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External capital flows in *Latin America and the* Caribbean in the 1990s: *experiences and policies*

Gunther Held*
Raquel Szalachman**

** Coordinator, Financing Unit, International Trade, Transport and Financing Division, ECLAC.*
*** Financing Unit, International Trade, Transport and Financing Division, ECLAC.*

This article analyses the experiences of a group of Latin American and Caribbean countries with high inflows of external capital in 1992-1996 and places them within the context of the capital movements which have taken place in the region since 1977. Over the last two decades, capital flows to the region have been marked by their great variability: periods of high inflows of capital have alternated with periods of low inflows. In the three-year period 1992-1994, there was a heavy inflow of capital which was concentrated in a few countries, was more volatile because its composition changed in the direction of portfolio investments, and continued to be high in 1995-1996 in some countries. Analysis of the period from 1992 to 1996 shows the incentives behind the high inflows of financial capital and the response they elicited from national saving, the balance of payments current account deficit and the real exchange rate and summarizes the macroeconomic and financial effects of the decline or reversal of capital flows in certain countries in 1995-1996. The experiences of the countries of the region show that in order to take advantage of capital inflows and avoid their macroeconomic and financial risks, external capital attraction policies should: i) view access to external resources as part of a broader policy for strengthening national saving and developing the financial systems of the recipient countries; ii) seek such resources only as a function of the sustainable balance of payments current account deficit of the country in question, and iii) envisage monetary and exchange-rate systems which permit the gradual and regulated opening-up of the balance of payments capital account and promote changes in the level and composition of capital inflows towards flows which are stable in the medium and long term.

I

Introduction

External capital flows can make an important contribution to economic and financial development. They mobilize saving from the capital-exporting countries, thus increasing the resources of the recipient countries and improving international resource allocation. In the recipient countries, these flows make it possible to compensate for reductions in foreign exchange availability due to fluctuations in their exports and in the terms of trade and also further diversify the financial assets and liabilities of the countries involved, as well as providing other benefits (ECLAC, 1995).

Inflows of external capital also bring with them risks and costs, however. The abundant loans that the international banking system made in the second half of the 1970s aided the growth of the countries of the region while they remained available, but they also brought with them excessive aggregate spending, high current account deficits and other macroeconomic imbalances, which culminated in the external and domestic debt crisis which spread to most of the countries of the region in the early 1980s.

The present study deals with the experiences and policies regarding the procurement of external capital by the Latin American and Caribbean countries which had heavy inflows of external capital between 1992 and 1996. The study is divided into five sections, including the present introduction. Section II highlights the variability of capital movements over the last two decades and uses various criteria to identify the countries of the region which had heavy capital inflows in 1992-1996. Section III describes the incentives which led to these heavy inflows of financial capital, together with their consequences for national saving, the current account deficit and the real exchange rate, and studies the macroeconomic and financial effects of the decline or reversal of external capital flows in some countries in 1995-1996.

Section IV deals with policies for the procurement of external capital within the framework of a development policy which strengthens national saving and domestic financial markets, and examines the concept of a sustainable current account deficit. The analysis of external capital procurement policies stresses the importance of monetary and exchange-rate regimes and looks at various instruments that can be used to regulate capital inflows and adjust to them. Finally, section V presents the main conclusions of the study.

II

Features of capital flows in Latin America and the Caribbean in recent decades

1. The variability and other features of capital movements between 1977 and 1996

Table 1 shows the capital account and current account balances of the balance of payments of countries of the region between 1977 and 1996. The capital flows show great variability. In a period of less than two decades it is possible to identify two periods of high capital inflows with averages equivalent to 5.3% and 4.3% of the regional GDP (1977-1981 and 1992-1994, respectively), a period of low capital inflows, with an average of 1.3% of GDP in 1983-1989, and two periods of medium-level inflows equivalent to 2.6% of GDP in 1990-1991 and 2.5% in 1995-1996.[1]

Of the total inflows in 1977-1996, 85% or more went to only six of the 19 countries shown in table 1, largely because of the size of the recipient countries. Thus, for example, Mexico alone received nearly 40% of net capital inflows in 1992-1994, and Argen-

[1] Capital flows in 1982 are excluded because this was a very irregular year.

TABLE 1

Latin American and Caribbean countries: current and capital account balances
(As average percentages of GDP)

Country / Year	1977-1981		1983-1989		1990-1991		1992-1994		1995-1996 [a]	
	Current account	Capital account	Current account	Capital account	Current account	Capital account	Current account	Capital account	Current account	Capital account
Argentina	-0.2	1.7	-2.2	1.6	1.4	0.5	-3.2	4.3	-1.1	1.4
Bolivia	-8.4	7.4	-14.1	14.6	-6.5	6.9	-10.0	11.6	-4.3	6.0
Brazil	-4.1	4.2	-0.6	0.9	-0.6	0.8	0.4	2.0	-2.8	4.3
Chile	-8.3	11.8	-6.3	6.6	-1.8	7.6	-3.6	8.3	-1.9	4.5
Colombia	-0.4	3.1	-2.3	2.4	3.4	-0.6	-1.9	2.7	-5.1	6.1
Costa Rica	-12.2	12.5	-8.3	10.1	-6.3	7.6	-6.6	6.3	-1.4	2.3
Ecuador	-7.1	7.5	-5.0	4.9	-4.6	7.3	-3.7	5.7	-1.8	-0.2
El Salvador	-3.3	2.3	-5.4	6.2	-6.5	7.3	-4.1	5.6	-2.3	3.8
Guatemala	-3.4	2.9	-4.3	4.6	-2.4	5.2	-6.2	6.5	-3.4	3.3
Haiti	-14.4	13.4	-12.4	12.4	-10.1	10.3	-6.8	4.7	-3.5	6.5
Honduras	-10.0	9.9	-8.6	8.7	-10.5	12.0	-12.6	11.6	-5.3	7.2
Mexico	-4.1	4.5	0.6	-0.4	-4.4	6.3	-7.3	6.5	-0.6	-2.0
Nicaragua	-11.5	9.4	-36.9	38.3	-42.9	44.3	-49.9	49.6	-27.7	-20.5
Panama	-8.5	8.7	4.6	-5.0	-3.3	8.1	-2.4	3.9	-2.5	3.0
Paraguay	-5.8	10.4	-7.9	6.4	-5.2	9.7	-10.3	10.5	-5.1	5.2
Peru	-2.8	4.5	-3.1	3.3	-3.6	5.1	-5.5	8.6	-6.5	6.8
Dominican Republic	-7.4	7.7	-5.4	5.5	-1.6	3.7	-3.5	2.4	-0.9	1.1
Uruguay	-4.5	6.4	-1.0	2.0	1.0	0.7	-2.3	3.1	-1.6	2.7
Venezuela	-1.6	4.5	1.1	-2.9	10.4	-5.2	-0.9	-0.1	8.0	-3.7
Latin America and the Caribbean	**-4.3**	**5.3**	**-1.3**	**1.3**	**-1.0**	**2.6**	**-3.2**	**4.3**	**-1.9**	**2.5**

Source: Balance of payments figures: International Monetary Fund (IMF). Figures for GDP in current dollars: ECLAC estimates.
[a] The figures for 1995-1996 are based on the new definition of "Capital and financial account" established by the International Monetary Fund (IMF).

tina, Brazil and Chile together have accounted for at least 40% of the flows in all the sub-periods except 1990-1991.[2]

Table 2 shows the standard deviation from the average of the capital account balances of the regional balance of payments, as an indicator of the variability of capital movements in the region in the period 1977-1994.[3] Short-term loans display very high variability (almost 12 times their average value); portfolio investment also displays high variability (almost twice its average value); long-term loans display a certain amount of variability (1.5 times the average value), and foreign direct investment is marked by a low level of variability (equivalent to half its average value). This latter component has shown the most uniform behaviour; over the whole period it stood at around 1.0% of regional GDP, although it has displayed substantial variations at the individual country level.

