending.

First, the sustained decline in world interest rates, coupled with a recession in several of the industrial countries, attracted investors to the high-investment yields and improving economic prospects of economies in Asia and Latin America. As noted, low world interest rates appear to have improved the creditworthiness of debtor countries. 3 Second, there has been a trend toward international diversification of investments in major financial centers; see Gooptu (1993). Increasing amounts of funds managed by life insurance companies and mutual funds have entered emerging markets. Regulatory changes in the United States have also made it easier for foreign firms to place their equity and bonds under more attractive conditions to investors. Third, many heavily-indebted countries made significant progress toward improving relations with external creditors. Fourth, several countries began to adopt sound monetary and fiscal policies as well as market-oriented reforms that have included trade and capital market liberalization. 4

A. The Evidence

Empirical evidence for ten Latin American countries indicates that foreign factors have played a substantial role in the most 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. Similarly, Chuhan, Claessens, and Mamingi (1993) find that external variables explain about half of the bond and equity flows from the United States to a panel of six Latin American countries: for Asia, they conclude that external factors account for about one third of bond and equity flows into the region. However, as the composition of capital inflows to Asia shifts toward portfolio investment (Table 1), the sensitivity of flows to external financial variables may well increase. Fernandez-Arias (1993)--who used a panel of thirteen middle-income developing countries receiving portfolio flows after 1988--also finds that changes in external factors resulted in a marked improvement of creditworthiness.

While the discussion has stressed external developments, the important role played by domestic factors is evident in both the magnitude and the composition of inflows. Countries with sound domestic fundamentals are attracting capital on a larger scale, and with a higher proportion of long-term investment. As the cross-country evidence presented in Edwards (1991) shows, there appears to be a strong link between economic fundamentals and foreign direct investment--a link that was also documented in the earlier literature on capital flight (see Krugman (1984) and Dooley (1988)).

III. Macroeconomic Effects

We now turn to the macroeconomic effects of the renewal of foreign lending to developing countries. Before summarizing the stylized facts, we examine the interaction between capital inflows and other key variables that arise from standard open economy models.

A. Models

Consider a Fisher-type intertemporal model of consumption and saving in an open economy with capital mobility. Assuming perfect

foresight, the representative consumer chooses sequences of consumption of a traded good (c*) and a non-traded good (c) in order to maximize 5

$$(1) \qquad \int_{\infty}^{0} u(c^*_t, c_t) \exp(-\beta t)\, dt,$$

where β (>0) is the subjective discount rate.

It can be shown that for a debtor country, a fall in the world interest rate will induce income and substitution (intertemporal and intratemporal) effects which will typically result in a "consumption boom" and a widening in the current account deficit. If the country was initially credit rationed in international capital markets and/or if the debt is variable rate, these effects could become even stronger. Furthermore, had the Fisherian model included endogenous determination of investment, then the interest rate shock could also translate to a rise in investment, further widening the current account deficit. Since increases in consumption and investment spending occur for both traded and nontraded goods, and since the latter are in limited supply, then the rise in demand will result in an increase in the relative price of nontraded goods--a real exchange rate appreciation.

In a monetary economy, such as that outlined in Calvo and Végh (1993), similar implications arise from a temporary decline in the international nominal interest rate. Here the representative consumer can be assumed to maximize (1) subject to the lifetime budget constraint

$$(2) \qquad \int_0^\infty (y^*_t + y_t/e_t + r)\exp(-rt)dt = \int_0^\infty (c^*_t + c_t/e_t + i m_t)\exp(-rt)dt,$$

where y* and y denote the endowments of traded and home goods, respectively; e is the real exchange rate (the relative price of traded goods in terms of home goods); ~ are real lump-sum transfers from the government; and i denotes the instantaneous nominal interest rate. The parity condition is i = i* + e, where i* is the world nominal interest rate. Equation (2) states that the present discounted value of consumption expenditure, c* +c/e, and the rental cost of money, im, equals the present discounted value of disposable income, y* + y/e + *r* , all evaluated in terms of traded goods.

If we adopt a standard cash-in-advance model, then the maximization of utility is subject to the additional constraint

$$(3) \qquad \alpha(c^*_t + c_t/e_t) \subseteq m_t,$$

where e is a positive constant. Equation (3) requires that the stock of real money balances not fall short of total consumption expenditure. The effective price of consumption equals the sum of its market price and the opportunity cost of holding cash against this transaction. Since the latter is an increasing function of the nominal interest rate, a temporary interest rate decline lowers the relative price of present versus future consumption. This leads to a rise in consumption, an increase in the current account deficit, and a real exchange rate appreciation--much as in the Fisher-type framework. The model also predicts an increase in real money balances.