Consequently, the variability of capital inflows into the countries of the region has been associated mainly with the variability of short-term loans and portfolio investment. Similar results have been obtained for industrialized countries (Turner, 1995).

Capital inflows from portfolio investments in stocks, other securities and short-term loans are volatile because they can quickly be reversed. From this point of view, the change in composition in the sense of an increase in portfolio investments and a reduction in long-term loans observed in the 1990s indicates an increase in the volatility of external capital compared with previous periods. In 1992-1994, this situation mainly affected Mexico and Argentina, since the increase in portfolio investments accounts for three-quarters of the increase in total capital inflows into those countries compared with 1983-1989, and it also applied to a lesser extent to Brazil in 1995-1996.

[2] In the case of Nicaragua, the high share registered in 1983-1989 is accounted for mainly by unrequited official transfers.
[3] This table was limited to the period 1977-1994 because the IMF made changes in the classification of capital flows as from 1995.

TABLE 2

Latin America and the Caribbean: Average and standard deviation of the main capital account components, 1977-1994 [a]
(Millions of current dollars)

Capital account components	Average	Standard deviation	Standard deviation/ average
Direct investment	6 693	3 617	0.54
Portfolio investment	8 252	15 414	1.87
Short- and long-term loans	8 869	12 574	1.42
Long-term loans	9 466	14 347	1.52
Short-term loans	-597	6 953	11.64
Capital account balance	24 963	18 462	0.74
Unrequited official transfers	1 576	943	0.60
Current account balance	-20 961	15 454	0.74
Variation in reserves	-3 976	11 076	2.78

Source: Balance of payments figures: International Monetary Fund (IMF). GDP figures: ECLAC estimates.
[a] Calculated on the basis of the total for each component for the 19 countries listed in table 1.

2. Countries with heavy inflows of capital in 1992-1996

A high level or proportion of capital inflows is not of itself an adequate criterion for classifying countries according to their capital inflows. A number of countries of the region have registered inflows above the average for the region, even in periods of high inflows, but this situation led to an adjustment through a high current account deficit which already took place in the past. Thus, for example, Bolivia had capital inflows equivalent to 7.4% of GDP in 1977-1981 and 11.6% in 1992-1994 (compared with averages of 5.3% and 4.3% for the region as a whole), but at the same time it registered current account deficits of 8.4% and 10% of GDP in those periods.

The experience of the countries of the region with capital inflows in recent decades suggests that the existence of variations in the capital inflows into a given country which are equivalent to more than two percentage points of GDP in a particular period constitutes an important additional consideration for classifying countries according to their capital inflows. Thus, a country marked by low capital inflows, equivalent to less than two percentage points of GDP, which registers an increase of around two percentage points in those inflows would qualify as a country with medium-level capital inflows. In contrast, a country marked by medium-level capital inflows of two to four percentage points of GDP which also registers an increase of around two percentage points would qualify as a country with high inflows. For example, table 1 shows that Argentina registered an increase in capital inflows from 1.6% of GDP in 1983-1989 to 4.3% of GDP in 1992-1994, so that according to this logic it would move up from a situation of "low" capital inflows to one of "high" inflows. Likewise, Peru moved up from a situation of "medium-level" capital inflows in 1983-1989 (3.3% of GDP) to one of "high" inflows in 1992-1994 (8.6% of GDP).

Increases in capital inflows which would lead to a country being classified as a "high inflow" country do not necessarily translate into a situation of abundant foreign exchange. These increases may represent financing for a bigger balance of payments current account deficit due to excessive aggregate expenditure (consumption and investment) in relation to national income. Honduras fits into this situation. Its capital inflows amounted to 8.7% and 11.6% of GDP in 1983-1989 and 1992-1994, but its current account deficits stood at 8.6% and 12.6% of GDP in the corresponding periods.

The response of economic policy and macroeconomic adjustments to greater availability of foreign exchange is not due solely to increases in capital inflows. It can also be due to a reduction in the current account deficit or an increase in the surplus on that account. Thus, for example, Chile's current account deficit went down from 6.3% of GDP in 1983-1989 to 3.6% in 1992-1994, while its capital inflows increased from 6.6% to 8.3% of GDP between those two periods.

In view of the foregoing, we classified as countries which had high capital inflows in 1992-1994 (a period of high inflows in the region as a whole) those which simultaneously displayed the following conditions:

i) capital inflows over four percentage points of GDP (i.e., higher than the average for the region as a whole),

ii) increases of more than two percentage points of GDP in their capital inflows, or simultaneous positive variations in the capital and current accounts of the balance of payments (increases in the deficit or reductions in the surplus) equivalent to such increases.

Table 1 shows that according to the foregoing criteria, the following countries qualify for the group with high capital inflows in 1992-1994: Argentina, Chile, Ecuador, Mexico, Paraguay and Peru.[4] Brazil and Colombia qualify as countries with high capital inflows in 1995-1996, while Chile and Peru continued to register high inflows in that two-year period.[5,6]

III

The period of high capital inflows into a group of countries of the region in 1992-1994

The factors determining capital movements between a capital-exporting country and a recipient country may be visualized in terms of the arbitrage conditions between interest rates or the rate of return on investments in those countries:

(1) $r = r^* + E(\text{dep}) + (p - p^*)$ where:

r = Domestic interest rate (or rate of return)

r^* = External interest rate (or rate of return)

$E(\text{dep})$ = Expectation of depreciation of the national currency (or exchange risk)

$(p - p^*)$ = difference between the country risks of the respective economies.

This equation shows that a country which has opened up its balance of payments capital account will receive capital inflows as long as its interest rate or rate of return on investment for a given activity is higher than the corresponding rate in the capital-exporting country, with the interest rate adjusted to take account of the exchange risk and the difference in the respective country risks.

1. Country risk and exchange risk of financial investments

Some major financial reforms and stabilization policies implemented in the late 1980s and early 1990s opened up the way for heavy inflows of capital into Argentina, Ecuador, Mexico, Peru and Paraguay in 1992-1994 and into Colombia as from 1994. The high capital inflows registered by Chile were favoured by the reforms in the financial system and capital markets made during the 1980s and an economy which was in a marked process of stabilization from the end of that decade onwards, although it was still subject to widespread indexing practices. In the case of Brazil, the hyperinflation from which that country had been suffering was solved with the monetary reform which brought in the "Real" in July 1994, thereby giving rise to favourable conditions for capital inflows.

These reforms and policies reduced the country risk (i.e., there was less likelihood of restrictions or disturbances affecting access to the foreign exchange market in transactions for taking capital out of the country). However, only Chile and Colombia managed to qualify as countries with low international investment risks ("investment grade"), in 1993 and 1994 respectively.

The reduction in the exchange risk did a great deal to help attract high financial flows, which were also encouraged by expectations of revaluation of the national currency in the periods of high capital inflows into the recipient countries.

[4] It was decided to exclude Nicaragua because the high capital inflows into that country include a substantial proportion of unrequited transfers.

[5] The high inflow registered by Chile in 1995-1996 took place in spite of the fact that it made advance repayments on its external debt equivalent to nearly 3% of GDP in 1995.

[6] It was decided to exclude Paraguay from the countries with high capital inflows in 1995-1996 because its inflows fell from 10.5% of GDP in 1992-1994 to 5.2% in that period.

The Stability Pact adopted in Mexico in 1989 strengthened the stabilizing role of the exchange rate. The exchange rate floating range had a fixed nominal floor and a ceiling which moved up in small daily steps announced in advance, thus making it possible to project the variation in the nominal exchange rate. Annual inflation went down from 26.6% in 1990 to 6.9% in 1994. This policy also concealed the exchange risk to some extent, however. While the cumulative inflation between 1990 and 1994 came to 66.3%, the cumulative increase in the nominal exchange rate for the U.S. dollar only amounted to 20% over the same period.

In Argentina, the April 1991 Convertibility Act introduced a monetary and exchange rate regime with a fixed nominal exchange rate anchor, as part of an ambitious stabilization programme. Inflation went down from 172% in 1991 to 4.3% in 1994 (and 0.2% in 1996). The fixed nominal exchange rate policy wiped out the exchange risk, however. While cumulative inflation between 1991 and 1994 amounted to 43.8%, the cumulative increase in the nominal exchange rate for the U.S. dollar only amounted to 4.8% in the same period.

Since 1991, Chilean exchange rate policy has involved an exchange rate fluctuation range within which the market exchange rate is allowed to vary, and a central exchange parity within that range. The central rate of the range is designed to give medium-term signals on the real exchange rate to the export sector. At the same time, the possibility of floating within the range permits the existence of some exchange risk in order to discourage the entry of short-term capital.

This policy has been subjected to some adjustments in the light of the strengthening of the current situation and future prospects of the external sector from the late 1980s onward. Among the most important changes made were the application of a 20% compulsory reserve requirement on external credits in June 1991 (subsequently raised to 30% and also applied to other financial capital inflows, as described in section IV); the widening of the exchange rate range from 5% to 10% in January 1992; the use of a "dirty float" within that range since March 1992; the decision to link the reference exchange rate of the range to a basket of currencies instead of only to the U.S. dollar in July 1992; revaluation of the central parity of the range by 5% in January 1992 and 9.7% in November 1994; and the inclusion of a 2% annual comparative increase in productivity in the rules for determining the reference exchange rate in December 1995. In October 1996, the maximum proportion of investments that mutual funds could make abroad was raised from 30% to 100%, and such operations and the corresponding remittances in respect of them were exempted from the compulsory reserve obligation. These measures helped to induce the market exchange rate to rise above the floor of the range, but the exchange risk has been depressed by the persistent tendency of the exchange rate to fall back to the floor and the decline in the reference exchange rate. Thus, while cumulative inflation between the end of 1991 and the end of 1996 came to 68.0%, the nominal exchange rate for the U.S. dollar only rose by 18.1% in that period.

During the 1990s, Ecuador, Paraguay and Peru had exchange rate floating systems involving Central Bank intervention in the foreign exchange market, against a background of stabilization policies. The revaluations of the national currencies likewise resulted in a low exchange risk, partly because of the capital inflows themselves. The cumulative variations in the nominal exchange rate for the U.S. dollar and in inflation between 1991 and 1994 came to 110% and 185% in Ecuador and 44.2% and 64.2% in Paraguay, while in Peru the corresponding rates between 1991 and 1996 came to 217% and 295%, respectively.

At the beginning of 1994, Colombia introduced an exchange rate system based on a central parity moving according to fixed rules and an exchange rate fluctuation range of 15%. This system includes compulsory reserve requirements in respect of foreign currency loans, first introduced in 1993 and later modified in 1994 according to the term of such loans (see section IV). Market pressures led to the revaluation of the central parity by 7% in December 1994. Political uncertainty caused the market exchange rate to rise to the top of the range in mid-1995, causing the Banco de la República to step in to defend the national currency. Between the end of 1993 and the end of 1996, however, the cumulative variations in the nominal exchange rate of the U.S. dollar and inflation came to 16.3% and 46.1%, respectively.

The 1994-1995 Mexican crisis led the Central Bank of Brazil to adopt a crawling band, intervening to keep the exchange rate within an increasingly narrow band which has gradually been moved up to bring about small real devaluations (Dias Carneiro, 1997). Nevertheless, however, the variations in the nominal exchange rate and inflation were 57.2% and 119% respectively between 1994 and 1996.

2. The rate of return on international portfolio investments

High (real) interest rates on both loans and deposits were features of the financial liberalization and/or price stabilization policies of the countries with high capital inflows in the 1990s.[7] In the same period, the nominal interest rates on loans and deposits in the United States sank below their trend levels in 1992-1994, going down to 6.5% and 3.8%. This situation was partly reversed in 1995-1996, when these rates rose to 8.6% and 5.7%, respectively.

Rule 144-A of the United States Securities Commission (1990) made it easier to sell securities on that country's capital markets, through American Depositary Receipts (ADRs) and other means, and the same occurred in other industrialized economies, especially through Eurobonds (Caro, 1994).

In this context, the reduction and/or elimination of exchange risk already referred to lent great significance to the following factors in the countries receiving high capital inflows in 1992-1994 and 1995-1996, according to the respective situations: i) the spread between their interest rates (or rates of return on investment) compared with those of the United States (and other capital-exporting countries), as shown in equation (1), and ii) the undervaluation (in dollar terms) of domestic securities on the emerging stock exchanges of the countries of the region around 1990, because of the expectations of gain generated by the economic reforms and the higher price/profit ratios at which stocks could be sold through ADRs on the capital markets of the United States.

The differences between the nominal dollar equivalent rates on loans in the United States compared with those in Chile, Ecuador, Paraguay and Peru averaged around 4.4%, 10.7%, 9% and 37.7% a year, respectively, in the period 1992-1994, which led domestic financial institutions and agents to seek resources on the international capital markets.[8] In 1995-1996, these differences came to 20% in Colombia, 7.7% in Chile and 11.3% in Peru (IMF, 1997).

The average spreads between the nominal interest rates on deposits in the United States and those in Argentina, Chile, Ecuador, Mexico and Paraguay, for their part, stood at average levels of 4.2%, 3.4%, 3.7%, 6.9% and 4% per year, respectively, thus encouraging foreign investors to channel resources to those countries in 1992-1994. In 1995-1996, the spreads were 5.1% for Brazil, 13.3% for Colombia, 4.7% for Chile, and 3.5% for Peru (IMF, 1997).

Between 1990-1992 and the end of 1994, the stock exchange price indexes in dollars trebled in Brazil and Colombia and doubled in Argentina, Chile, Mexico and Peru, providing substantial gains for portfolio investors (ECLAC, 1996a). These increases were associated with big increases in the sales of stocks and bonds on international capital markets. Table 3 shows that the total amount of gross stock issues by countries of the region in those markets increased by a factor of nearly 3 between 1990-1991 and 1993-1994, while the total amount of gross bond issues increased by a factor of nearly 7 between 1990-1991 and 1995-1996. Argentina and Mexico received about two-thirds of these investments in 1992-1994. Mexico alone obtained over 40% of them in that period, and portfolio investments in that country went up from slightly negative values in 1983-1989 to 1.3% of GDP in 1990-1991 and 5.2% of GDP in 1992-1994, forming by far the largest component of that country's capital inflows in that three-year period. For its part, Brazil accounted for about a quarter of total gross stock and bond issues in 1995-1996.

3. Replacement of national saving by external saving

Table 4 gives a breakdown of the proportions of national saving, external saving and domestic investment (all at current prices) in countries which had high capital inflows in 1992-1994 (Argentina, Ecuador, Mexico and Paraguay), 1992-1996 (Chile and Peru) and 1995-1996 (Brazil and Colombia). The increases in external saving coincided with substantial declines in national saving in all those countries except Chile and Ecuador.

In Mexico, investment (as a proportion of GDP) increased by only two percentage points between 1983-1989 and 1992-1994, compared with an increase in external saving equivalent to over seven

[7] This situation is connected with the low credibility of anti-inflation policies, restrictive monetary policies, flaws in regulation and prudential supervision which do not place limits on risky credit requests in deregulated banking systems, high banking transaction costs, insufficient national saving and other factors.

[8] The equivalent domestic interest rates in dollars (i^*) were obtained by applying the following formula: $(1 + i^*) = (1 + i)/(1 + tc)$, where i is the domestic interest rate in national currency and tc is the variation in the exchange rate. In the case of Chile and Colombia, the effect of a 30% compulsory reserve requirement was introduced by multiplying i^* by $(1-e)$, where e is the compulsory reserve rate per unit of inflow of financial capital.