While the decline in the nominal interest rate could be due to a fall in the international rate, it may also be the result of internal developments such as the implementation of an exchange rate based inflation stabilization program. As shown by Calvo and Végh (1993), if the policy lacks credibility this gives rise to a discrepancy between the current nominal interest rate and its expected higher levels in the future. The macroeconomic outcome mimics the case of a temporary decline in international interest rates.

The exchange rate regime matters mainly for the monetary consequences of the capital inflows. In most models, consumption and investment booms will be accompanied by a rise in money demand. Under a fixed exchange rate regime, money market equilibrium will be achieved via an accumulation of international reserves at the central bank and a rise in the money supply. More generally, the degree of monetary expansion following a rise in capital inflows depends on the extent of sterilization of the inflows and the degree of exchange rate flexibility. In the short run, the expansion in the money stock will be smaller, the higher are the degrees of sterilization and of exchange rate flexibility. In a small open economy operating under a free float, capital inflows will be associated with a nominal exchange rate appreciation and no change in either reserves or the monetary aggregates.

B. Facts

The foregoing discussion suggests that a surge in capital inflows is likely to be accompanied by a rise in consumption and investment, an increase in real money balances and foreign exchange reserves, a real exchange rate appreciation, and a widening in the current account deficit. Including other assets in the analysis is likely to indicate that rising

inflows would be associated with higher equity and real estate prices. We review below the experience of some of the largest recipients of capital inflows in Asia and Latin America, including Argentina, Brazil, Chile, Korea, Malaysia, Mexico, Philippines, and Thailand. The coverage is meant to be illustrative rather than comprehensive. 6

The main stylized facts that emerge are summarized as follows. First, a substantial portion of the surge in inflows--i.e., about 59 percent in Asia and 35 percent in Latin America--has been channeled to accumulation of foreign-exchange reserves. These two regions have accumulated about $209 billion in international reserves over the last five years. The path of reserves for the four largest capital recipients is plotted in the top panel of Figure 1, while the yearly changes are given in line 4 of Tables 2 and 3. Recently, the pace of reserves' accumulation is showing some signs of slowing (Tables 1-3), and an increasing portion of the capital inflows is taking the form of larger current account deficits. Overall, the sharp increase in official reserves indicates that the capital inflow was met with a heavy degree of foreign exchange market intervention by the monetary authorities and a reluctance to allow a nominal appreciation of the domestic currency.

Second, in most countries the capital inflows have been associated with wider current account deficits. 7 That is, a rise in the gap between national investment and national saving, which generally has been the result of both an increase in investment and a fall in saving. As evident from Tables 2 and 3, investment ratios have risen in six of the eight countries while saving has declined in half of the countries considered. Thus, the recent behavior of saving and investment does not provide episodic support for the Feldstein-Horioka high correlations. 8 In a majority of cases, these developments are reflected in higher real GDP growth (line 7, Tables 2-3).

Third, there has been an acceleration in private consumption spending (line 8, Tables 2-3). While disaggregated data on consumption are not available for most of the developing countries, the import data suggests the consumption boom is heavily driven by rising imports of durable goods. 9

Fourth, in almost all the countries examined there is a rise in the growth of real balances (lines 9 and 10, Tables 2-3). As discussed, this fact can be related to the acceleration in economic activity observed in the receiving countries. While Chile and the Philippines show no acceleration in the growth of real balances, in the remaining countries (the sharpest increase is in Argentina) real money growth accelerated throughout most of the inflow period. These cross-country differences appear to be largely due to differences in the degree of sterilization of the capital inflows. While the authorities in Chile and the Philippines implemented a policy of active sterilization, no such sterilization was undertaken by the Argentine authorities (who also maintained a fixed exchange rate).

Fifth, the surge in portfolio flows has been accompanied sharp increases in stock and real estate prices. Share prices for many emerging markets were sharply higher in U.S. dollar terms at the end of 1993 than at the outset the inflows episode (Figure 2, Tables 2-3).

Last, the evidence on the behavior of the real exchange rate presents a mixed picture. In most Latin American countries, capital inflows have been associated with a marked real exchange rate appreciation; in Asia such an appreciation is less common (Figure 2). While the sharp real exchange rate depreciation that characterized the Asian experience through the late 1980s comes to a halt, the real exchange rate appears trendless in the early 1990s. Although the reasons for these differences in the response of the real exchange rate are likely to be numerous, important differences in the composition of aggregate demand may play a key explanatory role. In the Asian economies investment as a share of GDP increased considerably more during the capital inflows period than in most Latin American countries, where the inflows (particularly during the initial stages of the surge, 1990-91) are primarily associated with a decline in private saving and higher consumption. If investment is tilted more toward imported capital goods, and consumption has a higher domestic component, other things equal, this would work in the direction of generating a stronger real exchange rate appreciation in Latin America. The behavior of public-sector consumption may also be influencing the real exchange rate by affecting both the level and composition of aggregate demand. Other things equal, the greater the contraction in fiscal expenditure at the time of capital inflows, the weaker the extent of real exchange rate appreciation. Several Latin American countries, such as Chile and Mexico have had major fiscal adjustment programs, yet these predated the surge in capital inflows. In contrast, there were fiscal spending contractions in several Asian economies, most markedly in Thailand during 1988-91, at the time of the inflows (see Schadler, et. al. (1993)).