TABLE 3

Selected Latin American and Caribbean countries: Gross issues of stocks (A) and bonds (B) on international markets, 1990-1996 [a]

(Millions of dollars)

Country \ Year	1990		1991		1992		1993		1994		1995		1996	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B
Argentina	-	21	360	795	392	1 570	2 655	6 308	735	5 319	-	6 354	217	13 738
Brazil	-	-	-	1 837	133	3 655	-	6 465	1 028	3 998	296	7 041	387	11 194
Chile	98	-	-	200	129	120	288	322	799	155	224	300	297	1 750
Colombia	-	-	-	-	-	-	98	567	207	955	71	1 083	-	1 751
Mexico	-	2 477	3 531	3 782	3 077	6 100	2 913	11 339	1 679	6 949	-	7 646	668	17 823
Peru	-	-	-	-	-	-	26	30	133	100	-	-	1 052	-
Latin America and the Caribbean [b]	**98**	**3 124**	**3 891**	**7 522**	**3 965**	**12 577**	**6 022**	**28 764**	**4 704**	**18 097**	**962**	**23 071**	**3 662**	**47 157**

Source: ECLAC, on the basis of data provided by the World Bank, the International Monetary Fund (IMF) and *Euromoney*.

[a] The amounts shown are gross in the sense that they do not include amortization of bonds and the flowback of stocks sold through the ADR and GDR systems.

[b] Also includes other countries.

TABLE 4

Gross national saving (GNS), external saving (EXS) and gross domestic investment (GDI) in countries with high capital inflows

(Average percentages of GDP)

Country/period	GNS	EXS	GDI	Country/period	GNS	EXS	GDI
Argentina [a]				*Ecuador*			
1983-1989	16.3	2.2	18.5	1983-1989	13.8	6.0	19.8
1990-1991	15.7	-1.4	14.3	1990-1991	17.5	2.3	19.8
1992-1994	15.5	2.9	18.4	1992-1994	18.3	2.1	20.4
1995-1996	16.6	1.2	17.8	1995-1996	16.0	1.8	17.8
Brazil				*Mexico*			
1983-1989	20.9	0.7	21.5	1983-1989	21.6	-0.9	20.7
1990-1991	19.6	0.6	20.2	1990-1991	19.5	3.7	23.2
1992-1994	19.6	-0.4	19.3	1992-1994	15.5	6.5	22.0
1995	16.8	2.5	19.2	1995-1996	21.0	0.5	21.5
Colombia [b]				*Paraguay* [a]			
1983-1989	19.1	0.6	19.7	1983-1989	15.6	7.9	23.5
1990-1991	22.0	-4.8	17.2	1990-1991	18.6	5.2	23.8
1992-1994	19.0	1.5	20.5	1992-1994	10.1	10.3	23.1
1995-1996	15.6	5.5	21.0	1995-1996	8.2	5.1	23.6
Chile				*Peru*			
1983-1989	13.6	5.8	19.3	1983-1989	20.2	2.5	22.8
1990-1991	24.2	1.2	25.4	1990-1991	18.3	2.3	20.6
1992-1994	24.7	2.8	27.4	1992-1994	16.9	5.0	21.9
1995-1996	25.4	2.1	27.5	1995-1996	18.7	6.0	24.6

Source: Prepared by ECLAC on the basis of the national accounts and balance of payments data of countries of the region.

[a] National saving was calculated as the difference between the domestic investment figures of the national accounts and the balance of payments current account balance. [b] National saving in 1996 was calculated as in note a above.

percentage points of GDP. In Paraguay, an increase in external saving of almost eight percentage points of GDP between 1990-1991 and 1992-1994 was accompanied by a similar fall in national saving, so that domestic investment remained almost unchanged. Likewise, in Brazil an increase of almost three percentage points of GDP in external saving between 1992-1994 and 1995 was not accompanied by any increase in the proportion of domestic saving.

In Chile, declines in external saving coincided with increases in national saving and hence with declines in the proportions of GDP spent on consumption between 1983-1999 and 1992-1994. Gross national saving increased from 13.6% in 1983-1989 to 24.7% in 1992-1994 and 25.4% in 1995-1996. However, replacement of saving took place at the level of individuals. Thus, individuals registered practically zero saving in 1992-1994, although their compulsory Social Security saving amounted to around 3.5% of GDP in that period (Arrau, 1996). Such voluntary dissaving indicates that they were no exception to the wave of consumption which affected all the countries with high capital inflows.

The above facts suggest that there has been a substantial process of replacement of national saving by external saving in the region. Statistical studies taking account of other variables which affect national saving have shown that an increase in external saving by one percentage point of GDP has tended to reduce national saving by about one-half of one percentage point of GDP in the region (ECLAC, 1995).

The fact that financial liberalization measures coincided with high current account deficits in a number of countries with high capital inflows in the 1990s was a reflection of the "syndrome" observed by Goos in similar cases in the Scandinavian countries and the United Kingdom: falls in saving, a substantial increase in financing of consumption rather than of investment, and deterioration of the balance of payments current account (Goos, 1996).

The main causal factor in these results in these cases was the credit extended by the banking system to the private sector to finance consumption. A similar role has been attributed to bank credit in a number of countries of the region which had high capital inflows in the 1990s (Sachs, Tornell and Velasco, 1996). As a proportion of GDP, bank credit to the private sector doubled between 1990 and 1994 in Ecuador, Mexico, Paraguay and Peru (IMF, 1997).

Other factors also encouraged consumption in the countries with high capital inflows in the 1990s: the wealth effect connected with the rapid rise in share prices (except in Ecuador, which did not have a domestic capital market capable of incorporating heavy international portfolio investment flows); trade reforms which reduced average import tariffs to between 10% and 15% at the same time that there were sharp falls in the real exchange rate (table 5), and the adjustment in consumption patterns which took place in countries which had gained renewed access to external financing and credit.

4. The fall in real exchange rates

Table 5 shows capital inflows as a proportion of GDP, the proportion of those inflows which was placed in the international reserves, and the behaviour of real exchange rates (effective export exchange rates) for some countries of the region in the 1990s, using the real 1990 exchange rate as a basis. Six of the countries which registered high capital inflows (Argentina, Brazil, Colombia, Ecuador, Mexico and Peru) channeled about one-third or less of those inflows into the accumulation of international reserves, so that two-thirds or more went into the current account. Except in the case of Ecuador, national saving in those countries remained unchanged or even went down (table 4), thus limiting the capacity of their Central Banks. In Argentina, Ecuador, Mexico and Peru real exchange rates fell (i.e., the currency appreciated in value) by around 20% in 1992-1994 compared with 1990. In Brazil and Colombia, real exchange rates fell by around 30% in 1995-1996 compared with 1990 (and in the first-named country the rate fell by 40% compared with 1992-1994).

The Central Bank of Chile mainly used Social Security saving to finance an accumulation of international reserves equivalent to over 50% of the capital inflows in 1992-1996 (and nearly two-thirds of those inflows in 1992-1994). Through the sale of Central Bank securities to pension funds (almost 40% of the total funds) there were current account deficits of 3.6% of GDP in 1992-1994 and 1.9% in 1995-1996, in spite of capital inflows equivalent to 8.3% and 4.5% of GDP in those periods (table 1). This was one of the reasons why the real exchange rate in Chile registered the smallest decline among the countries which had high capital inflows in the 1990s.

This evidence suggests that the high inflows of capital in this period were accompanied by significant drops in the real exchange rate. In a few cases,

TABLE 5

Latin American countries with high capital inflows in the 1990s: Capital inflows, variation in reserves and real exchange rates

Country/period	Capital inflows (% of GDP)	Variation in reserves (% of capital inflows)	Real exchange rate (1990=100)	
			Average 1992-1994	Average 1995-1996
Countries with high inflows in 1992-1994				
Argentina	4.3	24.5	76.6	88.0
Ecuador	5.7	34.4	85.6	79.3
Mexico	6.5	-12.6	81.9	115.3
Countries with high inflows in 1992-1996				
Chile	6.8	52.9	96.1	90.3
Peru	7.9	35.4	82.9	84.0
Countries with high inflows in 1995-1996				
Brazil	4.3	33.3	112.6	67.8
Colombia	6.1	17.1	83.9	73.1

Source: IMF, 1997; ECLAC, 1997.

this process was alleviated to some extent by an increase in national saving and its use for a substantial buildup of international reserves. The use of the exchange rate as a stabilization instrument in Argentina (since 1991), Brazil (since 1994) and Mexico (in 1989-1994), together with the marked expansion in domestic expenditure which accompanied the high capital inflows, among other factors, also influenced the declines observed in real exchange rates.

5. Macroeconomic and financial risks associated with high capital inflows

In Mexico, increasingly volatile capital inflows were used to finance a current account deficit which amounted to 7% of GDP in 1994, when serious political events took place in that country. That situation, and an exchange rate which had got out of line, revealed the external vulnerability of the Mexican economy and increased the risk of a reversal of capital flows (Goos, 1996).

A 15% increase in the exchange rate flotation band in December 1994 increased the perception of exchange risk, gave rise to capital outflows equivalent to 7.2% of GDP in 1995, and caused the stock exchange to slump by 62% (in dollar terms) between the third quarter of 1994 and the fourth quarter of 1995. The run against the peso led to over-devaluation of the national currency, whose parity fell by half in the space of three months. The macroeconomic adjustment led to a fall of 6.6% in GDP in 1995 and affected the solvency of the banking system. The fact that 20% of loans were in the bad debts category made it necessary to adopt rescue measures which cost the equivalent of 6% of GDP. However, a 41% rise in the real exchange rate (the effective rate for exports) in the two-year period 1995-1996 (table 5) provided a solid base for reactivating exports and activities in the tradeables sector.

The Mexican situation "infected" Argentina by giving rise to a perception of exchange risk among depositors and investors and compromising the credibility of the fixed exchange rate. The withdrawal of some 14% of the deposits in the banking system in the first quarter of 1995 set off a recessionary adjustment process. The GDP went down by 4.4% in 1995 and stock prices (in dollars) fell by 29.5% between the third quarter of 1994 and the fourth quarter of 1995.

The economic recession affected the stability of the banking system, causing the proportion of loans in the bad debt portfolio to rise to 28%. The Central Bank of Argentina tackled the financial instability by promoting a private system of guarantees for deposits, encouraging bank mergers and consolidation and keeping up the level of bank credit in spite of the heavy withdrawals of deposits. This significantly limited the automatic adjustment supposed to be characteristic of a fixed nominal exchange rate regime (Eichengreen and Wyplosz, 1996; ECLAC, 1996c). Even so, the real exchange rate (the effective rate for exports) rose by 15% in 1995-1996 compared with the three-year period 1992-1994, thus increasing the profitability of export and tradeable goods activities.

The big expansion in credit in Ecuador and Paraguay in 1992-1994 gave rise to cases of bank insolvency for which the rescue operations cost the equivalent of 4.1% of GDP in Paraguay in 1995 and 1.1% of GDP in Ecuador in 1996.[9]

The slump in the Mexican stock exchange led to a 5.7% fall in the price index (measured in dollars) of the Chilean stock exchange between the third quarter of 1994 and the fourth quarter of 1995. This slump, together with political uncertainty, seems to have been an important factor in the 37% fall in the price index (measured in dollars) of the Colombian stock exchange in that period. These events did not affect the rate of economic activity in Chile in 1995-1996, however.

The above details show that the macroeconomic and financial risks deriving from the high inflows of capital into the region in the 1990s were limited to a few countries, unlike the generalized external debt problems caused by the heavy inflows of external credit in 1977-1981. The situation in the 1990s may be attributed mainly to two factors: i) the concentration of international portfolio investments in a few countries of the region, partly because of the transparency and risk assessment requirements characterizing the issue and sale of securities on the capital markets of the United States and the industrialized countries, and ii) the external capital procurement policies of some of the countries which registered high inflows of capital in that period.

IV

External capital procurement policies

The experience of the Latin American and Caribbean countries which have registered high capital inflows in recent decades shows the importance of the application of the following economic policy criteria with respect to such inflows in the recipient countries:

i) establishing policies to encourage national saving and the development of the domestic financial system and capital markets, in order to provide a solid base for the financing of domestic investment and ensure that capital inflows are in line with a sustainable level of external saving;

ii) ensuring that the level and composition of capital inflows are compatible with a sustainable balance of payments current account deficit;

iii) using policy instruments designed to regulate capital inflows in line with the respective monetary and exchange rate regimes and to bring about a gradual and orderly entry into international capital markets.

Experience also shows that both the capital exporting and recipient countries could well strengthen their prudential regulations guiding international capital flows.

1. Policies to promote national saving and financial development

The proportions of national saving of the countries of the region have remained at around 20% of GDP since the 1970s. The limited degree of financial development in these countries is reflected in the ratio of M2 (money and quasi-money) to GDP. In 1994, this indicator stood at around 20% of GDP in Argentina, Colombia, Ecuador and Peru, and 35% in Chile and Mexico (IMF, 1997).

The insufficient level of national saving and the small size of domestic financial markets limited the economic policy options open in a number of countries with high capital inflows in 1992-1994 and laid them open to macroeconomic and financial risks. Moreover, the financial instability which affected several countries with high capital inflows in that period highlights the lack of institutional consolidation of their systems of prudential regulation and supervision (ECLAC, 1996b).

The foregoing shows how important it is to have policies designed to promote saving and the development of the domestic financial systems, in order to back up domestic investment in countries of the region and at the same time ensure that external saving is compatible with their sustainable current account deficits.

[9] The 1994-1995 bank crisis in Brazil was due to political interference in the credit operations of two major State banks and flaws in the prudential regulation and supervision of the banking system.

2. Sustainable current account deficits

The current account deficit that the capital inflows into a country can sustain, and the corresponding medium- and long-term real exchange rate, are the most important items in the region's experience with capital movements over the last two decades. Such a deficit is directly connected with a country's capacity to attract foreign capital and maintain its creditworthiness over time. The many factors which are involved in determining that deficit and the associated real exchange rate mean that inter-temporal models for estimating these variables are very complex (Soto, 1996).

For economic policy purposes, a deficit of a conservative nature may be determined by using the following indicators which increase or decrease the sustainable deficit depending on their respective signs (Milesi-Ferreti and Razin, 1996):

i) political stability (political instability would have a negative sign),

ii) the external debt (a high proportion of such debt, or an increase in the ratio of the external debt to exports and/or of the external debt to GDP, would have a negative sign),

iii) exports (a high proportion in the total or an increase in the ratio of exports to GDP would have a plus sign),

iv) the real exchange rate (a low exchange rate or a fall in the real exchange rate would have negative signs),

v) the rate of national saving (a high proportion of total saving or increases in national saving would have a plus sign),

vi) stability of the domestic banking system (a transparent and solvent banking system, subject to firm prudential regulation and supervision rules, would have a plus sign),

vii) the composition of capital inflows (a high proportion or increase of short-term inflows and/or those of a speculative nature would have a negative sign).

The current account balances of the countries of the region between 1977 and 1996 given in table 1 show that only small countries, or those which have received high levels of unrequited transfers, have been able to sustain current account deficits greater than 5% of GDP for considerable lengths of time. The sustainable current account deficit for Chile has been estimated at 3% or 4% of GDP (Le Fort and Budnevich, 1995). This estimate of the deficit contrasts with the high capital inflows into that country between 1983 and 1996, which were equivalent to over 6.5% of GDP per year.

The sustainable current account deficit for the larger countries of the region, which have lower export/product ratios, may be lower than the percentage estimated for Chile. Mexico's current account deficit in 1992-1994, which was around 7% of GDP, was not sustainable. Partly because of contagion by the Mexican crisis, Argentina's deficit in that period, which was equivalent to 3.2% of GDP, did not prove to be sustainable in 1995-1996 either.