IV. Policy Management of Capital Inflows

The rationale for policy intervention emerges from policymakers' concerns about the consequences of the inflows: these can lead to inflationary pressures, to a real exchange rate appreciation, which can reduce international competitiveness, to banking problems, if the inflows are not properly intermediated. Analytically, it is possible to justify policy intervention on the grounds of: (i) the existence of incomplete markets and the lack of insurance against possible risks associated with the inflows, (ii) the presence of externalities and hysteresis effects, and (iii) the possibility that the inflows interfere with the effectiveness of other government policies (e.g., an inflation stabilization plan). Such concerns have often led the authorities to react to the inflows by implementing a variety of policy measures.

A. Exchange Rate Policy

An option for a capital-importing country is to let the nominal exchange rate appreciate in response to capital inflows. The main advantage of allowing greater exchange rate flexibility is that the appreciation in the real exchange rate is effected through a change in the nominal exchange rate and not through higher inflation. Moreover, flexibility might strengthen the degree of autonomy of domestic monetary policy precisely when central bank's function as "lender of last resort" might be needed (as, e.g., during temporary capital flow reversals). A disadvantage of a pure float is that massive capital inflows may induce a steep (and rapid) nominal and real appreciation which may damage strategic sectors of the economy, like non-traditional exports. If the real appreciation is large and persistent, it could give rise to adverse hysteresis effects on the trade balance. 10 A free-float may be associated with greater real-exchange-rate volatility than fixed exchange rates. To prevent some of the detrimental effects of excessive fluctuations in the real exchange rate, several countries have adopted exchange rate bands which can be seen as an intermediate case between fixed and flexible exchange rates. 11 However, as the Argentine case highlights, this tendency toward partial flexibility has not been across-the-board.

B. Monetary Policy

Sterilization--i.e., the exchange of (domestic) bonds for foreign exchange--has been, by far, the most popular policy response to capital inflows in both Latin America and Asia. This policy aims at insulating the money supply and/or the exchange rate from the effect of the inflows; the intent is to mitigate inflationary pressures, the real exchange rate appreciation, and avoid the loss of control over the domestic money stock. It is not clear that this policy can provide a lasting solution to inflation, and it can be costly. Sterilized intervention will prevent the interest rate differential from narrowing, and may thus induce further inflows. In addition, sterilization results in an increase in public debt and entails costs, to the extent that the interest rate on domestic bonds is higher than that on foreign exchange reserves. Annual estimates of these costs in Latin American countries range from 0.25 to 0.80 percent of GDP. This policy could result in a rise in public debt so large so as to undermine policymakers' credibility, especially if the public begins expecting a partial repudiation of the debt--expectations that may well halt the inflows altogether; see, e.g. Frankel (1993).

Sterilization can take other forms such as raising bank reserve requirements and curtailing access to rediscount facilities. This would be especially relevant in those countries where capital inflows have taken the form of marked increases in local bank accounts. An increase in marginal reserve requirements (an option used by Chile and Malaysia) lowers the capacity of banks to lend without the quasi-fiscal costs of sterilization. A problem with this policy is that it may promote disintermediation, as new institutions may develop so as to bypass these regulations. Moreover, the policy amounts to a reversal of the underlying trends of financial liberalization in developing countries.

Nonsterilized intervention, may be desirable if there is a perceived increase in the demand for money which the authorities wish to accommodate. In that case, rapid monetary growth would not be inflationary. In addition, no quasi-fiscal burdens are generated. However, monetization runs the risk of increasing the vulnerability of the financial system to reversals, especially if there is explicit (or implicit) deposit insurance and banking supervision and regulation are weak. 12 From a macroeconomic perspective, such an option becomes more attractive the smaller the capabilities of the banking system to increase loans to the private sector.

C. Fiscal policy

Various countries, such as Chile and Mexico, have imposed taxes on short-term borrowing abroad with the intent of discouraging inflows that are thought to be speculative. For example, Chile chose to tax inflows by imposing a minimum reserve requirement on international loans intermediated through the banking system. The main disadvantage is that flows are likely to be re-routed through other channels (e.g., over/under-invoicing of imports and exports), which may reduce the authorities' control on the financial system. Another response has been to liberalize by lowering barriers to capital outflows--a policy that could soften the domestic impact of the inflows. However, as shown by Laban and Larrain (1994), lifting restrictions on capital outflows may increase the confidence of foreign investors and thus may stimulate capital inflows.