3. Policies to regulate and adjust to capital inflows

The measures that the Central Bank of a country can take to regulate capital flows in periods of high capital inflows or to adjust the exchange rate to deal with permanent improvements in the situation and prospects of the external sector depend on the monetary and exchange rate regime. In principle, the Central Bank would not have such means at its disposal for this purpose in a system of fixed nominal exchange rates, and it would not need them in a system of freely floating exchange rates.

A system of fixed nominal exchange rates eliminates the exchange risk (provided the exchange rate is credible). This system uses complete openness of the capital account to assure the economic agents that they will enjoy full convertibility of their assets and liabilities into foreign currency at all times, and vice versa. For this reason, this type of exchange rate regime is incompatible with restrictions on capital flows.[10]

In a freely floating exchange rate regime, all foreign exchange transactions (both on the current account and the capital account of the balance of payments) are carried out between those supplying and demanding foreign exchange, without any Central Bank involvement in exchange operations at all. In principle, such a regime does not provide for any restrictions on capital movements, nor is exchange risk a component of exchange rate policy, since it is

[10] Monetary policy is completely passive when base money is created or reduced only through foreign exchange operations. To this effect, the Central Bank acts as a currency board and backs the whole of the monetary base with the international reserves.

internalized by the participants in the foreign exchange market themselves.[11]

Because of the effect of country risk, flows of funds from a capital-exporting country to an importing country will take place until the arbitrage condition shown in equation (1) is fulfilled. Consequently, in order to discourage inflows of capital into the latter country, monetary and exchange rate regimes are required which limit the arbitrage and make possible a gap between domestic and international interest rates and/or between domestic and international rates of return on financial investments in stocks (and also possibly the rates on direct investments).

The arguments in favour of this gap are connected with the level of domestic interest rates which secures a domestic equilibrium between aggregate expenditure and national income and hence the corresponding equilibrium level of external saving for the capital-importing country. In economies with insufficient national saving, low capital endowments, imperfect financial markets and stabilization policies which are still under way, the level of such rates may –when there is an open capital account– at the same time attract such large inflows of capital that they compromise those balances unless restrictions are placed on such inflows. At the same time, heavy capital inflows in economies like those in question may also encourage the revaluation of existing assets and create a risk of a financial bubble instead of financing increases in real capital formation (Zahler, 1992).

Monetary and exchange rate regimes which make possible a gap in the arbitrage of capital movements give the Central Bank a chance to manage such movements (and, consequently, some degree of autonomy in monetary policy). Such regimes generally involve a dirty exchange-rate float, or a float with interventions by the Central Bank in the foreign exchange market which are not announced in advance; market exchange rates determined on the basis of a crawling peg, with suitable adjustment rules and an exchange rate band;[12] and market exchange rates determined within a crawling band.

[11] The Central Bank can carry out an active monetary policy through exchange operations involving domestic credit, but by not participating in exchange operations it leaves the behaviour of the exchange rate exposed to variations in capital movements.

[12] Such rules take account of the difference between domestic and external inflation and the difference between the variations in domestic and external productivity.

The main tools used by recipient countries under these regimes to deal with high capital inflows are the application of taxes and compulsory reserve requirements, higher exchange risk, the accumulation of international reserves, and exchange rate adjustment.

The application of these tools is entirely compatible with measures for gradually opening up the balance of payments capital account to both inflows and outflows of funds.

a) Compulsory reserve requirements and taxes on capital inflows

Compulsory reserve requirements and taxes are the main tools used to discourage capital inflows (Agosin and Ffrench-Davis, 1996). They increase the financial cost that domestic agents have to pay to gain access to sources of external financing and reduce the rate of return that foreign agents can obtain by investing funds in the domestic markets of the capital-importing country.

Reserve requirements may be differentiated according to the term of the capital in question: while long-term capital inflows may be exempt from them, they may be used to check the inflow of short-term and/or speculative capital. The same results can be obtained through taxes differentiated according to the term of the inflows. Unlike reserve requirements, however, the application of the latter usually requires the adoption of an Act of Parliament (Jiménez, 1995).

The application of reserve requirements and/or taxes to financial capital inflows is particularly important in two situations. First, when there is a lag in the downward trend of domestic interest rates in financial liberalization and/or stabilization policies in countries of the region. Second, when there is a combination of domestic and external factors, including some of a transitory nature, which may help to attract massive inflows of financial capital to domestic markets which are still narrow or incipient, as occurred in various countries of the region in 1992-1996.

In Chile and Colombia, compulsory reserve requirements have been seen as an important instrument for limiting the inflow of short-term capital. In both countries, they have been applied side-by-side with measures to open up the balance of payments capital account (expansion of the range of transactions that can be carried out on the formal exchange market, authorization for the sale of securities on international financial markets, deregulation of capital outflows, etc.). In the case of Chile, they have been used for lengthy periods of time, mainly because of

TABLE 6

Chile: restrictions on capital movements

Capital inflows	*Quantitative restrictions*	*Other requirements*
Foreign direct investment	No quantitative restrictions	Minimum term: 1 year for principal; profits not subject to any minimum time limit
Portfolio investments	30% compulsory reserve requirement	Minimum of US$ 10 million for primary
ADRs	for secondary investments (July 1995)	issue (November 1995)
		BBB or higher for finance companies
		BBB+ or higher for banks
Others		
Loans and bonds	30% compulsory reserve requirement for one year, regardless of term	Minimum of US$ 25 million BBB or BBB+
Deposits and lines of credit	30% compulsory reserve requirement on monthly average	
Capital outflows		
Institutional external investments		
Pension funds	9% of total funds (4.5% of assets made up of shares)	
Life insurance companies	10% of total funds	
General insurance companies	15% of the companies' reserves	
Mutual Funds	30% of the fund	
External investments by the banking sector	25% of capital and reserves	Bonds and securities issued or guaranteed by foreign governments or Central Banks For the acquisition of foreign banks or the establishment of foreign branches, a capital/assets ratio of 10% is required
External investments by individuals or by the non-financial private sector	No quantitative restrictions	Limitations connected with access to the formal foreign exchange market

Source: Le Fort and Budnevich, 1995.

the slow decline in real interest rates (Zahler, 1995). In Colombia, the application of reserve requirements has been seen as a good way of dealing with massive inflows of short-term financial capital (Urrutia, 1995).

Table 6 shows the restrictions on capital movements in Chile. Capital inflows, except for foreign direct investment and portfolio investment through primary ADRs, have been subject to a 30% compulsory reserve as well as other requirements. This reserve requirement is applied for a year to all inflows of financial capital in the form of bonds, loans, deposits, lines of credit and secondary ADRs, whatever their term. This policy is designed to close the arbitrage gap between domestic and international interest rates or rates of return for up to one year, on the assumption that the greater risks will themselves discourage inflows of financial capital for longer terms (Le Fort and Budnevich, 1995).

In Colombia, compulsory reserve requirements have been differentiated according to the term of financial capital inflows, in order to close the arbitrage gaps in question for flows with a term of up to five years. Table 7 shows that since 1994, credits with a maturity of over 60 months have not been subject to compulsory reserve requirements, but those requirements have been increasingly great as the term of the credits goes down (Banco de la República, 1995).

In Brazil, the tax on foreign currency loans was increased in October 1994 from 3% to 7%, and a 1% tax was introduced on portfolio investments, in order to limit capital inflows attracted by the high interest rates that followed the introduction of the Real. The Mexican financial crisis led to the temporary elimination of such taxes in that country, but in August 1995 the tax on portfolio investments was set at 7% and that on external loans was fixed at 5%, the latter being subject to a descending sliding scale reaching zero for terms of over six years. Since February 1996, all the financial instruments used in the intermediation of external capital flows have been subject to a 5% entry tax.

The effectiveness of compulsory reserve requirements and taxes is conditioned by the macroeconomic environment of the countries receiving capital. An economy which is quite orderly and stable, with an exchange rate in line with the medium- and long-

TABLE 7

Colombia: Restrictions on capital inflows

Capital inflows	Quantitative restrictions	*Other restrictions*
Income from the sale of foreign currency	5% commission (April 1991)	
"Non-export" income in foreign currency	3% retention (April 1991) 10% retention (July 1992)	
Foreign-currency income from tourism	Limit of US$ 25 000	
Credits		Banks must maintain net foreign currency assets, which limits the loans they can make in foreign currency
Credits with a term ranging from less than 30 days to 60 months:		
i) Deposits for 30 days or less	140% compulsory reserve requirement (August 1994)	Reserves must be maintained for the entire term of the loan and must be deposited in advance for credits with a term of less than 60 months
ii) Deposits for 12 months	93% compulsory reserve requirement (March 1994)	
iii) Deposits for 18 months	64% compulsory reserve requirement (March 1994)	The Banco de la República may acquire securities with a term of up to 12 months before they mature, applying a discount of 55%
iv) Deposits for 24 months	42.8% compulsory reserve requirement (August 1994)	
v) Deposits for between 24 and 60 months	30% compulsory reserve requirement (August 1994)	Advance repayments may only be made not less than 36 months after the procurement of the credit, except with the express authorization of the Banco de la República
vi) Deposits for more than 60 months	No compulsory reserve requirement (August 1994)	

Source: Banco de la República, 1995.

term equilibrium rate, may attract excessive inflows of capital, which means that compulsory reserve requirements and taxes are justified in order to forestall adverse macroeconomic effects. In a country with high current account deficits, an overvalued national currency and inflationary pressures, in contrast, restrictions on capital inflows may be redundant because the country risk and exchange risk will represent a barrier to international financial integration (Zahler, 1995).

The application of taxes was considered sufficient to control capital inflows into Brazil in the second half of 1995 and the first half of 1996 (Dias Carneiro, 1997). In the case of Chile, there is still a good deal of discussion as to whether the compulsory reserve requirements have served to reduce the level of financial capital inflows, but it is generally agreed that they have changed the composition of such inflows in the direction of more medium- and long-term capital. In Colombia, there is general agreement that such controls have had favourable effects both in reducing the total amount of external financing and in changing its structure in the direction of long-term capital (Ocampo and Tovar, 1997).

b) Greater exchange risk

The following exchange rate policies enable the Central Bank to achieve higher levels of exchange risk, mainly for discouraging inflows of short-term capital due to arbitrage:

i) the adoption of an exchange rate regime based on a dirty float, instead of a rule fixing the future evolution of the exchange rate, as for example by the publication of an exchange rate table;

ii) the adoption of an exchange rate rule within a crawling peg system which moves the central value of the exchange rate band as a function of a basket of currencies instead of a single currency, and

iii) broadening the exchange rate band by including a system of a crawling peg subject to an exchange rate band, in order to secure greater exchange rate flexibility.

The effectiveness of these measures depends on whether the reference exchange rate of the respective exchange rate regime coincides with the medium- and long-term equilibrium rate. If a reference exchange rate leads to a market exchange rate which undervalues the national currency, then the expectations of revaluation may cancel out the greater exchange risk.

c) Prudential regulation of financial capital movements

The portfolio investments made by institutional investors of industrialized countries in emerging capital markets, unlike the individual transactions of stocks, bonds and other securities by enterprises and institutions of the region on the capital markets of the industrialized countries, are subject to very little prudential regulation. This has led to proposals at three levels for reducing the capital flows attracted by considerations of short-term liquidity or rates of return due to arbitrage (Griffith-Jones, 1996):

i) measures designed to ensure the supply of adequate, timely and reliable information on the exposure of institutional investors in emerging capital markets;

ii) the provision of warning signals about such exposure;

iii) the introduction, by the institutions responsible for regulating and supervising the capital markets of the industrialized countries, of regulations and restrictions on the short-term portfolio investments of institutional investors.

Prudential regulation can also play an important role in the countries receiving capital. The sale of securities to foreign investors by public enterprises and quasi-autonomous institutions, or such sales with the participation of the public sector, may involve an explicit or implicit State guarantee. This guarantee over-incentivates demand, so that there are grounds for establishing strict requirements regarding the issue of these securities and for demanding the express authorization of the economic and/or financial authorities of that sector for their sale.

d) Accumulation of international reserves

The accumulation of international reserves is not only justified in countries which have low levels of reserves or are subject to major fluctuations in their external trade or terms of trade. The Central Bank can also accumulate international reserves, by absorbing part of the capital inflows which take place, in order to defend the macroeconomic balances and the real exchange rate. For this purpose, it intervenes in the foreign exchange market through exchange operations and sterilizes the monetary effects of those operations by selling debt paper on the domestic capital markets (thereby giving some degree of autonomy to monetary and exchange rate policy). Substantial sterilization of capital inflows limits the expansion of aggregate expenditure and thus prevents the replacement of national saving by external saving (Ffrench-Davis and Griffith-Jones, eds., 1995).

Sterilization depends on the availability of sufficient national saving, as was the case in Chile in the 1990s, and it also has its costs. It helps to raise domestic interest rates by encouraging short-term financial capital inflows, which tends to undermine the effect of this policy (Steiner and Escobar, 1995). At the same time, it can lead to a deterioration in the net worth of the Central Bank if the interest rates on the latter's international reserves are lower than those paid by the Bank on the securities which it has issued in national currency.[13]

e) Exchange rate adjustment

Continual growth of exports and a current account balance which is consistently within the limits of the sustainable deficit, together with high long-term capital inflows which persist in time, justify exchange rate adjustments for macroeconomic reasons. These situations may even make it necessary to reassess the size of the sustainable current account deficit.

Persistent improvements in the current situation and future prospects of the external sector justify the revaluation of the national currency, and vice versa. This translates into changes in the explicit reference value of the exchange rate, as in the case of a crawling peg system, or changes in its implicit reference value, as in the exchange rate that the Central Bank seeks to defend through interventions not announced in advance, in an exchange rate system based on a dirty float.

In such regimes, timely adjustment of the exchange rate is essential in order to avoid the formation of expectations of revaluation or devaluation of the national currency. If expectations of revaluation spread among the economic agents, they will cancel out the exchange risk and encourage capital inflows even if there are compulsory reserve requirements and taxes. In contrast, widespread expectations of devaluation will give rise to heavy capital outflows which will be hard to control even through restrictions.

[13] The Central Bank of Chile increased its international reserves by some US$ 10 billion between 1990 and 1995, bringing them to the equivalent of 24% of GDP in the latter year. As the interest rates at which the Bank sells securities on the domestic market are higher than the international interest rates it receives on the international reserves, the corresponding sterilization of capital inflows has caused it to suffer a quasi-fiscal deficit which was estimated at some 0.5% of GDP in 1995.

V

Conclusions

Variability has been the main feature of the movements of external capital to the countries of the region in recent decades. The high inflows of capital into the region in 1977-1981 (bank loans) and 1992-1994 (portfolio investments) were preceded by periods of low inflows and followed by declines in capital flows in 1983-1989 and 1995-1996. Unlike the widespread reduction in capital inflows to the countries of the region in 1983-1989 (because of the external and domestic debt crisis), however, the reversal in financial capital flows in 1995-1996 was concentrated in just a few countries, especially Mexico and Argentina.

The variability of capital movements is due to external factors connected with the situation of international financial markets, but it also has an important domestic component connected with the external capital procurement policies and structural factors and economic reforms in the recipient countries.

The inadequacy of the policy instruments used to regulate capital flows in periods of abundant supply of external funds has made possible high capital inflows, phases of expansion in aggregate expenditure, and high current account deficits in countries of the region in the 1990s (as in 1977-1981), which have not proved to be sustainable. These inflows have themselves led to subsequent declines or reversals in capital flows and recessionary macroeconomic adjustments. High capital inflows have also contributed to the expansion of credit to high-risk borrowers which has made it necessary to carry out rescue programmes in a number of the countries which had high capital inflows in the 1990s (as also occurred in the external and domestic debt crisis of the 1980s).