As noted, in some countries a policy reaction to the surge in inflows was to tighten fiscal policy, usually via a cut in public expenditures. This policy may be effective in limiting the appreciation of the real exchange rate, as nontradables often represent a sizable share of government expenditure. Its effect is likely to be stronger if the cut in expenditures is perceived to be temporary, as if its seen as permanent, individuals may anticipate a rise in disposable income and increase their borrowing to finance higher spending--partially offsetting the effect of the cut in public expenditure. However, fiscal tightening involves changes in legislation and sensitive political actions that usually cannot be undertaken on short notice, so as to offset the effects of the capital inflows. Furthermore, optimal fiscal policy considerations suggest that taxes and expenditures be set on the basis long-term goals rather than in response to what may turn out to be a cycle in international capital markets.

V. Concluding Remarks

The preceding discussion has highlighted that the policy choices for small open economies facing a surge in inflows are limited. While there is, judging from the policy reactions of a wide set of countries, a perceived cost to a strategy of no intervention, it was argued that most of the policies implemented to counteract the effects of the flows also entail costs. It remains to be seen how successful these policies will be in reducing countries' vulnerability in the event of a reversal of flows.

The size and nature of the real and financial sector shocks affecting small open economies play a central role in determining the odds of a debt crisis. Increases in the volatility of international commodity prices and world interest rates could be especially destabilizing.. Open questions remain as to what extent developments and policies in the industrial countries will generate large shocks in the remainder of the 1990s, and in what measure are the developing countries prepared to deal with such shocks.

As discussed, capital can also flow to a country as a result of lack of credibility in current policies, or renewed confidence about a country's economic prospects. Distinguishing between lack of credibility and rising confidence remains an elusive task; it is, nonetheless, essential in assessing the vulnerability of a country to a reversal in capital flows. A better understanding of the forces driving the cycles in foreign lending to developing countries would be gained if applied research were to provide better measures of credibility and time-varying risk.

The impact of a surge in capital flows on the domestic financial system and capital market also merits a closer look. Relatively little is known about how capital flows are intermediated and the role played by existing distortions in the banking system. Similarly, it is important to examine the interaction between rising international portfolio flows and equity market volatility. During the inflows episode of the late 1970s, several Latin American stock markets experienced a boom-bust cycle of proportions not seen in industrial countries in the post World War II period. These events provide an ideal testing ground for "bubbles" hypotheses and may help understand asset price behavior in emerging markets.

Lastly, theoretical models are clear in their predictions for the real exchange rate in response to an increase in capital inflows, suggesting a rising capital account surplus is accompanied by a real exchange rate appreciation. However, despite capital flows of similar orders of magnitudes and, often, common policy responses, the recent country experiences present a much less uniform picture in the behavior of the real exchange rate, which has shown a stronger tendency for appreciation in Latin America than in Asia. Future research should, perhaps, try to account these differences.

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Footnotes

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1. Diaz-Alejandro (1983) and Eichengreen (1991) stress the important role played by developments in the major financial centers in affecting the pattern of lending to developing countries.

2. Other domestic policies that could be added to this list include the role played by debt-equity swaps in encouraging foreign direct investment (see, e.g., Edwards (1991)).

3. See Fernandez-Arias (1993).

4. Among the countries implementing inflation stabilization plans during the 1990s are: Argentina (March 1991), Brazil (July 1994), Ecuador (January 1993), and Peru (July 1990). Other countries, such as Bolivia, Chile, and Mexico had implemented major disinflation programs earlier.

5. This is a standard setup within the class of intertemporal open economy models (see, e.g., Dornbusch (1983), Ostry (1988), and Sachs and Larrain (1993) for a discussion of related models).

6. The experience of a broader set of Asian and Latin American countries is reviewed in Calvo, Leiderman, and Reinhart (1993, 1994). The list of capital-inflow countries also includes large economies such as India and the Peoplets Republic of China.

7. Exceptions are Brazil and Chile.

8. Although it is consistent with the observations made by Frankel (1993) that the correlations have been declining in the more recent period
and by Montiel (1993), who notes that the correlations appear to be lower for developing countries.

9. Here again, domestic policies may reinforce external developments. Consumption booms are a regular feature of exchange rate-based stabilization programs including the recent Mexican plan (see Reinhart and Végh

(1994)).

10. See, e.g., Baldwin and Lyons (1994) who use a sunk cost model of trade to show that a sufficiently large real exchange rate appreciation can induce hysteresis in the trade balance and thereby alter the steady-state real exchange rate.

11. In 1994, Colombia joined Chile and Mexico in adopting a pre-announced exchange rate band. For analysis of exchange rate bands in Chile, Israel, and Mexico, see Helpman, Leiderman, and Bufman (1994).

12. Sterilization would not be needed if domestic agents borrow abroad in order to finance purchases of imported goods, since in this case the inflows are not intermediated through the domestic financial system.

11. This increase in money demand may be the result of a successful stabilization program or a rise in economic growth.

12. Accordingly, it is the role of bank regulation and supervision to effectively diminish these risks. Regulations that limit the exposure of banks to the volatility in equity and real estate markets, as well as establishing risk-based capital requirements would be especially timely.

Table 1. Capital Flows: Magnitudes and Composistion

1985 - 1994

	Asia			Latin America [a]		
	Balance of Goods, Services, and Private Transfers [b]	Balance on Capital Account Plus Net Errors and Omissions	Changes in Reserves [c]	Balance of Goods Services and Private Transfers [b]	Balance on Capital Account Plus Net Errors and Omissions	Changes in Reserves [c]
1985	-16.5	18.9	-2.3	-3.7	5.5	-1.7
1986	0.8	21.9	-22.7	-17.7	10.6	7.1
1987	18.8	18.5	-37.4	-12.4	15.4	-3.0
1988	5.9	4.0	-9.9	-13.8	12.2	1.5
1989	-2.7	11.1	-8.4	-10.2	14.3	-4.0
1990	-6.1	24.3	-18.2	-8.7	24.4	-15.7
1991	-6.1	45.0	-38.8	-23.4	42.6	-19.2
1992	-8.1	33.1	-25.0	-38.9	64.1	-25.2
1993	-28.7	50.9	-22.1	-47.0	69.2	-22.2
1994	-32.1	45.1	-13.0	-49.7	59.3	-9.6
1985-89	6.3	74.6	-80.9	-58.0	58.3	-0.2
1990-94	-81.3	198.5	-117.2	-167.8	259.8	-91.9

	Foreign Direct Investment	Portfolio Equity	Bonds	Commercial Bank Loans	Suppliers and Export Credits
Asia					
1985-89	28.0	1.5	8.9	50.7	10.9
1990	36.5	4.2	3.6	40.2	15.4
1991	37.5	2.5	6.5	39.8	13.6
1992	32.0	10.6	9.1	20.6	27.6
Latin America [a]					
1985-89	34.7	0.3	3.6	43.8	17.6
1990	36.5	4.2	12.2	34.4	12.7
1991	37.1	16.6	19.9	21.0	5.4
1992	32.6	12.8	29.1	10.6	14.9

Source: World Economic Outlook (May 1993), IMF.

Notes: Data for 1993 are not yet available. Shares may not add to 100 due to rounding.

a Data for Western Hemisphere form IMF's World Economic Outlook.

b A 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 included in the capital account.

c A minus sign indicates an increase.

Table 2: Basic Statistics: Selected Latin American Countries

ARGENTINA (1991)	Average of four years before start of inflows	Years after start of inflows: 0	1	2	3	4	average
Balance on the capital account[a]							
1.) Billions of U.S. dollars	-2.8	-2.6	11.5	18.9	..	..	9.3
2.) As a percent of GDP	-3.0	-1.4	5.1	7.5	..	..	3.7
Current account							
3.) As a percent of GDP	-1.4	-1.5	-3.7	-3.3	..	..	-2.8
International reserves							
4.) Change, billions of U.S. dollars	0.4	2.1	3.2	4.1	..	..	3.1
Savings and investment							
(as a percent of GDP)							
5.) Change in investment	-1.3	0.3	3.0	1.7	..	..	1.7
6.) Change in saving	-0.8	-1.9	-0.3	1.6	..	..	-0.2
Other macroeconomic indicators							
(Percent changes)							
7.) Real GDP	-1.4	8.9	6.7	6.0	..	..	7.6
8.) Private consumption	-0.2	15.7	10.1	4.0	..	..	9.9
9.) Inflation	1467.45	171.7	24.9	10.6	..	..	69.1
10.) Money	1146.9	277.5	79.1	35.1	..	..	130.6
11.) Real exchange rate[b]	-2.7	11.6	-14.4	-4.2	..	..	-2.3
12.) Stock prices in U.S. dollars	34.6	393.9	-27.5	67.3	..	..	144.6

BRAZIL (1992)	Average of four years before start of inflows	Years after start of inflows: 0	1	2	3	4	average
Balance on the capital account							
1.) Billions of U.S. dollars	-6.4	6.9	10.1	..	..	..	8.5
2.) As a percent of GDP	-1.7	1.7	2.2	..	..	..	2.0
Current account							
3.) As a percent of GDP	0.1	1.1	-0.5	..	..	..	0.3
International reserves							
4.) Change, billions of U.S. dollars	6.3	14.5	8.1	..	..	..	11.3
Savings and investment							
(as a percent of GDP)							
5.) Change in investment	-0.7	-0.2	-0.1	..	..	..	-0.1
6.) Change in saving	-3.4	-0.2	0.1	..	..	..	-0.0
Other macroeconomic indicators							
(Percent changes)							
7.) Real GDP	0.0	-0.9	5.0	..	..	..	2.1
8.) Private consumption	0.7	-1.1	7.1	..	..	..	3.0
9.) Inflation	1280.75	991.1	2103.	..	..	..	1547.2
10.) Money	858.4	..	..	..	..	..	..
11.) Real exchange rate	-0.6	-7.0	-8.7	..	..	..	-7.9
12.) Stock prices in U.S. dollars	55.275	-1.5	91.3	..	..	..	44.9