Excessive capital inflows in periods of high supply and shortages of capital inflows in periods of low supply warrant the adoption of external capital procurement policies which graduate the level and composition of such inflows in the light of the volatility characteristic of the different capital flows. Such policies seek to encourage the entry of medium- and long-term capital to finance real investments and to discourage short-term inflows of a speculative nature, in order to stabilize the flows over time and bring them into line with the sustainable level of current account deficit of the recipient countries.

External capital procurement policies should form part of broader policies to strengthen capital formation in the countries of the region. These policies have the following main components:

i) instruments designed to increase national saving and develop a solvent and efficient domestic financial s ystem, in order to provide competitive national options for the financing of investment, with funds to sterilize excessive inflows of capital, and also to permit orderly outflows of capital;

ii) a monetary and exchange rate regime which will make it possible to manage and regulate capital movements and exchange rate adjustments to cope with lasting changes in the current situation and future prospects of the external sector;

iii) a macroeconomic environment with market exchange rates and interest rates which are in line with medium- and long-term conditions and which avoid expectations of revaluation or devaluation of the national currency, in order to encourage capital inflows based on medium- and long-term considerations and to avoid capital flights.

Increases in national saving, the achievement of stabler and deeper domestic financial systems and capital markets, and credibility with regard to macroeconomic organization and stabilization are structural conditions which directly affect the benefits and risks associated with capital inflows. These conditions can only be achieved in the medium and long term, thus warranting the gradual and regulated opening up-of the balance of payments capital account and progressive entry into international financial markets.

The main instruments for dealing with high capital inflows in the recipient countries are the following:

i) the introduction of compulsory reserve requirements or taxes and of measures to increase the

exchange risk for short-term capital inflows motivated by arbitrage and mainly of a speculative nature;

ii) prudential regulation of capital movements in the industrialized countries and the recipient countries, in order to help stabilize such flows and restrict those of a short-term speculative nature;

iii) the accumulation of international reserves by the Central Bank, if the recipient countries have insufficient reserves;

iv) measures to facilitate the outflow of domestic capital, including direct investment and certain forms of financial investment, and

v) the acceptance of gradual falls in the real exchange rate in so far as they represent adjustments to the medium-and long-term equilibrium values.

The application of these instruments depends very much on the availability of national saving, and their effectiveness is conditioned by the macroeconomic environment, which should have exchange rates and interest rates in keeping with the medium- and long-term conditions, so as to avoid exchange risk and expectations of revaluation of the national currency.

(Original: Spanish)

Bibliography

Agosin, M. and R. Ffrench-Davis (1995): Managing capital inflows in Latin America, in M. V. Haq, I. Kaul and I. Grunberg (eds.), *The Tobin Tax: Coping with Financial Volatility*, New York, Oxford University Press.

Arrau, P. (1996): *Nota sobre el aumento del ahorro nacional en Chile: 1980-1994*, "Financiamiento del Desarrollo" series, No. 39, LC/L.984, Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC).

Banco de la República (1995): Memorando Interno JDS-401, Santafé de Bogotá, *mimeo*.

Caro, E. (1994): *Acceso a los mercados internacionales de capital y desarrollo de instrumentos financieros: el caso de México*, "Financiamiento del Desarrollo" series, No. 18, LC/L.843, Santiago, Chile, ECLAC.

ECLAC (1995): *Latin America and the Caribbean: Policies to Improve Linkages with the Global Economy*, LC/G.1800/Rev.1-P, Santiago, Chile. United Nations publication, Sales No.E.95.II.G.6.

——(1996a): *Economic Survey of Latin America and the Caribbean 1995-1996*, LC/G.1929-P, Santiago, Chile. United Nations publication, Sales No. E.96.II.G.2.

——(1996b): *Quince años de desempeño económico. América Latina y el Caribe, 1980-1995*, LC/G.1925/Rev.1-P, Santiago, Chile. United Nations publication, Sales No. S.96.II.G.3.

——(1996c): *El régimen de convertibilidad y el sistema bancario en Argentina*, LC/R.1682, Santiago, Chile.

——(1997): *Preliminary Overview of the Latin American and Caribbean Economy 1997*, LC/G.1984-P, Santiago, Chile. United Nations publication, Sales No. E. 97.II.G.130.

Dias Carneiro, D. (1997): Flujos de capital y desempeño económico del Brasil, in *Flujos de capital e inversión productiva. Lecciones para América Latina*, ECLAC/OECD, Santiago, Chile, McGraw-Hill.

Eichengreen, B. and C. Wyplosz (1996): What do currency crises tell us about the future of the international monetary system?, in J. J. Teunissen (ed.), *Can Currency Crises be Prevented or Better Managed?*, The Hague, Forum on Debt and Development (FONDAD).

Ffrench-Davis, R. and S. Griffith-Jones (eds.) (1995): *Las nuevas corrientes financieras hacia la América Latina: fuentes, efectos y políticas*, Mexico City, Fondo de Cultura Económica (FCE).

Goos, B. (1996): Floor discussion of the Buira paper, in J. J. Teunissen (ed.), *Can Currency Crises be Prevented or Better Managed?*, The Hague, FONDAD.

Griffith-Jones, S. (1996): How can future currency crises be prevented or better managed?, in J. J. Teunissen (ed.), *Can Currency Crises be Prevented or Better Managed?*, The Hague, FONDAD.

IMF (International Monetary Fund) (1997): *International Financial Statistics Yearbook* , Washington, D. C.

Jiménez, L.F. (1995): *Políticas para el control de los movimientos de capitales financieras*, Documento de Trabajo No. 35, Santiago, Chile, ECLAC.

Le Fort, G. and C. Budnevich (1995): *Capital Account Regulations and Macroeconomic Policy: Two Latin American Experiences*, Santiago, Chile, Central Bank of Chile.

Milesi-Ferreti, G. and A. Razin (1996): *Current account sustainability*, Seminario Regional de Política Fiscal, Santiago, Chile, ECLAC/United Nations Development Programme (UNDP), *mimeo*.

Ocampo, J.A. and C. Tovar (1997): Flujos de capital, ahorro e inversión en Colombia, 1990-1996, in *Flujos de capital e inversión productiva. Lecciones para América Latina*, ECLAC/OECD, Santiago, Chile, McGraw-Hill.

Sachs, J., A. Tornell and A. Velasco (1996): *Financial Crises in Emerging Markets: The Lessons from 1995*, NBER working paper No. 5576, Cambridge, MA, National Bureau of Economic Research, Inc. (NBER).

Soto, R. (1996): El tipo de cambio real de equilibrio: un modelo no lineal de series de tiempo, *Análisis empírico del tipo de cambio en Chile*, ECLAC/Instituto Latinoamericano de Doctrinas y Estudios Sociales (ILADES), Santiago, Chile.

Steiner, R. and A. Escobar (1995): *Acumulación de reservas internacionales: sus causas y efectos en el caso de Colombia*, "Financiamiento del Desarrollo" series, No. 30, LC/L.901, Santiago, Chile, ECLAC.

Turner, P. (1995): Capital flows in Latin America: a new phase?, *Money Affairs*, vol. VIII, No. 2, Mexico City, Centre for Latin American Monetary Studies (CEMLA).

Urrutia, M. (1995): *La cuenta de capital durante un proceso de liberalización económica*, Seminario "Setenta años del Banco Central de Chile", Santiago, Chile, Central Bank of Chile, *mimeo*.

Zahler, R. (1992): Monetary policy and an open capital account, *CEPAL Review*, No. 48, LC/G.1748-P, Santiago, Chile, ECLAC.

——(1995): *Conferencia inaugural*, Seminario "Setenta años del Banco Central de Chile", Santiago, Chile, Central Bank of Chile, *mimeo*.