CHILE (1990)	Average of four years before start of inflows	Years after start of inflows: 0	1	2	3	4	average
Balance on the capital account							
1.) Billions of U.S. dollars	-1.2	1.3	1.4	3.3	2.3	..	2.1
2.) As a percent of GDP	-8.0	4.7	4.5	8.6	5.7	..	5.9
Current account							
3.) As a percent of GDP	-3.7	-2.2	0.5	-1.6	-3.6	..	-1.7
International reserves							
4.) Change, billions of U.S. dollars	0.2	2.25	1.1	2.3	0.6	..	1.6
Savings and investment							
(as a percent of GDP)							
5.) Change in investment	1.0	0.9	-1.3	1.6	0.8	..	0.5
6.) Change in saving	12.2	0.3	1.5	0.6	-1.1	..	0.3
Other macroeconomic indicators							
(Percent changes)							
7.) Real GDP	7.4	3.0	6.1	10.3	6	..	6.4
8.) Private consumption	6.7	2.8	7.8	10.1	7.5	..	7.6
9.) Inflation	17.8	26	21.8	15.4	12.7	..	19.0
10.) Money	29.2	11.8	43.2	34.7	..	..	29.9
11.) Real exchange rate	5.6	2.6	-5.2	-0.7	2.4	..	-2.5
12.) Stock prices in U.S. dollars	53.2	21.4	80.0	12.3	29.5	..	40.8

MEXICO (1989)	Average of four years before start of inflows	Years after start of inflows: 0	1	2	3	4	average
Balance on the capital account							
1.) Billions of U.S. dollars	-1.0	3.6	6.7	20.6	24.7	23.6	15.6
2.) As a percent of GDP	-0.4	1.7	2.7	7.3	7.8	6.6	5.2
Current account							
3.) As a percent of GDP	-0.7	-2.9	-3.2	-4.7	-7.1	-6.5	-4.8
International reserves							
4.) Change, billions of U.S. dollars	-0.5	0.7	3.27	7.6	1.4	6.2	3.8
Savings and investment							
(as a percent of GDP)							
5.) Change in investment	0.2	0.5	1.6	2.8	-0.7	0.7	0.9
6.) Change in saving	-0.7	0.4	0	-2	-1.6	1.3	-0.4
Other macroeconomic indicators							
(Percent changes)							
7.) Real GDP	-0.2	3.3	4.4	3.6	2.6	0.4	2.9
8.) Private consumption	1.0	7.3	8.0	3.8	4.9	-2.7	3.8
9.) Inflation	97.5	20	28.7	22.7	15.5	9.8	18.9
10.) Money	80.4	30.6	47.9	91.8	70.2	18.1	51.7
11.) Real exchange rate	5.6	-0.3	-5.3	-8.6	-8.0	-5.8	-5.6
12.) Stock prices in U.S. dollars	45.3	87.8	24.9	102.4	20	46.9	52.4

Sources: Information Notice System, International Financial Statistics, and World Economic Outlook, IMF, and International Finance Corporation.
Notes: Dashes-- indicate data do not apply. Dots indicate data was not available.
[a] Includes errors and omissions.
[b] A minus indicates an appreciation.

Table

Table 3. Basic Statistics: Selected Asian Countries

KOREA (1991)	Average of four years before start of inflows	Years after start of inflows 0	1	2	3	4	average
Balance on the capital account							
1.) Billions of U.S. dollars	-4.0	8.3	8	4	--	--	6.8
2.) As a percent of GDP	-2.6	2.8	2.7	1.2	--	--	2.3
Current account							
3.) As a percent of GDP	4.3	-2.9	-1.5	-0.7	--	--	-1.7
International reserves							
4.) Change, billions of U.S. dollars	2.7	-1.2	3.4	2.2	--	--	1.5
Savings and investment							
(as a percent of GDP)							
5.) Change in investment	-1.0	-2.7	0.3	3	--	--	0.2
6.) Change in saving	0.9	-0.1	-1.5	0.5	--	--	-0.4
Other macroeconomic indicators							
(Percent changes)							
7.) Real GDP	9.7	8.5	4.8	5.0	--	--	6.1
8.) Private consumption	9.9	9.2	6.5	5.1	--	--	6.9
9.) Inflation	8.1	9.3	6.2	4.8	--	--	6.8
10.) Money	16.4	19.7	35.6	18.4	--	--	24.6
11.) Real exchange rate	-4.8	0.2	6.1	1.7	--	--	2.7
12.) Stock prices in U.S. dollars	16.0	-7.1	3.5	20.8	--	--	5.7

MALAYSIA (1989)	Average of four years before start of inflows	Years after start of inflows 0	1	2	3	4	average
Balance on the capital account							
1.) Billions of U.S. dollars	-0.2	1.5	3.6	5.7	8.7	3.1	2.6
2.) As a percent of GDP	-0.4	3.6	8.5	12.1	15	4.9	6.2
Current account							
3.) As a percent of GDP	2.5	-0.8	-4.0	-9.9	-3.3	0.4	-2.4
International reserves							
4.) Change, billions of U.S. dollars	0.6	1.0	2.0	1.2	6.9	4.2	1.7
Savings and investment							
(as a percent of GDP)							
5.) Change in investment	-2.3	5.0	3.3	3.6	-0.3	-1.2	4.2
6.) Change in saving	1.9	-2.7	-0.2	-1.6	4.2	1.2	-1.4
Other macroeconomic indicators							
(Percent changes)							
7.) Real GDP	3.6	9.2	9.7	8.7	8.0	8.1	9.5
8.) Private consumption	2.6	14.2	13.1	9.9	1.9	7.3	13.7
9.) Inflation	1.0	2.6	2.6	4.4	4.8	3.4	2.7
10.) Money	6.6	17.3	18.7	10.6	22.4	NA	16.0
11.) Real exchange rate	9.9	1.8	4.1	3.0	-8.0	1.0	3.0
12.) Stock prices in U.S. dollars	3.1	40.5	-13.1	9.5	20.6	106.1	13.7

PHILIPPINES (1989)	Average of four years before start of inflows	Years after start of inflows 0	1	2	3	4	average
Balance on the capital account							
1.) Billions of U.S. dollars	-1.4	0.3	0.9	1.0	-0.7	1.5	0.4
2.) As a percent of GDP	-4.3	0.6	1.6	2.1	-1.3	2.7	0.8
Current account							
3.) As a percent of GDP	-0.5	-4.2	-6.7	-3.1	-2.5	-3.1	-4.1
International reserves							
4.) Change, billions of U.S. dollars	0.2	0.3	0.3	2.5	0.8	0.5	1.0
Savings and investment							
(as a percent of GDP)							
5.) Change in investment	-1.0	2.8	1.0	-2.4	1.2	2.3	0.6
6.) Change in saving	0.2	0.2	-1.5	1.5	3.2	0.4	0.9
Other macroeconomic indicators							
(Percent changes)							
7.) Real GDP	2.5	6.1	2.4	-1.0	0.6	0.5	2.0
8.) Private consumption	2.8	5.0	5.4	2.2	3.3	3.2	4.0
9.) Inflation	9.1	12.2	14.1	16.7	8.9	7.6	13.5
10.) Money	17.0	18.9	21.4	18.1	15.5	..	18.5
11.) Real exchange rate	7.0	-6.8	2.7	1.3	-9.9	2.5	-3.2
12.) Stock prices in U.S. dollars	87.2	57.5	-55.0	57.7	17.2	133.3	19.3

THAILAND (1988)	Average of four years before start of inflows	Years after start of inflows 0	1	2	3	4	average
Balance on the capital account							
1.) Billions of U.S. dollars	1.8	4.2	7.1	12.1	11.8	9.2	8.9
2.) As a percent of GDP	4.0	7	10.3	14.9	12.8	8.8	10.7
Current account							
3.) As a percent of GDP	-2.8	-2.9	-3.8	-9.0	-8.0	-6.3	-6.0
International reserves							
4.) Change, billions of U.S. dollars	0.4	2.2	3.6	3.5	4.2	3.0	3.3
Savings and investment							
(as a percent of GDP)							
5.) Change in investment	-0.5	1.6	2.0	4.2	1.3	-0.8	1.7
6.) Change in saving	2.0	2.7	1.6	1.3	0.7	0.2	1.3
Other macroeconomic indicators							
(Percent changes)							
7.) Real GDP	5.3	13.2	12.0	10.0	6.2	7.5	10.2
8.) Private consumption	5.6	8.8	11.1	10.5	6.5	6.3	8.6
9.) Inflation	1.9	3.9	5.4	5.6	5.7	4.1	5.0
10.) Money	8.9	18.5	19.7	16.8	2.4	9.9	13.5
11.) Real exchange rate	8.8	3.3	-2.5	-0.7	-0.3	1.7	0.3
12.) Stock prices in U.S. dollars	24.0	34.6	93.5	-23.4	17.0	35.9	31.5

Sources: Information Notice System, International Financial Statistics, and World Economic Outlook, IMF, and International Finance Corporation.

Notes: Dashes-- indicate data do not apply. Dots indicate data was not available.

[a] Includes errors and omissions.

[b] A minus indicates an appreciation.

Figure 1

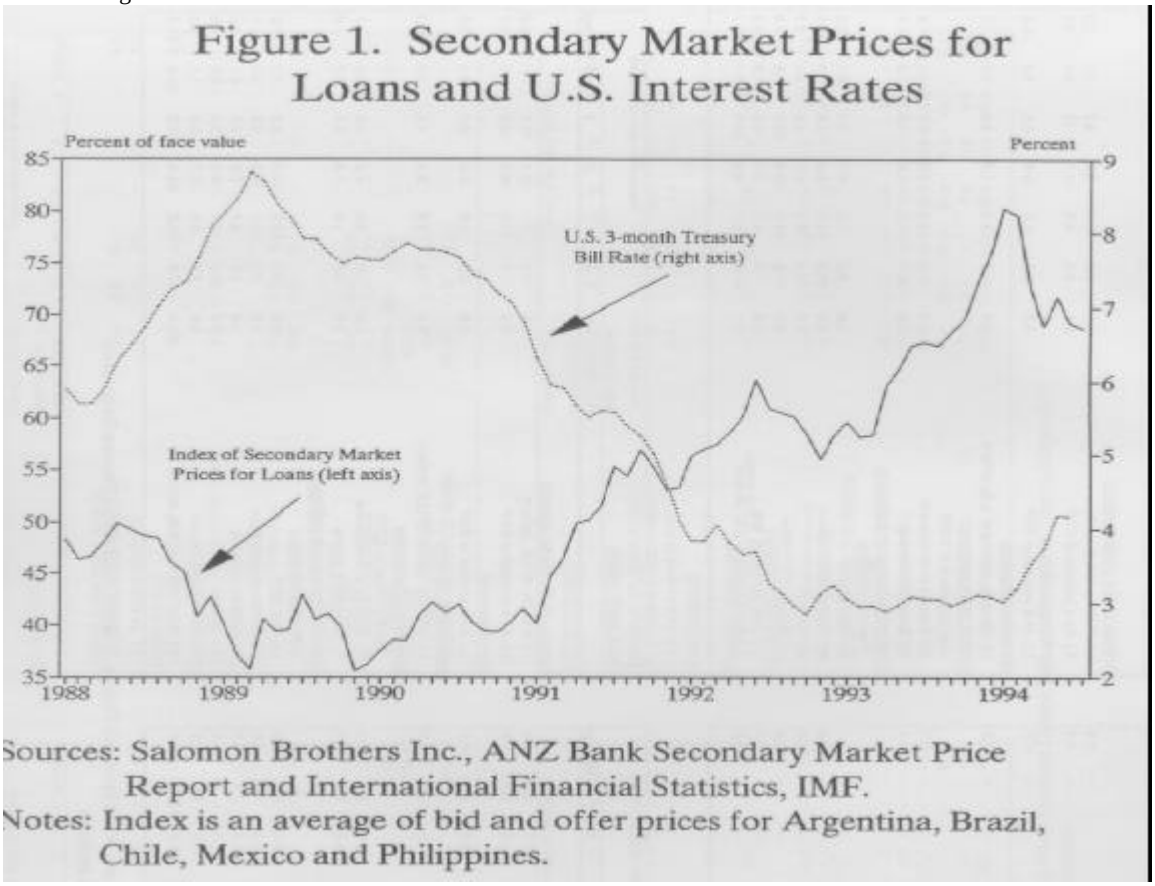
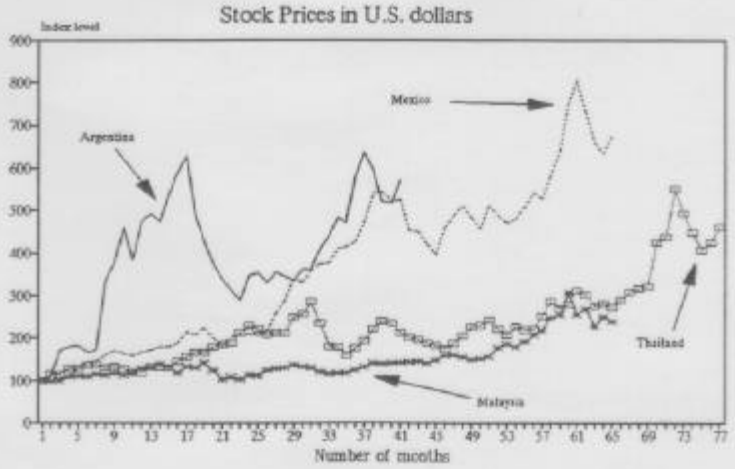


Figure 2

Figure 2. Selected Macroeconomic Indicators



Sources: International Finance Corporation, International Financial Statistics, and Information Notice System, IMF.

Note: A decline in the real exchange rate index denotes an appreciation.